



Common Sense Initiative

Mike DeWine, Governor
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Business Impact Analysis

Agency, Board, or Commission Name: Ohio Department of Natural Resources,
Division of Mineral Resources Management

Rule Contact Name and Contact Information:
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Regulation/Package Title (a general description of the rules' substantive content):
2021 Coal Rules

Rule Number(s): 1501:13-1-01, 1501:13-1-10, 1501:13-1-13, 1501:13-1-14, 1501:13-3-01,
1501:13-4-04, 1501:13-4-05, 1501:13-4-08, 1501:13-4-08.1, 1501:13-4-09, 1501:13-4-10,
1501:13-4-11, 1501:13-4-12, 1501:13-4-13, 1501:13-4-14, 1501:13-6-03, 1501:13-7-01,
1501:13-7-03, 1501:13-7-05, 1501:13-7-05.1, 1501:13-7-06, 1501:13-7-07, 1501:13-8-01,
1501:13-9-01, 1501:13-9-02, 1501:13-9-04, 1501:13-9-07, 1501:13-9-08, 1501:13-9-11,
1501:13-9-12, 1501:13-9-15, 1501:13-9-16, 1501:13-9-17, 1501:13-10-01, 1501:13-11-02,
1501:13-12-01, 1501:13-13-03, 1501:13-14-01

Date of Submission for CSI Review: March 26, 2021

Public Comment Period End Date: April 16, 2021

Rule Type/Number of Rules:

New/___ rules

No Change/_30_ rules (FYR? 30)

Amended/_8_ rules (FYR? _8_)

Rescinded/___ rules (FYR? ___)

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The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

Reason for Submission

1. R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency determines that it does, it must complete a business impact analysis and submit the rule for CSI review.

Which adverse impact(s) to businesses has the agency determined the rule(s) create?

The rule(s):

- a. ☒ Requires a license, permit, or any other prior authorization to engage in or operate a line of business.
- b. ☒ Imposes a criminal penalty, a civil penalty, or another sanction, or creates a cause of action for failure to comply with its terms.
- c. ☒ Requires specific expenditures or the report of information as a condition of compliance.
- d. ☒ Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.

Regulatory Intent

2. Please briefly describe the draft regulation in plain language.

Please include the key provisions of the regulation as well as any proposed amendments.

The Division of Mineral Resources Management (DMRM) is submitting 38 rules that regulate coal mining and reclamation to the Common Sense Initiative pursuant to Ohio Revised Code (ORC) section 107.52. DMRM proposes to amend eight rules and file thirty rules as No-Change rules. All 38 rules have been reviewed by DMRM pursuant to section 106.03; thus, the JCARR filing will indicate that they have undergone their five-year review.

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The following is a list of the rules, their key provisions, and their proposed amendments. (Note: the attachment contains a copy of each rule; those with proposed changes are included first, along with a summary for each that explains the changes.)

Ohio Administrative Code (OAC) Chapter 1501:13-1. This chapter contains a variety of rules regarding the implementation of the coal mining regulatory program; they form the underpinning for the regulatory program.

Three rules from this chapter are No Change rules and one is proposed for revision:

- **1501:13-1-01 Effective date and applicability.** This rule contains the effective dates and applicability of Ohio's coal mining and reclamation rules. No changes are proposed.
- **1501:13-1-10 Availability of records.** This rule deals with the availability of records as provided under ORC section 1513.07. No changes are proposed.
- **1501:13-1-13 Rule references.** This rule explains the use of rule references in the coal mining rules. No changes are proposed.
- **1501:13-1-14 Incorporation by reference.** This rule contains the dates of publication of the Code of Federal Regulations and the United States Code for those federal regulations and federal laws that are incorporated by reference in the Coal rules, and tells the public where these regulations and laws can be found. The proposed amendments: update the references to the editions of the Code of Federal Regulations and the United States Code; and update the list of statutes that the rule amplifies (this list is included at the end of the rule as part of the rule's "History Trail").

OAC Chapter 1501:13-3. This chapter includes the rules related to areas where mining is prohibited or limited and to the demonstration of valid existing rights (VER). Under federal and state law, there are certain areas where mining may not be conducted after August 3, 1977, (the implementation date of the federal Surface Mining Control and Reclamation Act, commonly known as SMCRA) unless an operator can demonstrate the existence of VER.

One rule from this chapter will be continued with no changes:

- **1501:13-3-01 Standards for demonstration of valid existing rights.** This rule contains the standards for demonstrating valid existing rights in Ohio.

OAC Chapter 1501:13-4. This chapter contains permitting rules. ORC section 1513.07 requires a permit to mine coal in Ohio.

Four rules from this Chapter are proposed for revision and six are No Change rules:

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- **1501:13-4-04 Permit application requirements for information on environmental resources.** This rule contains the requirements for surface coal mining permit applications related to information on environmental resources. No changes are proposed.
- **1501:13-4-05 Permit application requirements for reclamation and operations plans.** This rule contains permit application requirements for reclamation and operations plans. Amendments in (H)(1)(b), (H)(6), and (H)(7) to update/correct references to dam classifications and a technical release document; other small amendments.
- **1501:13-4-08 Application, supplemental and hydrologic maps, and cross-sections, designs and plans.** This rule contains mapping requirements for coal mining operations, including underground mining surface operations. No changes are proposed.
- **1501:13-4-08.1 Application, supplemental and hydrologic maps, and cross-sections, designs and plans for underground workings.** This rule contains all the mapping rules specific to underground workings. No changes are proposed.
- **1501:13-4-09 General map requirements.** This rule contains the general requirements for maps and drawings required under Ohio's coal mining and reclamation program. No changes are proposed.
- **1501:13-4-10 Uniform color code and map symbols.** This rule contains the uniform color code and uniform map symbols for coal mining maps and plans. No changes are proposed.
- **1501:13-4-11 Maps showing reaffected of permit area.** This rule contains the requirements for coal mining maps showing land affected under a permit that is being reaffected under a subsequent permit. No changes are proposed.
- **1501:13-4-12 Requirements for permits for special categories of mining.** This rule establishes additional minimum requirements for permits for certain categories of coal mining and reclamation operations. Amendments in (F)(2)(a) and (F)(2)(a)(i) regarding U.S. Department of Agriculture handbooks 436 and 18.
- **1501:13-4-13 Underground mining permit application requirements for information on environmental resources.** This rule contains the requirements for underground coal mining permit applications for information on environmental resources. Amendments in (C)(2)(f) and (H)(2) to be consistent with language usage of other coal rules.
- **1501:13-4-14 Underground mining permit application requirements for reclamation and operations plans.** This rule contains underground mining permit application requirements for reclamation and operations plans. Amendments in (H)(1)(b), (H)(6), and (H)(7) to update/correct references to dam classifications and a technical release document; another small amendment.

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OAC Chapter 1501:13-6. This chapter contains a single rule, which will be continued with no changes.

- **1501:13-6-03 Small operator assistance program.** This rule contains the requirements for Ohio's Small Operator Assistance Program.

OAC Chapter 1501:13-7. This chapter contains rules related to performance security and liability insurance. ORC section 1513.08 requires the applicant for a permit to conduct coal mining and reclamation operations to file performance security and section 1513.07(B)(1)(q) requires the applicant to obtain liability insurance.

One rule from this Chapter is proposed for amendment and five are No Change rules:

- **1501:13-7-01 General requirements for providing performance security for coal mining and reclamation operations.** This rule contains the general requirements for providing performance security under Ohio's coal mining and reclamation program. No changes are proposed.
- **1501:13-7-03 Form, conditions, and terms of performance security.** This rule contains the requirements for the form, conditions, and terms of the performance security provided under Ohio's coal mining and reclamation regulatory program. Amendment in (B)(3) to remove a reference to a rule that was rescinded; another small amendment.
- **1501:13-7-05 Procedures, criteria, and schedule for release of performance security for permits reliant on the reclamation forfeiture fund.** This rule contains the requirements for the procedures, criteria, and schedule for release of performance security under Ohio's coal regulatory program for permits that rely on the reclamation forfeiture fund, i.e., for bond pool permits. No changes are proposed.
- **1501:13-7-05.1 Procedures, criteria, and schedule for release of performance security for permits not reliant on the reclamation forfeiture fund.** This rule contains the procedures, criteria, and schedule for release of performance security for Ohio's coal mining regulatory program for permits that do not rely on the reclamation forfeiture fund, i.e., for full cost permits. No changes are proposed.
- **1501:13-7-06 Performance security forfeiture criteria and procedures.** This rule contains the criteria and procedures for performance security forfeiture under Ohio's coal mining regulatory program. No changes are proposed.
- **1501:13-7-07 Liability insurance.** This rule contains the requirements for liability insurance coverage for coal mining permit applications. No changes are proposed.

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OAC Chapter 1501:13-8. This chapter contains a single rule with performance standards for coal exploration, which will be continued with no changes.

- **1501:13-8-01 Coal exploration; performance standards.** This rule contains coal exploration requirements, procedures, and performance standards and applies to coal exploration that substantially disturbs the natural land surface.

OAC Chapter 1501:13-9. This chapter contains general performance standards for coal mining.

Nine rules from this Chapter will be continued with no changes and one is proposed for amendment:

- **1501:13-9-01 Signs and markers.** This rule contains the requirements for signs and markers placed on coal mining permit areas and buffer zones. No changes are proposed.
- **1501:13-9-02 Casing and sealing of drilled holes.** This rule contains the requirements for casing and sealing drilled holes for coal mining operations. No changes are proposed.
- **1501:13-9-04 Protection of the hydrologic system.** This rule contains performance standards for coal mining operations to ensure the protection of the hydrologic system. Amendments in several subparagraphs of (H)(1) to update/correct references to dam classifications and a technical release document. Amendment in (H)(1)(h)(iv) regarding the use of a single open-channel spillway; another small amendment.
- **1501:13-9-07 Disposal of excess spoil.** This rule contains the requirements for the disposal of excess spoil. No changes are proposed.
- **1501:13-9-08 Protection of underground mining.** This rule addresses the protection of underground mining. No changes are proposed.
- **1501:13-9-11 Protection of fish, wildlife, and related environmental values.** This rule contains the performance standards for conducting coal mining operations in Ohio that pertain to protection of fish, wildlife, and related environmental values. No changes are proposed.
- **1501:13-9-12 Slides and other damage.** This rule contains requirements for providing a barrier against slides and erosion, and for notifying the Chief should a slide occur that may have a potential adverse effect on public property, health, safety, or the environment. No changes are proposed.
- **1501:13-9-15 Revegetation.** This rule contains the requirements for the revegetation of coal mining areas. No changes are proposed.

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- **1501:13-9-16 Cessation of operations.** This rule contains the requirements for temporary and permanent cessation of coal mining operations. No changes are proposed.
- **1501:13-9-17 Postmining use of land.** This rule contains requirements for postmining land use, including descriptions of the categories of postmining land use and criteria for approval of an alternative postmining land use. No changes are proposed.

OAC Chapter 1501:13-10. This chapter contains a single rule related to roads, which will be continued with no changes.

- **1501:13-10-01 Roads: performance standards.** This rule contains the road classification system, the performance standards for the location, design, construction or reconstruction, maintenance, and reclamation of roads, and additional requirements for primary roads.

OAC Chapter 1501:13-11. This chapter contains rules regarding coal mining-related transportation facilities (other than roads), support facilities, and utility installations.

One rule from this Chapter is proposed for amendment:

- **1501:13-11-02 Support facilities and utility installations.** This rule contains the performance standards for support facilities within the coal mining permit area and for utility installations that pass over, under, or through the permit area. Amendment in (A) to clarify a paragraph reference.

OAC Chapter 1501:13-12. This chapter contains performance standards specific to underground coal mining operations.

One rule from this Chapter will be continued with no changes:

- **1501:13-12-01 Underground operations.** This rule states which laws and rules underground coal mining operations must comply with.

OAC Chapter 1501:13-13. This chapter contains performance standards for special categories of mining.

One rule from this Chapter will be continued with no changes:

- **1501:13-13-03 Operations on prime farmland.** This rule contains additional requirements for coal mining operations on prime farmland.

OAC Chapter 1501:13-14. This chapter contains the rules related to enforcement of the requirements of ORC Chapter 1513. and OAC Division 1501:13.

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One rule from this Chapter will be continued with no changes:

- **1501:13-14-01 Inspections.** This rule contains the inspection requirements for Ohio's coal mining and reclamation program.

3. Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.

Ohio Revised Code section 1513.02 is the general statute authorizing the Division of Mineral Resources Management to adopt rules regulating coal mining. Additional statutory authority for adopting rules:

- For rule 1501:13-1-10: ORC section 1513.07.
- For rule 1501:13-1-14: ORC section 1513.072.
- For rules 1501:13-4-12 and 1501:13-7-06: ORC section 1513.16.
- For rules 1501:13-4-05 and 1501:13-4-14: ORC section 1513.161.
- For rules 1501:13-4-08, 1501:13-4-08.1, 1501:13-4-12, 1501:13-4-13, 1501:13-4-14, 1501:13-9-08, and 1501:13-12-01: ORC section 1513.35.

Statutes that these rules amplify:

- For rule 1501:13-1-14: ORC sections 121.71 to 121.75.
- For rule 1501:13-7-03: ORC section 1513.01.
- For rules 1501:13-1-01, 1501:13-1-13, 1501:13-1-14, 1501:13-6-03, 1501:13-7-06, and 1501:13-14-01: ORC section 1513.02.
- For rule 1501:13-14-01: ORC section 1513.03.
- For rules 1501:13-1-01, 1501:13-1-10, 1501:13-1-14, 1501:13-3-01, 1501:13-4-04, 1501:13-4-05, 1501:13-4-08, 1501:13-4-08.1, 1501:13-4-10, 1501:13-4-11, 1501:13-4-12, 1501:13-4-13, 1501:13-4-14, 1501:13-6-03, 1501:13-7-07, 1501:13-9-04, and 1501:13-12-01: ORC section 1513.07.
- For rules 1501:13-1-14 and 1501:13-8-01: ORC section 1513.072.
- For rules 1501:13-1-14 and 1501:13-3-01: ORC section 1513.073.
- For rules 1501:13-4-11, 1501:13-4-12, 1501:13-7-01, 1501:13-7-03, 1501:13-7-05, and 1501:13-7-05.1: ORC section 1513.08.
- For rules 1501:13-1-10, 1501:13-4-05, 1501:13-4-14, and 1501:13-14-01: ORC section 1513.09.
- For rule 1501:13-7-06: ORC section 1513.13.
- For rule 1501:13-14-01: ORC section 1513.15.
- For rules 1501:13-1-01, 1501:13-1-14, 1501:13-4-12, 1501:13-7-05, 1501:13-7-05.1, 1501:13-7-06, 1501:13-9-01, 1501:13-9-02, 1501:13-9-04, 1501:13-9-07, 1501:13-9-08,

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1501:13-9-11, 1501:13-9-12, 1501:13-9-15, 1501:13-9-16, 1501:13-9-17, 1501:13-10-01, 1501:13-11-02, 1501:13-12-01, and 1501:13-13-03: ORC section 1513.16.

- For rules 1501:13-4-05 and 1501:13-4-14: ORC section 1513.161.
- For rules 1501:13-7-01 and 1501:13-7-06: ORC section 1513.18.
- For rules 1501:13-4-08, 1501:13-4-08.1, 1501:13-4-13, 1501:13-4-14, 1501:13-9-08, and 1501:13-12-01: ORC section 1513.35.
- For rule 1501:13-4-12: ORC section 1513.36.
- For rule 1501:13-4-12: ORC section 1513.37.
- For rule 1501:13-14-01: ORC section 1513.40.
- For rule 1501:13-14-01: ORC section 1513.41.
- For rule 1501:13-14-01: ORC section 1513.99.

4. Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program?

If yes, please briefly explain the source and substance of the federal requirement.

Yes, these regulations implement federal requirements and enable Ohio to maintain primacy for coal mining and reclamation.

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) established stringent national standards for coal mining and reclamation. SMCRA created the federal Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE). Because of the diverse mining conditions in the United States, Congress intended that the states become the primary regulators. Each state proposes its own laws and regulations for the mining industry. These laws and regulations must meet or exceed federal standards and are subject to approval by the Secretary of the Interior. This procedure allows individual states to gain primacy control over the regulation of surface mining. The Secretary of the Interior approved Ohio's Coal Regulatory and AML programs in 1982.

5. If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.

Not applicable.

6. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?

ORC Chapter 1513. and OAC Division 1501:13 protect Ohio's land and water resources and the public from the potential negative impacts of coal mining. The Coal Regulatory Program oversees active mining operations and the reclamation of the land by mining companies after extraction of coal. DMRM has the unique and challenging responsibility of regulating the mining

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industry in a way which strikes a balance between protection of public health and safety and the environment from the adverse effects of mining operations and providing for the nation's need for coal as an essential source of energy.

7. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?

DMRM will measure the success of these rules by ensuring that coal mining continues in Ohio in an environmentally protective manner and that all mined lands are reclaimed and restored to a productive post mining land use.

8. Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?

If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.

No.

Development of the Regulation

9. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.

If applicable, please include the date and medium by which the stakeholders were initially contacted.

On December 21, 2020, DMRM Rules Coordinator Ann Laubach e-mailed an advance copy of this rule package to Mike Cope, President of the Ohio Coal Association (OCA), requesting the OCA's preliminary review of these rules. The OCA had no comments.

On February 18, 2021, Ann Laubach e-mailed this rule package and a letter of the same date from DMRM Chief Dave Crow to OCA President Mike Cope, Trent A. Dougherty, General Counsel of the Ohio Environmental Council (OEC), and Steve Maxwell of the Pittsburgh Field Office of the U.S. Office of Surface Mining Reclamation and Enforcement (OSMRE). Chief Crow requested comments on the rules by March 19.

There were no comments on these rules from the OCA, OEC or OSMRE.

10. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?

The stakeholders had no comments.

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11. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?

The rules were developed to implement ORC Chapter 1513. and to maintain a state regulatory program that is as effective as the federal program.

12. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?

Not applicable. Ohio's coal mining and reclamation regulatory program must meet or exceed the federal requirements under SMCRA and 30 C.F.R. Chapter VII. For this reason, the program does not have the flexibility to consider alternatives outside of the limitations of SMCRA.

13. Did the Agency specifically consider a performance-based regulation? Please explain. *Performance-based regulations define the required outcome, but don't dictate the process the regulated stakeholders must use to achieve compliance.*

No, because ORC Chapter 1513. dictates the parameters of the regulations. Moreover, the provisions of ORC Chapter 1513. and OAC 1501:13 must meet or exceed the federal standards of the Surface Mining Control and Reclamation Act and the regulations implementing SMCRA in 30 C.F.R., Chapter VII.

14. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

The ODNR Division of Mineral Resources Management has authority under ORC Chapter 1513. to regulate coal mining and reclamation in Ohio. DMRM's statutes and rules were reviewed to ensure the rules were not duplicative or in conflict with other Ohio regulations.

15. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

The changes proposed in this coal rule package will not change the way that coal mining is regulated. The changes proposed for rules 1501:13-4-05, 1501:13-4-14, and 1501:13-9-04 do not change how impoundments are designed or regulated; the changes will ensure that the rules are referencing prudent, current engineering practices. DMRM will notify the coal mining industry that the Hazard Classifications labelling has changed, and the Hazard criteria has not changed.

Adverse Impact to Business

16. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:

- a. Identify the scope of the impacted business community; and**
- b. Identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance,); and**
- c. Quantify the expected adverse impact from the regulation.**

The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a “representative business.” Please include the source for your information/estimated impact.

Answer to question a: The affected business community is all of Ohio’s coal mining operators.

Answer to questions b and c: These regulations do not impose an adverse impact on Ohio’s coal mining operators beyond the impact already imposed by ORC Chapter 1513. as well as the requirements of 30 CFR Parts 700, 800 and 900. In order for Ohio to maintain primacy for the coal mining and reclamation regulatory program, Ohio’s laws and rules must meet or exceed the federal laws and rules.

Chapter 1501:13-1. The rules in this chapter establish administrative procedures for the Coal Regulatory Program; most don’t have a direct adverse impact on the business community. However, one rule does create a cause of action for failure to comply with its terms: rule 1501:13-1-01 requires the Chief to reassert jurisdiction under ORC Chapter 1513 over a coal mining site if it is demonstrated that a performance security release was based on fraud, collusion, or misrepresentation of a material fact.

Chapter 1501:13-3. These rules affect the business community because they restrict the areas where coal mining operations can be conducted or require the operator to submit detailed information to DMRM to demonstrate Valid Existing Rights.

Chapter 1501:13-4. These rules amplify Ohio Revised Code section 1513.07, which requires a permit to mine coal in Ohio and that the application for a permit include many details about the operator, the way that mining will be conducted and reclamation will be accomplished, and the land and water resources that will be affected by mining. Applying for a coal mining permit requires a significant commitment of time and money on the part of the applicant.

Chapter 1501:13-6. The net impact of the one rule in this chapter is positive for business. Although the rule does require the submission of additional information to qualify for assistance, this rule reduces the expenses of obtaining a coal mining permit for small coal operators by providing financial assistance to qualified small coal operators. However, the federal government has not provided funding for the Small Operator Assistance Program for more than 15 years.

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Chapter 1501:13-7. Most of these rules amplify Ohio Revised Code section 1513.08, which requires the applicant for a coal mining permit to file performance security. Performance security is a significant financial commitment for the coal permittee. The purpose of posting performance security is to ensure that the state will have adequate funds available to complete reclamation if the permittee does not fulfill his or her statutory obligation. Performance security is released incrementally as reclamation of mined areas proceeds: generally, 50% is released for an area when backfilling, grading and drainage controls are completed; 35% is released when topsoil and subsoil are replaced and the area is revegetated; and the final 15% is released when the required maintenance period has passed (5 years, or 2 years for a remining area) and revegetation has proved successful. Rule 1501:13-7-07 amplifies ORC 1513.07(B)(1)(q), which requires the applicant to obtain and maintain liability insurance throughout the life of the permit. Liability insurance is a significant financial commitment for the coal permittee. The same statute also gives the Chief of DMRM the authority to suspend a coal mining permit if the insurance policy lapses.

Chapter 1501:13-08. Coal exploration performance standards. The one rule in this chapter contains detailed requirements for conducting coal exploration under an exploration permit, including removing, storing and redistributing topsoil, revegetating disturbed areas, diverting streams, reclaiming holes, removing equipment, and the proper handling and disposal of toxic- or acid-forming materials. The rule also requires the notification of the Chief when exploration and reclamation are completed.

Chapters 1501:13-9 through 1501:13-13. The performance standards in these rules include many detailed requirements that coal mine operators must follow to implement the approved mining and reclamation plans. Meeting the coal performance standards requires a significant commitment of time, expertise, and money.

Chapter 1501:13-14. Rules related to enforcement. Rule 1501:13-14-01 imposes inspection frequency requirements on DMRM. One provision of the rule is related to creating causes of action for failure to comply: the rule defines the term "abandoned coal mining and reclamation operation," which is used in actions to preclude an operator from receiving future permits while violations continue at a site and in actions related to the forfeiture of performance security.

17. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

ORC Chapter 1513. and the federal regulations of 30 CFR Parts 700, 800, and 900 establish the parameters for these rules. These laws and regulations provide many safeguards to protect public health and safety and the environment from the potential adverse effects of coal mining.

Regulatory Flexibility

18. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

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ORC Chapter 1513. does not contain any small business exemptions but does provide one alternative means of compliance for small operators. The Small Operator Assistance Program, pursuant to ORC section 1513.07(B)(3) and OAC rule 1501:13-6-03, provides assistance to small coal operators in completing some of the requirements of the coal permit application. To qualify for assistance, the operator's total annual coal production must not exceed 300,000 tons. However, OSMRE has not made funds available for this program for over 15 years.

Ohio law (section 1513.01(H)(1)) excludes some coal extraction from the definition of coal mining:

- The extraction of coal incidental to the extraction of other minerals, provided coal is less than one-sixth of the total weight of all the minerals removed.
- The extraction of coal as an incidental part of government-financed construction, when approved by the Chief of DMRM.
- Coal exploration subject to ORC section 1513.072.

19. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

DMRM does not normally assess penalties for paperwork violations unless a pattern of violations develops, the issue goes into non-compliance, or an operator knowingly or willingly fails to submit required reports. Further, section 119.14 is not applicable to the regulation of coal mining because a violation of ORC Chapter 1513. or OAC Division 1501:13:

- Has the potential to cause serious harm to the public interest that DMRM is charged to protect.
- Presents a direct danger to the public health or safety, or the risk of severe environmental harm.
- Is a failure to comply with a federal requirement for a program that has been delegated from the federal government to a regulatory authority where the federal requirement includes a requirement to impose a fine.

20. What resources are available to assist small businesses with compliance of the regulation?

DMRM's Coal Regulatory staff is available to help anyone who needs guidance or assistance in complying with these rules.

DMRM recognizes that operators must commit significant resources to satisfy the statutory requirements pursuant to ORC Chapter 1513. DMRM is always looking for ways to reduce the burden on operators within the limitations of the law.

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2021 Coal rules (38 rules total)

Rules with proposed amendments (8 rules)

1501:13-1-14 Incorporation by reference. Periodic update, including update of the rule's History Trail.

1501:13-4-05 Permit application requirements for reclamation and operations plans. Amendments in (H)(1)(b), (H)(6), and (H)(7) to correct references to Class B and C dams and a technical release document; other small amendments.

1501:13-4-12 Requirements for permits for special categories of mining. Amendments in (F)(2)(a) and (F)(2)(a)(i) regarding Department of Agriculture handbooks 436 and 18.

1501:13-4-13 Underground mining permit application requirements for information on environmental resources. Amendments in (C)(2)(f) and (H)(2) to be consistent with language usage of other coal rules.

1501:13-4-14 Underground mining permit application requirements for reclamation and operations plans. Amendments in (H)(1)(b), (H)(6), and (H)(7) to correct references to Class B and C dams and a technical release document; another small amendment.

1501:13-7-03 Form, conditions, and terms of performance security. Amendment in (B)(3) to remove a reference to a rule that was rescinded; another small amendment.

1501:13-9-04 Protection of the hydrologic system. Amendments in several subparagraphs of (H)(1) to correct references to Class B and C dams and a technical release document. Amendment in (H)(1)(h)(iv) regarding the use of a single open-channel spillway; another small amendment.

1501:13-11-02 Support facilities and utility installations. Amendment in (A) to clarify a paragraph reference.

No Change rules (30 rules)

1501:13-1-01 Effective date and applicability.

1501:13-1-10 Availability of records.

1501:13-1-13 Rule references.

1501:13-3-01 Standards for demonstration of valid existing rights.

1501:13-4-04 Permit application requirements for information on environmental resources.

1501:13-4-08 Application, supplemental and hydrologic maps, and cross-sections, designs and plans.

1501:13-4-08.1 Application, supplemental and hydrologic maps, and cross-sections, designs and plans for underground workings.

1501:13-4-09 General map requirements.

1501:13-4-10 Uniform color code and map symbols.

1501:13-4-11 Maps showing reaffection of permit area.

1501:13-6-03 Small operator assistance program.

1501:13-7-01 General requirements for providing performance security for coal mining and reclamation operations.

1501:13-7-05 Procedures, criteria, and schedule for release of performance security for permits reliant on the reclamation forfeiture fund.

1501:13-7-05.1 Procedures, criteria, and schedule for release of performance security for permits not reliant on the reclamation forfeiture fund.

1501:13-7-06 Performance security forfeiture criteria and procedures

1501:13-7-07 Liability insurance

1501:13-8-01 Coal exploration; performance standards

1501:13-9-01 Signs and markers

1501:13-9-02 Casing and sealing of drilled holes.

1501:13-9-07 Disposal of excess spoil.

1501:13-9-08 Protection of underground mining.

1501:13-9-11 Protection of fish, wildlife, and related environmental values.

1501:13-9-12 Slides and other damage.

1501:13-9-15 Revegetation.

1501:13-9-16 Cessation of operations.

1501:13-9-17 Postmining use of land.

1501:13-10-01 Roads: performance standards.

1501:13-12-01 Underground operations.

1501:13-13-03 Operations on prime farmland.

1501:13-14-01 Inspections.

Draft Rule 1501:13-1-14, dated 3/16/2021.

This is a summary of the changes that will be made to this rule.

(A) and (B). Updates of the editions of the Code of Federal Regulations and U.S. Code that are incorporated by reference. *Just before this rule is filed with JCARR, it will be updated with the most recent dates for the Code of Federal Regulations and U.S. Code.*

History Trail update: the list of statutes that the rule amplifies, included at the end of the rule, is proposed to be revised to remove ORC section 121.76 (so that the citation will instead read "121.71 to 121.75"). ORC section 121.76 was repealed by the 132nd General Assembly, effective 8/18/2019.

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Dated 3/16/2021. Just before it is filed with JCARR, this rule will be updated with the most recent dates for the Code of Federal Regulations and U.S. Code. The history trail will also be updated (see notes on page 2).

1501:13-1-14 Incorporation by reference.

- (A) The federal regulation references included in these rules can generally be found in public libraries or electronically at the website govinfo.gov/. The publishing dates for the various parts of the Code of Federal Regulations (C.F.R.) are: Title 7, January 1, 2020; Title 30, [July 1, 2020](#); ~~and~~ Title 40, July 1, 2019; Title 43, October 1, 2019.
- (1) 7 C.F.R. Part 657;
 - (2) 30 C.F.R. 77.214, 77.215, 77.216, 77.216(a), 77.216-2(a), and 77.216-3;
 - (3) 30 C.F.R. 710.12;
 - (4) 30 C.F.R. Part 761;
 - (5) 30 C.F.R. 843.11;
 - (6) 30 C.F.R. Chapter VII, Subchapters D, F, and R;
 - (7) 40 C.F.R. Parts 122, 123, 136, 260 to 270 and 434;
 - (8) 43 C.F.R. Parts 3480 to 3487.
- (B) The federal law references included in these rules are based on the 2018 edition of the United States Code (U.S.C.), dated January 14, 2019. These federal laws can generally be found in public libraries or electronically at the website govinfo.gov/.
- (1) The National Historic Preservation Act of 1966, 16 U.S.C. 470 et seq., as amended;
 - (2) The Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa et seq.;
 - (3) The Fish and Wildlife Coordination Act, 16 U.S.C. 661 et seq., as amended;
 - (4) The Bald and Golden Eagle Protection Act, 16 U.S.C. 668 et seq., as amended;
 - (5) The Migratory Bird Treaty Act of 1918, 16 U.S.C. 703 et seq., as amended;
 - (6) Section 5(a) of the Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.;
 - (7) The Endangered Species Act of 1973, 16 U.S.C. 1531 et seq., as amended;
 - (8) The Occupational Safety and Health Act, 29 U.S.C. 651 et seq., as amended;
 - (9) The Mine Safety and Health Act, 30 U.S.C. 801 et seq., as amended;
 - (10) Section 518 of the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1268;
 - (11) The Clean Water Act, 33 U.S.C. 1251 et seq.;

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- (12) Water pollution prevention and control effluent limitations, 33 U.S.C. 1311(p);
- (13) Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C., Chapter 82, Subchapter III, Section 6921 et seq., as amended;
- (14) Section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C., Chapter 82, Subchapter III, Section 6921 et seq., as amended;
- (15) The Clean Air Act, 42 U.S.C. 7401 et seq.

The “history trail” for this rule is proposed to be updated to remove ORC section 121.76, since section 121.76 was repealed in 2019 by the 132nd General Assembly.

History. Effective: 4/18/2019

Five Year Review (FYR) Dates: 1/31/2019 and 04/18/2024

Promulgated Under: 119.03

Statutory Authority: 1513.02, 1513.072

Rule Amplifies: 121.71 to ~~121.76~~[121.75](#), 1513.02, 1513.07, 1513.072, 1513.073, 1513.16

Prior Effective Dates: 10/28/2010, 12/30/2011, 01/17/2016, 06/28/2018

Draft Rule 1501:13-4-05, dated 2/19/2020.

This is a summary of the changes made to this rule.

(H)(1)(b), (H)(6), and (H)(7). Amendments to update a technical report that is incorporated by reference in the rule, including:

- The report's publisher is now called the Natural Resources Conservation Service.
- The technical release document number and date of publication have changed.
- Class B and Class C dams are now called significant hazard potential and high hazard potential dams.
- The title of a table referred to in the rule has changed.
- Information on where the report is available on the internet is updated.

(H)(2)(c)(ii). Amendment to be consistent with the Legislative Service Commission's rule-drafting protocol.

(P)(2)(a)(ii). Comma added.

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Dated 2/19/2020. See updates in (H)(1)(b), (H)(6), and (H)(7) – pages 7 and 10.

1501:13-4-05 Permit application requirements for reclamation and operations plans.

(A) Operation plan: general requirements.

- (1) This rule shall apply only to coal mining operations other than underground mining operations.
- (2) Each application shall contain a description of the mining operations proposed to be conducted during the life of the mine within the proposed permit area, including:
 - (a) A narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used for all aspects of those operations;
 - (i) The description shall identify the mining method as area mining, contour mining, another named mining method, or combination of methods to be identified by name;
 - (ii) For contour mining or area mining, the description shall include, at a minimum, the maximum extent of cover to be mined, the location where the mining will begin, the direction the mining will proceed, and the ending point of the operation. If the mining operation will utilize multiple pits, the description shall be included for each mining pit;
 - (iii) For mining methods other than area mining or contour mining, or for combinations of methods, the description shall include each of the items required under paragraph (A)(2)(a)(ii) of this rule and in addition shall include other information that demonstrates the orderly and reasonable progression of mining, including, but not limited to, spoil placement plans, proposed locations of haul roads that will be used or retained for an extended period of time, and the intended timing of mining operations;
 - (iv) The description shall specify for the mining method(s) proposed how the time and distance requirements of rule 1501:13-9-13 of the Administrative Code will be met; and
 - (b) A narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facilities is necessary for postmining land use as specified in rule 1501:13-9-17 of the Administrative Code and is approved by the chief):
 - (i) Dams, embankments, and other impoundments;
 - (ii) Overburden and topsoil handling and storage areas and structures;
 - (iii) Coal removal, handling, storage, cleaning, and transportation areas and structures;
 - (iv) Spoil, coal processing waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures;
 - (v) Mine facilities; and
 - (vi) Water and air pollution control facilities.

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- (3) Each application shall contain the information required under Chapter 1501:13-4 of the Administrative Code for the proposed permit area in the detail necessary for the chief to determine the estimated cost of reclamation, pursuant to paragraph (B) of rule 1501:13-7-01 of the Administrative Code, if the reclamation has to be performed by the division of mineral resources management in the event of forfeiture of the performance security by the permittee. This estimate shall include:
 - (a) Operational detail sufficient to determine the greatest potential reclamation cost liability to the state; and
 - (b) Any other operational detail required by the chief that may affect the cost of reclamation by the division of mineral resources management in the event of forfeiture of the performance security by the permittee.

(B) Operation plan: existing structures.

- (1) Each application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the coal mining and reclamation operation. The description shall include:
 - (a) Location;
 - (b) Plans of the structure which describe its current condition;
 - (c) Approximate dates on which construction of the existing structure was begun and completed; and
 - (d) A showing, including relevant monitoring data or other evidence, whether the structure meets the performance standards of rules 1501:13-8-01 to 1501:13-13-07 of the Administrative Code.
- (2) Each application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the coal mining and reclamation operation. The compliance plan shall include:
 - (a) Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of rules 1501:13-8-01 to 1501:13-13-07 of the Administrative Code;
 - (b) A construction schedule which shows dates for beginning and completing interim steps and final reconstruction;
 - (c) Provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of rules 1501:13-8-01 to 1501:13-13-07 of the Administrative Code are met; and
 - (d) A showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.

(C) Operation plan: blasting. Each application shall contain a blasting plan for the proposed permit area, explaining how the applicant intends to comply with the blasting requirements of rule 1501:13-9-06 of the Administrative Code and including the following:

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- (1) Information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the bases for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations;
- (2) A description of any system to be used to monitor compliance with the airblast and ground vibration limits established under paragraph (C)(1) of this rule, including the type, capability, and sensitivity of any blast-monitoring equipment and proposed procedures and locations of monitoring; and
- (3) For blasting operations within five hundred feet of active underground mines, copies of the approvals given by the state and federal regulatory authorities concerned with the health and safety of underground miners.

(D) Reclamation plan: general requirements.

- (1) Each application shall contain a plan for describing reclamation of the lands within the proposed permit area, showing how the applicant will comply with the requirements of Chapter 1513. of the Revised Code and rules adopted thereunder. The plan shall include, at a minimum, all information required under paragraphs (D) to (P) of this rule.
- (2) Each plan shall contain, where appropriate, the following information for the proposed permit area:
 - (a) A detailed timetable for the completion of each major step in the reclamation plan which, at a minimum, addresses the reclamation timing requirements of paragraph (A) of rule 1501:13-9-13 of the Administrative Code, and is specific to the mining method described in accordance with paragraph (A)(2)(a) of this rule;
 - (b) A description of the backfilling, soil stabilization and grading;
 - (c) A description of the removal, storage, and redistribution of topsoil, subsoil, and other material to meet the requirements of rule 1501:13-9-03 of the Administrative Code. A demonstration of the suitability of topsoil substitutes or supplements under rule 1501:13-9-03 of the Administrative Code shall be based upon analysis of the thickness of soil horizons, total depth, texture, per cent coarse fragments, pH, and areal extent of the different kinds of soils. The chief may require other chemical and physical analyses, field-site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil substitutes or supplements;
 - (d) A description of the revegetation as required in rule 1501:13-9-15 of the Administrative Code, including, but not limited to, descriptions of the:
 - (i) Schedule of revegetation;
 - (ii) Species and amounts per acre of seeds and seedlings to be used;
 - (iii) Methods to be used in planting and seeding;
 - (iv) Mulching techniques;
 - (v) A soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation;

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- (vi) Irrigation, if appropriate, and disease, pest and vermin control, if any; and
 - (vii) The measures proposed to be used to determine the success of revegetation as required under rule 1501:13-9-15 of the Administrative Code;
 - (e) A description of the measures to be used to maximize the use and conservation of the coal resources as required by rule 1501:13-9-05 of the Administrative Code;
 - (f) A description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with paragraph (E) of rule 1501:13-9-09 of the Administrative Code and paragraph (J) of rule 1501:13-9-14 of the Administrative Code and a description of the contingency plans which have been developed to preclude sustained combustion of such materials;
 - (g) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings, and to plug, case or manage exploration holes, other bore holes, wells, and other openings within the proposed permit area, in accordance with rule 1501:13-9-02 of the Administrative Code; and
 - (h) A description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. 7401 et seq.), the Clean Water Act (33 U.S.C. 1251 et seq.) and other applicable air and water quality laws and regulations and health and safety standards.
- (E) Reclamation plan: protection of the hydrologic balance.
- (1) Each application shall contain a plan for the protection of the hydrologic balance. The plan shall be specific to the local hydrologic conditions and shall describe the measures to be taken during and after the proposed coal mining operations in accordance with rule 1501:13-9-04 of the Administrative Code to:
 - (a) Minimize disturbance to the hydrologic balance within the permit and adjacent areas and to prevent material damage outside the permit area;
 - (b) Protect the rights of present users of surface and ground water;
 - (c) Avoid acid or toxic drainage;
 - (d) Control surface water drainage into, through, and out of the proposed permit area, pursuant to rule 1501:13-9-04 of the Administrative Code;
 - (e) Treat, when required under these rules, surface and ground water drainage from the area to be disturbed by the proposed activities, so as not to exceed quantitative limits on pollutants in discharges under paragraph (B) of rule 1501:13-9-04 of the Administrative Code;
 - (f) Restore the approximate recharge capacity of the proposed permit area in accordance with paragraph (L) of rule 1501:13-9-04 of the Administrative Code and protect or replace rights of present water users;

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- (g) Prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area. Vegetation may be determined by the chief to be the best technology currently available upon a demonstration by the permittee that the requirements of paragraphs (B)(1) to (B)(1)(b) of rule 1501:13-9-04 of the Administrative Code have been met. If the applicant proposes to make such a demonstration after vegetation is established and remove siltation structures sooner than two years after the last augmented seeding of a drainage area, the applicant shall state such intentions in the timetable and plans for removal of sediment control structures required by paragraph (H)(1)(b)(iv) or (H)(1)(c)(iv) of this rule;
 - (h) Address any potential adverse hydrologic consequences identified in the determination of probable hydrologic consequences under paragraph (E)(2) of this rule and include preventative and remedial measures; and
 - (i) Meet applicable state and federal water quality laws and regulations.
- (2) Determination of probable hydrologic consequences (PHC).
- (a) The plan shall include a determination of the probable hydrologic consequences of the proposed coal mining operations on the proposed permit area and adjacent areas. This determination shall be based on baseline hydrologic, geologic and other information collected for the permit application with respect to the hydrologic regime, providing information on the quantity and quality of water in surface and ground-water systems under seasonal conditions, including the contents of dissolved and total suspended solids, total iron, pH, and total manganese.
 - (b) The PHC determination shall include findings on:
 - (i) Whether adverse impacts may occur to the hydrologic balance;
 - (ii) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface- or ground-water supplies;
 - (iii) Whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial, or other legitimate purpose; and
 - (iv) What impact the proposed operation will have on:
 - (a) Sediment yield from the disturbed area;
 - (b) Acidity, total suspended and dissolved solids, and other important water quality parameters of local impact;
 - (c) Flooding or streamflow alteration;
 - (d) Ground-water and surface-water availability; and
 - (e) Other characteristics as required by the chief.

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- (c) An application for a permit revision shall be reviewed by the chief to determine whether a new or updated PHC determination shall be required.

(F) Ground-water and surface-water monitoring plans.

(1) Ground-water monitoring plan.

- (a) The application shall include a ground-water monitoring plan based upon the PHC determination required under paragraph (E)(2) of this rule and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in paragraph (E)(1) of this rule. It shall identify the quantity and quality parameters to be monitored, sampling frequency, and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, specific conductance corrected to twenty-five degrees centigrade, pH, total iron, total manganese, and water levels shall be monitored. The data resulting from this monitoring shall be submitted to the chief pursuant to paragraph (N) of rule 1501:13-9-04 of the Administrative Code.
- (b) If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the general area, then monitoring of that stratum may be waived by the chief.

(2) Surface-water monitoring plan.

- (a) The application shall include a surface-water monitoring plan based upon the PHC determination required under paragraph (E)(2) of this rule and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in paragraph (E)(1) of this rule as well as the effluent limitations set forth in 40 C.F.R. part 434.
- (b) The plan shall identify the surface-water quantity and the quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.
 - (i) At all monitoring locations in the permit and adjacent areas, surface-water bodies such as streams, lakes and impoundments, that are potentially affected or into which water will be discharged, and at upstream monitoring locations, the specific conductance corrected to twenty-five degrees centigrade, total suspended solids, pH, total iron, total manganese, and flow shall be monitored.
 - (ii) For point-source discharges, monitoring shall be conducted in accordance with 40 C.F.R. parts 122, 123 and 434 and as required by the national pollutant discharge elimination system permitting authority.
 - (iii) The data resulting from this monitoring shall be submitted to the chief pursuant to paragraph (N) of rule 1501:13-9-04 of the Administrative Code.

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(G) Reclamation plan: postmining land uses.

- (1) Each application shall contain a plan for the postmining land use. The plan shall describe the proposed use following reclamation of the land within the proposed permit area including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land use policies and plans. This description shall explain:
 - (a) How the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use; and
 - (b) When a land use different from the premining land use is proposed, all materials needed for approval of the alternative use under these rules.
- (2) The plan shall be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and the state and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation. In cases where no surface disturbance will result from the applicant's proposed use of auger/highwall mining, this paragraph shall not apply.
- (3) The plan shall describe the consideration which has been given to making all of the proposed coal mining operations consistent with surface owner plans and applicable state and local land use plans and programs.

(H) Reclamation plan: ponds, impoundments, banks, dams, and embankments.

- (1) General requirements.
 - (a) Each application shall include a detailed design plan for each proposed siltation structure, water impoundment, and coal mine waste bank, dam, or embankment within the proposed permit area. Each plan shall:
 - (i) Be prepared by, or under the direction of, and certified by an engineer;
 - (ii) Contain a description, map, and cross section of the structure and its location;
 - (iii) Contain preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure; and
 - (iv) Contain a survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations if underground mining has occurred.
 - (b) Each detailed design plan for a structure that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), or meets the [significant hazard potential or high hazard potential classification \(formerly called class B or C\)](#) criteria for dams in the U.S department of agriculture, ~~soil~~[natural resources](#) conservation service technical release ~~no. 60~~[TR-210-60](#), "Earth Dams and Reservoirs," ~~1985~~[March 2019](#), shall:
 - (i) Be prepared by, or under the direction of, and certified by an engineer;

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- (ii) Include any geotechnical investigation, design, and construction requirements for the structure;
 - (iii) Describe the operation and maintenance requirements for each structure; and
 - (iv) Describe the timetable and plans to remove each structure, if appropriate. If the applicant proposes to demonstrate that vegetation is the best technology currently available and remove siltation structures sooner than two years after the last augmented seeding of the drainage area, include a statement of such intentions.
- (c) Each detailed design plan for a structure that does not meet the size or other criteria of paragraph (H)(1)(b) of this rule, shall:
- (i) Be prepared by, or under the direction of, and certified by an engineer;
 - (ii) Include any design and construction requirements for the structure, including any required geotechnical information;
 - (iii) Describe the operation and maintenance requirements for each structure; and
 - (iv) Describe the timetable and plans to remove each structure, if appropriate. If the applicant proposes to demonstrate that vegetation is the best technology currently available and remove siltation structures sooner than two years after the last augmented seeding of the drainage area, include a statement of such intentions.

(2) Impoundments.

- (a) Permanent and temporary impoundments shall be designed in compliance with the requirements of paragraph (H) of rule 1501:13-9-04 of the Administrative Code. The design of any impoundment shall be certified by an engineer experienced in impoundment design and construction. The certification statement shall state that the structure is designed to meet the requirements of paragraph (H) of rule 1501:13-9-04 of the Administrative Code.
- (b) Each design plan for an impoundment that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), shall contain the information required under 30 C.F.R. 77.216-2(a). The plan required to be submitted to the district manager of MSHA under 30 C.F.R. 77.216 shall also be submitted to the chief as part of the permit application.
- (c) Impoundments not meeting the size or other criteria of paragraph (H)(1)(b) of this rule may be designed in compliance with the following design standards, in lieu of performance of engineering tests to demonstrate compliance with the 1.3 minimum static safety factor required in paragraph (H)(1)(c)(ii) of rule 1501:13-9-04 of the Administrative Code:
 - (i) The embankment foundation area shall be cleared of all organic matter and the entire foundation surface shall be scarified;
 - (ii) If the natural slope of the foundation as measured at right angles to the embankment center line is steeper than 10:1V (ten ~~percent~~per cent), the embankment shall be benched into the existing slope beginning at the embankment toe and then filled with compacted level lifts;

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- (iii) The embankment fill material shall be free of sod, large roots, other large vegetative matter, and coal processing waste;
- (iv) The fill shall be brought up in horizontal layers of such thickness as required to facilitate compaction in accordance with prudent construction standards;
- (v) The moisture content of the fill material shall be sufficient to secure proper compaction. (An indication of sufficient moisture content is that when kneaded by hand the soil should just form a ball which does not readily separate. The engineer may specify other methods of testing moisture content, if appropriate.) When it is necessary to use materials of varying texture and gradation, the more impervious material shall be placed in the upstream and center portions of the embankment and the more pervious material shall be placed in the downstream portion of the fill;
- (vi) The embankment's combined upstream and downstream side slopes shall be no steeper than the sum of 5h:1v, with neither slope steeper than 2h:1v. (Example: if downstream slope is 3h:1v, then upstream slope can be no steeper than 2h:1v. The minimum combined slope requirement of 5h:1v refers to the 3h and 2h added together.); and
- (vii) The minimum top width of the embankment shall be $(h + 35)/5$, where "h" is the embankment height as measured from natural ground at the upstream toe to the top of the embankment.

(3) Siltation structures.

- (a) Permanent and temporary siltation structures shall be designed in compliance with the requirements of paragraphs (G) and (H) of rule 1501:13-9-04 of the Administrative Code. The design of any siltation structure shall be certified by an engineer experienced in impoundment design and construction. The certification shall state that the structure is designed to meet the requirements of paragraphs (G) and (H) of rule 1501:13-9-04 of the Administrative Code.
- (b) In addition to the requirements of paragraph (H)(1) of this rule, the plan shall include a determination of:
 - (i) The required sediment storage volume; and
 - (ii) The detention time provided by the pond.
- (c) Each design plan for a siltation structure that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), shall contain the information required under 30 C.F.R. 77.216-2(a).

(4) Coal mine waste dams and embankments.

- (a) Coal mine waste dams and embankments shall be designed to comply with the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 and paragraph (H) of rule 1501:13-9-04 of the Administrative Code. The design of any coal mine waste dam or embankment shall be certified by an engineer experienced in design of similar earth and waste structures. The certification statement shall state that the structure is designed to meet the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 and paragraph (H) of rule 1501:13-9-04 of the Administrative Code.

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- (b) Each plan shall contain the results of a geotechnical investigation of the proposed dam or embankment foundation area, to determine the structural competence of the foundation which will support the proposed dam or embankment structure and the impounded material. The geotechnical investigation shall be planned and supervised by an engineer, according to the following:
 - (i) The number, location, and depth of borings and test pits shall be determined using current, prudent engineering practice for the size of the dam or embankment, quantity of material to be impounded, and subsurface conditions;
 - (ii) The character of the overburden and bedrock, the proposed abutment sites, and any adverse geotechnical conditions which may affect the particular dam, embankment, or reservoir site shall be considered;
 - (iii) All springs, seepage, and ground-water flow observed or anticipated during wet periods in the area of the proposed dam or embankment shall be identified on each plan; and
 - (iv) Consideration shall be given to the possibility of mudflows, rock-debris falls, or other landslides into the dam, embankment, or impounded material.
- (c) Each design plan for a coal mine waste dam or embankment that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), shall contain the information required under 30 C.F.R. 77.216-2(a).
- (5) Coal mine waste banks. Coal mine waste banks shall be designed to comply with the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 of the Administrative Code, and with the provisions regarding impoundments under paragraph (H) of rule 1501:13-9-04 of the Administrative Code. The design of any coal mine waste bank shall be certified by an engineer experienced in design of similar earth and waste structures. The certification shall state that the structure is designed to meet the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 and paragraph (H) of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.
- (6) If the structure meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), or meets the significant hazard potential or high hazard potential classification (formerly called Class B or C) criteria for dams in the U.S department of agriculture, ~~soil~~natural resources conservation service technical release ~~no. 60~~TR-210-60, "Earth Dams and Reservoirs," ~~1985~~March 2019, each plan under paragraphs (H)(2), (H)(3), and (H)(4) of this rule shall include a stability analysis of each structure. The stability analysis shall include, but not be limited to, strength parameters, pore pressures, and long-term seepage conditions. The plan shall also contain a description of each engineering design assumption and calculation with a discussion of each alternative considered in selecting the specific design parameters and construction methods.
- (7) For further information about ~~soil~~natural resources conservation service technical release ~~no. 60~~TR-210-60, which is incorporated by reference in paragraph (H) of this rule, see paragraph (H)(1)(a) of rule 1501:13-9-04 of the Administrative Code.

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- (I) Surface mining near underground mining. For surface mining operations within the proposed permit area to be conducted within five hundred feet of an underground mine either active or abandoned, the application shall describe the measures to be used to comply with rule 1501:13-9-08 of the Administrative Code.
- (J) Diversions. Each application shall contain descriptions, including maps and cross sections, of stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with paragraphs (D) and (F) of rule 1501:13-9-04 of the Administrative Code.
- (K) Protection of public parks and historic places.
- (1) For any publicly owned parks or any places listed on the "National Register of Historic Places," administered by the national parks service, U.S. department of the interior, that may be adversely affected by the proposed operation, each application shall describe the measures to be used:
 - (a) To prevent adverse impacts; or
 - (b) If valid existing rights exist or joint agency approval is to be obtained under paragraph (E) of rule 1501:13-3-04 of the Administrative Code, to minimize adverse impacts. The website for the "National Register of Historic Places" for Ohio sites is <http://www.nationalregisterofhistoricplaces.com/oh/state.html>.
 - (2) The chief may require the applicant to protect historic or archeological properties listed on or eligible for listing on the "National Register of Historic Places," as referenced in paragraph (K)(1) of this rule, through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance provided that the required measures are completed before the properties are affected by any mining operation.
- (L) Relocation or use of public roads. Each application shall describe the measures to be used to ensure that the interests of the public and landowners affected are protected if, under paragraph (C) of rule 1501:13-3-04 of the Administrative Code, the applicant seeks to have the chief approve:
- (1) Conducting the proposed coal mining operations within one hundred feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way; or
 - (2) Relocating a public road.
- (M) Transportation facilities.
- (1) Each application shall contain a detailed description of each road, conveyor, or rail system to be constructed, used, or maintained within the proposed permit area. The description shall include a map, appropriate cross sections, and the following:
 - (a) Specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, and drainage structure;
 - (b) A description of measures to be taken to obtain approval of the chief for alteration or relocation of a natural drainageway under rule 1501:13-10-01 of the Administrative Code;
 - (c) A description of measures, other than use of a rock headwall, to be taken to protect the inlet end of a ditch relief culvert, for approval by the chief under rule 1501:13-10-01 of the Administrative Code;

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- (d) Drawings and specifications for each proposed ford of perennial or intermittent streams outside the mined-out area that is used as a temporary route, as necessary for approval of the ford by the chief in accordance with paragraph (D)(1) of rule 1501:13-10-01 of the Administrative Code; and
 - (e) A description of plans to remove and reclaim each road that would not be retained under an approved postmining land use, and the schedule for this removal and reclamation.
- (2) Primary road embankments may be designed in compliance with the following design standards, in lieu of performance of engineering tests to demonstrate compliance with the 1.3 minimum static safety factor required in paragraph (G)(3) of rule 1501:13-10-01 of the Administrative Code:
- (a) The embankment foundation area shall be cleared of all organic matter and the entire foundation surface shall be scarified;
 - (b) If the natural slope of the foundation as measured at right angles to the roadway center line is steeper than 8h:1v, the embankment shall be benched into the existing slope beginning at the embankment toe and then filled with compacted level lifts;
 - (c) The embankment fill material shall be free of sod, large roots, other large vegetative matter, and coal processing waste;
 - (d) The fill shall be brought up in horizontal layers of such thickness as required to facilitate compaction in accordance with prudent construction standards;
 - (e) The moisture content of the fill material shall be sufficient to secure proper compaction;
 - (f) The side slopes of the embankment shall be no steeper than 2h:1v;
 - (g) Embankments with upstream and downstream slopes shall have a minimum top width of $(h + 35)/5$, where "h" is the embankment height as measured from natural ground at the upstream toe to the top of the embankment;
 - (h) Hillside embankments shall have a minimum top width adequate for the intended use; and
 - (i) Culverts shall be placed such that the embankment, as defined in rule 1501:13-1-02 of the Administrative Code, will not impound water for an extended period of time.
- (N) Disposal of excess spoil.
- (1) Each application shall contain descriptions, including appropriate maps and cross section drawings, of the proposed disposal site and design of the spoil disposal structures according to rule 1501:13-9-07 of the Administrative Code. These plans shall describe the geotechnical investigation, design, construction, operation, maintenance, and removal, if appropriate, of the site and structures.
 - (2) Each application shall contain the results of a geotechnical investigation of the proposed disposal site, including the following:
 - (a) The character of bedrock and any adverse geologic conditions in the disposal area;
 - (b) A survey identifying all springs, seepage, and ground-water flow observed or anticipated during wet periods in the area of the disposal site;

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- (c) A survey of the potential effects of subsidence of the subsurface strata due to past and future mining operations;
 - (d) A technical description of the rock materials to be utilized in the construction of those disposal structures containing rock chimney cores or underlain by a rock drainage blanket; and
 - (e) A stability analysis including, but not limited to, strength parameters, pore pressures and long-term seepage conditions. These data shall be accompanied by a description of all engineering design assumptions and calculations and the alternatives considered in selecting the specific design specifications and methods.
- (3) If, under paragraph (D) of rule 1501:13-9-07 of the Administrative Code, rock-toe buttresses or keyway cuts are required, the application shall include the following:
- (a) The number, location and depth of borings or test pits. The number, location and depth shall be determined with respect to the size of the spoil disposal structure and sub-surface conditions; and
 - (b) Engineering specifications utilized to design the rock-toe buttresses or key-way cuts which shall be determined in accordance with paragraph (N)(2)(e) of this rule.
- (O) Air pollution control plan. Each application shall contain an air pollution control plan, in order to address fugitive dust resulting from erosion. The plan shall include the following:
- (1) An air quality monitoring program, if required by the chief, to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices under paragraph (O)(2) of this rule to comply with applicable federal and state air quality standards; and
 - (2) A plan for fugitive dust control practices.
- (P) Fish and wildlife plan.
- (1) Resource information. Each application shall include fish and wildlife resource information for the permit area and adjacent area.
 - (a) The scope and level of detail for such information shall be determined by the chief in consultation with state and federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under paragraph (P)(2) of this rule.
 - (b) Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include:
 - (i) Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the secretary of the interior under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), or those species or habitats protected by similar state statutes;
 - (ii) Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or

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- (iii) Other species or habitats identified through agency consultation as requiring special protection under state or federal law.
- (2) Protection and enhancement plan. Each application shall include a description of how, to the extent possible using the best technology currently available, the operator will minimize disturbances and adverse impacts on fish and wildlife and related environmental values, including compliance with the Endangered Species Act, during the surface coal mining and reclamation operations and how enhancement of these resources will be achieved where practicable.
 - (a) This description shall:
 - (i) Be consistent with the requirements of rule 1501:13-9-11 of the Administrative Code;
 - (ii) Apply, at a minimum, to species and habitats identified under paragraph (P)(1) of this rule;
 - (iii) Include protective measures that will be used during the active mining phase of the operation. Such measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines, and the monitoring of surface water quality and quantity; and
 - (iv) Include enhancement measures that will be used during the reclamation and postmining phase of the operation to develop aquatic and terrestrial habitat. Such measures may include restoration of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and cover, and the replacement of perches and nest boxes. Where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.
- (3) Fish and wildlife service review. Upon request, the chief shall provide the resource information required under paragraph (P)(1) of this rule and the protection and enhancement plan required under paragraph (P)(2) of this rule to the U.S. department of the interior, fish and wildlife service regional or field office for their review. This information shall be provided within ten days of receipt of the request from the service.
- (Q) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

Draft Rule 1501:13-4-12, dated 9/18/2020.

This is a summary of the changes made to this rule.

(F)(2)(a) and (F)(2)(a)(i). Amendments to reflect updated editions of Department of Agriculture handbooks 436 and 18 and updated information on how to obtain copies of these handbooks.

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Dated 9/18/2020 See amendments in (F)(2)(a) and (a)(i), page 7.

1501:13-4-12 Requirements for permits for special categories of mining.

- (A) Scope. This rule establishes the minimum requirements for permits for certain categories of coal mining and reclamation operations. These requirements are in addition to the general permit requirements contained in Chapter 1501:13-4 of the Administrative Code. All of the provisions of Chapter 1501:13-4 of the Administrative Code apply to such operations, unless otherwise specifically provided in this rule.
- (B) Experimental mining practices.
- (1) "Experimental practices," as used in this rule, means the use of alternative coal mining and reclamation operation practices for experimental or research purposes. Experimental practices need not comply with specific environmental protection performance standards of these rules, if approved pursuant to paragraph (B) of this rule.
 - (2) No person shall engage in or maintain any experimental practice, unless that practice is first approved in a permit by the chief and the director of the office of surface mining.
 - (3) Each person who desires to conduct an experimental practice shall submit a permit application for the approval of the chief and the director of the office of surface mining. The permit application shall contain descriptions, maps, plans, and data which show:
 - (a) The nature of the experimental practice, including a description of the performance standards for which variances are requested, the duration of the experimental practice, and the special monitoring which will be conducted;
 - (b) How use of the experimental practice:
 - (i) Encourages advances in mining and reclamation technology; or
 - (ii) Allows a postmining land use for industrial, commercial, residential, or public use (including recreational facilities), on an experimental basis, when the results are not otherwise attainable under Chapter 1513. of the Revised Code and rules adopted thereunder;
 - (c) That the mining and reclamation operations proposed for using an experimental practice are not larger nor more numerous than necessary to determine the effectiveness and economic feasibility of the experimental practice;
 - (d) That the experimental practice:
 - (i) Is potentially more, or at least as, environmentally protective during and after the proposed mining and reclamation operations as those practices otherwise required under division 1501:13 of the Administrative Code; and
 - (ii) Will not reduce the protection afforded public health and safety below that provided by the requirements of division 1501:13 of the Administrative Code; and
 - (e) That the applicant will conduct special monitoring with respect to the experimental practice during and after the operations involved. The monitoring program shall:

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- (i) Ensure the collection, analysis and reporting of sufficient and reliable data to enable the chief and the director of the office of surface mining to make adequate comparisons with other coal mining and reclamation operations employing similar experimental practices; and
 - (ii) Include requirements designed to identify, as soon as possible, potential risks to the environment and public health and safety from the use of the experimental practice.
 - (4) Each application shall set forth the environmental protection performance standards of division 1501:13 of the Administrative Code which will be implemented in the event the objective of the experimental practice is a failure.
 - (5) All experimental practices for which variances are sought shall be specifically identified through newspaper advertisements by the applicant and the written notifications by the chief required in sections 1513.07 and 1513.071 of the Revised Code.
 - (6) No permit authorizing an experimental practice shall be issued, unless the chief first finds, in writing, upon the basis of both a complete application filed in accordance with the requirements of paragraph (B) of this rule and the concurrence of the director of the office of surface mining that:
 - (a) The experimental practice meets all of the requirements of paragraph (B)(3) of this rule;
 - (b) The experimental practice has been specifically approved, in writing, by the director of the office of surface mining based on the director's findings that all of the requirements of paragraph (B)(3) of this rule will be met;
 - (c) The experimental practice is based on a clearly defined set of objectives which can reasonably be expected to be achieved; and
 - (d) The permit contains conditions which specifically:
 - (i) Limit the experimental practice authorized to that granted by the chief and the director of the office of surface mining;
 - (ii) Impose enforceable alternative environmental protection requirements; and
 - (iii) Require the person to conduct the periodic monitoring, recording and reporting program set forth in the application, with such additional requirements as the chief or the director of the office of surface mining may require.
 - (7) Each permit which authorizes the use of an experimental practice shall be reviewed in its entirety by the chief at a frequency set forth in the approved permit but no less frequently than every two and one-half years. After review, the chief may require such reasonable revision or modification of the permit provisions necessary to ensure that the operations involved are conducted to protect fully the environment and public health and safety. Copies of the decision of the chief shall be provided to the permittee and be subject to review as provided by section 1513.13 of the Revised Code.
- (C) Mountaintop removal mining.
- (1) Any person who conducts or intends to conduct surface mining operations by mountaintop removal mining shall apply for a variance from approximate original contour restoration requirements in

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accordance with the requirements of paragraph (C) of this rule.

- (2) The chief may issue a permit for mountaintop removal mining, including a variance from the requirements of rule 1501:13-9-14 of the Administrative Code regarding approximate original contour, if he or she first finds, in writing, on the basis of a complete application, that the following requirements are met:
 - (a) The proposed postmining land use of the lands to be affected will be an industrial, commercial, agricultural, residential, or public facility (including recreational facilities) use and if:
 - (i) After consultation with the appropriate land use planning agencies, if any, the proposed land use is deemed by the chief to constitute an equal or better economic or public use of the affected land compared with the premining use;
 - (ii) The applicant demonstrates compliance with the requirements for acceptable alternative postmining land uses of rule 1501:13-9-17 of the Administrative Code;
 - (iii) The proposed use would be compatible with adjacent land uses and existing state and local land use plans and programs; and
 - (iv) The chief has provided, in writing, an opportunity of not more than sixty days to review and comment on such proposed use to the local government in whose jurisdiction the land is located and any state or federal agency which the chief, in his or her discretion, determines to have an interest in the proposed use;
 - (b) The applicant has demonstrated that, in place of restoration of the land to be affected to the approximate original contour under rule 1501:13-9-14 of the Administrative Code, the operation will be conducted in compliance with the requirements of rule 1501:13-13-04 of the Administrative Code;
 - (c) The requirements of rule 1501:13-13-04 of the Administrative Code are made a specific condition of the permit;
 - (d) All other requirements of Chapter 1513. of the Revised Code and these rules are met by the proposed operations; and
 - (e) The permit is clearly identified as being for mountaintop removal mining.
- (3) Review of special permits.
 - (a) Any permits incorporating a variance issued under paragraph (C) of this rule shall be reviewed by the chief to evaluate the progress and development of the mining operations to establish that the operator is proceeding in accordance with the terms of the variance:
 - (i) Within the sixth month preceding the third year from the date of its issuance;
 - (ii) Before each permit renewal; and
 - (iii) Not later than the middle of each permit term.
 - (b) Any review required under paragraph (C)(3) of this rule need not be held if the permittee has demonstrated and the chief finds, in writing, within three months before the scheduled review, that

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all operations under the permit are proceeding and will continue to be conducted in accordance with the terms of the permit and requirements of Chapter 1513. of the Revised Code and division 1501:13 of the Administrative Code.

- (c) The chief may modify the terms and conditions of a permit for mountaintop removal mining at any time if he or she determines that more stringent measures are necessary to ensure that the operation involved is conducted in compliance with the requirements of Chapter 1513. of the Revised Code and division 1501:13 of the Administrative Code.

(D) Steep slope mining.

- (1) Any person who conducts or intends to conduct steep slope coal mining and reclamation operations shall comply with the requirements of paragraph (D) of this rule except in any of the following situations:
 - (a) An operator proposes to conduct coal mining and reclamation operations on flat or gently rolling terrain, leaving a plain or predominantly flat area, but on which an occasional steep slope is encountered as the mining operation proceeds;
 - (b) A person obtains a permit under the provisions of paragraph (C) of this rule; or
 - (c) To the extent that a person obtains a permit incorporating a variance under paragraph (E) of this rule.
- (2) Any application for a permit for coal mining and reclamation operations covered by paragraph (D) of this rule shall contain sufficient information to establish that the operations will be conducted in accordance with the requirements of rule 1501:13-13-05 of the Administrative Code.
- (3) No permit shall be issued for any operations covered by paragraph (D) of this rule unless the chief finds, in writing, that in addition to meeting all other requirements of this rule, the operation will be conducted in accordance with the substantive requirements of rule 1501:13-13-05 of the Administrative Code.

(E) Permits incorporating variances from approximate original contour restoration requirements. The chief may, under paragraph (E) of this rule, issue a permit for non-mountaintop removal, steep slope, mining which includes a variance from the requirements of rules 1501:13-9-14 and 1501:13-13-05 of the Administrative Code regarding approximate original contour restoration requirements.

- (1) The chief may issue a permit for coal mining incorporating a variance under paragraph (E) of this rule only if he or she first finds, in writing, on the basis of a complete application, that all of the following requirements are met:
 - (a) The applicant has demonstrated that the purpose of the variance is to make the lands to be affected within the permit area suitable for an industrial, commercial, residential, or public postmining land use (including recreational facilities);
 - (b) The proposed use, after consultation with the appropriate land use planning agencies, if any, constitutes an equal or better economic or public use;
 - (c) The applicant has demonstrated compliance with the requirements for acceptable alternative postmining land uses of rule 1501:13-9-17 of the Administrative Code;
 - (d) The applicant has demonstrated that the watershed of lands within the proposed permit area and

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adjacent areas will be improved by the operations. The watershed will only be deemed improved if:

- (i) There will be a reduction in the amount of total suspended solids or other pollutants discharged to ground or surface waters from the permit area as compared to such discharges prior to mining, so as to improve public or private uses or the ecology of such waters, or there will be reduced flood hazards within the watershed containing the permit area by reduction of peak flow discharges from precipitation events or thaws;
 - (ii) The total volume of flows from the proposed permit area, during every season of the year, will not vary in a way that adversely affects the ecology of any surface water or any existing or planned use of surface or ground water; and
 - (iii) The appropriate Ohio environmental agency approves the plan;
- (e) The proposed use is designed and certified by an engineer in conformance with professional standards established to assure the stability, drainage, and configuration necessary for the intended use of the site;
 - (f) The highwall is to be completely backfilled with spoil material, in a manner which results in a static safety factor of at least 1.3, using standard geotechnical analysis;
 - (g) Only the amount of spoil necessary to achieve the postmining land use, ensure the stability of spoil retained on the bench, and meet all other requirements of Chapter 1513. of the Revised Code and rules adopted thereunder is to be placed off the mine bench. All spoil not retained on the bench shall be placed in accordance with rule 1501:13-9-07 of the Administrative Code;
 - (h) Federal, state and local government agencies with an interest in the proposed land use have an adequate period in which to review and comment on the proposed use;
 - (i) The applicant has demonstrated that the owner of the surface of the lands within the permit area has knowingly requested, in writing, as part of the application, that a variance be granted. The request shall be made separately from any surface owner consent given for the operations under paragraph (D) of rule 1501:13-4-03 of the Administrative Code and shall show an understanding that the variance could not be granted without the surface owner's request; and
 - (j) All other requirements of Chapter 1513. of the Revised Code and rules adopted thereunder will be met by the proposed operations.
- (2) If a variance is granted under paragraph (E) of this rule:
- (a) The requirements of paragraph (E) of this rule shall be made a specific condition of the permit; and
 - (b) The permit shall be specifically marked as containing a variance from approximate original contour.
- (3) Any permits incorporating a variance issued under paragraph (E) of this rule shall be reviewed by the chief to evaluate the progress and development of the mining operations and to establish that the operator is proceeding in accordance with the terms of the variance:
- (a) Within the sixth month preceding the third year from the date of its issuance;

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(b) Before each permit renewal; and

(c) Not later than the middle of each permit term.

- (4) If the permittee demonstrates to the chief at any of the times specified in paragraph (E)(3) of this rule that the operations involved have been and continue to be conducted in compliance with the terms and conditions of the permit, the requirements of Chapter 1513. of the Revised Code and division 1501:13 of the Administrative Code, the review required at that time need not be held.
- (5) The terms and conditions of a permit incorporating a variance under paragraph (E) of this rule may be modified at any time by the chief if he or she determines that more stringent measures are necessary to ensure that the operations involved are conducted in compliance with the requirements of Chapter 1513. of the Revised Code and rules adopted thereunder.

(F) Prime farmlands.

- (1) Paragraph (F) of this rule applies to any person who conducts or intends to conduct coal mining and reclamation operations on prime farmlands used for cropland. It does not apply to lands included in any existing coal mining operations for which a permit was issued for all or any part thereof prior to August 3, 1977, provided that:
- (a) Such lands are part of a single continuous coal mining operation begun under a permit issued before August 3, 1977;
- (b) The permittee had a legal right to mine the lands prior to August 3, 1977, through ownership, contract, or lease but not including an option to buy, lease, or contract; and
- (c) The lands contain part of a continuous recoverable coal seam that was being mined in a single continuous mining pit or multiple pits if the lands are proven to be part of a single continuous coal mining operation begun under a permit issued prior to August 3, 1977.
- (d) For purposes of paragraph (F) of this rule:
- (i) A pit shall be deemed to be a single continuous mining pit even if portions of the pit are crossed by a road, pipeline, railroad, or powerline or similar crossing; and
- (ii) A single continuous coal mining operation is presumed to consist only of a single continuous mining pit under a permit issued prior to August 3, 1977, but may include non-contiguous parcels if the operator can prove by clear and convincing evidence that, prior to August 3, 1977, the non-contiguous parcels were part of a single permitted operation. For the purposes of this paragraph, clear and convincing evidence includes, but is not limited to, contracts, leases, deeds, or other properly executed legal documents (not including options) that specifically treat physically separate parcels as one coal mining operation.
- (2) Application contents for prime farmland. If land within the proposed permit area is identified as prime farmland under paragraph (J) of rule 1501:13-4-04 or paragraph (J) of rule 1501:13-4-13 of the Administrative Code, the applicant shall submit a plan for the mining and restoration of the land. Each plan shall contain, at a minimum:

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- (a) A soil survey of the permit area according to the standards of the national cooperative soil survey and in accordance with the procedures set forth in the United States department of agriculture handbooks 436 ("Soil Taxonomy," [second edition, 1975](#)~~1999~~) and 18 ("Soil Survey Manual," [fourth edition, 1951](#)~~2017~~);
- (i) These publications are hereby incorporated by reference~~as they exist on the date of adoption of paragraph (F)(2)(a) of this rule. Notices of changes made to these publications will be periodically published by the office of surface mining in the "Federal Register."~~ Agriculture handbooks 436 ("Soil Taxonomy") and 18 ("Soil Survey Manual") are ~~on file and available for inspection at "The Office of Surface Mining Central Office, United States Department of the Interior, South Interior Building, Washington, D.C. 20240," at each office of surface mining state office and at the central office of the division of mineral resources management~~[available under technical references on the Natural Resources Conservation Service website:
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=stelprdb1247805](#). Copies of these documents are also available from ~~"The Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402," stock number 001-000-02597-0 and stock number 10100-0688-6. In addition, these documents are available for inspection at all offices of the division of mineral resources management~~["NRCS Distribution Center" at
https://nrcspad.sc.egov.usda.gov/DistributionCenter/; e-mail
nrcsdistributioncenter@ia.usda.gov; or call \(888\) 526-3227;](#)
- (ii) The soil survey shall include a description of soil mapping units and a representative soil profile description as determined by the U.S. natural resources conservation service, including, but not limited to, soil-horizon depths, pH, and the range of soil densities for each prime farmland soil unit within the permit area. Other representative soil profile descriptions from the locality, prepared in conjunction with the national cooperative survey, may be used if their use is approved by the state conservationist, U.S. natural resources conservation service;
- (b) The proposed method and type of equipment to be used for removal, storage, and replacement of the soil in accordance with rule 1501:13-13-03 of the Administrative Code;
- (c) The method to be employed in avoiding excessive compaction in the replacement of soil;
- (d) The location of areas to be used for the separate stockpiling of the soil and plans for soil stabilization before redistribution;
- (e) Plans for seeding or cropping the final graded disturbed land and the conservation practices to be used to adequately control erosion and sedimentation and to restore an adequate soil moisture regime, during the period from completion of regrading until release of the performance security as required by Chapter 1513. of the Revised Code and these rules. Proper adjustments for seasons must be proposed so that final graded land is not exposed to erosion during seasons when vegetation or conservation practices cannot be established due to weather conditions;
- (f) Available agricultural school studies or other scientific data for areas with comparable soils, climate, and management (including water management) that demonstrate that the proposed method of

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reclamation will achieve, within a reasonable time, equivalent or higher levels of yield after mining as existed before mining;

(g) A demonstration that the applicant has the technological capability to restore the prime farmland to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area under equivalent levels of management; and

(h) In all cases, soil productivity for prime farmlands shall be returned to equivalent levels of yield as non-mined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed pursuant to paragraph (F)(2)(a) of this rule.

(3) Consultation with the United States secretary of agriculture. Before any permit is issued for areas that include prime farmlands, the chief shall consult with the United States secretary of agriculture. The United States secretary of agriculture shall provide for review of and comment on the proposed method of soil reconstruction in the plan submitted under paragraph (F)(2) of this rule. If the United States secretary of agriculture considers those methods to be inadequate, he or she shall suggest revisions resulting in more complete and adequate reconstruction. The United States secretary of agriculture has assigned his or her responsibilities under this rule to the administrator of the United States natural resources conservation service. The natural resources conservation service shall carry out consultation and review through the conservationist for the state of Ohio.

(4) Issuance of permit. A permit for the mining and reclamation of prime farmland may be granted by the chief, if he or she first finds, in writing, upon the basis of a complete application, that:

(a) The approved proposed post-mining land use of these prime farmlands will be cropland;

(b) The permit incorporates as specific conditions the contents of the plan submitted under paragraph (F)(2) of this rule, after consideration of any revisions to that plan suggested by the secretary of agriculture under paragraph (F)(3) of this rule;

(c) The applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area under equivalent levels of management;

(d) The proposed operations will be conducted in compliance with all of the requirements of rule 1501:13-13-03 of the Administrative Code and other environmental performance and reclamation standards for mining and reclamation of prime farmland; and

(e) The aggregate total prime farmland acreage will not be decreased from that which existed prior to mining. Permanent water bodies, if any, to be constructed during mining and reclamation operations will be located within the post-reclamation non-prime farmland portions of the permit area.

If the prime farmland acreage is to be restored in a location other than the premining location, the relocation must be approved by the chief and the permittee must obtain the consent of all affected surface owners.

(G) Variances for delay in contemporaneous reclamation requirement in combined surface and underground mining operations.

(1) Scope. Any person who conducts or intends to conduct combined surface mining and underground coal

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mining operations, where contemporaneous reclamation as required by rule 1501:13-9-13 of the Administrative Code is not practicable and a delay is requested to allow underground mining operations to be conducted before the reclamation operation for the surface mining operations can be completed, shall meet the requirements of paragraph (G) of this rule.

- (2) The chief may allow the delay in reclaiming where the delay will allow underground mining operations to be conducted to ensure both maximum practical recovery of coal resources and to avoid multiple future disturbances of surface lands or waters.
- (3) Application contents for variances. Any person who desires to obtain a variance under paragraph (G) of this rule shall file with the chief complete applications for both the surface mining and underground mining operations which are to be combined. The mining and reclamation operation plans for these permits shall contain appropriate narratives, maps and plans, which:
 - (a) Show why the proposed underground mining operations are necessary or desirable to assure maximum practical recovery of coal;
 - (b) Show how the multiple future disturbances of surface lands or waters will be avoided;
 - (c) Identify the specific surface areas for which a variance is sought and the particular provisions of Chapter 1513. of the Revised Code and these rules from which a variance is being sought;
 - (d) Show how the operations will comply with rule 1501:13-9-08 of the Administrative Code;
 - (e) Show why the variance sought is necessary for the implementation of the proposed underground mining operations;
 - (f) Provide an assessment of the adverse environmental consequences and damages, if any, that will result if the reclamation of coal mining operations is delayed; and
 - (g) Show how off-site storage of spoil will be conducted to comply with the applicable requirements of rule 1501:13-9-07 of the Administrative Code.
- (4) Issuance of permit. A permit incorporating a variance under paragraph (G) of this rule may be issued by the chief if he or she first finds, in writing, upon the basis of a complete application filed in accordance with paragraph (G) of this rule, that:
 - (a) The applicant has presented, as part of the permit application, specific, feasible plans for the proposed underground mining operations;
 - (b) The proposed underground mining operations are necessary or desirable to assure maximum practical recovery of the mineral resource and will avoid multiple future disturbances of surface land or waters;
 - (c) The applicant has satisfactorily demonstrated that the applications for the surface mining and underground mining operations conform to the requirements of Chapter 1513. of the Revised Code and division 1501:13 of the Administrative Code, and that all other permits necessary for the underground mining operations have been issued by the appropriate authority;
 - (d) The surface area of the surface mining operations proposed for the variance has been shown by the

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applicant to be necessary for implementing the proposed underground mining operations;

- (e) No substantial adverse environmental damage, either off-site or on-site, will result from the delay in completion of reclamation otherwise required by division (A)(15) of section 1513.16 of the Revised Code and Chapters 1501:13-9 to 1501:13-11 of the Administrative Code;
- (f) The operations will, insofar as a variance is authorized, be conducted in compliance with the requirements of Chapter 1513. of the Revised Code and rule 1501:13-9-08 of the Administrative Code;
- (g) Provisions for the placement of excess spoil will comply with the requirements of division (A)(21) of section 1513.16 of the Revised Code and rule 1501:13-9-07 of the Administrative Code;
- (h) Liability under the performance security required to be filed by the applicant with the chief pursuant to Chapter 1513. of the Revised Code and these rules shall be for the duration of the underground mining operations and until all requirements of Chapter 1513. of the Revised Code and rules adopted thereunder have been complied with; and
- (i) The permit for the surface mining operations contains specific conditions:
 - (i) Delineating the particular surface areas for which a variance is authorized; and
 - (ii) Providing a detailed schedule for compliance with the particular requirements of this rule.

- (5) Review of permits containing variances. Variances granted under permits issued under paragraph (G) of this rule shall be reviewed by the chief no later than three years from the dates of issuance of the permit and any permit renewals.

(H) Augering.

- (1) Paragraph (H) of this rule applies to any person who conducts or intends to conduct coal mining and reclamation operations utilizing augering operations.
- (2) Any application for a permit for operations covered by paragraph (H) of this rule shall contain, in the mining and reclamation plan, a description of the augering methods to be used and the measures to be used to comply with the provisions of rule 1501:13-13-02 of the Administrative Code.
- (3) No permit shall be issued for any operations covered by paragraph (H) of this rule unless the chief finds, in writing, that in addition to meeting all other applicable requirements of this rule, the operation will be conducted in compliance with rule 1501:13-13-02 of the Administrative Code.

(I) Coal preparation plants or support facilities not located within the permit area of a specified mine.

- (1) Paragraph (I) of this rule applies to any person who operates or intends to operate a coal preparation plant or support facility outside the permit area of any mine, other than such plants or facilities which are located at the site of ultimate coal use. Any person who operates such a preparation plant or support facility shall have obtained a permit from the chief in accordance with the requirements of paragraph (I) of this rule.
- (2) Any application for a permit for operations covered by paragraph (I) of this rule shall contain in the

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mining and reclamation plan, specific plans, including descriptions, maps and cross sections of the construction, operation, maintenance and removal of the preparation plants and support facilities. The plan shall demonstrate that those operations will be conducted in compliance with rule 1501:13-13-06 of the Administrative Code. Each application shall contain the information required under Chapter 1501:13-4 of the Administrative Code for the proposed permit area in sufficient detail for the chief to determine the estimated cost of reclamation, pursuant to paragraph (B) of rule 1501:13-7-01 of the Administrative Code, if the reclamation has to be performed by the division of mineral resources management in the event of forfeiture of the performance security by the permittee. This estimate shall include:

- (a) Operational detail sufficient to determine the greatest potential reclamation cost liability to the state; and
- (b) Any other operational detail required by the chief that may affect the cost of reclamation by the division of mineral resources management in the event of forfeiture of the performance security by the permittee.

(3) No permit shall be issued for any operation covered by paragraph (I) of this rule, unless the chief finds, in writing, that, in addition to meeting all other applicable requirements of Chapter 1501:13-4 of the Administrative Code, the operations will be conducted in compliance with the requirements of rule 1501:13-13-06 of the Administrative Code.

(J) In situ processing activities.

(1) Paragraph (J) of this rule applies to any person who conducts or intends to conduct coal mining and reclamation operations utilizing in situ processing activities.

(2) Any application for a permit for operations covered by paragraph (J) of this rule shall be made according to all requirements of these rules applicable to underground mining operations. In addition, the mining and reclamation operations plan for operations involving in situ processing activities shall contain information establishing that those operations will be conducted in compliance with the applicable requirements of rule 1501:13-13-07 of the Administrative Code, including:

- (a) Delineation of proposed holes and wells and production zone for approval of the chief;
- (b) Specifications of drill holes and casings proposed to be used;
- (c) A plan for treatment, confinement or disposal of all acid-forming, toxic-forming or radioactive gases, solids or liquids constituting a fire, health, safety, or environmental hazard caused by the mining and recovery process; and
- (d) Plans for monitoring surface and ground water and air quality, as required by the chief.

(3) No permit shall be issued for operations covered by paragraph (J) of this rule unless the chief first finds, in writing, upon the basis of a complete application made in accordance with paragraph (I)(2) of this rule, that the operation will be conducted in compliance with all requirements of Chapter 1501:13-4 of the Administrative Code relating to underground mining operations and the requirements of Chapters 1501:13-9 to 1501:13-12 and rule 1501:13-13-07 of the Administrative Code.

(K) Permits incorporating variances from approximate original contour restoration requirements for remining

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operations on previously mined areas. The chief may issue a permit for remining operations on previously mined lands which includes a variance from the requirements of rule 1501:13-9-14 of the Administrative Code requiring elimination of highwalls, provided requirements of paragraph (K) of this rule are met.

- (1) The operator of the remining operation shall demonstrate in writing to the chief that the volume of all reasonably available spoil is insufficient to completely backfill the reaffected or enlarged highwall.
 - (2) If the operator makes the proper demonstration to the chief under paragraph (K)(1) of this rule and the chief issues a permit with a variance for previously mined areas, the remining operation shall be conducted in accordance with the requirements of paragraph (L)(3) of rule 1501:13-9-14 of the Administrative Code.
- (L) Lands eligible for remining. Paragraph (L) of this rule applies to any person who proposes to conduct coal mining and reclamation operations on areas eligible for remining. The requirements of this paragraph shall apply until September 30, 2004, or any later date authorized by federal law. The application for a permit containing areas proposed to be remined must include the following:
- (1) A description of the proposed lands eligible for remining and a demonstration, to the satisfaction of the chief, how such lands meet the eligibility requirements specified by section 1513.37 of the Revised Code.
 - (2) Identification, to the extent not otherwise addressed in the permit application, of any potential environmental and safety problems related to the prior mining activity at the site which could be reasonably anticipated to occur. This identification shall be based on a due diligence investigation which shall include visual observations at the site, a record review of past mining at the site, and environmental sampling tailored to current site conditions.
 - (3) A description, with regard to potential environmental and safety problems identified in paragraph (L)(2) of this rule, of the mitigative measures that will be taken to ensure that the applicable reclamation requirements of Chapter 1513. of the Revised Code and rules adopted thereunder can be met.

Draft Rule 1501:13-4-13, dated 8/31/2020.

This is a summary of the changes made to this rule.

(C)(2)(f) and (H)(2). Amended so language is consistent with the other coal rules: the term “these rules” is used throughout the coal rules. It is defined in rule 1501:13-1-02:

"Rules promulgated thereunder," "rules adopted thereunder," or "these rules" means all rules contained in Chapters 1501:13-1 to 1501:13-14 of the Administrative Code.

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Dated 8/31/2020 Clarification in two places, pages 3 and 9.

1501:13-4-13 Underground mining permit application requirements for information on environmental resources.

(A) General requirements.

(1) This rule applies only to underground mining operations.

(2)

(a) Each application shall describe and identify the nature of cultural, historic and archeological resources listed or eligible for listing on the "National Register of Historic Places," administered by the national parks service, U.S. department of the interior, and known archeological sites within the proposed permit and adjacent areas. The description shall be based on all available information, including, but not limited to, information from the state historic preservation officer and from local archeological, historical, and cultural preservation agencies. The website for the "National Register of Historic Places" for Ohio sites is <http://www.nationalregisterofhistoricplaces.com/oh/state.html>.

(b) The chief may require the applicant to identify and evaluate important historical and archeological resources that may be eligible for listing on the "National Register of Historic Places," as referenced in paragraph (A)(2)(a) of this rule, through:

(i) Collection of additional information;

(ii) Conduct of field investigations; or

(iii) Other appropriate analyses.

(3) Each application shall describe and identify the lands subject to coal mining operations over the estimated life of those operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought.

(B) Description of hydrology and geology: general requirements.

Each application shall contain a description of surface and ground water within the permit area, adjacent area, and general area, and any water which will flow into or receive discharges of water from the permit and adjacent area. The description shall be prepared in the manner required by paragraphs (B) to (G) of this rule and conform to the following:

(1) Information on hydrology, water quality and quantity, and geology related to hydrology of areas outside the proposed permit area and within the adjacent area shall be provided by the chief, to the extent that this data is available from an appropriate federal or state agency.

(2) If this information is not available from those agencies, the applicant may gather and submit this information to the chief as part of the permit application.

(3) The permit shall not be approved by the chief until this information is made available in the application.

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(C) Geology description.

(1) Each application shall include geologic information in sufficient detail to assist in:

- (a) Determining the probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary.
- (b) Determining all potentially acid- or toxic-forming strata down to and including the stratum immediately below the lowest coal seam to be mined;
- (c) Determining whether reclamation as required by these rules can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area; and
- (d) Preparing the subsidence control plan required under paragraph (M) of rule 1501:13-4-14 of the Administrative Code.

(2)

- (a) The description shall include a general statement of the geology within the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely affected by mining. It shall also include the areal and structural geology of the permit and adjacent areas, and the other parameters which influence the required reclamation, and shall show how the areal and structural geology may affect the occurrence, availability, movement, quantity, and quality of potentially affected surface and ground waters. It shall also be based on:
 - (i) The cross sections, maps and plans required by paragraph (B) of rule 1501:13-4-08 of the Administrative Code and paragraph (B) of rule 1501:13-4-08.1 of the Administrative Code;
 - (ii) The information obtained under paragraphs (C)(2)(c) to (C)(2)(f) of this rule; and
 - (iii) Geologic literature and practices.
- (b) The geology for all areas proposed to be affected by underground mining surface operations, those surface lands overlying coal to be mined, and the coal to be mined shall be separately described.

Geology of all the strata to be affected by underground mining operations shall be described. The description shall include, at a minimum, the lithologic characteristics and physical and chemical properties of each stratum.
- (c) For those areas to be affected by underground mining surface operations where removal of the overburden down to the level of the coal seam will occur, the geology of the strata down to and including the deeper of either the stratum immediately below any coal seam to be mined, or any aquifer below the lowest coal seam to be mined which may be adversely affected by mining shall be described. This description shall include the following data resulting from analyses of test borings or core samplings down to and including the stratum immediately below any coal seam to be mined:
 - (i) The location of areas where subsurface water will be exposed at the face-up area;

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- (ii) The logs of drill holes showing the lithologic characteristics of the strata to be affected;
 - (iii) The physical properties of each stratum within the overburden;
 - (iv) Chemical analyses of each stratum to be affected, including the stratum immediately below the lowest coal seam to be mined, to identify, at a minimum, those horizons which contain potential acid-forming, toxic-forming, or alkalinity-producing materials; and
 - (v) Analyses of the coal seam for acid- or toxic-forming materials, including, but not limited to, an analysis of the total sulfur and the sulfur present in pyrite, except that the chief may find that the analysis of sulfur present in pyrite is unnecessary.
- (d) For lands within the permit and adjacent areas where the strata above the coal seam to be mined will not be removed, samples shall be collected and analyzed from test borings or drill cores to provide the following data:
- (i) Logs of drill holes showing the lithologic characteristics, including physical properties and thickness of each stratum that may be affected and location of ground water where occurring;
 - (ii) Chemical analyses for acid- or toxic-forming or alkalinity-producing materials and their content in the strata immediately above and below the coal seam to be mined;
 - (iii) Chemical analyses of the coal seam for acid- or toxic-forming materials, including but not limited to an analysis of the total sulfur and the sulfur present in pyrite, except that the chief may find that the analysis of pyritic sulfur content is unnecessary; and
 - (iv) For standard room and pillar mining operations, the thickness and engineering properties of clays or soft rock such as clay shale, if any, in the stratum immediately above and below each coal seam to be mined.
- (e) Each application shall contain the results from test holes bored or drilled on lands above the underground workings:
- (i) At a minimum of three points, not in a straight line, spaced so as to indicate the strike and dip of the coal seam; and
 - (ii) At a minimum of one test hole per one hundred sixty acres.
- (f) Additional test hole data or test holes may be required by the chief at specific sites when necessary to describe localized conditions or variations in geology which may affect the ability of the underground coal mining operation to be conducted in accordance with ~~division 1501:13 of the Administrative Code~~[these rules](#).
- (g) If more precise information than can be provided by drilling techniques is warranted by potentially adverse site conditions, the chief may require that the test hole information required in paragraph (C) of this rule be obtained by core drilling.
- (3) Prior to submission of an application, an applicant may request that the requirements of paragraphs (C)(2)(c) to (C)(2)(e) of this rule be waived by the chief. The waiver may be granted only if the chief makes a written determination that the statement required is unnecessary because other equivalent

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information is accessible to him or her in a satisfactory form. If the chief grants a waiver, the waiver shall be submitted with the permit application.

(D) Ground water information.

- (1) The application shall contain a description of the ground-water hydrology for the proposed permit and adjacent areas and the area above the underground workings, including, at a minimum:
 - (a) The depth below the surface and the horizontal extent of the water table and aquifers;
 - (b) The lithology and thickness of the aquifers;
 - (c) Known uses of the water in the aquifers and water table;
 - (d) The quality of subsurface water, if encountered;
 - (e) The depth to the water in the coal seam if the seam is a water-bearing stratum, and each water-bearing stratum above and potentially affected water-bearing stratum below the coal seam; and
 - (f) Additional information which describes the recharge and storage characteristics of aquifers, the approximate rate of discharge or usage, and the quality and quantity of ground water.
- (2) The application shall contain a water supply inventory to include, at a minimum:
 - (a) A list of existing water wells on the proposed permit and adjacent areas to describe the quality and quantity of the ground water to include:
 - (i) The identification number of each well;
 - (ii) Surface elevation of the well;
 - (iii) Depth of the well in feet below the land surface;
 - (iv) Static water level of the well in feet below the land surface;
 - (v) The lithology of the aquifer in which each well is developed; and
 - (vi) Name of owner of the well;
 - (b) A list of existing springs on the proposed permit area and existing developed springs on the adjacent area to include:
 - (i) The identification number of each spring;
 - (ii) Name of owner of any spring that is developed for use as a water supply;
 - (iii) The surface elevation of the spring; and
 - (iv) The aquifer each spring flows from; and
 - (c) A list of the location and type of any public water supply sources on the permit and adjacent areas.

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- (3) Where information required in the water supply inventory of paragraph (D)(2) of this rule is unobtainable, a statement to that effect shall be made, giving the reasons therefor.
- (4) The application shall contain the results of water quality analyses and measurements of static water level or discharge, conducted on at least ten (or all if less than ten) of the wells and springs identified in paragraphs (D)(2)(a) and (D)(2)(b) of this rule or twenty-five per cent of such wells and springs, whichever number is greater.
 - (a) Wells and springs chosen for analysis and measurement shall, as a group, represent all known aquifers present in the permit and adjacent areas.
 - (b) Sampling for water quality analysis shall be conducted at a minimum one time prior to submission of an application for a permit.
 - (c) The measurement of the static water level or discharge shall be conducted for each well and spring identified in paragraph (D)(4) of this rule at a minimum one time prior to submission of an application for a permit.
 - (d) Water samples collected at the sites prescribed in this paragraph shall be analyzed for the following parameters according to the methodology specified in 40 C.F.R. parts 136 and 434:
 - (i) pH in standard units;
 - (ii) Total acidity in milligrams per liter of CaCO_3 ;
 - (iii) Total alkalinity in milligrams per liter of CaCO_3 ;
 - (iv) Total manganese in milligrams per liter;
 - (v) Total iron in milligrams per liter;
 - (vi) Total hardness in milligrams per liter of CaCO_3 ;
 - (vii) Total dissolved solids or specific conductance corrected to twenty-five degrees centigrade;
 - (viii) Total aluminum in milligrams per liter;
 - (ix) Total sulfates in milligrams per liter; and
 - (x) Other such information as the chief determines relevant.
 - (e) The results of water quality analyses and measurements required in paragraph (D) of this rule shall be reported on a form to be provided by the chief.
- (5) Water quality and quantity data sufficient to identify seasonal variations pursuant to paragraph (D)(6) or (D)(7) of this rule shall be submitted with an application for a permit.
- (6) Identifying seasonal variations for ground water and surface water. For each application, the applicant shall submit three water samples from each required sampling site designated pursuant to paragraphs (D)(4) and (E)(1) of this rule. One sample shall be from the low flow period, one sample from the high flow period, and one sample from either of the intermediate flow periods, as established in the following

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table:

Flow Periods and Duration of Flow Periods

Low Flow	August 16 to October 31
Transition Flow	November 1 to November 15
Intermediate Flow	November 16 to January 31
Transition Flow	February 1 to February 14
High Flow	February 15 to April 30
Transition Flow	May 1 to May 15
Intermediate Flow	May 16 to July 31
Transition Flow	August 1 to August 15

- (a) For samples submitted to meet the seasonal variations requirements, the period between consecutive samples shall be at least thirty days, but not more than eighteen months, and no sample shall be collected more than thirty-six months before the date of submission of the application to the chief. A sample that exceeds the eighteen month or thirty-six month time limit of this paragraph may be acceptable if the applicant submits the following information with the sample:
- (i) The date and sampling site of the sample; and
 - (ii) A description of all land disturbance activities that existed at the time of the sample date or that have occurred since the sample date within the local watershed that could affect the quality and quantity of the surface water or ground water. The description shall include, but is not limited to, land disturbances such as mining operations, highway construction, cut and fill operations, building construction, and dam construction or demolition.
 - (iii) A sample that exceeds the eighteen month or thirty-six month time limit is acceptable only if the chief determines that it is still representative of the quality and quantity of the surface water or ground water at the time of submission of the application.
- (b) The applicant is not required to collect samples from consecutive flow periods.
- (c) The applicant may record a low flow sample as "no flow" if the applicant documents that the applicant made at least two attempts, at least thirty days apart, to collect a flow at that site during the low flow period.
- (d) Transition flow periods. A sample obtained during a transition flow period may be used for either the preceding or succeeding flow period if the following conditions are met:
- (i) The applicant submits documentation showing that the sample from the transition period accurately reflects the flow period for which the sample is submitted and the chief agrees with this assessment;
 - (ii) The sample obtained during a transition period is not used for both the preceding and succeeding flow periods;

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- (iii) At least one of the three required samples is obtained during a flow period other than a transition period; and
 - (iv) The applicant submits precipitation data for the local watershed for the thirty days prior to the sample date.
- (e) Substitute sampling site for one sample. The applicant may request, in writing, that a sample obtained from a site other than a designated sampling site be substituted for one of the three designated site samples. A sample from a substitute site shall not be used as the earliest of the three samples from a designated sampling site. The chief shall review this request and determine whether the substitute sampling site and the data collected from the site are acceptable. In making the request, the applicant shall:
- (i) Describe how the substitute sampling site adequately represents the original sampling site;
 - (ii) Demonstrate that the substitute sampling site is located in the same aquifer as the original sampling site;
 - (iii) Demonstrate that the geology of the groundwater recharge area of the substitute site, as well as the surface disturbance of the recharge area of the substitute site, are similar to that of the original site;
 - (iv) Demonstrate that the substitute sampling site represents and performs the same function as the original site;
 - (v) Demonstrate that the analysis of the water quality and quantity data from the substitute site accurately represents the quality and quantity of the water at the original site and explain any anomalies in water quality or quantity at the substitute site;
 - (vi) Demonstrate that the flow obtained at the substitute site was obtained during the flow period missed at the original site;
 - (vii) Include precipitation data for the thirty days prior to the sample date at the substitute site;
 - (viii) Provide a description of the location of the substitute sampling site relative to the original sampling location. The description shall include bearing and distance measurements from the original sampling location to the substitute sampling location; and
 - (ix) Submit additional information if required by the chief to support the use of a substitute sample.
- (f) The applicant may submit additional samples and other data related to seasonal variations beyond that submitted to meet the minimum requirements of paragraph (D)(6) of this rule.
- (7) Water quality and quantity data collected and described other than as required by paragraph (D)(6) of this rule may be submitted to identify seasonal variations in ground water and surface water, provided the chief determines that the alternative data are sufficient to identify seasonal variations needed for the hydrologic assessments required by Chapter 1513. of the Revised Code and the rules adopted thereunder.

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(E) Surface-water information.

- (1) Within the proposed permit and adjacent areas, all surface-water bodies such as streams, lakes and impoundments and all discharges from the permit area into surface-water bodies shall be described and sampled for analysis under paragraph (E) of this rule. The description shall include the name of any watershed that will receive water discharges, the name, ownership and location of all surface-water bodies and the known uses of the water in these water bodies.
 - (2) Water samples collected under paragraph (E) of this rule shall be analyzed according to the methodology specified in 40 C.F.R. parts 136 and 434. Surface-water information shall include:
 - (a) Minimum, maximum, and average discharge conditions, which identify critical low flows and peak discharge rates of streams; and
 - (b) The following water quality data to identify the characteristics of surface waters within the proposed permit and adjacent areas:
 - (i) Total suspended solids in milligrams per liter;
 - (ii) Total acidity in milligrams per liter of CaCO_3 ;
 - (iii) Total alkalinity in milligrams per liter of CaCO_3 ;
 - (iv) pH in standard units;
 - (v) Total iron in milligrams per liter;
 - (vi) Total manganese in milligrams per liter;
 - (vii) Total dissolved solids or specific conductance corrected to twenty-five degrees centigrade;
 - (viii) Total aluminum in milligrams per liter;
 - (ix) Total sulfates in milligrams per liter; and
 - (x) Other such information as the chief determines relevant.
 - (3) Water quality and quantity data sufficient to identify seasonal variations pursuant to paragraph (D)(6) or (D)(7) of this rule shall be submitted with an application for a permit.
 - (4) The results of water quality analyses and measurements prescribed in paragraph (E) of this rule shall be reported on a form to be provided by the chief.
- (F) Alternative water supply information. The application shall identify the extent to which the proposed underground mining operations, including subsidence impacts, may proximately result in contamination, diminution, or interruption of an underground or surface source of water that is for domestic, agricultural, industrial, or other legitimate use. If contamination, diminution, or interruption may result, then the description shall contain information on water availability and alternative sources of water, including the suitability of alternative water sources for existing premining uses and approved postmining land uses.

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(G) Supplemental information. If the determination of the probable hydrologic consequences required by paragraph (E)(2) of rule 1501:13-4-14 of the Administrative Code indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then information supplemental to that required under paragraphs (D) and (E) of this rule shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analyses of other water quality or quantity characteristics.

(H) Climatological information.

(1) If required by the chief, the application shall contain a statement of the climatological factors that are representative of the proposed permit and adjacent areas, including:

- (a) The average seasonal precipitation;
- (b) The average direction and velocity of prevailing winds; and
- (c) Seasonal temperature ranges.

(2) The chief may request such additional data as deemed necessary to ensure compliance with the requirements of ~~division 1501:13 of the Administrative Code~~[these rules](#).

(I) Land-use information.

(1) The application shall contain a statement of the condition, capability, and productivity of the land within the proposed permit area, including:

- (a) A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within five years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described.
- (b) A narrative of the land capability and productivity, which analyzes the land use described under paragraph (I)(1)(a) of this rule in conjunction with other environmental resources information required under these rules. The narrative shall provide analyses of:
 - (i) The capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the area proposed to be affected by underground mining surface operations or facilities; and
 - (ii) The productivity of the area proposed to be affected by underground mining surface operations or facilities before mining, including appropriate classification as prime farmlands, as well as the average yield of food, fiber, forage or wood products from the land obtained under high levels of management. The productivity shall be determined by yield data or estimates for similar sites based on current data from the United States department of agriculture, state agricultural universities, or appropriate state natural resources or agricultural agencies.

(2) The application shall state whether the proposed permit area has been previously mined, and if so, the following information, if available:

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- (a) The type of mining method used;
- (b) The coal seams or other mineral strata mined;
- (c) The extent of coal or other minerals removed;
- (d) The approximate dates of past mining; and
- (e) The uses of the land preceding mining.

(3) The application shall contain a description of the existing land uses and land-use classifications under local law, if any, of the proposed permit and adjacent areas.

(J) Prime farmland investigation.

- (1) The applicant shall conduct a pre-application investigation of the area proposed to be affected by surface operations or facilities to determine whether lands within the area may be prime farmland. The chief, in consultation with the U.S. natural resources conservation service, shall determine the nature and extent of this investigation.
- (2) Land shall not be considered prime farmland if the applicant can demonstrate that:
 - (a) The land has not been historically used for cropland; or
 - (b) On the basis of a soil survey of lands within the permit area, there are no soil map units that have been designated prime farmland by the U.S. natural resources conservation service.
- (3) If the investigation establishes that the lands are not prime farmland, the applicant shall submit with the permit application a request for a negative determination which shows that the land for which the negative determination is sought meets one of the criteria of paragraph (J)(2) of this rule.
- (4) If the investigation indicates that lands within the area proposed to be affected by surface operations and facilities may be prime farmlands, the applicant shall contact the U.S. natural resources conservation service to determine if a soil survey exists for those lands and whether the applicable soil map units have been designated as prime farmlands. If no soil survey has been made for these lands, the applicant shall cause a survey to be made that is of the detail of a second order soil survey used by the U.S. natural resources conservation service for operational conservation planning. This survey shall be used to identify and locate prime farmland soils.
 - (a) When a soil survey made pursuant to paragraph (J)(4) of this rule indicates that the land contains soil map units which have been designated as prime farmlands, the applicant shall submit an application, in accordance with the requirements of paragraph (F) of rule 1501:13-4-12 of the Administrative Code, for such designated land.
 - (b) When a soil survey made pursuant to paragraph (J)(4) of this rule indicates that the land contains soil map units which have not been designated as prime farmland after review by the U.S. natural resources conservation service, the applicant shall submit a request for negative determination for non-designated land with the permit application establishing compliance with paragraph (J)(2) of this rule.

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(K) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

Draft Rule 1501:13-4-14, dated 2/19/2020.

This is a summary of the changes made to this rule.

(H)(1)(b), (H)(6), and (H)(7). Amendments to update a technical report that is incorporated by reference in the rule, including:

- The report's publisher is now called the Natural Resources Conservation Service.
- The technical release document number and date of publication have changed.
- Class B and Class C dams are now called significant hazard potential and high hazard potential dams.
- The title of a table referred to in the rule has changed.
- Information on where the report is available on the internet needs to be updated.

(R)(2)(a)(ii). Comma added.

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Dated 2/19/2020. See updates in (H)(1)(b), (H)(6), and (H)(7) – pages 7 and 10.

1501:13-4-14 Underground mining permit application requirements for reclamation and operations plans.

(A) Operation plan: general requirements.

- (1) This rule shall apply only to underground mining operations.
- (2) Each application shall contain a description of the mining operations proposed to be conducted during the life of the mine including:
 - (a) A narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used for all aspects of those operations; and
 - (b) A narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facilities is necessary for postmining land use as specified in rule 1501:13-9-17 of the Administrative Code and is approved by the chief):
 - (i) Dams, embankments, and other impoundments;
 - (ii) Overburden and topsoil handling and storage areas and structures;
 - (iii) Coal removal, handling, storage, cleaning, and transportation areas and structures;
 - (iv) Spoil, coal processing, waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures;
 - (v) Mine facilities; and
 - (vi) Water and air pollution control facilities.
- (3) Each application shall contain the information required under Chapter 1501:13-4 of the Administrative Code for the proposed permit area in the detail necessary for the chief to determine the estimated cost of reclamation, pursuant to paragraph (B) of rule 1501:13-7-01 of the Administrative Code, if the reclamation has to be performed by the division of mineral resources management in the event of forfeiture of the performance security by the permittee. This estimate shall include:
 - (a) Operational detail sufficient to determine the greatest potential reclamation cost liability to the state; and
 - (b) Any other operational detail required by the chief that may affect the cost of reclamation by the division of mineral resources management in the event of forfeiture of the performance security by the permittee.

(B) Operation plan: existing structures.

- (1) Each application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the coal mining and reclamation operation. The description shall include:

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- (a) Location;
 - (b) Plans of the structure which describe its current condition;
 - (c) Approximate dates on which construction of the existing structure was begun and completed; and
 - (d) A showing, including relevant monitoring data or other evidence, of whether the structure meets the performance standards of rules 1501:13-8-01 to 1501:13-13-07 of the Administrative Code.
- (2) Each application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the coal mining and reclamation operation. The compliance plan shall include:
- (a) Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of rules 1501:13-8-01 to 1501:13-13-07 of the Administrative Code;
 - (b) A construction schedule which shows dates for beginning and completing interim steps and final reconstruction;
 - (c) Provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of rules 1501:13-8-01 to 1501:13-13-07 of the Administrative Code are met; and
 - (d) A showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.
- (C) Operation plan: blasting. If surface blasting incident to the underground mine operation is to be conducted, the application shall contain a blasting plan for the proposed permit area, explaining how the applicant intends to comply with the blasting requirements of rule 1501:13-9-06 of the Administrative Code and including the following:
- (1) Information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the bases for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations;
 - (2) Description of any system to be used to monitor compliance with the airblast and ground vibration limits established under paragraph (C)(1) of this rule, including the type, capability, and sensitivity of any blast-monitoring equipment and proposed procedures and locations of monitoring; and
 - (3) For blasting operations within five hundred feet of active underground mines, copies of the approvals given by the state and federal authorities concerned with the health and safety of underground miners.
- (D) Reclamation plan: general requirements.
- (1) Each application shall contain a plan for describing reclamation of the lands within the proposed permit area, showing how the applicant will comply with the requirements of Chapter 1513. of the Revised Code and rules adopted thereunder. The plan shall include, at a minimum, all information required under paragraphs (D) to (R) of this rule.

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- (2) Each plan shall contain, where appropriate, the following information for the proposed permit area:
- (a) A detailed timetable for the completion of each major step in the reclamation plan;
 - (b) A plan for the backfilling, soil stabilization, compacting, and grading, with contour maps or cross sections that show the anticipated final surface configuration of the proposed permit area, in accordance with rule 1501:13-9-14 of the Administrative Code;
 - (c) A description of the removal, storage, and redistribution of the topsoil, subsoil, and other material to meet the requirements of rule 1501:13-9-03 of the Administrative Code. A demonstration of the suitability of topsoil substitutes or supplements under rule 1501:13-9-03 of the Administrative Code shall be based upon analysis of the thickness of soil horizons, total depth, texture, per cent coarse fragments, pH, and areal extent of the different kinds of soils. The chief may require other chemical and physical analyses, field-site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil substitutes or supplements;
 - (d) A description of the revegetation as required in rule 1501:13-9-15 of the Administrative Code, including, but not limited to, descriptions of the:
 - (i) Schedule of revegetation;
 - (ii) Species and amounts per acre of seeds and seedlings to be used;
 - (iii) Methods to be used in planting and seeding;
 - (iv) Mulching techniques;
 - (v) A soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation;
 - (vi) Irrigation, if appropriate, and disease, pest and vermin control, if any; and
 - (vii) The measures proposed to be used to determine the success of revegetation as required under rule 1501:13-9-15 of the Administrative Code;
 - (e) A description of the measures to be used to maximize the use and conservation of the coal resources as required by rule 1501:13-9-05 of the Administrative Code;
 - (f) A description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials and materials constituting a fire hazard are disposed of in accordance with paragraph (E) of rule 1501:13-9-09 and paragraph (J) of rule 1501:13-9-14 of the Administrative Code and a description of the contingency plans which have been developed to preclude sustained combustion of such materials;
 - (g) A description, including appropriate cross sections and maps, of the measures to be used to seal or manage mine openings and to plug, case or manage exploration holes, other bore holes, wells, and other openings within the proposed permit area, in accordance with rule 1501:13-9-02 of the Administrative Code; and

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- (h) A description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. 7401 et seq.), the Clean Water Act (33 U.S.C. 1251 et seq.) and other applicable air and water quality laws and regulations and health and safety standards.

(E) Reclamation plan: protection of hydrologic balance.

- (1) Each application shall contain a plan for the protection of the hydrologic balance. The plan shall be specific to the local hydrologic conditions and shall describe the measures to be taken during and after the proposed underground mining operations in accordance with rule 1501:13-9-04 of the Administrative Code to:
 - (a) Minimize disturbance to the hydrologic balance within the permit and adjacent areas and to prevent material damage outside the permit area;
 - (b) Protect the rights of present users of surface and ground waters within the permit area and adjacent areas;
 - (c) Avoid acid or toxic drainage;
 - (d) Control surface-water drainage into, through, and out of the proposed permit area, pursuant to rule 1501:13-9-04 of the Administrative Code;
 - (e) Treat, when required under these rules, surface- and ground-water drainage from the area to be disturbed by the proposed underground mining surface operations, so as not to exceed quantitative limits on pollutants in discharges under paragraph (B) of rule 1501:13-9-04 of the Administrative Code;
 - (f) Prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area. Vegetation may be determined by the chief to be the best technology currently available upon a demonstration by the permittee that the requirements of paragraphs (B)(1) to (B)(1)(b) of rule 1501:13-9-04 of the Administrative Code have been met. If the applicant proposes to make such a demonstration after vegetation is established and remove siltation structures sooner than two years after the last augmented seeding of a drainage area, the applicant shall state such intentions in the timetable and plans for removal of sediment control structures required by paragraph (H)(1)(b)(iv) or (H)(1)(c)(iv) of this rule;
 - (g) Address any potential adverse hydrologic consequences identified in the determination of probable hydrologic consequences under paragraph (E)(2) of this rule and include preventative and remedial measures; and
 - (h) Meet applicable federal and state water quality laws and regulations.
- (2) Determination of probable hydrologic consequences (PHC).
 - (a) The plan shall include a determination of the probable hydrologic consequences of the proposed underground mining operations on the proposed permit area and adjacent areas. This determination shall be based on baseline hydrologic, geologic and other information collected for the permit application with respect to the hydrologic regime, providing information on the quantity and quality of water in surface- and ground-water systems under seasonal conditions, including the contents of dissolved and total suspended solids, total iron, pH, and total manganese.

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(b) The PHC determination shall include findings on:

- (i) Whether adverse impacts may occur to the hydrologic balance;
- (ii) Whether acid-forming or toxic-forming materials are present that could result in the contamination of surface- or ground-water supplies;
- (iii) Whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial, or other legitimate purpose; and

(iv) What impact the proposed operation will have on:

- (a) Sediment yield from the disturbed area;
- (b) Acidity, total suspended and dissolved solids, and other important water quality parameters of local impact;
- (c) Flooding or streamflow alteration;
- (d) Ground-water and surface-water availability; and
- (e) Other characteristics as required by the chief.

(c) An application for a permit revision shall be reviewed by the chief to determine whether a new or updated PHC determination shall be required.

(3) Each plan shall contain a detailed description, with appropriate drawings, of permanent entry seals and downslope barriers designed to ensure stability under anticipated hydraulic heads developed while promoting mine inundation after mine closure for the proposed permit area.

(F) Ground-water and surface-water monitoring plans.

(1) Ground-water monitoring plan.

(a) The application shall include a ground-water monitoring plan based upon the PHC determination required under paragraph (E)(2) of this rule and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in paragraph (E)(1) of this rule. It shall identify the quantity and quality parameters to be monitored, sampling frequency, and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, specific conductance corrected to twenty-five degrees centigrade, pH, total iron, total manganese, and water levels shall be monitored. Data resulting from monitoring shall be submitted to the chief pursuant to paragraph (N) of rule 1501:13-9-04 of the Administrative Code.

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- (b) If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the general area, then monitoring of that stratum may be waived by the chief.

(2) Surface-water monitoring plan.

- (a) The application shall include a surface-water monitoring plan based upon the PHC determination required under paragraph (E)(2) of this rule and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance as set forth in paragraph (E)(1) of this rule as well as the effluent limitations set forth in 40 C.F.R. part 434.
- (b) The plan shall identify the surface-water quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.
 - (i) At all monitoring locations in the permit and adjacent areas, surface-water bodies such as streams, lakes and impoundments, that are potentially affected or into which water will be discharged, and at upstream monitoring locations, the specific conductance corrected to twenty-five degrees centigrade, total suspended solids, pH, total iron, total manganese, and flow shall be monitored.
 - (ii) For point-source discharges, monitoring shall be conducted in accordance with 40 C.F.R. parts 122, 123 and 434 and as required by the national pollutant discharge elimination system permitting authority.
 - (iii) Data resulting from this monitoring shall be submitted to the chief pursuant to paragraph (N) of rule 1501:13-9-04 of the Administrative Code.

(G) Reclamation plan: postmining land uses.

- (1) Each application shall contain a plan for the postmining land use. The plan shall describe the proposed use following reclamation of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land use policies and plans. This description shall explain:
 - (a) How the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use; and
 - (b) When a land use different from the premining land use is proposed, all materials needed for approval of the alternatives used under these rules.
- (2) The plan shall be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and the state and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

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- (3) The plan shall describe the consideration which has been given to making all of the proposed coal mining operations consistent with surface owner plans and applicable state and local land use plans and programs.

(H) Reclamation plan: ponds, impoundments, banks, dams, and embankments.

(1) General requirements.

- (a) Each application shall include a detailed design plan for each proposed siltation structure, water impoundment, and coal mine waste bank, dam, or embankment within the proposed permit area. Each plan shall:
- (i) Be prepared by, or under the direction of, and certified by an engineer;
 - (ii) Contain a description, map, and cross section of the structure and its location;
 - (iii) Contain preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure; and
 - (iv) Contain a survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations if underground mining has occurred.
- (b) Each detailed design plan for a structure that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), or meets the [significant hazard potential or high hazard potential classification \(formerly called class B or C\)](#) criteria for dams in the U.S department of agriculture, ~~soil~~[natural resources](#) conservation service technical release ~~no. 60~~[TR-210-60](#), "Earth Dams and Reservoirs," ~~1985~~[March 2019](#), shall:
- (i) Be prepared by, or under the direction of, and certified by an engineer;
 - (ii) Include any geotechnical investigation, design, and construction requirements for the structure;
 - (iii) Describe the operation and maintenance requirements for each structure; and
 - (iv) Describe the timetable and plans to remove each structure, if appropriate. If the applicant proposes to demonstrate that vegetation is the best technology currently available and remove siltation structures sooner than two years after the last augmented seeding of the drainage area, include a statement of such intentions.
- (c) Each detailed design plan for a structure that does not meet the size or other criteria of paragraph (H)(1)(b) of this rule, shall:
- (i) Be prepared by, or under the direction of, and certified by an engineer;
 - (ii) Include any design and construction requirements for the structure including any required geotechnical information;
 - (iii) Describe the operation and maintenance requirements for each structure; and

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- (iv) Describe the timetable and plans to remove each structure, if appropriate. If the applicant proposes to demonstrate that vegetation is the best technology currently available and remove siltation structures sooner than two years after the last augmented seeding of the drainage area, include a statement of such intentions.

(2) Impoundments.

- (a) Permanent and temporary impoundments shall be designed in compliance with the requirements of paragraph (H) of rule 1501:13-9-04 of the Administrative Code. The design of any impoundment shall be certified by an engineer experienced in impoundment design and construction. The certification statement shall state that the structure is designed to meet the requirements of paragraph (H) of rule 1501:13-9-04 of the Administrative Code.
- (b) Each design plan for an impoundment that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), shall contain the information required under 30 C.F.R. 77.216-2(a). The plan required to be submitted to the district manager of MSHA under 30 C.F.R. 77.216 shall also be submitted to the chief as part of the permit application.
- (c) Impoundments not meeting the size or other criteria of paragraph (H)(1)(b) of this rule may be designed in compliance with the following design standards, in lieu of performance of engineering tests to demonstrate compliance with the 1.3 minimum static safety factor required in paragraph (H)(1)(c)(ii) of rule 1501:13-9-04 of the Administrative Code:
 - (i) The embankment foundation area shall be cleared of all organic matter and the entire foundation surface shall be scarified;
 - (ii) If the natural slope of the foundation as measured at right angles to the embankment center line is steeper than 10h:1v (ten per cent), the embankment shall be benched into the existing slope beginning at the embankment toe and then filled with compacted level lifts;
 - (iii) The embankment fill material shall be free of sod, large roots, other large vegetative matter, and coal processing waste;
 - (iv) The fill shall be brought up in horizontal layers of such thickness as required to facilitate compaction in accordance with prudent construction standards;
 - (v) The moisture content of the fill material shall be sufficient to secure proper compaction. (An indication of sufficient moisture content is that when kneaded by hand the soil should just form a ball which does not readily separate. The engineer may specify other methods of testing moisture content if appropriate). When it is necessary to use materials of varying texture and gradation, the more impervious material shall be placed in the upstream and center portions of the embankment and the more pervious material shall be placed in the downstream portion of the fill;
 - (vi) The embankment's combined upstream and downstream side slopes shall be no steeper than the sum of 5h:1v, with neither slope steeper than 2h:1v. (Example: if downstream slope is 3h:1v, then upstream slope can be no steeper than 2h:1v. The minimum combined slope requirement of 5h:1v refers to the 3h and 2h added together.); and

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- (vii) The minimum top width of the embankment shall be $(h + 35)/5$, where "h" is the embankment height as measured from natural ground at the upstream toe to the top of the embankment.

(3) Siltation structures.

- (a) Permanent and temporary siltation structures shall be designed in compliance with the requirements of paragraphs (G) and (H) of rule 1501:13-9-04 of the Administrative Code. The design of any siltation structure shall be certified by an engineer experienced in impoundment design and construction. The certification shall state that the structure is designed to meet the requirements of paragraphs (G) and (H) of rule 1501:13-9-04 of the Administrative Code.
- (b) In addition to the requirements of paragraph (H)(1) of this rule, the plan shall include a determination of:
- (i) The required sediment storage volume; and
 - (ii) The detention time provided by the pond.
- (c) Each design plan for a siltation structure that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), shall contain the information required under 30 C.F.R. 77.216-2(a).

(4) Coal mine waste dams and embankments.

- (a) Coal mine waste dams and embankments shall be designed to comply with the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 and paragraph (H) of rule 1501:13-9-04 of the Administrative Code. The design of any coal mine waste dam or embankment shall be certified by an engineer experienced in design of similar earth and waste structures. The certification statement shall state that the structure is designed to meet the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 and paragraph (H) of rule 1501:13-9-04 of the Administrative Code.
- (b) Each plan shall contain the results of a geotechnical investigation of the proposed dam or embankment foundation area, to determine the structural competence of the foundation which will support the proposed dam or embankment structure and the impounded material. The geotechnical investigation shall be planned and supervised by an engineer, according to the following:
- (i) The number, location, and depth of borings and test pits shall be determined using current, prudent engineering practice for the size of the dam or embankment, quantity of material to be impounded, and subsurface conditions;
 - (ii) The character of the overburden and bedrock, the proposed abutment sites, and any adverse geotechnical conditions which may affect the particular dam, embankment, or reservoir site shall be considered;
 - (iii) All springs, seepage, and ground-water flow observed or anticipated during wet periods in the area of the proposed dam or embankment shall be identified on each plan; and
 - (iv) Consideration shall be given to the possibility of mudflows, rock-debris falls, or other landslides into the dam, embankment, or impounded material.

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- (c) Each design plan for a coal mine waste dam or embankment that meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216(a), shall contain the information required under 30 C.F.R. 77.216-2(a).
- (5) Coal mine waste banks. Coal mine waste banks shall be designed to comply with the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 of the Administrative Code, and with the provisions regarding impoundments under paragraph (H) of rule 1501:13-9-04 of the Administrative Code. The design of any coal mine waste bank shall be certified by an engineer experienced in design of similar earth and waste structures. The certification shall state that the structure is designed to meet the requirements of paragraphs (A) to (C) of rule 1501:13-9-09 and paragraph (H) of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.
- (6) If the structure meets or exceeds the size or other criteria of MSHA, 30 C.F.R. 77.216 (a), or meets the significant hazard potential or high hazard potential classification (formerly called Class B or C) criteria for dams in the U.S department of agriculture, ~~soil~~natural resources conservation service technical release ~~no. 60~~TR-210-60, "Earth Dams and Reservoirs," ~~1985~~March 2019, each plan under paragraphs (H)(2), (H)(3), and (H)(4) of this rule shall include a stability analysis of each structure. The stability analysis shall include, but not limited to, strength parameters, pore pressures, and long-term seepage conditions. The plan shall also contain a description of each engineering design assumption and calculation with a discussion of each alternative considered in selecting the specific design parameters and construction methods.
- (7) For further information about ~~soil~~natural resources conservation service technical release ~~no. 60~~TR-210-60, which is incorporated by reference in paragraph (H) of this rule, see paragraph (H)(1)(a) of rule 1501:13-9-04 of the Administrative Code.
- (I) Diversions. Each application shall contain descriptions, including maps and cross sections, of stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with paragraphs (D) and (F) of rule 1501:13-9-04 of the Administrative Code.
- (J) Protection of public parks and historic places.
- (1) For any publicly owned parks or any places listed on the "National Register of Historic Places," administered by the national parks service, U.S. department of the interior, that may be adversely affected by the proposed operation, each application shall describe the measures to be used:
- (a) To prevent adverse impacts; or
- (b) If valid existing rights exist or joint agency approval is to be obtained under paragraph (E) of rule 1501:13-3-04 of the Administrative Code to minimize adverse impacts. The website for the "National Register of Historic Places" for Ohio sites is www.nationalregisterofhistoricplaces.com/oh/state.html.
- (2) The chief may require the applicant to protect historic or archeological properties listed on or eligible for listing on the "National Register of Historic Places," as referenced in paragraph (J)(1) of this rule, through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance provided that the required measures are completed

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before the properties are affected by any mining operation.

(K) Relocation or use of public roads. Each application shall describe the measures to be used to ensure that the interests of the public and landowners affected are protected if, under paragraph (C) of rule 1501:13-3-04 of the Administrative Code, the applicant seeks to have the chief approve:

- (1) Conducting the proposed coal mining operation within one hundred feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way; or
- (2) Relocating a public road.

(L) Transportation facilities.

(1) Each application shall contain a detailed description of each road, conveyor, or rail system to be constructed, used, or maintained within the proposed permit area. The description shall include a map, appropriate cross sections, and the following:

- (a) Specifications for each road width, road gradient, road surface, road cut, fill embankment, culvert, bridge, drainage ditch, and drainage structure;
- (b) A description of measures to be taken to obtain approval of the chief for alteration or relocation of a natural drainageway under rule 1501:13-10-01 of the Administrative Code;
- (c) A description of measures, other than use of a rock headwall, to be taken to protect the inlet end of a ditch relief culvert, for approval by the chief under rule 1501:13-10-01 of the Administrative Code;
- (d) Drawings and specifications for each proposed ford of perennial or intermittent streams outside the mined-out area that is used as a temporary route, as necessary for approval of the ford by the chief in accordance with paragraph (D)(1) of rule 1501:13-10-01 of the Administrative Code; and
- (e) A description of plans to remove and reclaim each road that would not be retained under an approved postmining land use, and the schedule for this removal and reclamation.

(2) Primary road embankments may be designed in compliance with the following design standards, in lieu of performance of engineering tests to demonstrate compliance with the 1.3 minimum static safety factor required in paragraph (G)(3) of rule 1501:13-10-01 of the Administrative Code:

- (a) The embankment foundation area shall be cleared of all organic matter and the entire foundation surface shall be scarified;
- (b) If the natural slope of the foundation as measured at right angles to the roadway center line is steeper than 8h:1v, the embankment shall be benched into the existing slope beginning at the embankment toe and then filled with compacted level lifts;
- (c) The embankment fill material shall be free of sod, large roots, other large vegetative matter, and coal processing waste;
- (d) The fill shall be brought up in horizontal layers of such thickness as required to facilitate compaction in accordance with prudent construction standards;
- (e) The moisture content of the fill material shall be sufficient to secure proper compaction;

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- (f) The side slopes of the embankment shall be no steeper than 2h:1v;
- (g) Embankments with upstream and downstream slopes shall have a minimum top width of $(h + 35)/5$, where "h" is the embankment height as measured from natural ground at the upstream toe to the top of the embankment;
- (h) Hillside embankments shall have a minimum top width adequate for the intended use; and
- (i) Culverts shall be placed such that the embankment, as defined in rule 1501:13-1-02 of the Administrative Code, will not impound water for an extended period of time.

(M) Subsidence control plan.

- (1) The application shall include, for the shadow area, the most recent available U.S. geologic survey 7.5-minute topographic map showing:
 - (a) The extent of underground workings proposed for the term of the permit, including existing works that will continue to be used under the permit, all shown on a year-by-year basis;
 - (b) Those parts of the proposed underground workings from which there will be full coal recovery;
 - (c) The angle of draw for the workings described in paragraphs (M)(1)(a) and (M)(1)(b) of this rule; and
 - (d) Those areas in which measures will be taken to prevent or minimize subsidence and subsidence-related damage.
- (2) The application shall include an inventory which shall show whether structures or renewable resource lands exist within the proposed permit and adjacent areas and whether subsidence, if it occurred, could cause material damage or diminution of the reasonably foreseeable use of such structures or renewable resource lands. If the inventory shows that no such structures or renewable resource lands exists or no such material damage or diminution could be caused in the event of mine subsidence, and if the chief agrees with such conclusion, no further information need be provided in the application under paragraphs (M)(2)(a) to (M)(2)(e) of this rule. In the event the inventory shows that such structures or renewable resource lands exist, and that subsidence could cause material damage or diminution of value or foreseeable use of such structures or renewable resource lands, or if the chief determines that such material damage or diminution could occur, the application shall include a subsidence control plan which shall contain the following information:
 - (a) A description of the method of coal removal, such as longwall, room-and-pillar removal, hydraulic mining, or other extraction methods, including the size, sequence, and timing for the development of underground workings;
 - (b) A map of the shadow area which describes the location and extent of areas in which planned-subsidence mining methods will be used and which includes all areas where the measures described in paragraphs (M)(2)(d) and (M)(2)(e) of this rule will be taken to prevent or minimize subsidence and subsidence-related damage; and, where appropriate, to correct subsidence-related material damage;
 - (c) A description of the physical conditions, such as depth of cover, seam thickness, and lithology, which affect the likelihood or extent of subsidence and subsidence-related damage;

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- (d) A description of monitoring, if any, needed to determine the commencement and degree of subsidence so that, when appropriate, other measures can be taken to prevent, reduce, or correct material damage in accordance with rule 1501:13-12-03 of the Administrative Code;
 - (e) Except for those areas where planned subsidence is projected to be used, a detailed description of the subsidence control measures that will be taken to prevent or minimize subsidence and subsidence-related damage, including such measures as:
 - (i) Backstowing or backfilling voids;
 - (ii) Leaving support pillars of coal;
 - (iii) Leaving areas in which no coal is removed, including a description of the overlying area to be protected by leaving the coal in place; and
 - (iv) Taking measures on the surface to prevent material damage or lessening of the value or reasonably foreseeable use of the surface;
 - (f) A description of the anticipated effects of planned subsidence, if any;
 - (g) A general description of the measures to be taken, in accordance with rule 1501:13-12-03 of the Administrative Code, to mitigate or remedy any subsidence-related damage to or diminution in value or reasonably foreseeable use of:
 - (i) The land; or
 - (ii) Structures, buildings, features, or facilities to the extent required pursuant to rule 1501:13-12-03 of the Administrative Code; and
 - (h) Other information required by the chief as necessary to demonstrate that the operation will be conducted in accordance with the performance standards of rule 1501:13-12-03 of the Administrative Code for subsidence control.
- (N) Return of coal mine wastes to abandoned underground workings.
- (1) Each application shall contain a plan for the return of coal mine wastes to abandoned underground workings. The plan shall describe the design, operation and maintenance of any proposed coal processing waste disposal facility, including flow diagrams and any other necessary drawings and maps, for the approval of the chief and MSHA under paragraph (A)(7) of rule 1501:13-9-09 of the Administrative Code.
 - (2) The plan shall describe the source and quality of waste to be stowed, area to be backfilled, per cent of the mine void to be filled, method of constructing underground retaining walls, influence of the backfilling operation on active underground mine operations, surface area to be supported by the backfill, and the anticipated occurrence of surface effects following backfilling.
 - (3) The applicant shall describe the source of the hydraulic transport mediums, method of dewatering the placed backfill, retainment of water underground, treatment of water if released to surface streams, and the effect on the hydrologic regime.

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- (4) The plan shall describe each permanent monitoring well to be located in the backfilled area, the stratum underlying the mined coal, and gradient from the backfilled area.
- (5) The requirements of paragraphs (N)(1) to (N)(4) of this rule shall also apply to pneumatic backfilling operations, except where the operations are exempted by the chief from requirements specifying hydrologic monitoring.
- (O) Underground development waste. Each plan shall contain descriptions, including appropriate maps and cross section drawings, of the proposed disposal methods and sites for placing underground development waste and excess spoil generated at surface areas affected by underground mining surface operations and facilities according to rule 1501:13-9-07 of the Administrative Code. Each plan shall describe the geotechnical investigation, design, construction, operation, maintenance, and removal, if appropriate, of the structures and be prepared according to paragraph (P) of this rule.
- (P) Disposal of excess spoil.
 - (1) Each application shall contain descriptions, including appropriate maps and cross section drawings, of the proposed disposal site and design of the spoil disposal structures according to rule 1501:13-9-07 of the Administrative Code. These plans shall describe the geotechnical investigation, design, construction, operation, maintenance, and removal, if appropriate, of the site and structures.
 - (2) Each application shall contain the results of a geotechnical investigation of the proposed disposal site, including the following:
 - (a) The character of bedrock and any adverse geologic conditions in the disposal area;
 - (b) A survey identifying all springs, seepage, and ground-water flow observed or anticipated during wet periods in the area of the disposal site;
 - (c) A survey of the potential effects of subsidence of the subsurface strata due to past and future mining operations;
 - (d) A technical description of the rock materials to be utilized in the construction of those disposal structures containing rock chimney cores or underlain by a rock drainage blanket; and
 - (e) A stability analysis including, but not limited to, strength parameters, pore pressures and long-term seepage conditions. These data shall be accompanied by a description of all engineering design assumptions and calculations and the alternatives considered in selecting the specific design specifications and methods.
 - (3) If, under paragraph (D) of rule 1501:13-9-07 of the Administrative Code, rock-toe buttresses or keyway cuts are required, the application shall include the following:
 - (a) The number, location, and depth of borings or test pits. The number, location, and depth shall be determined with respect to the size of the spoil disposal structure and sub-surface conditions; and
 - (b) Engineering specifications utilized to design the rock-toe buttresses or keyway cuts which shall be determined in accordance with paragraph (P)(2)(e) of this rule.

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- (Q) Air pollution control plan. For all underground mining surface operations, the application shall contain an air pollution control plan in order to address fugitive dust resulting from erosion. The plan shall include the following:
- (1) An air quality monitoring program, if required by the chief, to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices under paragraph (Q)(2) of this rule to comply with applicable federal and state air quality standards; and
 - (2) A plan for fugitive dust control practices.
- (R) Fish and wildlife plan.
- (1) Resource information. Each application shall include fish and wildlife resource information for the permit area and adjacent area.
 - (a) The scope and level of detail for such information shall be determined by the chief in consultation with state and federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under paragraph (R)(2) of this rule.
 - (b) Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include:
 - (i) Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the secretary of the interior under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), or those species or habitats protected by similar state statutes;
 - (ii) Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or
 - (iii) Other species or habitats identified through agency consultation as requiring special protection under state or federal law.
 - (2) Protection and enhancement plan. Each application shall include a description of how, to the extent possible using the best technology currently available, the operator will minimize disturbances and adverse impacts on fish and wildlife and related environmental values, including compliance with the Endangered Species Act, during the surface coal mining and reclamation operations and how enhancement of these resources will be achieved where practicable.
 - (a) This description shall:
 - (i) Be consistent with the requirements of rule 1501:13-9-11 of the Administrative Code;
 - (ii) Apply, at a minimum, to species and habitats identified under paragraph (R)(1) of this rule;
 - (iii) Include protective measures that will be used during the active mining phase of operation. Such measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines, and the monitoring of surface water quality and quantity; and

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- (iv) Include enhancement measures that will be used during the reclamation and postmining phase of operation to develop aquatic and terrestrial habitat. Such measures may include restoration of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and cover, and the replacement of perches and nest boxes. Where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.
- (3) Fish and wildlife service review. Upon request, the chief shall provide the resource information required under paragraph (R)(1) of this rule and the protection and enhancement plan required under paragraph (R)(2) of this rule to the U.S. department of the interior, fish and wildlife service regional or field office for their review. This information shall be provided within ten days of receipt of the request from the service.
- (S) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

Draft Rule 1501:13-7-03, dated 9/15/2020.

This is a summary of the changes made to this rule.

(B)(3). The reference to rule 1501:13-7-04 is proposed to be removed because rule 1501:13-7-04 was rescinded effective 1/17/2016.

(B)(5)(c). Revised per the rule-writing protocol of the Legislative Service Commission.

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Dated 9/15/2020 Correction in (B)(3).

1501:13-7-03 Form, conditions, and terms of performance security.

- (A) Form of the performance security. The performance security to be submitted by the applicant or permittee shall be on forms furnished by the chief. The chief shall allow for:
- (1) A surety bond;
 - (2) A collateral bond;
 - (3) A trust fund; or
 - (4) A combination of any of these forms of performance security.
- (B) Terms and conditions of the performance security.
- (1) The performance security shall be in an amount determined by the chief, as provided in paragraphs (A) and (C) of rule 1501:13-7-02 of the Administrative Code for permits for which the applicant or permittee provides performance security together with reliance on the reclamation forfeiture fund, or as provided in paragraphs (B) and (C) of rule 1501:13-7-02 of the Administrative Code for permits for which the applicant or permittee provides performance security without reliance on the reclamation forfeiture fund.
 - (2) The performance security shall be payable to the state and conditioned upon the faithful performance of all the requirements of Chapter 1513. of the Revised Code, rules adopted thereunder, and the provisions of the applicant's approved mining and reclamation plan.
 - (3) ~~Except for performance security provided in accordance with rule 1501:13-7-04 of the Administrative Code, the~~The name of the permittee on the performance security shall be identical to the name of the permittee on the permit.
 - (4) The duration of the performance security shall be that described in paragraph (D) of rule 1501:13-7-02 of the Administrative Code.
 - (5) Surety bonds shall be subject to the following conditions:
 - (a) The chief shall not accept the bonds of a surety company unless the bond is noncancellable by the surety at any time for any reason including, but not limited to, non-payment of premium or bankruptcy of the permittee during the period of liability;
 - (b) The chief shall not accept a surety bond in excess of ten per cent of the surety company's capital surplus account;
 - (c) The chief shall not accept a surety bond from a surety company for any operator if the sum of such bond and all other surety bonds issued by the surety company on any and all the permits of that operator is in excess of thirty ~~percent~~per cent of the surety company's capital surplus account;

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- (d) The surety bond shall be issued by a corporate surety licensed to do business in Ohio;
- (e) The chief may provide in the bond that the amount shall be confessed to judgment upon forfeiture as provided in section 2323.13 of the Revised Code;
- (f) The bond shall provide that the surety and the permittee shall be jointly and severally liable; and
- (g) The bond shall provide that:
 - (i) The surety will give prompt notice to the permittee and the chief of any notice received or action filed alleging the insolvency or bankruptcy of the surety, or alleging any violation of regulatory requirements which could result in suspension or revocation of the surety's license to do business; and
 - (ii) In the event the surety becomes unable to fulfill its obligations under the bond for any reason, notice shall be given immediately to the permittee and the chief.
- (6) Collateral bonds, except for letters of credit, shall be subject to the following conditions:
 - (a) The chief shall deliver to the treasurer of state all collateral deposited by the permittee or applicant to be held until authorized for release or replacement as provided in these rules. The treasurer shall hold it in trust for the purposes for which it has been deposited;
 - (b) The chief shall value collateral at their current market value, not face value;
 - (c) The chief shall not accept a certificate of deposit unless it is payable to the state, both in writing and upon the records of the bank issuing such certificates;
 - (d) The chief shall not accept an individual certificate or cash account for a denomination in excess of the maximum insurable amount as determined by F.D.I.C. and F.S.L.I.C.;
 - (e) If the performance security is a cash deposit or negotiable certificates of deposit of a bank or savings and loan association, the bank or savings and loan association shall be licensed and operating in Ohio;
 - (f) A certificate of deposit shall be automatically renewable and issued with a maturity date of not less than twelve months;
 - (g) At the time a certificate of deposit is being closed and rolled over into a new certificate of deposit, the permittee shall notify the chief of any change of account numbers by submitting a revised collateral bond indemnity agreement form;
 - (h) The chief shall require the applicant to deposit sufficient amounts of certificates of deposit to assure that upon forfeiture the chief will be able to liquidate those certificates prior to maturity for the amount of the performance security required by rules 1501:13-7-01 to 1501:13-7-06 of the Administrative Code; and
 - (i) Certificates of deposit may be substituted for a cash account with the approval of the chief.

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(7) Letters of credit shall be subject to the following:

- (a) The letter may only be issued by a bank organized or authorized to do business in Ohio;
- (b) The initial term of the letter of credit shall be for not less than one year from the issue date and shall be automatically renewable for a period of not less than one year from the scheduled expiration date, unless the bank notifies the chief by certified or registered mail at least sixty days before the expiration date that the bank will not renew the letter of credit. Upon notice of a bank's intent not to renew the letter of credit, the permittee shall replace performance security at least thirty days before the expiration date of the letter of credit agreement with other letters of credit, other forms of security supporting the collateral bond indemnity agreement, or another form of performance security. If the letter of credit is not replaced at least thirty days prior to the expiration date, the chief shall demand and obtain payment on it before it expires;
- (c) The letter shall be payable to the state, in part or in full, upon written demand by the chief and, except as provided in paragraph (B)(7)(b) of this rule, accompanied by a written statement signed by the chief declaring one or more of the following:
 - (i) That the permittee has not faithfully performed all of the requirements of Chapter 1513. of the Revised Code, rules adopted thereunder, and the provisions of the permittee's approved mining and reclamation plan;
 - (ii) That the permittee has failed to replace performance security coverage in accordance with the requirements of paragraph (B)(7)(b) of this rule; or
 - (iii) That the permittee has failed to replace performance security at least thirty days prior to the expiration date of the letter of credit.
- (d) The chief may require in the indemnity agreement that the amount shall be confessed in judgment upon forfeiture as provided in section 2323.13 of the Revised Code; and
- (e) The letters of credit shall provide that:
 - (i) The bank will give prompt notice to the permittee and the chief of any notice received or action filed alleging the insolvency or bankruptcy of the bank, or alleging any violations of regulatory requirements which could result in suspension or revocation of the bank's charter or license to do business; and
 - (ii) In the event the bank becomes unable to fulfill its obligations under the letter of credit for any reason, notice shall be given immediately to the permittee and the chief.
- (8) The estimated bond value of all collateral provided as performance security assurance under paragraphs (B)(6) and (B)(7) of this rule shall be subject to a margin, which is the ratio of bond value to market value, as determined by the chief. The margin shall reflect legal and liquidation fees, as well as value depreciation, marketability and fluctuations which might affect the net cash available to the chief in performing reclamation. The bond value of collateral may be evaluated at any time, but it shall be evaluated as part of permit renewal and if necessary, the performance security amount increased or decreased.

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- (9) Persons with an interest in a collateral bond provided as performance security, and who desire notification of actions pursuant to the collateral bond, shall request the notification in writing to the chief at the time collateral bond is offered.
- (10) Trust funds for performance security under this rule shall be subject to the following conditions:
- (a) The trust fund shall be in an amount equal to the estimated cost of reclamation as determined by the chief under paragraph (B) of rule 1501:13-7-01 of the Administrative Code excluding all cost of administration of the trust fund;
 - (b) The trust fund agreement shall be in a form approved by the chief and shall contain all terms and conditions required by the chief;
 - (c) The chief shall specify the investment objectives of the trust fund;
 - (d) Termination of the trust fund may occur only as specified by the chief upon a determination that no further reclamation is necessary, that replacement performance security has been filed, or that the administration of the trust fund in accordance with its purpose requires termination;
 - (e) Release of money from the trust fund may be made only upon written authorization of the chief or according to a schedule established in the agreement accompanying the trust fund; and
 - (f) A financial institution or other company serving as a trustee must be a bank, trust company or other financial institution with trust powers that is organized or authorized to do business in Ohio.
- (11) If a surety, bank, savings and loan association, trust company, or other financial institution that holds the performance security required under this rule becomes incapacitated by reason of bankruptcy, insolvency, or suspension or revocation of its license, the permittee shall be deemed to be without performance security coverage in violation of paragraph (A) of rule 1501:13-7-01 of the Administrative Code and shall promptly notify the chief. The chief shall notify, in writing, any permittee who is without performance security to submit a plan for replacement performance security within thirty days after receipt of such notice from the chief. If performance security is not replaced within the period set forth in paragraph (B)(11)(a) or (B)(11)(b) of this rule, the permittee shall cease all coal extraction being conducted under the permit and shall immediately begin to conduct reclamation operations in accordance with the reclamation plan. Mining shall not resume until the chief has determined that an acceptable performance security has been filed in accordance with paragraph (A) of rule 1501:13-7-01 of the Administrative Code.
- (a) For a permit for which performance security is provided without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of rule 1501:13-7-01 of the Administrative Code, the permittee shall provide the replacement performance security within ninety days after receipt of written notice from the chief that the permittee is without performance security.
 - (b) For a permit for which performance security is provided together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of rule 1501:13-7-01 of the Administrative Code, the permittee shall continue to pay the severance tax levied under division (A)(8) of section 5749.02 of the Revised Code and shall provide the replacement performance security within one year after receipt of written notice from the chief that the permittee is without performance security.

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(C) Replacement of performance security.

- (1) The chief may allow the permittee to replace existing performance security with other performance security, if the liability which has accrued against the permittee on the permit area is transferred to such replacement performance security and the replacement performance security meets the requirements of these rules.
- (2) The chief shall not release existing performance security until the permittee has submitted and the chief has approved acceptable replacement performance security. A replacement of performance security pursuant to paragraph (C) of this rule shall not constitute a release of performance security.

Draft Rule 1501:13-9-04, dated 2/25/2020.

This is a summary of the changes made to this rule.

(B)(5)(b). Comma added.

(H)(1), numerous sub-paragraphs. Amendments to update a technical report that is incorporated by reference in the rule, including:

- The report's publisher is now called the Natural Resources Conservation Service.
- The technical release document number and date of publication have changed.
- Class B and Class C dams are now called significant hazard potential and high hazard potential dams.
- The title of a table referred to in the rule has changed.
- Information on where the report is available on the internet needs to be updated.

(H)(1)(h)(iv). Amended to specify that paragraph (iv), regarding the use of a single open-channel spillway, applies to any of the impoundments in paragraphs (H)(1)(h)(i), (ii), or (iii). Paragraph (H)(1)(h)(iii) currently already allows for a single spillway, but this change clarifies that the single spillway requirements of (iv) applies to these impoundments. This change is consistent with the requirements of 30 CF.R. 816.49(a)(9) and (a)(9)(ii) and 817.49(a)(9) and (a)(9)(ii).

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Dated 2/25/2020. See updates/revisions in (H)(1), multiple sub-paragraphs – pages 7 to 9.

1501:13-9-04 Protection of the hydrologic system.

- (A) General. Mining shall be planned and conducted to minimize disturbance to the prevailing hydrologic balance in both the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, to assure the protection or replacement of water rights, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the requirements of mining and reclamation rules. The chief may require additional preventive, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Mining and reclamation practices that minimize water pollution and changes in flow shall be used in preference to water treatment.
- (B) Water quality standards and effluent limitations.
- (1) All surface drainage from the disturbed area, including disturbed areas that have been graded, seeded, or planted, shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the permit area until vegetation is established, at which time vegetation of the area may be the best technology currently available, provided that drainage from the area:
 - (a) Meets effluent limitations; and
 - (b) Does not contribute suspended solids to streamflow.
 - (2) Sedimentation ponds and other treatment facilities shall be maintained until the quality of the untreated drainage from the disturbed area meets the applicable state and federal water quality standard requirements.
 - (3) The chief may grant exemptions from the requirements of paragraph (B)(1) of this rule only when:
 - (a) The chief determines that the disturbed drainage area relative to the total disturbed area is small;
 - (b) Alternative sediment control measures are provided, if required by the chief; and
 - (c) The operator demonstrates that the drainage from the disturbed area will meet the effluent limitations of mining and reclamation rules.
 - (4) For the purposes of this rule only, "disturbed area" shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed in accordance with this rule and rule 1501:13-10-01 of the Administrative Code and the upstream area is not otherwise disturbed by the person who conducts coal mining operations.
 - (5) Before mining commences in any watershed:
 - (a) A proper sediment control system including sedimentation ponds, diversions, and other treatment methods shall be constructed; and
 - (b) Upon completion of construction, this sediment control system shall be certified by an engineer or jointly by an engineer and a surveyor, to the extent such joint certification is required or permitted by the chief, as meeting the dimensions and design criteria set forth in the engineering plans, drawings, and design details submitted as part of the application for a permit.

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- (6) Point source discharge of water from areas disturbed by coal mining operations shall be made in compliance with effluent limitations of all applicable federal and state laws and regulations. All other surface drainage shall not cause additional contributions of suspended solids to streamflows.
- (7) Where the sedimentation pond or series of sedimentation ponds is used so as to result in the mixing of drainage from the disturbed areas with drainage from other areas not disturbed by current surface coal mining and reclamation operations, the permittee shall achieve the effluent limitations for all of the mixed drainage when it leaves the permit area.
- (C) All facilities utilized by an operator to achieve compliance with federal and state water quality laws shall be properly installed, maintained and operated so that they will perform the functions for which they were designed, and shall be removed in accordance with this rule when no longer needed, unless they have been approved as part of the postmining land use.
- (D) Sediment control measures.
 - (1) The purpose of this rule is to meet the applicable state and federal effluent limitations by means of a combination of sediment control measures which, taken together, comprise a complete sediment control system.
 - (2) Appropriate sediment control measures shall be designed, constructed, and maintained using the best technology currently available to:
 - (a) Prevent, to the extent possible, additional contributions of sediment to streamflow or to runoff outside the permit area;
 - (b) Meet the more stringent of applicable state or federal effluent limitation; and
 - (c) Minimize erosion to the extent possible.
 - (3) Sediment control measures include practices carried out within and adjacent to the disturbed area. The sedimentation storage capacity of practices in and downstream from the disturbed area shall reflect the degree to which successful mining and reclamation techniques are applied to reduce erosion and control sediment. Sediment control measures consist of the utilization of proper mining and reclamation methods and sediment control practices, singly or in combination. Sediment control methods include but are not limited to:
 - (a) Disturbing the smallest practicable area at any one time during the mining operation through progressive backfilling and grading, and prompt revegetation as required in rule 1501:13-9-15 of the Administrative Code.
 - (b) Stabilizing the backfill material to promote a reduction in the rate and volume of runoff, in accordance with the requirements of rule 1501:13-9-14 of the Administrative Code;
 - (c) Retaining sediment within disturbed areas;
 - (d) Diverting runoff away from disturbed areas;
 - (e) Diverting runoff using protected channels or pipes through disturbed areas so as not to cause additional erosion;

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(f) Using straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds, and other measures that reduce overland flow velocity, reduce runoff volume, or trap sediment; and

(g) Treating with chemicals.

(E) Stream buffer zones.

(1) No land within one hundred feet, measured horizontally, of a perennial or intermittent stream shall be disturbed unless the chief specifically authorizes coal mining operations closer to or through such a stream. The chief may authorize such operations only upon making a finding under both paragraphs (E)(1)(a) and (E)(1)(b) of this rule or under paragraph (E)(1)(c) of this rule:

(a) The operations will not cause or contribute to the violation of applicable state or federal water quality standards, and will not adversely affect the water quantity and quality or other environmental resources of the stream; and

(b) If there will be a temporary or permanent stream channel diversion, it will comply with paragraph (F) of this rule; or

(c) If restoration of a stream or a portion of a stream on the permit area is not possible, restoration off the permit area by means of mitigation has been approved by the chief under rule 1501:13-13-08 of the Administrative Code.

(2) The area not to be disturbed shall be described as a buffer zone, and the operator shall mark it as specified by paragraph (E) of rule 1501:13-9-01 of the Administrative Code.

(F) Diversions.

(1) General requirements.

(a) With the approval of the chief, any flow from mined areas abandoned before May 3, 1978, and any flow from undisturbed areas or reclaimed areas, after meeting the criteria of paragraph (G) of this rule for siltation structure removal, may be diverted away from disturbed areas by means of temporary or permanent diversions. All diversions shall be designed to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area and to assure the safety of the public. Diversions shall not be used to divert water into underground mines without approval of the chief under paragraph (Q) of this rule.

(b) The diversion and its appurtenant structures shall be designed, located, constructed, maintained and used to:

(i) Be stable;

(ii) Provide protection against flooding and resultant damage to life and property;

(iii) Prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and

(iv) Comply with all applicable local, state, and federal laws and regulations.

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(c) Temporary diversions shall be removed promptly when no longer needed to achieve the purpose for which they were authorized. The land disturbed by the removal process shall be restored in accordance with these rules. Before diversions are removed, downstream water-treatment facilities previously protected by the diversion shall be modified or removed, as necessary, to prevent overtopping or failure of the facilities. This requirement shall not relieve the operator from maintaining water-treatment facilities as otherwise required. A permanent diversion or a stream channel reclaimed after the removal of a temporary diversion shall be designed and constructed so as to restore or approximate the premining characteristics of the original stream channel including the natural riparian vegetation to promote the recovery and the enhancement of the aquatic habitat.

(d) The chief may specify design criteria for diversions to meet the requirements of this rule.

(2) Diversion of perennial and intermittent streams.

(a) Diversion of perennial and intermittent streams within the permit area may be approved by the chief after making the finding relating to stream buffer zones that the diversion will not adversely affect the water quantity and quality and related environmental resources of the stream.

(b) The design capacity of channels for temporary and permanent stream channel diversions shall be at least equal to the capacity of the unmodified stream channel immediately upstream and downstream from the diversion.

(c) The requirements of paragraph (F)(1)(b)(ii) of this rule shall be met when the temporary and permanent diversions for perennial and intermittent streams are designed so that the combination of channel, bank and flood-plain configuration is adequate to pass safely the peak runoff of a ten-year, six hour precipitation event for a temporary diversion and a one-hundred-year, six hour precipitation event for a permanent diversion.

(d) A permanent stream-channel diversion or a stream channel restored after the completion of mining shall be designed and constructed using natural channel design techniques so as to restore or approximate the premining characteristics of the original stream channel, including the natural riparian vegetation and the natural hydrological characteristics of the original stream, to promote the recovery and enhancement of the aquatic habitat and to minimize adverse alteration of stream channels on and off the site, including channel deepening or enlargement, to the extent possible.

(e) The design and construction of all stream channel diversions of perennial and intermittent streams shall be certified by an engineer as meeting the performance standards of Chapter 1501:13-9 of the Administrative Code and any design criteria set by the chief.

(3) Diversion of miscellaneous flows.

(a) Miscellaneous flows, which consist of all flows except for perennial and intermittent streams, may be diverted away from disturbed areas if required or approved by the chief. Miscellaneous flows shall include ground-water discharges and ephemeral streams.

(b) The design, location, construction, maintenance, and removal of diversions of miscellaneous flows shall meet all of the performance standards set forth in paragraph (F)(1) of this rule.

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- (c) The requirements of paragraph (F)(1)(b)(ii) of this rule shall be met when the temporary and permanent diversions for miscellaneous flows are designed so that the combination of channel, bank and flood-plain configuration is adequate to pass safely the peak runoff of a two-year, six hour precipitation event for a temporary diversion and a ten-year, six hour precipitation event for a permanent diversion.

(G) Siltation structures.

(1) Definitions. For the purposes of this rule only:

- (a) "Siltation structure" means a sedimentation pond, a series of sedimentation ponds, or other treatment facility;
- (b) "Disturbed" area shall not include those areas:
 - (i) In which the only surface mining operations include diversion ditches, siltation structures, or roads that are designed, constructed and maintained in accordance with mining and reclamation rules; and
 - (ii) For which the upstream area is not otherwise disturbed by the operator; and
- (c) "Other treatment facility" means any chemical treatment, such as flocculation, or mechanical structure, such as a clarifier, that has a point-source discharge and that is utilized to prevent additional contribution of suspended solids to streamflow or runoff outside the permit area.

(2) General requirements.

- (a) Additional contributions of suspended solids to streamflow or runoff outside the permit area shall be prevented to the extent possible using the best technology currently available.
- (b) All surface drainage from the disturbed area shall be passed through a siltation structure before leaving the permit area, except as provided in paragraph (B)(3) or (G)(2)(e) of this rule.
- (c) Siltation structures for an area shall be constructed before beginning any surface mining operations in that area and, upon construction, shall be certified by an engineer as being constructed as designed and as approved in the reclamation plan.
- (d) Any siltation structure which impounds water shall be designed, constructed and maintained in accordance with paragraph (H) of this rule.
- (e) Siltation structures shall be maintained until removal is authorized by the chief and the disturbed area has been stabilized and revegetated. In no case shall the structure be removed sooner than two years after the last augmented seeding, unless, after vegetation is established, the operator demonstrates and the chief approves under paragraph (E)(1)(g) of rule 1501:13-4-05 or paragraph (E)(1)(f) of rule 1501:13-4-14 of the Administrative Code alternative methods of sediment control as the best technology currently available.
- (f) When a siltation structure is removed, the land on which the siltation structure was located shall be regraded and revegetated in accordance with the reclamation plan and rule 1501:13-9-15 of the Administrative Code.

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(3) Sedimentation ponds.

(a) When used, sedimentation ponds shall:

- (i) Be used individually or in series;
- (ii) Be located as near as possible to the disturbed area and out of perennial streams unless approved by the chief; and
- (iii) Be designed, constructed, and maintained to:
 - (a) Provide adequate sediment storage volume;
 - (b) Provide adequate detention time to allow the effluent from the ponds to meet state and federal effluent limitations;
 - (c) Contain or treat the ten-year twenty-four hour precipitation event ("design event") unless a lesser design event is approved by the chief based on terrain, climate, other site-specific conditions and on a demonstration by the operator that the effluent limitations of this rule will be met;
 - (d) Provide a nonclogging dewatering device adequate to maintain the detention time required under paragraph (G)(3)(a)(iii)(b) of this rule;
 - (e) Minimize, to the extent possible, short circuiting;
 - (f) Provide periodic sediment removal sufficient to maintain adequate volume for the design event;
 - (g) Ensure against excessive settlement;
 - (h) Be free of sod, large roots, frozen soil, and acid- or toxic-forming coal-mine waste; and
 - (i) Be compacted properly.

(4) Other treatment facilities.

- (a) Other treatment facilities shall be designed to treat the ten-year, twenty-four-hour precipitation event unless a lesser design event is approved by the chief based on terrain, climate, other site-specific conditions and a demonstration by the operator that the effluent limitations of this rule will be met.
- (b) Other treatment facilities shall be designed in accordance with the applicable requirements of paragraph (G)(3) of this rule.

(H) Impoundments.

- (1) General requirements. The requirements of paragraph (H)(1) of this rule apply to both temporary and permanent impoundments.

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- (a) Impoundments meeting the criteria of 30 C.F.R. 77.216(a) or the significant hazard potential or high hazard potential classification (formerly called class B or C) criteria for dams in the U.S. department of agriculture, ~~soil~~natural resources conservation service technical release ~~no. 60~~TR-210-60, "Earth Dams and Reservoirs," ~~1985~~March 2019, (which is hereby incorporated by reference) shall comply with the design and construction requirements of paragraph (H) of this rule and either paragraphs (H)(1) and (H)(2) of rule 1501:13-4-05 or paragraphs (H)(1) and (H)(2) of rule 1501:13-4-14 of the Administrative Code. Copies of technical release ~~no. 60~~TR-210-60 may be obtained from the ~~national technical information service (NTIS), 5301 Shawnee road, Alexandria, Virginia 22312, order No. PB87157509~~"USDA Natural Resources Conservation Service eDirectives" webpage, https://directives.sc.egov.usda.gov/. Copies can be inspected at the division of mineral resources management headquarters office at 2045 Morse road, building H, Columbus, Ohio 43229.
- (b) Design certification. The design of impoundments shall be certified in accordance with rule 1501:13-4-05 or 1501:13-4-14 of the Administrative Code as designed to meet the requirements of this rule using current, prudent, engineering practices and any design criteria established by the chief.
- (c) Stability.
- (i) Impoundments meeting the criteria of 30 C.F.R. 77.216(a) or the significant hazard potential or high hazard potential classification (formerly called class B or C) criteria for dams in technical release ~~no. 60~~TR-210-60 shall have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions, and a seismic safety factor of at least 1.2.
- (ii) Impoundments not meeting the criteria of paragraph (H)(1)(c)(i) of this rule, except for coal mine waste impounding structures, shall have a minimum static safety factor of 1.3 for a normal pool with steady state seepage saturation conditions or be designed in accordance with paragraph (H)(2)(c) of rule 1501:13-4-05 or paragraph (H)(2)(c) of rule 1501:13-4-14 of the Administrative Code.
- (d) Freeboard. Impoundments shall have adequate freeboard to resist overtopping by waves and by sudden increases in storage volume. Impoundments meeting the significant hazard potential or high hazard potential classification (formerly called class B or C) criteria for dams in technical release ~~no. 60~~TR-210-60 shall comply with the freeboard hydrograph criteria in ~~the~~ "Figure 2-2: Table of Minimum Emergency Auxiliary Spillway Hydrologic Criteria" ~~table~~ in technical release ~~no. 60~~TR-210-60.
- (e) Foundation.
- (i) Foundation and abutments for the impounding structure shall be designed to be stable under all conditions of construction and operation of the impoundment. For impoundments meeting the size or other criteria of 30 C.F.R. 77.216(a) or the significant hazard potential or high hazard potential classification (formerly called class B or C) criteria for dams in technical release ~~no. 60~~TR-210-60, sufficient foundation investigations as well as any necessary laboratory testing

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shall be performed in order to determine the design requirements for foundation stability.

- (ii) All vegetative and organic materials shall be removed and foundations excavated and prepared to resist failure. Cutoff trenches shall be installed if necessary to ensure stability.
- (f) Slope protection shall be provided to protect against surface erosion at the site and protect against sudden drawdown.
- (g) Faces of embankments and surrounding areas shall be vegetated, except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.
- (h)
 - (i) An impoundment meeting the size or other qualifying criteria of 30 C.F.R. 77.216(a) shall include either a combination of principal and emergency spillways or a single spillway designed and constructed to safely pass a one-hundred-year, six-hour precipitation event, or greater event as specified by the chief.
 - (ii) An impoundment not meeting the size or other qualifying criteria of 30 C.F.R. 77.216(a) shall include either a combination of principal and emergency spillways or a single spillway designed and constructed to safely pass a twenty-five-year, six-hour precipitation event, or greater event as specified by the chief.
 - (iii) An impoundment meeting the [significant hazard potential or high hazard potential classification \(formerly called class B or C\)](#) criteria for dams in technical release ~~no. 60~~ [TR-210-60](#) shall include either a combination of principal and emergency spillways or a single spillway designed and constructed to safely pass the design precipitation event using the ~~emergency auxiliary~~ spillway hydrograph criteria in ~~the~~ ["Figure 2-2: Table of Minimum Emergency Auxiliary Spillway Hydrologic Criteria"](#) ~~table~~ in technical release ~~no. 60~~ [TR-210-60](#), or greater event specified by the chief.
 - (iv) Impoundments may use a single open-channel spillway designed and constructed according to paragraph (H)(1)(h)(i), ~~or~~ (H)(1)(h)(ii), [or \(H\)\(1\)\(h\)\(iii\)](#) of this rule if the spillway:
 - (a) Is of nonerodible construction and designed to carry sustained flows; or
 - (b) Is earth- or grass-lined and designed to carry short-term infrequent flows at nonerosive velocities where sustained flows are not expected.
- (i) The vertical portion of any remaining highwall shall be located far enough below the low-water line along the full extent of highwall to provide adequate safety and access for the proposed water users. For permanent impoundments, the vertical portion of the remaining highwall shall also meet the requirements of paragraph (H)(2)(d) of this rule.
- (j) Inspections. An engineer or other qualified professional specialist, under the direction of the engineer, shall inspect the impoundment. The engineer or specialist shall be experienced in the construction of impoundments.

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- (i) Inspections shall be made regularly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance security.
- (ii) The engineer shall promptly, after each inspection, provide to the chief a certified report that the impoundment has been constructed and maintained as designed in accordance with the approved plan and these rules. The report shall include discussion of any appearances of instability, structural weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, any existing or required monitoring procedures and instrumentation and any other aspects of the structure affecting stability.
- (iii) A copy of the report shall be retained at or near the minesite.
- (k) Impoundments meeting the [significant hazard potential or high hazard potential classification](#) [\(formerly called](#) class B or C) criteria for dams in technical release ~~no. 60~~ [TR-210-60](#) or subject to 30 C.F.R. 77.216 must be examined in accordance with 30 C.F.R. 77.216-3. Other impoundments shall be examined for appearance of structural weakness and other hazardous conditions at least quarterly by a qualified person designated by the operator.
- (l) Emergency procedures. If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment shall promptly inform the chief of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the chief shall be notified immediately. The chief shall then notify the appropriate agencies that other emergency procedures are required to protect the public.
- (2) Permanent impoundments. A permanent impoundment of water may be created if authorized by the chief in the approved permit based upon the following demonstration:
 - (a) The size and configuration of such impoundment will be adequate for its intended purposes;
 - (b) The quality of impounded water will be suitable on a permanent basis for its intended use and, after reclamation, will meet applicable state and federal water quality standards, and discharges from the impoundment will meet applicable effluent limitations and will not degrade the quality of receiving water below applicable state and federal water quality standards;
 - (c) The water level will be sufficiently stable and be capable of supporting the intended use;
 - (d) Final grading will provide for adequate safety and access for proposed water users. For impoundments where the vertical portion of a highwall remains, the vertical portion shall be located at least eight feet below the low-water line;
 - (e) The impoundment will not result in the diminution of the quality and quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational, or domestic uses;
 - (f) The impoundment will be suitable for the approved postmining land use;
 - (g) The reduced portion of any highwall shall have a final slope appropriate for the postmining land use and shall have a minimum static safety factor of 1.3; and

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- (h) The face of the reduced portion of any highwall shall be vegetated with species appropriate for the postmining land use.
- (3) Temporary impoundments. The chief may authorize the construction of temporary impoundments as part of a mining operation.
- (4) Sumps.
 - (a) Definitions. "Sump" means an excavated temporary impoundment:
 - (i) Used as:
 - (a) A secondary structure which discharges into a sedimentation pond, provided the sedimentation pond, in combination with the sump and any other sediment control measures used, achieves the applicable state and federal effluent limitations; or
 - (b) A primary structure to control the runoff from roads or small drainage exemption areas provided by paragraph (B)(3) of this rule; and
 - (ii) That has a volume which is compatible with its role within the complete sediment control system.
 - (b) Sumps are exempt from the requirements of paragraphs (H)(1) to (H)(3) of this rule.
 - (c) Sump designs shall include size and spillway information and shall address the stability of the structure with respect to public health and safety.
 - (d) Sumps shall be constructed and maintained to prevent, to the extent possible, additional contributions of suspended solids to runoff outside the permit area.
 - (e) Before a sump becomes full of sediment, the sediment shall be removed, and the original sump capacity restored.
- (I) Discharge structures. Discharges from sedimentation ponds, permanent and temporary impoundments, mine waste disposal areas, and diversions shall be controlled by energy dissipators, riprap channels, and other devices where necessary to reduce erosion, to prevent deepening or enlargement of stream channels, and to minimize disturbances to the hydrologic balance. Discharge structures shall be designed according to standard engineering design procedures.
- (J) Acid-forming and toxic-forming spoil. Drainage from acid-forming and toxic-forming mine waste materials and spoils into ground and surface water shall be avoided by:
 - (1) Identifying, burying, and treating where necessary spoil or other materials that, in the judgment of the chief, may be detrimental to vegetation or may adversely affect water quality if not treated or buried;
 - (2) Preventing water from coming into contact with acid-forming and toxic-forming materials in accordance with paragraph (J) of rule 1501:13-9-14 of the Administrative Code, and other measures as required by the chief; and

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- (3) Burying or otherwise treating all acid-forming or toxic-forming spoil within thirty days after it is first exposed on the mine site, or within a lesser period designated by the chief. Temporary storage of the spoil may be approved by the chief upon finding that burial or treatment within thirty days is not feasible and will not result in any material risk of water pollution or other environmental damage. Storage shall be limited to the period until burial or treatment becomes feasible. Acid-forming or toxic-forming spoil to be stored shall be placed on impermeable material and protected from erosion and contact with surface water.
- (K) Ground-water protection.
- (1) Backfilled materials shall be placed so as to minimize contamination of ground-water systems with acid, toxic, or otherwise harmful mine drainage, minimize adverse effects of mining on ground-water systems outside the permit area, and to support approved postmining land uses.
 - (2) To control the effects of mine drainage, pits, cuts, and other mine excavations or disturbances shall be located, designed, constructed, and utilized in such manner as to prevent or control discharge of acid, toxic, or otherwise harmful mine drainage waters into ground-water systems and to prevent adverse impacts on such ground-water systems or on approved postmining land uses.
- (L) Protection of ground-water recharge capacity. Other than underground mining operations, all coal mining operations shall be conducted in a manner that facilitates reclamation which will restore approximate premining recharge capacity, through restoration of the capability of the reclaimed areas as a whole, excluding coal processing waste and underground development waste disposal areas and fills, to transmit water to the ground-water system. The recharge capacity shall be restored to a condition which:
- (1) Supports the approved postmining land use;
 - (2) Minimizes disturbances to the prevailing hydrologic balance in the permit and adjacent areas; and
 - (3) Provides a rate of recharge that approximates the premining recharge rate.
- (M) Surface water protection. In order to protect the hydrologic balance, mining operations shall be conducted according to the plan approved under paragraph (E) of rule 1501:13-4-05 or paragraph (E) of rule 1501:13-4-14 of the Administrative Code, and the following:
- (1) Surface-water quality shall be protected by handling earth materials, ground-water discharges, and runoff in a manner that minimizes the formation of acidic or toxic drainage, prevents, to the extent possible using the best technology currently available, additional contribution of suspended solids to streamflow outside the permit area, and otherwise prevents water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching, or other reclamation and remedial practices are not adequate to meet the requirements of this rule, then the operator shall use and maintain the necessary water-treatment facilities or water quality controls.
 - (2) Surface-water quality and flow rates shall be protected by handling earth materials and runoff in accordance with the steps outlined in the plan approved under paragraph (E) of rule 1501:13-4-05 or paragraph (E) of rule 1501:13-4-14 of the Administrative Code.

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(N) Surface and ground-water monitoring.

(1) Ground-water monitoring.

- (a) Surface mining operators shall monitor ground-water levels and the quality of ground water at least quarterly or more frequently as prescribed by the chief, in accordance with the ground-water monitoring plan approved under paragraph (F)(1) of rule 1501:13-4-05 of the Administrative Code, to determine the effects of the coal mining operations on the recharge capacity of reclaimed lands and on the quality and quantity of water in ground-water systems in the permit and adjacent areas.
 - (i) Monitoring shall include measurements from a sufficient number of wells and springs that are adequate to reflect changes in ground-water quality and quantity resulting from those operations.
 - (ii) Monitoring shall be adequate to plan for modification of coal mining operations, if necessary, to minimize disturbance of the prevailing hydrologic balance.
 - (iii) As specified and approved by the chief, the person who conducts surface mining operations shall conduct additional hydrologic tests, including drilling, infiltration tests, and aquifer tests and shall submit the results to the chief, to demonstrate compliance with paragraphs (K) to (N) of this rule.
- (b) Underground mining operators shall monitor, at least quarterly or more frequently as prescribed by the chief, the quality and quantity of ground water in the permit and adjacent areas in accordance with the ground-water monitoring plan approved under paragraph (F)(1) of rule 1501:13-4-14 of the Administrative Code. Monitoring of an area shall begin one year before the area is mined, shall continue during mining, and shall continue for at least one year after the area is mined, unless the chief determines that monitoring for a shorter period will allow accurate assessment of the impacts on the ground water of the area.
- (c) Ground-water monitoring shall result in quarterly or more frequent reports to the chief, submitted within two weeks following the close of the quarter, to include analytical results from each sample taken during the quarter. Any sample results which indicate a permit violation shall be reported immediately to the chief, and the operator shall immediately take the actions provided in the approved mining plan pursuant to paragraph (H) of rule 1501:13-5-01 and either paragraph (E) of rule 1501:13-4-05 or paragraph (E) of rule 1501:13-4-14 of the Administrative Code.

(2) Surface-water monitoring.

- (a) All surface and underground mining operators shall monitor pond discharges for the national pollutant discharge elimination system (NPDES) permit quarterly in accordance with the monitoring plan submitted under either paragraph (F)(2) of rule 1501:13-4-05 or paragraph (F)(2) of rule 1501:13-4-14 of the Administrative Code and approved by the chief. Monitoring shall:
 - (i) Be adequate to measure and record accurately water quantity and quality of the discharges from the permit area;

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- (ii) Include notification to the chief of all analytical results of sample collections indicating non-compliance with a permit condition or applicable standard within five days of receipt of such results. If there is a failure to comply with an effluent limitation set forth in a NPDES permit, the person who conducts coal mining operations shall forward the analytical results concurrently with the written notice of non-compliance; and
 - (iii) Result in quarterly reports to the chief submitted within two weeks following the close of the quarter, to include analytical results from each sample taken during the quarter. Any sample results which indicate a permit violation will be reported immediately to the chief, and the operator shall immediately take the actions provided in the approved mining plan pursuant to paragraph (H) of rule 1501:13-5-01 and either paragraph (E) of rule 1501:13-4-05 or paragraph (E) of rule 1501:13-4-14 of the Administrative Code.
- (b) The chief may require additional surface-water monitoring to be conducted quarterly on the permit or adjacent areas in accordance with the monitoring plans submitted under paragraph (F)(2) of rule 1501:13-4-05 or paragraph (F)(2) of rule 1501:13-4-14 of the Administrative Code and approved by the chief. The chief shall determine the nature of the data and reporting requirements. Monitoring shall:
 - (i) Be adequate to measure and record accurately water quantity and quality;
 - (ii) Include notification to the chief of all analytical results of sample collections indicating non-compliance with a permit condition within five days of receipt of such results; and
 - (iii) Result in quarterly reports to the chief, submitted within two weeks following the close of the quarter, to include analytical results from each sample taken during the quarter. Any sample results which indicate a permit violation will be reported immediately to the chief, and the operator shall immediately take the actions provided in the approved mining plan pursuant to paragraph (H) of rule 1501:13-5-01 and either paragraph (E) of rule 1501:13-4-05 or paragraph (E) of rule 1501:13-4-14 of the Administrative Code.
- (3) Duration of and modifications to monitoring.
 - (a) Monitoring for ground water and surface water shall be conducted throughout mining and reclamation until final performance security release unless the chief determines, pursuant to paragraph (N)(3)(b)(ii) of this rule, that monitoring is no longer necessary.
 - (b) Any modification of the monitoring requirements of paragraph (N) of this rule, including the parameters covered and the sampling frequency, shall be made by means of a permit revision pursuant to paragraph (E) of rule 1501:13-4-06 of the Administrative Code. A permit revision may be obtained pursuant to this paragraph if the operator demonstrates, using the monitoring data of this rule, that:
 - (i) The operation has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area, water quantity and quality are suitable to support approved postmining land uses, and the water rights of other users have been protected or replaced; or

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- (ii) Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under paragraph (F) of rule 1501:13-4-05 or paragraph (F) of rule 1501:13-4-14 of the Administrative Code.

(O) Transfer of wells. Before final release of performance security, exploratory or monitoring wells shall be sealed in a safe and environmentally sound manner in accordance with rule 1501:13-9-02 of the Administrative Code. With the prior approval of the chief, wells may be transferred to another party for further use. At a minimum, the conditions of such transfer shall comply with state and local law and the permittee shall remain responsible for the proper management of the well in accordance with rule 1501:13-9-02 of the Administrative Code until performance security release.

(P) Water rights and replacement.

(1) Any person who conducts coal mining operations shall:

- (a) Replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial, or other legitimate use from an underground or surface source, where the water supply has been affected by contamination, diminution, or interruption proximately resulting from the coal mining operations; and
- (b) Reimburse the owner for the reasonable cost of obtaining a water supply from the time of the contamination, diminution or interruption by the operation until the water supply is replaced.

(2) The hydrologic information required in paragraphs (B) to (G) of rule 1501:13-4-04 or paragraphs (B) to (G) of rule 1501:13-4-13 of the Administrative Code shall, at a minimum, be used to determine the extent of the impact of mining on ground and surface water.

(Q) Discharge of water into underground mines.

(1) Discharges into an underground mine are prohibited, unless specifically approved by the chief after a demonstration that the discharge will:

- (a) Minimize disturbance to the hydrologic balance on the permit area, prevent material damage outside the permit area and otherwise eliminate public hazards resulting from surface mining operations;
- (b) Not result in a violation of applicable water quality standards or effluent limitations;
- (c) Be at a known rate and quality which shall meet the effluent limitations of this rule for pH and total suspended solids, except that the pH and total suspended solids limitations may be exceeded, if approved by the chief; and
- (d) Meet with the approval of MSHA.

(2) Discharges shall be limited to the following:

- (a) Water;
- (b) Coal processing waste;
- (c) Fly ash from a coal-fired facility;

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- (d) Sludge from an acid-mine-drainage treatment facility;
 - (e) Flue-gas desulfurization sludge;
 - (f) Inert material used for stabilizing underground mines; and
 - (g) Underground mine development wastes.
- (R) Postmining rehabilitation of sedimentation ponds, diversions, impoundments and treatment facilities. Before abandoning a permit area or seeking performance security release, the operator shall ensure that all temporary structures are removed and reclaimed, and that all permanent sedimentation ponds, diversions, impoundments, and treatment facilities meet the requirements of these rules for permanent structures, have been maintained properly, and meet the requirements of the approved reclamation plan for permanent structures and impoundments. The operator shall renovate such structure if necessary to meet requirements of these rules and to conform to the approved reclamation plan.
- (S) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

Draft Rule 1501:13-11-02, dated 10/9/2020.

This is a summary of the changes made to this rule.

(A). Paragraph reference clarified: the reference should be to (B)(1) of rules 1501:13-4-05 and 1501:13-4-14 rather than to only subparagraph (B)(1)(d). The revised reference does not change any application requirement.

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Dated 10/9/2020 Paragraph reference revised in (A).

1501:13-11-02 Support facilities and utility installations.

- (A) Each applicant for a coal mining and reclamation permit shall submit a description, plans and drawings for each support facility to be constructed, used or maintained within the proposed permit area, in addition to mapping of certain support facilities as required in paragraphs (A)(30) to (A)(36) of rule 1501:13-4-08 of the Administrative Code and paragraph (A)(23) of rule 1501:13-4-08.1 of the Administrative Code, submittal of narrative explanations and descriptions as required in paragraphs (A)(2)(b) and (B)(1)(~~d~~) of rules 1501:13-4-05 and 1501:13-4-14 of the Administrative Code, and submittal of descriptions, including maps and cross-sections, as required in paragraph (M) of rule 1501:13-4-05 of the Administrative Code and paragraph (L) of rule 1501:13-4-14 of the Administrative Code. The plans and drawings shall include a map, appropriate cross sections, design drawings, and specifications sufficient to demonstrate compliance with paragraph (B) of this rule.
- (B) Support facilities required for, or used incidentally to, the operation of the mine, including, but not limited to, mine buildings, coal loading facilities at or near the minesite, coal storage facilities, equipment storage facilities, fan buildings, hoist buildings, preparation plants, sheds, shops, and other buildings, shall be designed, constructed or reconstructed and located to prevent or control erosion and siltation, water pollution, and damage to public or private property. Support facilities shall be designed, constructed or reconstructed, maintained and used in a manner which prevents, to the extent possible using the best technology currently available:
- (1) Damage to fish, wildlife, and related environmental values;
 - (2) Additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions shall not be in excess of limitations of state or federal law.
- (C) All coal mining operations shall be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas, and water wells, oil, gas, and coal-slurry pipelines, railroads, electric lines, telephone and other telecommunication lines, and water and sewage lines which pass over, under, or through the permit area, unless otherwise approved by the owner of those facilities and the chief.

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1501:13-1-01 Effective date and applicability.

- (A) No permit to conduct coal mining and reclamation operations shall be issued unless application for the permit has been made in accordance with the requirements of these rules.
- (B) Each coal mining and reclamation operation shall comply with all the requirements of these rules, except as provided in paragraphs (C)(1) to (C)(3) of this rule.
- (C) Each structure used in connection with or to facilitate a coal exploration or coal mining and reclamation operation shall comply with the performance standards and the design requirements of these rules except that:
 - (1) If the performance standard in effect prior to August 16, 1982, in Chapter 1513. of the Revised Code and Chapters 1501:13-1 to 1501:13-14 of the Administrative Code, is no less effective than the comparable performance standards of these rules, an existing structure which meets the performance standards of the prior law and rules may be exempted by the chief from meeting the design requirements of these rules.
 - (2) If the performance standard in effect prior to August 16, 1982, in Chapter 1513. of the Revised Code and Chapters 1501:13-1 to 1501:13-14 of the Administrative Code, is less effective than the comparable performance standards of these rules, the chief shall require an existing structure to be modified to meet either the design requirements of Chapter 1513. of the Revised Code and these rules or the comparable performance standards of Chapter 1513. of the Revised Code and these rules, or both.
 - (3) The exemptions provided in paragraphs (C)(1) and (C)(2) of this rule shall not apply to:
 - (a) The requirements for existing and new coal mine waste disposal facilities; and
 - (b) The requirements to restore the approximate original contour of the land.
 - (4) These rules shall not govern operations conducted prior to August 16, 1982, except:
 - (a) Operations conducted under a strip mining permit shall comply with and be governed by rules 1501:13-1-01, 1501:13-1-03 to 1501:13-1-13, 1501:13-3-01 to 1501:13-3-08, 1501:13-6-03, 1501:13-7-06, 1501:13-9-10, and 1501:13-14-01 to 1501:13-14-04 of the Administrative Code, and all rules expressly made applicable therein, except that a person conducting such operations may choose to design structures in accordance with the design requirements specified in Chapters 1501:13-4, 1501:13-9, 1501:13-10, 1501:13-11, and 1501:13-13 of the Administrative Code.
 - (b) All operators of underground coal mines who submitted a mine map and affidavit pursuant to section 1513.12 of the Revised Code as it was in effect prior to September 1, 1981, shall comply with and be governed by rules 1501:13-1-01, 1501:13-1-03 to 1501:13-1-13, 1501:13-3-01 to 1501:13-3-08, 1501:13-6-03, 1501:13-12-03, 1501:13-12-04, and 1501:13-14-01 to 1501:13-14-04 of the Administrative Code, and all rules expressly made applicable therein, except that a person conducting such operations may choose to design structures in accordance with the design requirements specified in Chapters 1501:13-4, 1501:13-9, 1501:13-10, 1501:13-11, and 1501:13-13 of the Administrative Code.
- (D) Termination of jurisdiction.
 - (1) The chief may terminate jurisdiction under Chapter 1513. of the Revised Code over the reclaimed site of a completed coal mining and reclamation operation, or increment thereof, upon the chief's final decision in

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accordance with Chapter 1501:13-7 of the Administrative Code to release the performance security fully.

- (2) Following a termination under paragraph (D)(1) of this rule, the chief shall reassert jurisdiction under Chapter 1513. of the Revised Code over a site if it is demonstrated that the performance security release was based on fraud, collusion, or misrepresentation of a material fact.

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1501:13-1-10 Availability of records.

- (A) The chief shall make available to the public for inspection and copying, at reasonable times, all documents relating to:
- (1) Applications for permits, revisions, renewals, and transfers, assignments or sales of permit rights; and
 - (2) Inspection and enforcement actions.
- (B)
- (1) Copies of such records, reports, inspection materials or information obtained by the chief shall be made immediately available to the public at the local district offices of the division of mineral resources management closest to the coal mining and reclamation operations until at least five years after expiration of the period during which the subject operation is active or is covered by any portion of a reclamation performance security.
 - (2) To ensure compliance with paragraph (B)(1) of this rule the chief shall, at the division of mineral resources management district office responsible for inspection of the operation or, if no such office is maintained in the county where the mining is occurring or proposed to occur, at the office of the county recorder of that county or at the county office of the natural resources conservation service of the United States department of agriculture, either:
 - (a) Make copies of all records, reports, inspection materials, and other subject information available for public inspection; or
 - (b) Post for public inspection a description of the information available for mailing and a procedure for obtaining such information and, upon request, provide copies of subject information promptly by mail.
 - (i) If a resident of the area where the mining is occurring or proposed to occur makes a request under paragraph (B)(2)(b) of this rule, the division shall provide copies for no charge.
 - (ii) If a person other than a resident of the area where the mining is occurring or proposed to occur makes a request under paragraph (B)(2)(b) of this rule, the division shall follow the policy of the department of natural resources in charging for copies.
- (C) Records which are confidential and unavailable to the public include:
- (1) Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on the components of such coal which are potentially toxic in the environment;
 - (2) Preparatory materials relating to hearings and enforcement proceedings which are investigative in nature, and information provided by an information source or witness to whom confidentiality has been promised;
 - (3) Information submitted to the chief if the person submitting it requests in writing at the time of submission that it be kept confidential and the information concerns trade secrets or is privileged commercial or financial information relating to the competitive rights of persons intending to conduct coal exploration; and

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- (4) Information on the nature and location of archeological resources as required under the Archeological Resources Protection Act of 1979, 16 U.S.C. 470aa et seq., as amended.
- (D) Except as otherwise limited by paragraph (C)(1) of this rule, information pertaining to coal seams, test borings, core samplings or soil samples in an application shall be made available to any person with an interest which is or may be adversely affected.
- (E) The availability of other records or documents in the possession of the chief is subject to section 149.43 of the Revised Code, Chapter 1347. of the Revised Code, and other state and federal laws as may be applicable.
- (F) The chief shall provide for procedures, including notice and opportunity to be heard for persons both seeking and opposing disclosure, to maintain information required to be kept confidential under this rule separately from other portions of the permit application. This information shall be clearly identified by the applicant and submitted separately from other portions of the application.
- (G) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

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1501:13-1-13 Rule references.

When a specific paragraph is referenced in these rules, all paragraphs subordinate to that specific paragraph shall be incorporated by that reference. For example, a reference to paragraph (B) of rule 1501:13-4-04 of the Administrative Code shall include paragraphs (B)(1) to (B)(3) of that rule, and a reference to paragraph (C)(1) of rule 1501:13-4-04 of the Administrative Code shall include paragraphs (C)(1)(a) to (C)(1)(c) of that rule.

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1501:13-3-01 Standards for demonstration of valid existing rights.

- (A) Except as provided in paragraph (B) of this rule, a person claiming valid existing rights must demonstrate both of the following:
- (1) A property rights demonstration showing that, at the time the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code, a legally binding conveyance, lease, deed, contract, or other document vests that person, or a predecessor in interest, with the right to conduct the type of coal mining operations intended; and
 - (2) Compliance with one of the following standards:
 - (a) Good faith/all permits standard. All permits and other authorizations required to conduct coal mining operations had been obtained, or a good faith effort to obtain all necessary permits and authorizations had been made, before the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code. At a minimum, an application must have been submitted for any permit required under Chapter 1513. of the Revised Code; or
 - (b) Needed for and adjacent standard. The land is needed for and immediately adjacent to a coal mining operation for which all permits and other authorizations required to conduct coal mining operations had been obtained, or a good faith attempt to obtain all permits and authorizations had been made, before the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code. To meet this standard, the person claiming valid existing rights shall demonstrate that prohibiting expansion of the operation onto that land would unfairly impact the viability of the operation as originally planned before the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code. Except for operations in existence before August 3, 1977, or for which a good faith effort to obtain all necessary permits had been made before August 3, 1977, this standard does not apply to lands already under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code when the chief approved the permit for the original operation or when the good faith effort to obtain all necessary permits for the original operation was made. In evaluating whether a person meets this standard, the chief may consider factors such as:
 - (i) The extent to which coal supply contracts or other legal and business commitments that predate the time the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code depend upon use of that land for coal mining operations;
 - (ii) The extent to which plans used to obtain financing for the operation before the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code rely upon use of that land for coal mining operations;
 - (iii) The extent to which investments in the operation before the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code rely upon use of that land for coal mining operations; and
 - (iv) Whether the land lies within the area identified on the life-of-mine map submitted under paragraph (A)(29) of rule 1501:13-4-08 or paragraph (A)(22) of rule 1501:13-4-08.1 of the

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Administrative Code before the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code.

- (B) A person who claims valid existing rights to use or construct a road across the surface of lands protected by division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code shall demonstrate that one or more of the following circumstances exist if the road is included within the definition of coal mining operation of rule 1501:13-1-02 of the Administrative Code:
- (1) The road existed when the land upon which it is located came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code, and the person has a legal right to use the road for coal mining operations;
 - (2) A properly recorded right of way or easement for a road in that location existed when the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code, and, under the document creating the right of way or easement, and under subsequent conveyances, the person has legal right to use or construct a road across the right of way or easement for coal mining operations;
 - (3) A valid permit for use or construction of a road in that location for coal mining operations existed when the land came under the protection of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code; or
 - (4) Valid existing rights exist under paragraph (A) of this rule.
- (C) Possession of valid existing rights under this rule only confers an exception from the prohibitions of division (D) of section 1513.073 of the Revised Code or rule 1501:13-3-03 of the Administrative Code. A person seeking to exercise valid existing rights shall comply with all other pertinent requirements of Chapter 1513. of the Revised Code and these rules.

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1501:13-4-04 Permit application requirements for information on environmental resources.

(A) General requirements.

(1) This rule shall apply only to coal mining operations other than underground mining operations.

(2)

(a) Each application shall describe and identify the nature of cultural, historic and archeological resources listed or eligible for listing on the "National Register of Historic Places," administered by the national parks service, U.S. department of the interior, and known archeological sites within the proposed permit and adjacent areas. The description shall be based on all available information, including, but not limited to, information from the state historic preservation officer and from local archeological, historical, and cultural preservation agencies. The website for the "National Register of Historic Places" for Ohio sites is <http://www.nationalregisterofhistoricplaces.com/oh/state.html>.

(b) The chief may require the applicant to identify and evaluate important historic and archeological resources that may be eligible for listing on the "National Register of Historic Places," as referenced in paragraph (A)(2)(a) of this rule, through:

(i) Collection of additional information;

(ii) Conduct of field investigations; or

(iii) Other appropriate analyses.

(3) Each application shall describe and identify the lands subject to coal mining operations over the estimated life of those operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought.

(B) Description of hydrology and geology; general requirements.

Each application shall contain a description of surface and ground water within the general area, and any water which will flow into or receive discharges of water from the permit area. The description shall be prepared in the manner required by paragraphs (B) to (G) of this rule, and conform to the following:

(1) Information on hydrology, water quality and quantity, and geology related to hydrology of areas outside the proposed permit area and within the general area shall be provided by the chief, to the extent that this data is available from an appropriate federal or state agency.

(2) If this information is not available from those agencies, the applicant may gather and submit this information to the chief as part of the permit application.

(3) The permit shall not be approved by the chief until this information is made available in the application.

(C) Geology description.

(1) Each application shall include geologic information in sufficient detail to assist in determining:

(a) The probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface and groundwater monitoring is necessary.

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- (b) All potentially acid- or toxic-forming strata down to and including the stratum immediately below the lowest coal seam to be mined; and
- (c) Whether reclamation as required by these rules can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

(2)

- (a) The description shall include a general statement of the geology within the proposed permit area and adjacent areas down to and including the deeper of either the first stratum below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely affected by mining. It shall also include the areal and structural geology of the permit and adjacent areas, and the other parameters which influence the required reclamation, and shall show how the areal and structural geology may affect the occurrence, availability, movement, quantity, and quality of potentially affected surface and ground waters. It shall be based on:
 - (i) The cross sections, maps and plans required by paragraph (B) of rule 1501:13-4-08 of the Administrative Code;
 - (ii) The information obtained under paragraph (C)(3) of this rule; and
 - (iii) Geologic literature and practices.
- (b) Each application for a permit shall contain the results of tests conducted on the area of land to be mined. Unless the chief first approves a fewer number of test holes, such tests shall consist of test holes made by the boring or drilling method and be conducted at the rate of one test hole for each twenty-five acres of land or fraction thereof, which is underlain by coal on the area of land to be mined. At least one test hole shall be located on the highest elevation in the area of land to be mined. Holes shall be located as far apart as the size and shape of the area of land to be mined will allow. Such holes shall be drilled to the bottom of the material underlying the lowest coal seam to be mined and shall be staked or otherwise marked at the time of filing the application for a permit so as to be clearly visible at the approximate location, and shall be numbered. Such stakes or other markers shall be maintained until the permit to conduct a coal mining operation is granted or denied.

(3) Test borings or core samples.

- (a) Test borings or core samples from the proposed permit area shall be collected and analyzed down to and including the stratum immediately below the lowest coal seam to be mined. Individual drilling reports shall be furnished for each test boring or core sampling and shall contain the following information on forms prescribed by the chief:
 - (i) Location of subsurface water, if encountered;
 - (ii) Lithologic characteristics including physical properties and thickness of each stratum and each coal seam;
 - (iii) Chemical analyses to include pH, neutralization potential, potential acidity, total or pyritic sulfur, and calcium carbonate deficiency of each stratum;
 - (iv) Analyses of the coal seam for acid-forming or toxic-forming materials, including, but not limited

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to, an analysis of the total sulfur and the sulfur present in pyrite and marcasite;

(v) Identification of the test hole by the number assigned in paragraph (C)(2)(b) of this rule; and

(vi) Identification of all coal seams by name and number.

(b) To verify the results of the applicant's tests, the chief may, prior to approval of the application, require the applicant to drill additional test holes and provide the information required in paragraph (C)(3)(a) of this rule.

(c) If more precise information than can be provided by drilling techniques is warranted by potentially adverse site conditions, the chief may require that the test hole information required in paragraph (C)(3) of this rule be obtained by core drilling.

(4) Prior to submission of an application, an applicant may request that the requirements of paragraphs (C)(2)(b) and (C)(3)(a) of this rule be waived by the chief. The waiver may be granted only if the chief makes a written determination that the statement required is unnecessary because other equivalent information is accessible to him or her in a satisfactory form. If the chief grants a waiver the waiver shall be submitted with the permit application.

(D) Ground water information.

(1) The application shall contain a description of the ground water hydrology for the proposed permit and adjacent areas, including, at a minimum:

(a) The depth below the surface and the horizontal extent of the water table and aquifers;

(b) The lithology and thickness of the aquifers;

(c) Known uses of the water in the aquifers and water table;

(d) The quality of subsurface water, if encountered;

(e) The depth to the water in the coal seam if the seam is a water-bearing stratum, and each water-bearing stratum above and potentially affected water-bearing stratum below the coal seam; and

(f) The approximate rate of discharge or usage of the water.

(2) The application shall contain a water supply inventory to include, at a minimum:

(a) A list of existing water wells on the proposed permit and adjacent areas to describe the quality and quantity of the ground water to include:

(i) Identification number of the well;

(ii) Surface elevation of the well;

(iii) Depth of the well in feet below the land surface;

(iv) Static water level of the well in feet below the land surface;

(v) The lithology of the aquifer in which each well is developed; and

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- (vi) Name of owner of the well;
- (b) A list of existing springs on the proposed permit and adjacent areas to include:
 - (i) Identification number of the spring;
 - (ii) Name of owner of any spring that is developed for use as a water supply;
 - (iii) The surface elevation of the spring; and
 - (iv) The aquifer each spring flows from; and
- (c) A list of the location and type of any public water supply sources on the permit and adjacent areas.
- (3) Where information required in the water supply inventory of paragraph (D)(2) of this rule is unobtainable, a statement to that effect shall be made, giving the reasons therefor.
- (4) The application shall contain the results of water quality analyses and measurements of static water level or discharge, conducted on at least ten (or all if less than ten) of the wells and springs on the permit and adjacent areas or twenty-five per cent of such wells and springs, whichever number is greater.
 - (a) Wells and springs chosen for analysis and measurement shall, as a group, represent all known aquifers present in the permit and adjacent areas and shall, wherever possible, be those nearest to or on the permit area.
 - (b) Sampling for water quality analysis shall be conducted at a minimum one time prior to submission of an application for a permit.
 - (c) The measurement of static water level or discharge shall be conducted for each well and spring identified in paragraph (D)(4) of this rule at a minimum one time prior to submission of an application for a permit.
 - (d) Water samples collected at the sites prescribed in paragraph (D)(4) of this rule shall be analyzed for the following parameters according to the methodology specified in 40 C.F.R. parts 136 and 434:
 - (i) pH in standard units;
 - (ii) Total acidity in milligrams per liter of CaCO_3 ;
 - (iii) Total alkalinity in milligrams per liter of CaCO_3 ;
 - (iv) Total manganese in milligrams per liter;
 - (v) Total iron in milligrams per liter;
 - (vi) Total hardness in milligrams per liter of CaCO_3 ;
 - (vii) Total dissolved solids or specific conductance corrected to twenty-five degrees centigrade;
 - (viii) Total aluminum in milligrams per liter;
 - (ix) Total sulfates in milligrams per liter; and

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- (x) Other such information as the chief determines relevant.
- (e) The results of water quality analyses and measurements prescribed in paragraph (D) of this rule shall be reported on a form to be provided by the chief.
- (5) Water quality and quantity data sufficient to identify seasonal variations pursuant to paragraph (D)(6) or (D)(7) of this rule shall be submitted with an application for a permit.
- (6) Identifying seasonal variations for ground water and surface water. For each application, the applicant shall submit three water samples from each required sampling site designated pursuant to paragraphs (D)(4) and (E)(1) of this rule. One sample shall be from the low flow period, one sample from the high flow period, and one sample from either of the intermediate flow periods, as established in the following table:

Flow Periods and Duration of Flow Periods

Low Flow	August 16 to October 31
Transition Flow	November 1 to November 15
Intermediate Flow	November 16 to January 31
Transition Flow	February 1 to February 14
High Flow	February 15 to April 30
Transition Flow	May 1 to May 15
Intermediate Flow	May 16 to July 31
Transition Flow	August 1 to August 15

- (a) For samples submitted to meet the seasonal variations requirements, the period between consecutive samples shall be at least thirty days, but not more than eighteen months, and no sample shall be collected more than thirty-six months before the date of submission of the application to the chief. A sample that exceeds the eighteen month or thirty-six month time limit of this paragraph may be acceptable if the applicant submits the following information with the sample:
- (i) The date and sampling site of the sample; and
 - (ii) A description of all land disturbance activities that existed at the time of the sample date or that have occurred since the sample date within the local watershed that could affect the quality and quantity of the surface water or ground water. The description shall include, but is not limited to, land disturbances such as mining operations, highway construction, cut and fill operations, building construction, and dam construction or demolition.
 - (iii) A sample that exceeds the eighteen month or thirty-six month time limit is acceptable only if the chief determines that it is still representative of the quality and quantity of the surface water or ground water at the time of submission of the application.
- (b) The applicant is not required to collect samples from consecutive flow periods.
- (c) The applicant may record a low flow sample as "no flow" if the applicant documents that the applicant made at least two attempts, at least thirty days apart, to collect a flow at that site during the low flow period.

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- (d) Transition flow periods. A sample obtained during a transition flow period may be used for either the preceding or succeeding flow period if the following conditions are met:
 - (i) The applicant submits documentation showing that the sample from the transition period accurately reflects the flow period for which the sample is submitted and the chief agrees with this assessment;
 - (ii) The sample obtained during a transition period is not used for both the preceding and succeeding flow periods;
 - (iii) At least one of the three required samples is obtained during a flow period other than a transition period; and
 - (iv) The applicant submits precipitation data for the local watershed for the thirty days prior to the sample date.
- (e) Substitute sampling site for one sample. The applicant may request, in writing, that a sample obtained from a site other than a designated sampling site be substituted for one of the three designated site samples. A sample from a substitute site shall not be used as the earliest of the three samples from a designated sampling site. The chief shall review this request and determine whether the substitute sampling site and the data collected from the site are acceptable. In making the request, the applicant shall:
 - (i) Describe how the substitute sampling site adequately represents the original sampling site;
 - (ii) Demonstrate that the substitute sampling site is located in the same aquifer as the original sampling site;
 - (iii) Demonstrate that the geology of the groundwater recharge area of the substitute site, as well as the surface disturbance of the recharge area of the substitute site, are similar to that of the original site;
 - (iv) Demonstrate that the substitute sampling site represents and performs the same function as the original site;
 - (v) Demonstrate that the analysis of the water quality and quantity data from the substitute site accurately represents the quality and quantity of the water at the original site and explain any anomalies in water quality or quantity at the substitute site;
 - (vi) Demonstrate that the flow obtained at the substitute site was obtained during the flow period missed at the original site;
 - (vii) Include precipitation data for the thirty days prior to the sample date at the substitute site;
 - (viii) Provide a description of the location of the substitute sampling site relative to the original sampling location. The description shall include bearing and distance measurements from the original sampling location to the substitute sampling location; and
 - (ix) Submit additional information if required by the chief to support the use of a substitute sample.
- (f) The applicant may submit additional samples and other data related to seasonal variations beyond that submitted to meet the minimum requirements of paragraph (D)(6) of this rule.

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- (7) Water quality and quantity data collected and described other than as required by paragraph (D)(6) of this rule may be submitted to identify seasonal variations in ground water and surface water, provided the chief determines that the alternative data are sufficient to identify seasonal variations needed for the hydrologic assessments required by Chapter 1513. of the Revised Code and the rules adopted thereunder.

(E) Surface-water information.

- (1) Within the proposed permit and adjacent areas, all surface-water bodies such as streams, lakes and impoundments and all discharges from the permit area into surface-water bodies shall be described and sampled for analysis under paragraph (E) of this rule. The description shall include the name of any watershed that will receive water discharges, the name, ownership and location of all surface-water bodies and the known uses of the water in these water bodies.
 - (2) Water samples collected under paragraph (E) of this rule shall be analyzed according to the methodology specified in 40 C.F.R. parts 136 and 434. Surface water information shall include the following water quality data to identify the characteristics of surface waters within the proposed permit and adjacent areas:
 - (a) Total suspended solids in milligrams per liter;
 - (b) Total acidity in milligrams per liter of CaCO_3 ;
 - (c) Total alkalinity in milligrams per liter of CaCO_3 ;
 - (d) pH in standard units;
 - (e) Total iron in milligrams per liter;
 - (f) Total manganese in milligrams per liter;
 - (g) Total dissolved solids or specific conductance corrected to twenty-five degrees centigrade;
 - (h) Total aluminum in milligrams per liter;
 - (i) Total sulfates in milligrams per liter; and
 - (j) Other such information as the chief determines relevant.
 - (3) Water quality and quantity data sufficient to identify seasonal variations pursuant to paragraph (D)(6) or (D)(7) of this rule shall be submitted with an application for a permit.
 - (4) The results of water quality analyses and measurements prescribed in paragraph (E) of this rule shall be reported on a form to be provided by the chief.
- (F) Alternative water supply information. The application shall identify the extent to which the proposed coal mining operations may proximately result in contamination, diminution, or interruption of an underground or surface source of water that is for domestic, agricultural, industrial, or other legitimate use. If contamination, diminution, or interruption may result, then the description shall contain information on water availability and alternative sources of water, including the suitability of alternative water sources for existing premining uses and approved post-mining land uses.

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- (G) Supplemental information. If the determination of the probable hydrologic consequences required by paragraph (E)(2) of rule 1501:13-4-05 of the Administrative Code indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then information supplemental to that required under paragraphs (D) and (E) of this rule shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analyses of other water quality or quantity characteristics.
- (H) Climatological information.
- (1) When required by the chief, the application shall contain a statement of the climatological factors that are representative of the proposed permit area, including:
 - (a) The average seasonal precipitation;
 - (b) The average direction and velocity of prevailing winds; and
 - (c) Seasonal temperature ranges.
 - (2) The chief may request such additional data as deemed necessary to ensure compliance with the requirements of these rules.
- (I) Land-use information.
- (1) The application shall contain a statement of the condition, capability, and productivity of the land within the proposed permit area, including:
 - (a) A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within five years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described.
 - (b) A narrative of the land capability and productivity, which analyzes the land use described under paragraph (I)(1)(a) of this rule in conjunction with other environmental resources information required under these rules. The narrative shall provide analyses of:
 - (i) The capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the proposed permit area; and
 - (ii) The productivity of the proposed permit area before mining, including appropriate classification as prime farmlands, as well as the average yield of food, fiber, forage, or wood products from the land obtained under high level of management. The productivity shall be determined by yield data or estimates for similar sites based on current data from the United States department of agriculture, state agricultural universities, or appropriate state natural resources or agricultural agencies.
 - (2) The application shall state whether the proposed permit area has been previously mined, and if so, the following information, if available:
 - (a) The type of mining method used;

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(b) The coal seams or other mineral strata mined;

(c) The extent of coal or other minerals removed;

(d) The approximate dates of past mining; and

(e) The uses of the land preceding mining.

(3) The application shall contain a description of the existing land uses and land use classifications under local law, if any, of the proposed permit and adjacent areas.

(J) Prime farmland investigation.

(1) The applicant shall conduct a pre-application investigation of the proposed permit area to determine whether lands within the area may be prime farmland. The chief, in consultation with the U.S. natural resources conservation service, shall determine the nature and extent of this investigation.

(2) Land shall not be considered prime farmland if the applicant can demonstrate that:

(a) The land has not been historically used for cropland; or

(b) On the basis of a soil survey of lands within the permit area, there are no soil map units that have been designated prime farmland by the U.S. natural resources conservation service.

(3) If the investigation establishes that the lands are not prime farmland, the applicant shall submit with the permit application a request for a negative determination which shows that the land for which the negative determination is sought meets one of the criteria of paragraph (J)(2) of this rule.

(4) If the investigation indicates that lands within the proposed permit area may be prime farmlands, the applicant shall contact the U.S. natural resources conservation service to determine if a soil survey exists for those lands and whether the applicable soil map units have been designated as prime farmlands. If no soil survey has been made for the lands within the proposed permit area, the applicant shall cause a survey to be made that is of the detail of a second order soil survey used by the U.S. natural resources conservation service for operational conservation planning. This survey shall be used to identify and locate prime farmland soils.

(a) When a soil survey made pursuant to paragraph (J)(4) of this rule indicates that the land contains soil map units which have been designated as prime farmlands, the applicant shall submit an application, in accordance with the requirements of paragraph (F) of rule 1501:13-4-12 of the Administrative Code, for such designated land.

(b) When a soil survey made pursuant to paragraph (J)(4) of this rule indicates that the land contains soil map units which have not been designated as prime farmland after review by the U.S. natural resources conservation service, the applicant shall submit a request for negative determination for non-designated land with the permit application establishing compliance with paragraph (J)(2) of this rule.

(K) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

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1501:13-4-08 Application, supplemental and hydrologic maps, and cross-sections, designs and plans.

This rule applies to coal mining operations, including underground mining surface operations, but does not apply to underground workings.

- (A) Application map. The permit application shall include an application map prepared by or under the direction of and certified by a surveyor or jointly by a an engineer and a surveyor, to the extent such joint certification is required by state law, showing:
- (1) All boundaries of lands and names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the proposed permit area; noting the boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin coal mining operations and which areas the applicant does not yet have this right;
 - (2) The location of all buildings on and within one thousand feet of the proposed permit area, with identification of the current use of the buildings using the map symbols set forth in rule 1501:13-4-10 of the Administrative Code;
 - (3) The location of surface and subsurface man-made features within, passing through, or passing over the proposed permit area;
 - (4) The locations of water supply intakes for current users of surface water flowing into, out of, and within a hydrologic area defined by the chief, those surface waters which will receive discharges from affected areas in the proposed permit area and the location of any discharges to any surface body of water on or adjacent to the land to be affected;
 - (5) Each public road located in or within one hundred feet of the proposed permit area;
 - (6) The boundaries of any public park and locations of any cultural or historical resources listed or eligible for listing on the "National Register of Historic Places," as referenced in paragraph (A)(2)(a) of rule 1501:13-4-04 of the Administrative Code, and known archeological sites within the proposed permit and adjacent areas;
 - (7) Each cemetery that is located in or within one hundred feet of the proposed permit area;
 - (8) Any land within the proposed permit area or adjacent area which is within the boundaries of any units of the national system of trails or the wild and scenic rivers system, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq., or study rivers or study river corridors as established in any guidelines pursuant to that act;
 - (9) The boundaries and names of counties, municipal corporations, townships, section and lot lines located in and within five hundred feet of the proposed permit area;
 - (10) The names, locations, and directions of flow of all perennial and intermittent streams located in and within five hundred feet of the proposed permit area;
 - (11) The name of the drainage basin in which the proposed permit area is located as listed in the "Gazetteer of Ohio Streams," published by the Ohio department of natural resources;
 - (12) That part of the proposed permit area that is prime farmland;
 - (13) The areas of land within the proposed permit area on which steep slope mining, mountaintop removal,

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and augering will be performed;

- (14) The drainage control system within the proposed permit area to include the location of:
 - (a) Each sediment pond and the pond identification number;
 - (b) Any diversions; and
 - (c) Any treatment facilities;
- (15) All haul roads and access roads proposed to be constructed within the proposed permit area in conjunction with the operations, and all existing haul roads and access roads within the proposed permit area to be used in conjunction with the operation;
- (16) The location of the proposed final highwall for each coal seam to be mined within the proposed permit area;
- (17) The point at which mining operations will begin and the point at which mining operations will end on the proposed permit area;
- (18) Elevations and locations of test borings and core samplings;
- (19) Elevations and locations of monitoring stations used to gather data for water quality and quantity, fish and wildlife, and air quality, if required, in preparation of the application;
- (20) All coal crop lines and the strike and dip of the coal to be mined in the proposed permit area;
- (21) Location and extent of known workings of active, inactive, or abandoned underground mines, including mine openings to the surface, within the proposed permit and adjacent areas;
- (22) Location of surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains, and irrigation ditches within the proposed permit and adjacent areas;
- (23) Location and extent of existing or previously surface-mined areas within the proposed permit area;
- (24) Location and extent of existing areas of spoil, waste, and refuse, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed permit area;
- (25) Location of gas and oil wells in and within twenty-five feet of the proposed permit area and the location of producing gas and oil wells in and within three hundred feet of the proposed permit area;
- (26) Location of water wells in and within one thousand feet of the proposed permit area;
- (27) The location and start and end points of all submitted cross sections within the proposed permit area;
- (28) Sufficient slope measurements, in degrees, to adequately represent the existing land surface configuration of the proposed permit area;
- (29) The boundaries of all areas proposed to be affected over the estimated total life of the proposed mining operation, with a description of size, sequence, and timing of the mining of sub-areas for which it is anticipated that additional permits will be sought;
- (30) Buildings, utility corridors within the proposed permit area;

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- (31) Each coal storage, cleaning and loading area within the proposed permit area;
 - (32) Each topsoil, spoil, coal waste, and noncoal waste storage area within the proposed permit area;
 - (33) Each air pollution collection and control facility within the proposed permit area;
 - (34) Each facility to be used to protect and enhance fish and wildlife and related environmental values within the proposed permit area;
 - (35) Each explosive storage and handling facility within the proposed permit area;
 - (36) The location of each facility that will remain on the proposed permit area as a permanent feature after the completion of mining operations;
 - (37) The location of each water monitoring point within the proposed permit area;
 - (38) For underground mining surface operations, the location of each subsidence monitoring point within the proposed permit area; and
 - (39) Other relevant information required by the chief.
- (B) Supplementary maps, cross sections, designs and plans. When necessary under these rules, the application shall include:
- (1) Designs and plans prepared and certified by an engineer for the following:
 - (a) Sedimentation ponds, impoundments, coal mine waste banks, and coal mine waste dams;
 - (b) Spoil disposal facilities;
 - (c) The sealing or managing of any mine openings within the proposed permit area;
 - (d) Stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with paragraphs (D) and (F) of rule 1501:13-9-04 of the Administrative Code; and
 - (e) Road stream crossings, bridges, culverts, drainages, ditches, drainage structures, road cuts, and fill embankments.
 - (2) Supplementary maps and cross sections, prepared by or under the direction of and certified by an engineer or jointly by an engineer and a surveyor to the extent such joint certification is required by state law, showing:
 - (a) Each sedimentation pond, permanent water impoundment, coal mine waste bank and coal mine waste dam;
 - (b) The fill area for the disposal of excess spoil;
 - (c) The nature, depth, and thickness of the coal seams to be mined, each stratum of the overburden, and the stratum immediately below the lowest coal seam to be mined;
 - (d) The permit area, the original surface topography and the proposed final surface contour;

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- (e) The location of the proposed final highwall;
- (f) The location of each waste disposal facility relating to coal processing or pollution control;
- (g) The location of any mine openings within the proposed permit area;
- (h) Stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with paragraphs (D) and (F) of rule 1501:13-9-04 of the Administrative Code; and
- (i) Road widths, road gradients, road surfaces, road cuts, fill embankments, culverts, bridges, drainages, ditches, and drainage structures.

(C) Hydrologic map. Each application for a permit shall include a hydrologic map which, in addition to the applicable requirements of rules 1501:13-4-09 and 1501:13-4-10 of the Administrative Code, shall be at a scale of not more than five hundred feet to the inch. The hydrologic map shall be certified by a surveyor and, if required pursuant to paragraph (C) of rule 1501:13-4-09 of the Administrative Code, by an engineer. Except as provided in paragraph (D) of this rule, all hydrologic maps shall show the following:

- (1) The proposed permit area;
- (2) A line identifying the area within one thousand feet of the proposed permit area;
- (3) All occupied buildings on or within one thousand feet of the proposed permit area;
- (4) All perennial and intermittent streams on or within one thousand feet of the proposed permit area;
- (5) The location of the coal outcrop on the proposed permit area and the name and number of each coal seam to be mined;
- (6) The location of each cross-section drawn to show hydrogeologic information as required under paragraph (F) of this rule;
- (7) The location and type of water supply used by the occupant of each building described in paragraph (C)(3) of this rule for the purpose of domestic, agricultural, or industrial use;
- (8) All springs on or within one thousand feet of the proposed permit area;
- (9) All seepage zones on and within one thousand feet of the proposed permit area;
- (10) The location of sampling stations on each stream identified in paragraph (C)(4) of this rule at points just above and below the proposed permit area and the location and elevation of other sampling stations used to gather data on water quality and quantity in the preparation of the permit application;
- (11) Location and extent of known workings of active, inactive, or abandoned underground mines, including mine openings to the surface, within the proposed permit and adjacent areas;
- (12) The location of monitoring stations, other than sediment pond outlets, to be monitored during the life of the permit;
- (13) All existing water wells on or within one thousand feet of the proposed permit area;
- (14) Any well, well field, reservoir, river, or other water source used for a public water supply on or within

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one thousand feet of the proposed permit area; and

(15) Any land determined to be eligible for remining.

(D)

(1) For the items listed in paragraphs (C)(3), (C)(4), and (C)(7) to (C)(14) of this rule, the chief may require additional information outside the thousand-foot limit to be shown on the hydrologic map if such identification is necessary based on site-specific conditions.

(2) The items listed in paragraphs (C)(3), (C)(7), (C)(8), (C)(9), (C)(10), (C)(11) and (C)(13) of this rule need not be shown on the hydrologic map when:

(a) They are located beyond an intermittent or perennial stream located within one thousand feet of the proposed permit area; and

(b) The lowest coal seam to be mined is at a higher elevation than such intermittent or perennial stream.

(E) The map symbols used to identify the items described in paragraphs (C)(8) to (C)(14) of this rule shall be highlighted in red on all hydrologic maps.

(F) Hydrologic cross-section. Each application for a permit shall include one or more cross-sections prepared by, or under the direction of, an engineer or a professional geologist showing:

(1) The location and extent of subsurface water, if encountered, within the proposed permit or adjacent areas;

(2) All wells, boreholes, piezometers, springs, or other features used to determine the configuration of the water table or potentiometric surface of each aquifer where such wells, boreholes, piezometers, springs, or other items fall on or reasonably close to the line of the cross-section;

(3) Within the permit and adjacent areas, all aquifers and the water table or potentiometric surface of each aquifer above the lowest coal seam to be mined and within the lowest coal seam to be mined if that seam is a water bearing stratum, and each potentially affected water bearing stratum below the lowest coal seam to be mined; and

(4) All coal seams to be mined.

(G) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

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1501:13-4-08.1 Application, supplemental and hydrologic maps, and cross-sections, designs and plans for underground workings.

This rule applies only to underground workings.

- (A) Application map. The permit application shall include an application map prepared by or under the direction of and certified by a surveyor or jointly by an engineer and a surveyor, to the extent such certification is required by state law, showing:
- (1) All boundaries of land and names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the proposed shadow area; noting the boundaries of land within the proposed shadow area upon which the applicant has the legal right to enter and begin coal mining operations and which areas the applicant does not yet have this right;
 - (2) The location of all buildings on and within one thousand feet of the proposed shadow area for full coal recovery mining operations and on and within three hundred feet of the proposed shadow area for room and pillar mining operations, with identification of the current use of the buildings using the map symbols set forth in rule 1501:13-4-10 of the Administrative Code;
 - (3) The location of surface and subsurface man-made features within, passing through, or passing over the proposed shadow and adjacent areas;
 - (4) The locations of water supply intakes for current users of surface water flowing into, out of, and within a hydrologic area defined by the chief, those surface waters which will receive discharges from the proposed shadow area and the location of any discharges to any surface body of water on or adjacent to the proposed shadow area;
 - (5) Each public road located within the proposed shadow and adjacent areas;
 - (6) The boundaries of any public park and locations of any cultural or historical resources listed or eligible for listing on the "National Register of Historic Places," as referenced in paragraph (A)(2)(a) of rule 1501:13-4-13 of the Administrative Code, and known archeological sites within the proposed shadow and adjacent areas;
 - (7) Each cemetery that is located within the proposed shadow and adjacent areas;
 - (8) Any land within the proposed shadow area or adjacent area which is within the boundaries of any units of the national system of trails or the wild and scenic rivers system, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq., or study rivers or study river corridors as established in any guidelines pursuant to that act;
 - (9) The boundaries and names of counties, municipal corporations, townships, section and lot lines located in and within five hundred feet of the proposed shadow area;
 - (10) The names, locations, and directions of flow of all perennial and intermittent streams located in and within five hundred feet of the proposed shadow area;
 - (11) The name of the drainage basin in which the proposed shadow area is located as listed in the "Gazetteer of Ohio Streams," published by the Ohio department of natural resources;
 - (12) Elevations and locations of test borings and core samplings;

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- (13) Elevations and locations of monitoring stations used to gather data for water quality and quantity, fish and wildlife, and air quality, if required, in preparation of the application;
 - (14) All coal contour lines and the strike and dip of the coal to be mined in the proposed shadow area;
 - (15) Location and extent of known workings of active, inactive or abandoned underground mines, including mine openings to the surface, within the proposed shadow and adjacent areas;
 - (16) Location of surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains, and irrigation ditches within the proposed shadow and adjacent areas;
 - (17) Location and extent of existing or previously surface-mined areas within the proposed shadow and adjacent areas;
 - (18) Location and extent of existing areas of waste, refuse, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed shadow and adjacent areas;
 - (19) Location of gas and oil wells in and within twenty-five feet of the proposed shadow area and the location of producing gas and oil wells in and within three hundred feet of the proposed shadow area;
 - (20) Location of water wells in the proposed shadow and adjacent areas;
 - (21) The location and start and end points of all submitted cross sections within the proposed shadow area;
 - (22) The boundaries of all areas proposed to be affected over the estimated total life of the proposed mining operation, with a description of size, sequence, and timing of the mining of sub-areas for which it is anticipated that additional permits will be sought;
 - (23) Buildings, utility corridors within the proposed shadow and adjacent areas;
 - (24) The location of each water monitoring point within the proposed shadow and adjacent areas;
 - (25) The location of each subsidence monitoring point within the proposed shadow area; and
 - (26) Other relevant information required by the chief.
- (B) Supplementary maps and cross sections, designs and plans. When necessary under these rules, the application shall include:
- (1) Supplementary maps and cross sections, prepared by or under the direction of and certified by an engineer or jointly by an engineer and a surveyor to the extent such joint certification is required by state law, showing the nature, depth, and thickness of the coal seams to be mined, each stratum of the overburden, and the stratum immediately below the lowest coal seam to be mined; and
 - (2) Other relevant supplementary maps, cross sections, designs and plans required by the chief.
- (C) Hydrologic map. Each application for a permit shall include a hydrologic map which, in addition to the applicable requirements of rules 1501:13-4-09 and 1501:13-4-10 of the Administrative Code, shall be at a scale of not more than five hundred feet to the inch. The hydrologic map shall be certified by a surveyor and, if required pursuant to paragraph (C) of rule 1501:13-4-09 of the Administrative Code, by an engineer. Except as provided in paragraph (D) of this rule, all hydrologic maps shall show the following:

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- (1) The proposed permit and shadow areas and the area within one thousand feet of the proposed shadow area for full coal recovery mining operations and within three hundred feet of the proposed shadow area for room and pillar mining operations;
- (2) A line identifying the area within one thousand feet of the proposed shadow area for full coal recovery mining operations and within three hundred feet of the proposed shadow area for room and pillar mining operations;
- (3) All occupied buildings on or within one thousand feet of the proposed shadow area for full coal recovery mining operations and on or within three hundred feet of the proposed shadow area for room and pillar mining operations;
- (4) All perennial and intermittent streams on or within one thousand feet of the proposed shadow area for full coal recovery mining operations and on or within three hundred feet of the proposed shadow area for room and pillar mining operations;
- (5) The location of the coal outcrop on the proposed permit area and the name and number of each coal seam to be mined;
- (6) The location of each cross-section drawn to show hydrogeologic information as required under paragraph (F) of this rule;
- (7) The location and type of water supply used by the occupant of each building described in paragraph (C)(3) of this rule for the purpose of domestic, agricultural, or industrial use;
- (8) All springs on or within one thousand feet of the proposed shadow area for full coal recovery mining operations and on or within three hundred feet of the proposed shadow area for room and pillar mining operations;
- (9) All seepage zones on and within one thousand feet of the proposed shadow area for full coal recovery mining operations and on or within three hundred feet of the proposed shadow area for room and pillar mining operations;
- (10) The location of sampling stations on each stream identified in paragraph (C)(4) of this rule at points just above and below the proposed permit area and the location and elevation of other sampling stations used to gather data on water quality and quantity in the preparation of the permit application;
- (11) Location and extent of known workings of active, inactive or abandoned underground mines, including mine openings to the surface, within the proposed shadow and adjacent areas;
- (12) The location of monitoring stations, other than sediment pond outlets, to be monitored during the life of the permit;
- (13) All existing water wells on or within one thousand feet of the proposed shadow area for full coal recovery mining operations and on or within three hundred feet of the proposed shadow area for room and pillar mining operations; and
- (14) Any well, well field, reservoir, river, or other water source used for a public water supply on or within one thousand feet of the proposed shadow area for full coal recovery mining operations and on or within three hundred feet of the proposed shadow area for room and pillar mining operations.

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- (D)
- (1) For the items listed in paragraphs (C)(3), (C)(4), and (C)(7) to (C)(14) of this rule, the chief may require additional information outside the thousand-foot limit of the shadow area for full coal recovery mining operations or outside the three-hundred-foot limit of the proposed shadow area for room and pillar mining operations to be shown on the hydrologic map if such identification is necessary based on site-specific conditions.
 - (2) The items listed in paragraphs (C)(3), (C)(7), (C)(8), (C)(9), (C)(10), (C)(11), and (C)(13) of this rule need not be shown on the hydrologic map when:
 - (a) They are located beyond an intermittent or perennial stream located within one thousand feet of the proposed permit area; and
 - (b) The lowest coal seam to be mined is at a higher elevation than such intermittent or perennial stream.
- (E) The map symbols used to identify the items described in paragraphs (C)(8) to (C)(14) of this rule shall be highlighted in red on all hydrologic maps.
- (F) Hydrologic cross-section. Each application for a permit shall include one or more cross-sections prepared by, or under the direction of, an engineer or a professional geologist showing:
- (1) The location and extent of subsurface water, if encountered, within the proposed shadow or adjacent areas;
 - (2) All wells, boreholes, piezometers, springs, or other features used to determine the configuration of the water table or potentiometric surface of each aquifer where such wells, boreholes, piezometers, springs, or other items fall on or reasonably close to the line of the cross-section;
 - (3) Within the proposed shadow and adjacent areas, all aquifers and the water table or potentiometric surface of each aquifer above the lowest coal seam to be mined and within the lowest coal seam to be mined if that seam is a water bearing stratum, and each potentially affected water bearing stratum below the lowest coal seam to be mined; and
 - (4) All coal seams to be mined.
- (G) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

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1501:13-4-09 General map requirements.

All maps and drawings required by Chapter 1513. of the Revised Code or Chapters 1501:13-1 to 1501:13-14 of the Administrative Code shall, in addition to other applicable requirements, be in quadruplicate and, where the area of land to be permitted is ten acres or less, have a scale of one inch equals one hundred feet; where the area of land to be permitted is greater than ten acres but less than one hundred acres, have a scale of one inch equals two hundred feet; and where the area of land to be permitted is equal to or greater than one hundred acres, have a scale of one inch equals four hundred feet. All acreage figures required to be reported or estimated shall be to the nearest one-tenth of an acre. All annual maps, progress maps and the final map shall be at the same scale as the application map submitted for the permit.

North shall be toward the top of the map. All maps shall include the following:

- (A) A location or quadrangle map placed in the upper right corner of the map, with a scale of one inch equals one mile, which shall depict:
 - (1) A minimum area of four miles by four miles;
 - (2) The site of the area of land to be permitted;
 - (3) State, county, township, and section lines;
 - (4) Federal, state, county, township, or other roads;
 - (5) The north arrow; and
 - (6) Name of the quadrangle map.
- (B) A legend placed to the right side and below the location map. The legend shall indicate which map symbols from paragraph (C) of rule 1501:13-4-10 of the Administrative Code appear on the map.
- (C)
 - (1) A notarized map certification by the qualified registered professional surveyor placed to the right side and below the map legend. The certification shall read: "I, the undersigned, hereby certify that this map is correct, and shows to the best of my knowledge and belief all the information required by Chapter 1513. of the Revised Code and rules adopted thereunder."
 - (2) If the map under paragraph (C)(1) of this rule has the only depiction of design elements for proposed features, the map shall also be signed and sealed by the qualified registered professional engineer who designed those elements. The certification by the engineer shall read: "I, the undersigned, hereby certify that the design elements are correctly depicted on this map."
- (D) A title block placed in the lower right corner of the map containing the following information in the order listed:
 - (1) The title of the map describing whether it is an application map, supplemental map, hydrologic map, progress map, annual map, or final map;
 - (2) The name of the applicant;
 - (3) The township and range designation;

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- (4) The name of the township and county;
- (5) The sections and/or lot numbers;
- (6) The scale of the map;
- (7) The contour interval of the map; and
- (8) The date the map was prepared.

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1501:13-4-10 Uniform color code and map symbols.

(A) Coal mining permit application, supplemental, and hydrologic maps and plans shall utilize the following uniform color codes:

- (1) The proposed or existing permit area shall have its perimeter designated with a dashed black line and the area included therein, excepting the areas required to be designated in paragraphs (A)(2) to (A)(5) of this rule, shall be shaded yellow.
- (2) Any areas of topsoil, hydric soil, or alternative resoiling material storage shall have its perimeter designated with a dashed black line and the area therein shall be shaded brown.
- (3) Any areas of existing impoundments or sediment ponds shall have their perimeters designated with solid black lines and the areas therein shall be shaded blue. Any areas of proposed sediment ponds shall have their perimeters designated with dashed black lines and the areas therein shall be shaded blue. Any areas of existing wetlands that have been verified by the U.S. Army Corps of Engineers shall have their perimeters designated with solid black lines and the areas therein shall be cross-hatched in green. Any areas of existing wetlands that have not been verified by the U.S. Army Corps of Engineers shall have their perimeters designated with solid black lines and the areas therein shall be dotted in green. Any areas of proposed/restored/mitigated wetlands shall have their perimeters designated with dashed black lines and the areas therein shall be cross-hatched in green.
- (4) Any areas within one hundred feet of a perennial or intermittent stream shall have their perimeters designated with solid red lines. Any areas within one hundred feet of a perennial or intermittent stream where the buffer area will not be disturbed shall have their perimeters designated with solid red lines and the areas therein shall be shaded red.
- (5) Any areas identified as prime farmland shall have their perimeters designated with dashed black lines and the areas therein shall be shaded green.
- (6) Any area determined to be eligible for remining shall have its perimeter designated with a dashed black line and the area therein clearly labeled "remine".
- (7) Any shadow area shall have its perimeter designated with a dashed line that is black with a yellow highlight.

(B) Annual maps and final maps shall utilize the following uniform color codes:

- (1) The existing permit area shall have its perimeter designated with a solid black line.
- (2) The perimeters of the areas affected during each mining year that are not to be reaffected during the following mining year shall be designated by a solid red line and shall be shaded as follows:
 - (a) First year - blue
 - (b) Second year - green
 - (c) Third year - yellow
 - (d) Fourth year - red
 - (e) Fifth year - brown

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- (3) The perimeters of remining areas affected during each mining year that are not to be reaffected during the following mining year shall be designated by a dashed black line and the area therein clearly labeled "remine." The first year shall be shaded blue and the second year shall be shaded green.
 - (4) The perimeter of the total area affected as reported on the annual reports shall be designated on the annual map by a solid orange line.
 - (5) The perimeter of the total area affected as reported on the final report shall be designated on the final map by a solid orange line and the areas reported on the annual reports shall be designated by solid red lines and shaded as required by paragraph (B) (2) of this rule.
- (C) All maps required by Chapter 1513. of the Revised Code or rules adopted thereunder shall utilize the uniform map symbols listed in this paragraph. The size and location of each symbol shall not obscure other necessary information on the map.

(1) Lessee

(L)

(2) Surface owner

(S)

(3) Coal owner

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(C)

(4) Non-coal mineral owner

(NCM)

(5) Occupied dwelling



(6) Unoccupied building



(7) Public, community, institutional building



(8) School

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(9) Church



(10) Commercial/business building



(11) Hospital



(12) Cemetery



(13) Final highwall



(14) Existing highwall



(15) Backfilled highwall



(16) Coal outcrop

* * * * *

(Identify)

(17) Utility (gas, electric, telecommunications, etc.)

(Identify)

(18) High voltage tower



(19) Radio/cell phone tower



(20) Gas well (active)



(21) Gas well (plugged/abandoned)

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(22) Oil well (active)



(23) Oil well (plugged/abandoned)



(24) Test boring



(25) Entrance sign



(26) Property line



(27) Property hooks

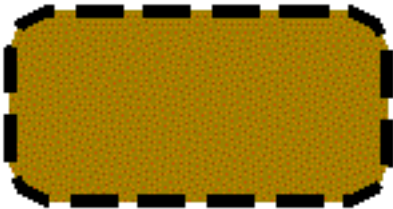


(28) Permit area, existing or proposed

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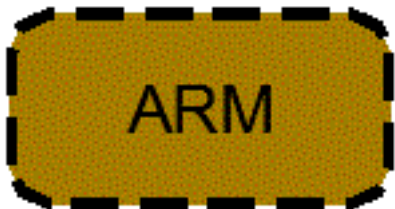
(29) Top soil storage



(30) Hydric soil storage



(31) Alternative resoiling material storage



(32) Buffer zone variance area

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(33) Buffer zone avoidance area



(34) Prime farmland



(35) Hydrologic map one-thousand-foot line, existing



(36) Hydrologic map one-thousand-foot line, proposed

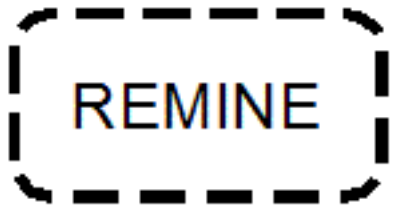
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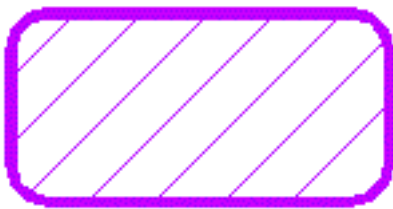
(37) No surface disturbance area



(38) Remining area



(39) Small area drainage exemption (S.A.D.E.) area



(40) Steep slope mining area

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(41) Abandoned underground mine



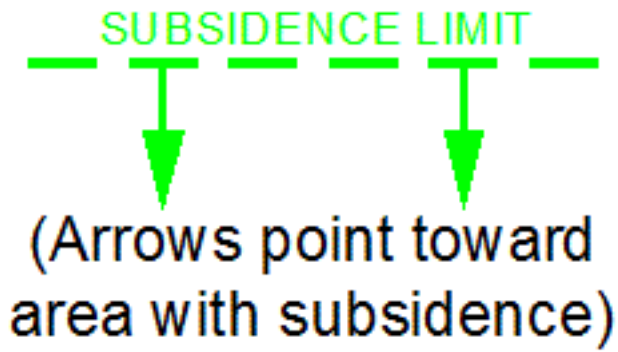
(Identify the mine
number and seam)

(42) Shadow area

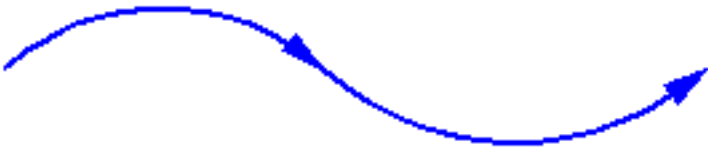


(43) Subsidence limit

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(44) Perennial stream



(45) Intermittent stream



(46) Ephemeral stream



(47) Constructed drainway (diversion ditch)



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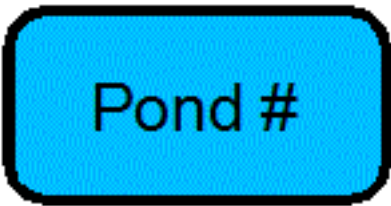
(48) Auger/highwall mining area



(49) Impoundment, existing



(50) Sediment pond, existing



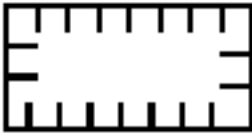
(51) Sediment pond, proposed or as-built



(52) Sump



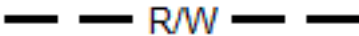
(53) Inactive mining area (previously mined area)



(54) Public road



(55) Road right of way



(56) Tree planting area

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(57) Water treatment facility



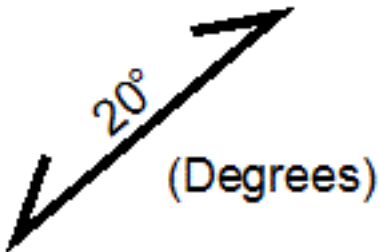
(58) Begin mining



(59) End mining



(60) Slope measurements



(61) Public water line



(62) Private water line



(63) Seep, seepage zone



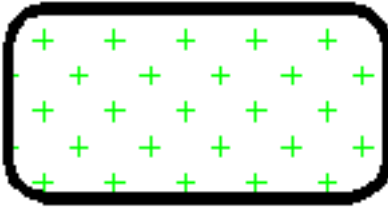
(64) Wetland, existing, verified



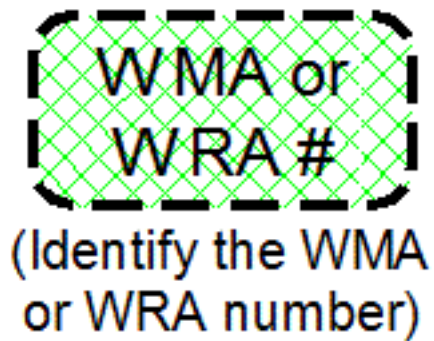
(Identify the Corps
number)

(65) Wetland, existing, unverified

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(66) Wetland, proposed/restored/mitigated



(67) Deep mine entry



(68) Deep mine water discharge



DM-1, DM-2, etc.

(69) Gob pile



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(70) Coal stockpile (long-term)



(71) Upstream sampling station



U-1, U-2, etc.

(72) Downstream sampling station



D-1, D-2, etc.

(73) Drilled well (log available)



WL-1, WL-2, etc.

(74) Drilled well (no log available)



W-1, W-2, etc.

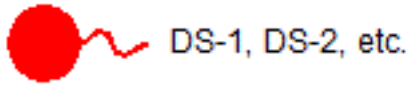
(75) Dug well



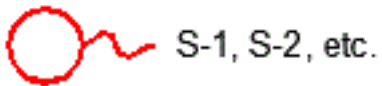
DW-1, DW-2, etc.

(76) Developed spring

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(77) Undeveloped spring



(78) Cistern



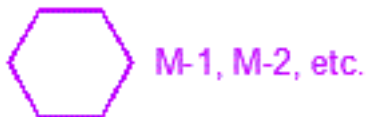
(79) Source of public water supply



(80) Monitoring station, existing. Note: monitoring station symbol is to circumscribe symbols, where appropriate, e.g.



(81) Monitoring station, proposed. Note: monitoring station symbol is to circumscribe symbols, where appropriate, e.g.



(82) Background sampling station. Note: Background sampling station symbol is to circumscribe symbols, where appropriate, e.g.

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1501:13-4-11 Maps showing reaffection of permit area.

(A) All maps required by Chapter 1513. of the Revised Code or Chapters 1501:13-4 to 1501:13-14 of the Administrative Code showing land affected under a permit and reaffected under a subsequent permit shall conform to the requirements of paragraph (A) of rule 1501:13-4-08 of the Administrative Code. In addition to other applicable requirements, all maps shall show the following information in the prescribed manner set forth below:

- (1) The perimeter of the area of land affected under a previous permit, reaffected under a current permit, or proposed to be reaffected under a subsequent permit, designated by a solid orange line;
- (2) The perimeter of the area of land affected under a current permit or proposed to be affected under a subsequent permit designated by a solid black line;
- (3) The common area included by the lines drawn pursuant to paragraphs (A)(1) and (A)(2) of this rule, shaded red (referred to as the "reaffected area");
- (4) The acreage of the reaffected area; and
- (5) The following certification placed on the map and signed by the permittee, or his or her authorized representative:

"I, the undersigned, hereby certify that _____ acres affected by permit no. _____ have been reaffected and performance security has been provided by permit no. _____."

(B) All maps required by Chapter 1513. of the Revised Code or Chapters 1501:13-4 to 1501:13-14 of the Administrative Code showing land affected under an existing permit reaffected by any person with valid existing rights shall conform to the requirements of paragraph (A) of rule 1501:13-4-08 to the Administrative Code. In addition to other applicable requirements, all maps shall show the following information in the prescribed manner:

- (1) The perimeter of the area of land affected under the existing permit, designated by a solid orange line;
- (2) The perimeter of the area of land reaffected by any person with valid existing rights, or by the landowner, designated by a solid black line;
- (3) The common area included by the lines drawn pursuant to paragraphs (B)(1) and (B)(2) of this rule, shaded red (referred to as the "reaffected area");
- (4) The acreage of the reaffected area; and
- (5) The following certification placed on the map and signed by the permittee, or his or her authorized representative:

"I, the undersigned, hereby certify that _____ acres affected by permit no. _____ have been reaffected by _____." (any person with valid existing rights.)

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1501:13-6-03 Small operator assistance program.

(A) General.

- (1) The small operator assistance program (S.O.A.P.) governs the procedures for providing financial assistance to qualified small mine operators who request assistance under division (B)(3) of section 1513.07 of the Revised Code for:
 - (a) The determination of the probable hydrologic consequences of mining and reclamation under division (B)(1)(k) of section 1513.07 of the Revised Code including the engineering analyses and designs necessary for the determination;
 - (b) The geologic drilling and statement of the results of physical and chemical analyses of test borings or core samples required under division (B)(1)(o) of section 1513.07 of the Revised Code;
 - (c) The development of cross-section maps and plans required under division (B)(1)(n)(i) of section 1513.07 of the Revised Code;
 - (d) The collection of archaeological information required under division (B)(1)(m) of section 1513.07 of the Revised Code and any other archaeological and historical information required by the chief, and the preparation of plans necessitated thereby;
 - (e) Pre-blast surveys required under division (E) of section 1513.161 of the Revised Code; and
 - (f) The collection of site-specific resource information and production of protection and enhancement plans for fish and wildlife habitats and other environmental values required by the chief under Chapter 1513. of the Revised Code.
- (2) The objective of this rule is to meet the intent of division (B)(3) of section 1513.07 of the Revised Code by providing financial assistance to qualified small operators.
- (3) The chief shall provide financial assistance under division (B)(3) of section 1513.07 of the Revised Code to the extent funds are appropriated by congress specifically for this program.
- (4) The chief shall:
 - (a) Review requests for financial assistance and determine eligible applicants;
 - (b) Develop and maintain a list of qualified laboratories;
 - (c) Select and pay laboratories, or reimburse eligible applicants for paying laboratories that have been selected by the division of mineral resources management for services rendered; and
 - (d) Conduct periodic on-site evaluations of the program activities with the appropriate small operator and laboratories.
- (5) The chief shall develop policies and procedures for:
 - (a) Data acquisition, analysis and interpretation;
 - (b) Model contract stipulations; and

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(c) Qualification of labs.

(6) The chief shall ensure that applicable equal opportunity in employment provisions are included within any contract or other procurement documents.

(B) Program services. To the extent possible with available funds, the chief shall, for eligible small operators who request financial assistance, select and pay a qualified laboratory or reimburse an eligible operator to hire a qualified laboratory selected by the division of mineral resources management to provide those services requested and eligible under paragraph (A) of this rule.

(C) Eligibility for assistance.

(1) An applicant is eligible for assistance if he or she:

(a) Intends to apply for a permit pursuant to Chapter 1513. of the Revised Code; and

(b) Establishes that his or her probable total actual and attributed annual production from all locations during any consecutive twelve-month period either during the term of his or her permit or during the first five years after issuance of his or her permit, whichever period is shorter, will not exceed three hundred thousand tons.

(2) In determining an applicant's eligibility his or her production figures will be verified by referencing production figures on file at the Ohio department of taxation and the Ohio department of natural resources. Production from the following operations shall be attributed to the permittee:

(a) The pro rata share, based upon percentage of ownership of applicant, of coal produced by operations in which the applicant owns ten per cent or more interest;

(b) The pro rata share, based upon percentage of ownership of applicant, of coal produced in other operations by persons who own ten per cent or more of the applicant's operation;

(c) All coal produced by operations owned by persons who directly or indirectly control the applicant by reason of direction of the management; and

(d) All coal produced by operations owned by members of the applicant's family and the applicant's relatives, unless it is established that there is no direct or indirect business relationship between or among them.

(3) An applicant is not eligible if he or she organizes or reorganizes his or her company solely for the purpose of obtaining assistance under this rule.

(D) Filing for assistance. Each applicant shall submit the following information to the chief:

(1) A statement of intent to file a permit application;

(2) The names, addresses and telephone numbers of:

(a) The potential permit applicant; and

(b) The potential operator if different from the applicant;

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- (3) The business structure of the applicant, i.e., sole proprietorship, partnership, etc.;
 - (4) Applicant's three most recent "out of state" permits, if any;
 - (5) A schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant under paragraph (C) of this rule. The schedule shall include for each location:
 - (a) The name under which coal is or will be mined and severance tax account number of any other company from which production is attributed to the applicant;
 - (b) The permit number and mine safety and health administration identification number;
 - (c) The actual coal production for the year preceding the application for assistance and that portion of the production attributed to the applicant; and
 - (d) The estimated coal production for each year of the proposed permit and that portion attributed to the applicant;
 - (6) The federal tax identification number of the applicant;
 - (7) A statement of the anticipated starting and termination dates of the proposed mining operations;
 - (8) A description of the method of coal mining operation proposed and the number of acres to be affected by the proposed mining;
 - (9) A topographic map on a scale as required by rule 1501:13-4-09 of the Administrative Code which shows:
 - (a) The area of land to be permitted;
 - (b) The adjacent area;
 - (c) The location of any existing or proposed test borings;
 - (d) The location and extent of known workings of any underground mines; and
 - (e) Any additional information required by the chief;
 - (10) Copies of documents showing that:
 - (a) The applicant has a legal right to enter and commence mining within the permit area; and
 - (b) A legal right of entry has been obtained for the office of surface mining, the chief and his or her authorized representatives, and laboratory personnel to inspect the lands which may be affected to collect environmental data or install necessary instruments; and
 - (11) A general statement on the probable depth and thickness of the coal resource including a statement of reserves in the permit area and the method by which they were calculated.
- (E) Application approval and notice.
- (1) If the chief finds the applicant eligible, and he or she does not have information readily available which

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would preclude issuance of a permit to the applicant for mining in the area proposed, he or she shall provide for the acquisition of the necessary information by qualified laboratories to fulfill the data requirements of paragraph (F) of this rule.

- (2) If the chief finds the applicant eligible, the chief shall inform the applicant in writing that the application is approved. If the chief finds the applicant ineligible, the chief shall inform the applicant in writing that the application is denied and shall state the reasons for denial.
- (3) The granting of assistance under this part shall not be a factor in decisions by the chief on a subsequent permit application.

(F) Data requirements.

- (1) The chief shall determine the data collection requirements for each applicant or group of applicants. Data collection and analysis may proceed concurrently with the development of mining and reclamation plans by the applicant. The data requirements will be based on:
 - (a) The extent of currently available hydrologic and overburden analysis data for the applicable area provided by the division of mineral resources management; and
 - (b) The data collection and analysis guidelines developed and provided by the chief.
- (2) The data, results, analyses, and statements provided to the chief shall be sufficient to satisfy the requirements for:
 - (a) The determination of the probable hydrologic consequences of the mining and reclamation operations on the proposed permit area and adjacent areas, including the engineering analyses and designs necessary for the determination, shall be made by a qualified laboratory. The data for this determination shall include that information required by division (B)(1)(k) of section 1513.07 of the Revised Code and paragraph (E)(2) of rule 1501:13-4-05 or paragraph (E)(2) of rule 1501:13-4-14 of the Administrative Code;
 - (b) The drilling and statement, by a qualified laboratory, of the result of test borings or core samplings from the proposed permit area, including that information required by division (B)(1)(o) of section 1513.07 of the Revised Code and paragraphs (C)(2) and (C)(3) of rule 1501:13-4-04 or paragraph (C)(2) of rule 1501:13-4-13 of the Administrative Code, unless this requirement is waived as provided by division (B)(1)(o) of section 1513.07 of the Revised Code;
 - (c) The development of cross-section maps and plans required by division (B)(1)(n)(i) of section 1513.07 of the Revised Code and paragraph (B) of rule 1501:13-4-08 or paragraph (B) of rule 1501:13-4-08.1 of the Administrative Code;
 - (d) The collection of archeological information required under division (B)(1)(m) of section 1513.07 of the Revised Code and paragraph (A) of rule 1501:13-4-04 or paragraph (A) of rule 1501:13-4-13 of the Administrative Code, any other archaeological and historical information required by the chief, and the preparation of plans necessitated thereby;
 - (e) Pre-blast surveys required under division (E) of section 1513.161 of the Revised Code and paragraph (C) of rule 1501:13-9-06 of the Administrative Code; and

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(f) The collection of site-specific resource information and production of protection and enhancement plans for fish and wildlife habitats and other environmental values required by the chief under Chapter 1513. of the Revised Code and paragraph (P) of rule 1501:13-4-05 or paragraph (R) of rule 1501:13-4-14 of the Administrative Code.

(3) Data availability. Data collected under this program shall be made available to all interested persons, except information related to the chemical and physical properties of coal. Information regarding the mineral or elemental content of the coal which is potentially toxic in the environment shall be made available. The program administrator shall develop procedures for interstate coordination and exchange of data.

(G) Qualified laboratories.

(1) General.

(a) As used in this rule, "qualified laboratory" means a designated public agency, private consulting firm, institution, or analytical laboratory which can provide services for the required determination or statement under the S.O.A.P. program.

(b) The chief shall establish a list of qualified laboratories which may be used under the procedures of this rule.

(c) Persons who desire to be included in the list of qualified laboratories shall apply to the division of mineral resources management and provide such information as is necessary to establish the qualifications required by paragraph (G)(2) of this rule.

(2) Basic qualifications.

(a) To qualify for designation, the laboratory shall demonstrate that it:

(i) Is staffed with experienced, professional or technical personnel in the fields applicable to the work to be performed;

(ii) Has adequate space for material preparation and cleaning and sterilizing equipment, and has stationary equipment, storage, and space to accommodate periods of peak work loads;

(iii) Meets the requirements for the Occupational Safety and Health Act, 29 U.S.C. 651 et seq., as amended, or the equivalent state safety and health program;

(iv) Has analytical, monitoring and measuring equipment capable of meeting applicable standards and methods;

(v) Is capable of making hydrologic field measurements and analytical laboratory determinations by acceptable hydrologic, geologic or analytical methods in accordance with the requirements of these rules. Methods or guidelines for data acquisition recommended by the chief may also be used; and

(vi) Is capable of collecting necessary field data and samples in accordance with the requirements of these rules.

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(b) The qualified laboratory shall be capable of performing services for either the determination(s) or statement(s) under paragraph (F)(2) of this rule.

(3) Subcontractors. Subcontractors may be used to provide some of the required services under this rule, provided their use is identified at the time a determination is made that a firm is qualified and they meet the requirements specified by the chief.

(H) Assistance funding.

(1) Use of funds. Funds specifically authorized to cover payments for services rendered by qualified laboratories under this program shall not be used to cover state administrative costs. In addition to the basic services authorized under paragraph (A)(1) of this rule the following costs are allowed under payments to qualified laboratories or eligible small operators provided that on a case-by-case basis the information is determined necessary to complete the determination and statement required under divisions (B)(1)(k) and (B)(1)(o) of section 1513.07 of the Revised Code:

(a) Observation well drilling and development for ground water monitoring;

(b) Water availability information;

(c) Soils information;

(d) Land use information; and

(e) Necessary maps, charts and diagrams.

(2) Allocation of funds. The chief shall, to the extent practicable, establish procedures for allocating funds to provide services for eligible small operators if available funds are less than those required to provide the services pursuant to this rule.

(I) Applicant liability.

(1) The applicant shall reimburse the division of mineral resources management for the cost of the services performed pursuant to this rule if the applicant:

(a) Submits false information;

(b) Fails to submit a permit application within one year from the date of receipt of the approved laboratory report;

(c) Fails to mine after obtaining a permit;

(d) Produces, from actual and attributed production, more than three hundred thousand tons for all locations during any consecutive twelve-month period of mining either during the term of the permit for which the assistance is provided or during the first five years after issuance of the permit, whichever is shorter; or

(e) Sells, transfers, or assigns the permit to another person and the transferee's total actual and attributed production exceeds the three-hundred-thousand-ton annual production limit during any consecutive twelve-month period of the remaining term of the permit. Under this paragraph, the applicant and its successor are jointly and severally obligated to reimburse the division of mineral resources

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management.

(2) The chief may waive the reimbursement obligation if he or she finds that the applicant at all times acted in good faith.

(J) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

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1501:13-7-01 General requirements for providing performance security for coal mining and reclamation operations.

(A) Requirement to file performance security.

- (1) After an application for a permit to conduct coal mining and reclamation operations has been approved under these rules, the applicant shall file with the chief performance security in compliance with these rules.
 - (a) If the applicant provides performance security together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of this rule, the applicant shall file performance security for:
 - (i) The number of acres in the entire area to be permitted; or
 - (ii) The estimated number of acres to be affected in the first permit year in accordance with the requirements of paragraph (A)(6)(a) of this rule.
 - (b) If the applicant provides performance security without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of this rule, the applicant shall file performance security for:
 - (i) The entire area to be permitted; or
 - (ii) Each incremental mining unit to be affected in the first permit year in accordance with the requirements of paragraph (A)(6)(b) of this rule.
 - (c) Once coal extraction begins under an approved permit, a permittee providing performance security without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of this rule may not change to providing performance security together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of this rule.
- (2) No person shall disturb surface acreage, either by coal mining and reclamation operations conducted on the surface of land or as a result of surface impacts incidental to an underground coal mine, prior to filing with the chief performance security covering the areas of land to be affected.
- (3) Liability on the performance security shall cover all coal mining and reclamation operations to be conducted within the permit area until the end of the permittee's period of reclamation responsibility.
- (4) No area affected by a coal mining and reclamation operation within a permit shall be identified with a specific performance security.
- (5) Performance security shall apply to the permit area and to all revisions to the permit, including incidental boundary revisions and adjacent area permits.
- (6) Providing incremental performance security. When an applicant elects to file performance security incrementally:
 - (a) The applicant that provides performance security together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of this rule shall as part of the permit application process:
 - (i) Submit to the chief a written estimate of the number of acres to be affected in the first permit year; and

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- (ii) Before the permit is issued, file with the chief performance security for the estimated number of acres to be affected in the first permit year;
 - (b) The applicant that provides performance security without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of this rule shall as part of the permit application process:
 - (i) Submit to the chief, on the map required under paragraph (D)(3) of rule 1501:13-4-01 of the Administrative Code, the boundaries for each incremental mining unit within the proposed permit area; and
 - (ii) Before the permit is issued, file with the chief performance security for each incremental mining unit that will be affected in the first permit year;
 - (c) Thirty days before affecting more than the number of acres or incremental mining units for which performance security has been filed with the chief, the permittee shall file additional performance security for the number of additional acres to be affected in the permit year or for the next incremental mining unit or units to be affected by the mining and reclamation operation;
 - (d) The permittee shall within thirty days after the end of every permit year:
 - (i) Identify on the annual map each incremental area or incremental mining unit for the first through most recent permit year in accordance with the requirements of these rules; and
 - (ii) File performance bond with the chief, concurrently with the submittal of the annual map, if one of the following circumstances applies:
 - (a) For permits for which performance security has been filed together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of this rule, the number of acres shown as affected and estimated to be affected on the annual map exceeds the number of acres for which performance security has been provided; or
 - (b) For permits for which performance security has been filed without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of this rule, the incremental mining units shown as affected and estimated to be affected on the annual map exceed the incremental mining units for which performance security has been provided;
 - (e) Performance security filed and not yet released for any incremental area or incremental mining unit can be forfeited, in whole or part, to perform the requirements of Chapter 1513. of the Revised Code, rules adopted thereunder, and the conditions of the permit on any area affected by the permittee pursuant to the permit;
 - (f) After a permit is issued, a permittee that has chosen to provide incremental performance security may elect instead to provide performance security for the entire permit area and file the entire performance security required during the term of the permit; and
 - (g) After a permit is issued, a permittee that provides performance security together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of this rule and that has filed the entire performance security required during the term of the permit may not change to incremental performance security.
- (7) A permittee that has filed performance security for the entire permit area instead of filing performance

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security incrementally shall identify an incremental area or incremental mining unit at the end of each permit year in the manner prescribed in paragraph (A)(6)(d)(i) of this rule and may obtain release of performance security by incremental area or by incremental mining unit, pursuant to rule 1501:13-7-05 or rule 1501:13-7-05.1 of the Administrative Code, as applicable.

- (B) Estimated cost of reclamation. The chief shall determine the estimated cost of reclamation under the initial term of the permit if the reclamation has to be performed by the division of mineral resources management in the event of forfeiture of the performance security by the permittee.
- (1) The chief shall determine the estimated cost of reclamation using:
- (a) The information contained in the permit application and in the approved mining and reclamation plan, as required by the chief and submitted by the applicant under rule 1501:13-4-05 of the Administrative Code, rule 1501:13-4-14 of the Administrative Code or paragraph (I) of rule 1501:13-4-12 of the Administrative Code; and
 - (b) After considering the topography, geology, hydrology, and revegetation potential of the area of the approved application, the probable difficulty of reclamation.
- (2) The chief shall provide the applicant a copy of the estimated cost of reclamation along with the unit costs used to support the estimated cost of reclamation.
- (3) The chief shall send written notice of the amount of the estimated cost of reclamation by certified mail to the applicant.
- (C) Method of providing performance security. The applicant shall send written notice to the chief indicating the method by which the applicant will provide the performance security. The method of providing performance security shall apply to the entire permit. The applicant shall provide the performance security in an amount using one of the following:
- (1) If the applicant provides performance security without reliance on the reclamation forfeiture fund created in section 1513.18 of the Revised Code, the applicant shall provide as performance security the amount of the estimated cost of reclamation as determined by the chief under paragraph (B) of this rule and in accordance with paragraphs (B) and (C) of rule 1501:13-7-02 of the Administrative Code.
 - (2) If the applicant provides performance security together with reliance on the reclamation forfeiture fund created in section 1513.18 of the Revised Code, the applicant shall, in addition to paying the tax on the severance of coal levied under division (A)(8) of section 5749.02 of the Revised Code, provide performance security in the amount required under paragraphs (A) and (C) of rule 1501:13-7-02 of the Administrative Code.
 - (a) To be eligible to provide performance security in accordance with paragraph (C)(2) of this rule, the applicant, an owner and controller of the applicant, or an affiliate of the applicant shall have held a permit issued under this chapter for any coal mining and reclamation operation for a period of not less than five years.
 - (b) In the event of forfeiture of performance security that was provided in accordance with paragraph (C)(2) of this rule, the difference between the amount of that performance security and the estimated cost of reclamation as determined by the chief under paragraph (B) of this rule shall be obtained from the money in the reclamation forfeiture fund created in section 1513.18 of the Revised Code as needed to complete the reclamation.

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(D) Release of excess performance security.

- (1) For a permittee that provides performance security together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of this rule:
 - (a) If, upon receipt by the chief of the annual map and annual report, the number of acres affected is less than the number of acres for which performance security has been provided, the permittee may obtain a release of the excess performance security by submitting a request for release of excess performance security to the chief on a form provided by the chief; and
 - (b) If, upon receipt by the chief of the final map and final report, the number of acres affected is less than the number of acres for which performance security has been provided, the chief shall release the excess performance security to the permittee.
- (2) For a permittee that provides performance security without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of this rule, if, upon receipt of the annual map and annual report, the chief determines that the required performance security for the next year is less than the performance security that has been provided, the permittee may obtain a release of the excess performance security by submitting a request for release of excess performance security to the chief on a form provided by the chief.

(E) Responsibilities of the chief.

- (1) The chief shall prescribe and furnish forms for filing performance security.
- (2) The chief shall determine the estimated cost of reclamation in accordance with paragraph (B) of this rule.
- (3) The chief shall adjust the amount of the estimated cost of reclamation and the amount of a permittee's performance security provided for the permit area in accordance with paragraph (E) of rule 1501:13-7-02 of the Administrative Code.
- (4) The chief shall release the permittee from his performance security obligations in accordance with rule 1501:13-7-05 or rule 1501:13-7-05.1 of the Administrative Code.
- (5) The chief shall cause all or part of a performance security to be forfeited in accordance with rule 1501:13-7-06 of the Administrative Code.
- (6) The chief shall require as a condition of the permit that adequate performance security coverage be in effect at all times.

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**1501:13-7-05 Procedures, criteria, and schedule for release of performance security for permits
reliant on the reclamation forfeiture fund.**

This rule applies to a permittee that provides performance security together with reliance on the reclamation forfeiture fund in accordance with paragraph (C)(2) of rule 1501:13-7-01 of the Administrative Code.

(A) Procedures for seeking release of performance security.

(1) Request for approval of reclamation. After all reclamation, restoration, and abatement work in a reclamation phase, as defined in paragraph (B)(1) of this rule, is completed on the entire permit area or on an incremental area, the permittee, or any person authorized to act on his or her behalf, shall file a request with the chief for approval of that reclamation. A request for approval of a reclamation phase shall include a request for release of performance security. A request for approval of reclamation may be filed only at times or during seasons that allow the chief to evaluate properly the reclamation reported to be completed.

(2) Contents of request for approval of reclamation.

(a) Every request for approval of reclamation for a particular reclamation phase shall include:

- (i) The location and the number of acres of land subject to the request;
- (ii) The permit number;
- (iii) The amount of performance security for the area subject to the request and the phase of reclamation sought to be released; and
- (iv) A notarized statement which certifies that all applicable reclamation activities have been accomplished in accordance with the requirements of Chapter 1513. of the Revised Code, the rules adopted thereunder and the approved reclamation plan.

(b) The request for approval of reclamation phase II or any attachments to the request shall also include:

- (i) The results of tests on the soil of the area requested for release for such vegetation-sustaining factors as potassium, phosphorus, and lime, and a lime recommendation;
- (ii) The planting report required under rule 1501:13-9-15 of the Administrative Code;
- (iii) The number of acres of the area requested for release that are reclaimed as prime farmland; and
- (iv) Yield data for those acres reclaimed as prime farmland, if appropriate.

(c) The request for approval of reclamation phase III or any attachments to the request shall also state:

- (i) The number of acres of the area requested for release that are reclaimed as prime farmland;
- (ii) Yield data for those acres reclaimed as cropland, prime farmland, pasture or grazing land, if appropriate; and
- (iii) The number of acres of the area requested for release that are reclaimed as lands eligible for remining.

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- (d) With every request for approval of reclamation for a particular reclamation phase, the permittee shall submit copies of the letters the permittee has sent to adjoining property owners, local government bodies, planning agencies, and sewage and water treatment authorities or water companies in the locality in which the coal mining and reclamation activities took place, notifying them of the permittee's intention to seek release of performance security.
- (3) At the time that a request for release of performance security is filed with the chief, the permittee shall publish an advertisement, described in division (F)(1) of section 1513.16 of the Revised Code, at least once a week for four successive weeks in a newspaper of general circulation in the locality of the coal mining operation. In addition to the requirements specified in division (F)(1) of section 1513.16 of the Revised Code, the advertisement shall contain the permittee's name and shall state that written comments, objections, and requests for a performance security release conference may be submitted to the chief pursuant to rule 1501:13-7-08 of the Administrative Code. The advertisement shall also provide the address to which, and closing date by which, written comments, objections and requests for performance security release conferences must be sent. Within thirty days after filing a request for release with the chief, the permittee shall submit a copy of this advertisement to the chief.
- (4) After the publication required by paragraph (A)(3) of this rule and prior to the release of performance security, the permittee shall submit to the chief a notarized proof of publication from the newspaper that published the advertisement.
- (5) Inspection by the chief.
 - (a) Within thirty days after the permittee has complied with the requirements of paragraphs (A)(1), (A)(2), and (A)(3) of this rule, the chief shall conduct an inspection and evaluation of the reclamation work involved. The surface owner, or agent or lessee of the surface owner, shall be given notice of such inspection and may participate with the chief or his or her authorized representative in making the performance security release inspection.
 - (b) The chief shall consider during inspection and evaluation of the reclamation:
 - (i) Whether the permittee has met the requirements of Chapter 1513. of the Revised Code, these rules, any orders issued during mining and reclamation, and the specifications of the approved mining and reclamation plan;
 - (ii) The degree of difficulty to complete any remaining reclamation;
 - (iii) Whether pollution of surface and subsurface water is occurring;
 - (iv) The probability the pollution will continue or occur again; and
 - (v) The estimated cost of abating the pollution.
- (6) Objections to release of performance security and request for performance security release conference.
 - (a) Within thirty days after the last newspaper publication of the filing of the request for release, written objections to the proposed release of performance security may be filed with the chief by the following persons:
 - (i) A person with a valid legal interest that might be adversely affected by release of the performance

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security;

(ii) The responsible officer or head of any federal, state, or local government agency that:

(a) Has jurisdiction by law or special expertise with respect to any environmental, social, or economic impact involved in the operation; or

(b) Is authorized to develop and enforce environmental standards with respect to the operation.

(b) Persons who may file objections under paragraph (A)(6)(a) of this rule may also request a performance security release conference on the proposed release of performance security pursuant to rule 1501:13-7-08 of the Administrative Code.

(7) Decision of the chief; notice of review.

(a) The chief shall notify in writing the permittee and any other interested parties of his or her decision to approve or disapprove the request for release and his or her decision to release or not to release all or part of the performance security:

(i) Within sixty days after the permittee has filed a request for release and complied with the requirements of paragraphs (A)(1), (A)(2), and (A)(3) of this rule, if no performance security release conference is held pursuant to paragraph (A)(6)(b) of this rule; or

(ii) Within sixty days after the performance security release conference, if a performance security release conference is held pursuant to paragraph (A)(6)(b) of this rule.

(b) If the chief disapproves a request for release, the chief shall notify the permittee in writing, stating the reasons for disapproval, recommending corrective action necessary to secure release, and informing the permittee of his or her right to appeal this decision to the reclamation commission.

(c) Within thirty days after notification of the final decision of the chief regarding the performance security release, the permittee or any person with an interest that is or may be adversely affected may file an appeal of that decision with the reclamation commission.

(d) If the chief intends to release the performance security, the chief shall notify the municipal corporation in which the coal mining operation is located by certified mail at least thirty days before release of all or part of the performance security.

(e) The chief shall not release performance security until proceedings in review of a decision to release are terminated or, if rights to administrative and judicial review have not been exercised, until periods allowed for filing applications for review have expired.

(B) Criteria and schedule for release of performance security.

(1) Reclamation phases defined.

(a) Reclamation phase I shall be determined to be completed when, in accordance with the approved mining and reclamation plan:

(i) Backfilling and regrading have been completed; and

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(ii) Drainage controls have been established.

(b) Reclamation phase II shall be determined to be completed when:

- (i) Resoiling is completed and revegetation meets the standards for success for a phase II performance security release in accordance with rule 1501:13-9-15 of the Administrative Code;
- (ii) The lands are not contributing suspended solids to stream flow or runoff outside the permit area in excess of the requirements of division (A)(10) of section 1513.16 of the Revised Code, these rules, permit conditions, or the mining and reclamation plan;
- (iii) With respect to prime farmlands, soil replacement has been carried out in accordance with the requirements of rule 1501:13-13-03 of the Administrative Code and division (A)(7) of section 1513.16 of the Revised Code, and soil productivity has returned to the levels of yield required by rule 1501:13-4-12 of the Administrative Code;
- (iv) The provisions of a plan approved by the chief for the sound future management of any permanent impoundment by the permittee or landowner are implemented to the satisfaction of the chief; and
- (v) Any permanent structures to be maintained as part of the postmining land use are included in the approved reclamation plan.

(c) Reclamation phase III shall be determined to be completed when:

- (i) The permittee has successfully completed all coal mining and reclamation operations in accordance with the approved reclamation plan and has met the phase III revegetation success standards in accordance with rule 1501:13-9-15 of the Administrative Code;
- (ii) The permittee has achieved compliance with the requirements of Chapter 1513. of the Revised Code, these rules, and the permit; and
- (iii) The applicable liability period under rule 1501:13-7-02 of the Administrative Code has expired.

(2) Approval of reclamation phase.

- (a) The chief may approve a request and release liability under performance security according to the schedule set forth in paragraph (B)(3) of this rule only upon the chief's determination that reclamation in a particular phase is complete on an incremental area or the entire permit area.
- (b) The chief may approve release of performance security for an incremental area when reclamation in a particular phase is complete on that incremental area even though such reclamation is not complete on other incremental areas within the same permit, provided that no release of performance security for any acreage within an incremental area may be approved until reclamation in the applicable phase is complete for all acres within that incremental area.
- (c) A portion of an incremental area requiring extended liability because of augmentation or failure to achieve the crop yields for prime farmland required for phase II performance security release by rule 1501:13-9-15 of the Administrative Code may, upon approval by the chief, be separated from the rest of the incremental area and have performance security provided separately. Before determining

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that extended liability should apply to only a portion of the incremental area, the chief shall determine such portion:

- (i) Is not significant in extent in relation to the entire area under the performance security; and
 - (ii) Is limited to isolated, distinguishable, and contiguous portions of the area for which performance security has been provided and does not comprise scattered or intermittent occurrences throughout the area for which performance security has been provided.
- (d) If an area is separated under paragraph (B)(2)(c) of this rule, that portion shall have performance security provided separately and the applicable period of liability, in accordance with rule 1501:13-7-02 of the Administrative Code, shall commence anew. The period of liability for the remaining area shall continue in effect without extension. The amount of performance security on the original incremental area may be adjusted in accordance with rule 1501:13-7-02 of the Administrative Code.
- (e) The chief may approve a request for release of performance security for reclamation phase II on areas from which temporary sedimentation ponds have not yet been removed, provided all requirements for a phase II performance security release are met.
- (f) A portion of an incremental area requiring a reduced period of liability because of its classification as a remaining area shall be separated from the rest of the incremental area and shall be eligible for phase III performance security release pursuant to paragraph (O) of rule 1501:13-9-15 of the Administrative Code.

(3) Schedule for release.

- (a) When reclamation phase I is approved by the chief for an incremental area or the entire permit area, the chief shall release performance security liability in the amount of fifty per cent of the performance security for the incremental area or the entire permit area on which the reclamation phase I is complete.
 - (b) When reclamation phase II is approved by the chief for an incremental area or the entire permit area, the chief shall release performance security liability in an amount not exceeding thirty-five per cent of the original performance security for the incremental area or the entire permit area on which the reclamation phase II is complete.
 - (c) When reclamation phase III is approved by the chief for an incremental area or the entire permit area, the chief shall release the remaining performance security liability for the incremental area or entire permit area.
- (4) Order of release. With the exception of certificates of deposit, trust funds, and cash, which shall be released in any manner and order as determined by the chief, other forms of performance security shall be released under paragraph (B)(3) of this rule in the order in which they were filed, and according to the following order by form of performance security:
- (a) The surety bond filed earliest in the permit term, followed by surety bond filed later in the permit term;
 - (b) The letter of credit filed earliest in the permit term, followed by letters of credit filed later in the

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permit term; and

(c) Any remaining collateral bond, in the order in which it was filed.

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1501:13-7-05.1 Procedures, criteria, and schedule for release of performance security for permits not reliant on the reclamation forfeiture fund.

This rule applies to a permittee that provides performance security without reliance on the reclamation forfeiture fund in accordance with paragraph (C)(1) of rule 1501:13-7-01 of the Administrative Code.

(A) Procedures for seeking approval of a reclamation phase and release of performance security.

(1) Request for approval of reclamation.

- (a) After all reclamation, restoration, and abatement work in a reclamation phase, as defined in paragraph (B)(1) of this rule, is completed on the entire permit area or on an entire incremental mining unit, the permittee, or any person authorized to act on his or her behalf, shall file a request with the chief for approval of that reclamation. A request for approval of a reclamation phase for the entire permit area or for an entire incremental mining unit shall include a request for release of performance security.
- (b) After all reclamation, restoration, and abatement work in reclamation phase I or reclamation phase II, as defined by paragraph (B)(1) of this rule, is completed on a designated area within a permit area or incremental mining unit, the permittee may file a request for approval of reclamation phase I or reclamation phase II for that designated area. A request for approval under this paragraph shall not include a request for release of performance security.
- (c) A request for approval of reclamation may be filed only at times or during seasons that allow the chief to evaluate properly the reclamation reported to be completed.

(2) Contents of request for approval of reclamation.

(a) Every request for approval of reclamation for a particular reclamation phase shall include:

- (i) The location and the number of acres of land subject to the request;
- (ii) The permit number;
- (iii) A notarized statement which certifies that all applicable reclamation activities have been accomplished in accordance with the requirements of Chapter 1513. of the Revised Code, the rules adopted thereunder and the approved reclamation plan; and
- (iv) If the request for approval of reclamation includes a request for release of performance security, the amount of performance security for the area subject to the request and the phase of reclamation sought to be released.

(b) The request for approval of reclamation phase II or any attachments to the request shall also include:

- (i) The results of tests on the soil of the area requested for approval for such vegetation-sustaining factors as potassium, phosphorus, and lime, and a lime recommendation;
- (ii) The planting report required under rule 1501:13-9-15 of the Administrative Code;
- (iii) The number of acres of the area requested for approval that are reclaimed as prime farmland; and
- (iv) Yield data for those acres reclaimed as prime farmland, if appropriate.

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- (c) The request for approval of reclamation phase III or any attachments to the request shall also state:
 - (i) The number of acres of the area requested for approval and release that are reclaimed as prime farmland;
 - (ii) Yield data for those acres reclaimed as cropland, prime farmland, pasture or grazing land, if appropriate; and
 - (iii) The number of acres of the area requested for release that are reclaimed as lands eligible for remining.
 - (d) With every request for approval of reclamation for a particular reclamation phase, the permittee shall submit copies of the letters the permittee has sent to adjoining property owners, local government bodies, planning agencies, and sewage and water treatment authorities or water companies in the locality in which the coal mining and reclamation activities took place, notifying them of the permittee's request for reclamation phase approval and, when included, the permittee's request for release of performance security.
- (3) At the time that a request for approval of a reclamation phase or a request for release of performance security is filed with the chief, the permittee shall publish an advertisement, described in division (F)(1) of section 1513.16 of the Revised Code, at least once a week for four successive weeks in a newspaper of general circulation in the locality of the coal mining operation. In addition to the requirements specified in division (F)(1) of section 1513.16 of the Revised Code, the advertisement shall contain the permittee's name and shall state that written comments, objections, and requests for a reclamation phase approval conference or a performance security release conference may be submitted to the chief pursuant to rule 1501:13-7-08 of the Administrative Code. The advertisement shall also provide the address to which, and closing date by which, written comments, objections and requests for a reclamation phase approval conference or a performance security release conference must be sent. Within thirty days after filing a request for approval of a reclamation phase or a request for approval of a release with the chief, the permittee shall submit a copy of this advertisement to the chief.
- (4) After the publication required by paragraph (A)(3) of this rule and prior to the approval of the reclamation phase or the release of performance security, the permittee shall submit to the chief a notarized proof of publication from the newspaper that published the advertisement.
- (5) Inspection by the chief.
- (a) Within thirty days after the permittee has complied with the requirements of paragraphs (A)(1), (A)(2), and (A)(3) of this rule, the chief shall conduct an inspection and evaluation of the reclamation work involved. The surface owner, or agent or lessee of the surface owner, shall be given notice of such inspection and may participate with the chief or his or her authorized representative in making the reclamation phase approval inspection.
 - (b) The chief shall consider during inspection and evaluation of the reclamation:
 - (i) Whether the permittee has met the requirements of Chapter 1513. of the Revised Code, these rules, any orders issued during mining and reclamation, and the specifications of the approved mining and reclamation plan;

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- (ii) The degree of difficulty to complete any remaining reclamation;
 - (iii) Whether pollution of surface and subsurface water is occurring;
 - (iv) The probability the pollution will continue or occur again; and
 - (v) The estimated cost of abating the pollution.
- (6) Objections to approval of reclamation phase or to release of performance security and request for reclamation phase approval conference or performance security release conference.
- (a) Within thirty days after the last newspaper publication of the filing of the request for approval of a reclamation phase or the request for release of performance security, written objections to the proposed reclamation phase approval or proposed performance security release may be filed with the chief by the following persons:
 - (i) A person with a valid legal interest that might be adversely affected by approval of the reclamation phase or by release of the performance security;
 - (ii) The responsible officer or head of any federal, state, or local government agency that:
 - (a) Has jurisdiction by law or special expertise with respect to any environmental, social, or economic impact involved in the operation; or
 - (b) Is authorized to develop and enforce environmental standards with respect to the operation.
 - (b) Persons who may file objections under paragraph (A)(6)(a) of this rule may also request a reclamation phase approval conference on the proposed approval or a performance security release conference on the proposed release of performance security pursuant to rule 1501:13-7-08 of the Administrative Code.
- (7) Decision of the chief; notice of review.
- (a) The chief shall notify in writing the permittee and any other interested parties of his or her decision to approve or disapprove a reclamation phase or a request for release and his or her decision to release or not to release all or part of the performance security:
 - (i) Within sixty days after the permittee has filed a request for approval of a reclamation phase or for release of performance security and complied with the requirements of paragraphs (A)(1), (A)(2), and (A)(3) of this rule, if no reclamation phase approval conference or performance security release conference is held pursuant to paragraph (A)(6)(b) of this rule; or
 - (ii) Within sixty days after the reclamation phase approval conference or performance security release conference, if a reclamation phase approval conference or performance security release conference is held pursuant to paragraph (A)(6)(b) of this rule.
 - (b) If the chief disapproves a reclamation phase or a request for release, the chief shall notify the permittee in writing, stating the reasons for disapproval, recommending corrective action necessary to secure approval or release, and informing the permittee of his or her right to appeal this decision to the reclamation commission.

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- (c) Within thirty days after notification of the final decision of the chief regarding the reclamation phase or the performance security release, the permittee or any person with an interest that is or may be adversely affected may file an appeal of that decision with the reclamation commission.
- (d) If the chief intends to release the performance security, the chief shall notify the municipal corporation in which the coal mining operation is located by certified mail at least thirty days before release of all or part of the performance security.
- (e) The chief shall not release performance security until proceedings in review of a decision to release are terminated or, if rights to administrative and judicial review have not been exercised, until periods allowed for filing applications for review have expired.

(B) Criteria and schedule for release of performance security.

(1) Reclamation phases defined.

- (a) Reclamation phase I shall be determined to be completed when, in accordance with the approved mining and reclamation plan:
 - (i) Backfilling and regrading have been completed; and
 - (ii) Drainage controls have been established.
- (b) Reclamation phase II shall be determined to be completed when:
 - (i) Resoiling is completed and revegetation meets the standards for success for a phase II performance security release in accordance with rule 1501:13-9-15 of the Administrative Code;
 - (ii) The lands are not contributing suspended solids to stream flow or runoff outside the permit area in excess of the requirements of division (A)(10) of section 1513.16 of the Revised Code, these rules, permit conditions, or the mining and reclamation plan;
 - (iii) With respect to prime farmlands, soil replacement has been carried out in accordance with the requirements of rule 1501:13-13-03 of the Administrative Code and division (A)(7) of section 1513.16 of the Revised Code, and soil productivity has returned to the levels of yield required by rule 1501:13-4-12 of the Administrative Code;
 - (iv) The provisions of a plan approved by the chief for the sound future management of any permanent impoundment by the permittee or landowner are implemented to the satisfaction of the chief; and
 - (v) Any permanent structures to be maintained as part of the postmining land use are included in the approved reclamation plan.
- (c) Reclamation phase III shall be determined to be completed when:
 - (i) The permittee has successfully completed all coal mining and reclamation operations in accordance with the approved reclamation plan and has met the phase III revegetation success standards in accordance with rule 1501:13-9-15 of the Administrative Code;
 - (ii) The permittee has achieved compliance with the requirements of Chapter 1513. of the Revised

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Code, these rules, and the permit; and

(iii) The applicable liability period under rule 1501:13-7-02 of the Administrative Code has expired.

(2) Approval of request for release of performance security.

- (a) The chief may approve a request for release of performance security and may release liability under performance security according to the schedule set forth in paragraph (B)(3) of this rule only upon the chief's determination that reclamation in a particular phase is complete on an incremental mining unit or the entire permit area.
- (b) The chief may approve release of performance security for an incremental mining unit when reclamation in a particular phase is complete on that incremental mining unit even though such reclamation is not complete on other incremental mining units within the same permit, provided that no release of performance security for any acreage within an incremental mining unit may be approved until reclamation in the applicable phase is complete for all acres within that incremental mining unit.
- (c) A portion of an incremental mining unit requiring extended liability because of augmentation or failure to achieve the crop yields for prime farmland required for phase II performance security release by rule 1501:13-9-15 of the Administrative Code may, upon approval by the chief, be separated from the rest of the incremental mining unit and have performance security provided separately. Before determining that extended liability should apply to only a portion of the incremental mining unit, the chief shall determine such portion:
 - (i) Is not significant in extent in relation to the entire area under the performance security; and
 - (ii) Is limited to isolated, distinguishable, and contiguous portions of the area for which performance security has been provided and does not comprise scattered or intermittent occurrences throughout the area for which performance security has been provided.
- (d) If an area is separated under paragraph (B)(2)(c) of this rule, that portion shall have performance security provided separately and the applicable period of liability, in accordance with rule 1501:13-7-02 of the Administrative Code, shall commence anew. The period of liability for the remaining area shall continue in effect without extension. The amount of performance security on the original incremental mining unit may be adjusted in accordance with rule 1501:13-7-02 of the Administrative Code.
- (e) The chief may approve a request for release of performance security for reclamation phase II on areas from which temporary sedimentation ponds have not yet been removed, provided all requirements for a phase II performance security release are met.
- (f) A portion of an incremental mining unit requiring a reduced period of liability because of its classification as a remining area shall be separated from the rest of the incremental mining unit and shall be eligible for phase III performance security release pursuant to paragraph (O) of rule 1501:13-9-15 of the Administrative Code.

(3) Schedule for release.

- (a) When reclamation phase I is approved by the chief for an incremental mining unit or the entire permit

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area, the chief shall release performance security liability in an amount of up to fifty per cent of the performance security for the incremental mining unit or the entire permit area on which the reclamation phase I is complete.

- (b) When reclamation phase II is approved by the chief for an incremental mining unit or the entire permit area, the chief shall release performance security liability in an amount of up to thirty-five per cent of the original performance security for the incremental mining unit or the entire permit area on which the reclamation phase II is complete.
 - (c) When reclamation phase III is approved by the chief for an incremental mining unit or the entire permit area, the chief shall release the remaining performance security liability for the incremental mining unit or entire permit area.
- (4) Order of release. With the exception of certificates of deposit, trust funds, and cash, which shall be released in any manner and order as determined by the chief, other forms of performance security shall be released under paragraph (B)(3) of this rule in the order in which they were filed, and according to the following order by form of performance security:
- (a) The surety bond filed earliest in the permit term, followed by surety bond filed later in the permit term;
 - (b) The letter of credit filed earliest in the permit term, followed by letters of credit filed later in the permit term; and
 - (c) Any remaining collateral bond, in the order in which it was filed.

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1501:13-7-06 Performance security forfeiture criteria and procedures.

- (A) Performance security forfeiture criteria. The chief shall forfeit performance security under the procedures contained in paragraph (C) of this rule whenever any of the following criteria applies:
- (1) The permittee failed to comply with a notice of violation issued for failure to complete any phase of reclamation within the time required by the mining and reclamation plan and any time extensions given for good cause; or
 - (2) The coal mining and reclamation operations on the area under performance security are abandoned; or
 - (3) The permittee lacks the ability to continue to operate in compliance with the requirements of Chapter 1513. of the Revised Code, these rules, or the permit; or
 - (4) The permittee defaults on the conditions under which the performance security was accepted.
- (B) Opportunity to show cause why performance security should not be forfeited.
- (1) Before performance security is forfeited under the criteria of paragraph (A)(2) or (A)(3) of this rule, because of abandonment of the coal mining and reclamation operation or inability of the permittee to comply, the chief shall order the permittee to show cause why the operation should not be deemed abandoned or why the permittee has the ability to comply with the requirements of Chapter 1513. of the Revised Code.
 - (2) The show cause order shall:
 - (a) Identify the coal mining and reclamation operations covered by the performance security to be forfeited;
 - (b) Give notice of the time, date, place, and purpose of the show cause hearing at which the permittee may show cause why the operation should not be deemed abandoned or why the permittee has the ability to comply with the requirements of Chapter 1513. of the Revised Code; and
 - (c) Be issued at least twenty-one days before the show cause hearing is held.
 - (3) If the chief determines that the show cause order sent by certified mail is not received by the permittee within seven days after the order is mailed, the chief shall, as soon as possible, publish notice of the date, time, place, and purpose of the show cause hearing in a newspaper of general circulation in the locality of the operation.
- (C) Forfeiture procedures. When performance security is to be forfeited, the chief shall issue a performance security forfeiture order to the permittee.
- (1) The chief shall identify in the performance security forfeiture order the entire permit area or, when applicable, the incremental area or the incremental mining unit, for which performance security is to be forfeited. The order shall forfeit all remaining performance security on deposit for the permit.
 - (2) The performance security forfeiture order may include the terms of a reclamation agreement with the chief which, if complied with, shall result in avoidance of the forfeiture. The terms of the agreement shall include performance of reclamation operations and abatement of all unabated violations in accordance

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with a compliance schedule which meets the conditions of the permit, the reclamation plan, Chapter 1513. of the Revised Code and these rules, and a timetable specified by the chief.

- (a) If the permittee fails to enter into a reclamation agreement within twenty days of the issuance of a performance security forfeiture order containing such agreement, the chief shall immediately forfeit the performance security and notify the permittee's surety, if applicable, of the permittee's failure to comply.
- (b) If the permittee demonstrates to the chief's satisfaction within twenty days of the issuance of a performance security forfeiture order that the permittee has the ability to meet the terms and conditions of the reclamation agreement contained in the performance security forfeiture order, the chief shall monitor compliance with the terms and conditions of the reclamation agreement.
 - (i) Upon the permittee's satisfactory performance under the terms and conditions of the reclamation agreement, the chief shall rescind the performance security forfeiture order.
 - (ii) Upon the permittee's failure to comply with any of the terms or conditions of the reclamation agreement, the chief shall immediately forfeit the performance security and notify the permittee's surety, if applicable, of the permittee's failure to comply.
- (c) The surety's time to elect to reclaim under paragraph (E) of this rule shall not begin to run until the permittee has failed to enter into an agreement under paragraph (C)(2) of this rule or has failed to comply with the terms of such agreement, and the surety has been notified of such failure.
- (3) The performance security forfeiture order shall be sent by certified mail, return receipt requested, and shall inform the permittee and surety of the reasons for the forfeiture.
- (4) In the event that the permittee does not enter into a reclamation agreement or fails to comply with the terms of a reclamation agreement under paragraph (C)(2) of this rule, when the performance security filed with the division of mineral resources management is supported by or in the form of:
 - (a) Cash, certificates of deposit or negotiable government bonds, then the order shall declare the cash, certificates of deposit, or negotiable government bonds property of the state;
 - (b) A letter of credit, then the order shall inform the permittee that the state will immediately draw on the letter of credit; or
 - (c) A trust fund, then the order shall inform the permittee that the state will proceed as set forth in the terms of the trust agreement.
- (5) If the performance security filed with the division of mineral resources management is in the form of a surety bond, the chief shall also issue a performance security forfeiture order to all sureties involved, and, in addition to the requirements of paragraphs (C)(1) and (C)(3) of this rule, the order shall inform each surety of its rights and the extent of its obligations and liabilities for the entire permit area or, when applicable, for the incremental area or the incremental mining unit.
- (D) Issuance of a performance security forfeiture order does not relieve a permittee from the responsibility for complying, and does not prevent the permittee from being subject to civil penalties for not complying with any order or notice of violation issued for conditions existing on the entire permit area or, when applicable, on the incremental area or the incremental mining unit.

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(E) Reclamation by the surety.

- (1) Within sixty days after it receives a performance security forfeiture order, or within sixty days of notification of the permittee's failure to elect to enter into a reclamation agreement under paragraph (C)(2) of this rule or the permittee's failure to comply with the terms of a reclamation agreement under paragraph (C)(2) of this rule, each surety:
 - (a) Shall notify the chief that it will not complete reclamation and shall make payment under the surety bond for the full amount of its liability under the surety bond; or
 - (b) Shall notify the chief that it will complete reclamation and shall submit to the chief a plan, including a timetable for performing reclamation in accordance with the reclamation plan and the requirements of Chapter 1513. of the Revised Code and these rules.
- (2) The chief may allow the surety to complete reclamation if the surety can demonstrate an ability to complete reclamation in accordance with Chapter 1513. of the Revised Code, these rules and the reclamation plan.
- (3) A surety completing a reclamation phase on the entire permit area or, when applicable, on the incremental area or incremental mining unit, may obtain a release of its performance security obligation in the same manner as a permittee or operator pursuant to division (F) of section 1513.16 of the Revised Code.
- (4) The rights of a surety to perform reclamation shall be terminated if the surety fails to:
 - (a) Notify the chief within sixty days after receipt of the performance security forfeiture order, or within sixty days of notification of the permittee's failure to elect to enter into a reclamation agreement under paragraph (C)(2) of this rule or the permittee's failure to comply with the terms of a reclamation agreement under paragraph (C)(2) of this rule, that it will or will not perform reclamation.
 - (b) Submit a reclamation timetable at the same time it notifies the chief that it will perform reclamation; or
 - (c) Commence, continue, or complete reclamation in accordance with the reclamation timetable.
- (5) When the chief determines that the rights of a surety shall be terminated, the chief shall issue an order terminating the rights of the surety and demanding payment from the surety for the entire amount of performance security filed with the chief by the surety for the entire permit area or, when applicable, for the incremental area or incremental mining unit.

(F) Reclamation by the chief.

- (1) After receiving the moneys collected under paragraph (C) or (E) of this rule, the chief shall proceed to reclaim the entire permit area or, when applicable, the incremental area or the incremental mining unit, in accordance with:
 - (a) The requirements of section 1513.18 of the Revised Code if the permit that was forfeited was not a permanent program permit; or
 - (b) In accordance with Chapter 1513. of the Revised Code, these rules and the approved reclamation plan

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if the permit that was forfeited was a permanent program permit.

- (2) Any revisions that the chief wishes to make to the approved reclamation plan of a permanent program permit on which the performance security has been forfeited shall be made in accordance with paragraph (E) of rule 1501:13-4-06 of the Administrative Code. As used in paragraph (F) of this rule, "permanent program permit" means any permit issued after August 16, 1982, and any permit issued between September 1, 1981 and August 16, 1982 that was subsequently revised to meet the criteria of the approved program.

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1501:13-7-07 Liability insurance.

- (A) An application for a permit shall contain a certificate issued by an insurance company authorized to do business in this state certifying that the applicant has a public liability insurance policy in force for those coal mining and reclamation operations for which the permit is sought, or a notarized certification acknowledging that a current proof of liability insurance and rider required by paragraph (B)(3) of this rule is part of the central file for identity information authorized by paragraph (J) of rule 1501:13-4-03 of the Administrative Code, or evidence that the applicant has satisfied other state self-insurance requirements or, for reclamation operations, evidence that an agent performing reclamation for the applicant has a public liability insurance policy.
- (B) The public liability insurance policy shall:
- (1) Be in effect during the term of the permit or any renewal, including the length of all reclamation operations;
 - (2) Provide for personal injury and property damage protection in amounts adequate to compensate any persons injured or property damaged as a result of coal mining and reclamation operations, including the use of explosives. The minimum insurance coverage for bodily injury and property damage shall be three hundred thousand dollars for each occurrence and five hundred thousand dollars in the aggregate; and
 - (3) Include a rider requiring that the insurer notify the chief whenever substantive changes are made in the policy, including any termination or failure to renew.

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1501:13-8-01 Coal exploration; performance standards.

This rule shall apply only to coal exploration operations that substantially disturb the natural land surface.

- (A) Habitats of unique or unusually high value for fish, wildlife, and other related environmental values, including critical habitats of threatened species and critical habitats of species protected by state or federal law, shall not be disturbed during coal exploration operations.
- (B) All roads shall comply with the applicable provisions of rule 1501:13-10-01 of the Administrative Code.
- (C) If excavations, artificially flat areas, or embankments are created during coal exploration operations, these areas shall be returned to the approximate original contour promptly after such features are no longer needed for coal exploration operations.
- (D) Topsoil shall be removed, stored, and redistributed on disturbed areas as necessary to assure successful revegetation.
- (E) All disturbed areas shall be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. Revegetation shall be accomplished in accordance with the following:
 - (1) All disturbed lands shall be seeded or planted to the same seasonal variety native to the disturbed area. If the land use of the explored area is intensive agriculture, planting of crops normally grown will meet the requirements of this paragraph; and
 - (2) The vegetative cover shall be capable of stabilizing the soil surface from erosion.
- (F) Use of diversions. Diversions of perennial and intermittent streams and miscellaneous flows shall be made in accordance with paragraph (F) of rule 1501:13-9-04 of the Administrative Code.
- (G) Each exploration hole, borehole, or other exposed underground opening created during exploration operations shall be reclaimed in accordance with rule 1501:13-9-02 of the Administrative Code.
- (H) All facilities and equipment shall be removed from the exploration area promptly when they are no longer needed for coal exploration operations, except those facilities and equipment that the chief determines may remain to:
 - (1) Provide additional environmental data;
 - (2) Reduce or control on- and off-site effects of the exploration operations; or
 - (3) Facilitate future coal mining and reclamation operations by the person conducting the exploration operations under an approved permit.
- (I) Coal exploration operations shall be conducted in a manner which minimizes disturbance of the prevailing hydrologic balance in accordance with rule 1501:13-9-04 of the Administrative Code. The chief may specify additional measures which shall be adopted by the person engaged in coal exploration operations.
- (J) Toxic- and acid-forming materials shall be handled and disposed of in accordance with paragraph (J) of rule 1501:13-9-14 and paragraph (J) of rule 1501:13-9-04 of the Administrative Code. The chief may specify additional measures which shall be adopted by the person engaged in coal exploration operations.

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- (K) If explosives are to be used in connection with a coal exploration permit, the explosives shall be used in accordance with rule 1501:13-9-06 of the Administrative Code.
- (L) Notification of completion of coal exploration. The person conducting the coal exploration operations shall notify the chief:
 - (1) Upon completion of the exploration; and
 - (2) Upon completion of the reclamation of the area after exploration.

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1501:13-9-01 Signs and markers.

- (A) All signs and markers required to be posted shall be of uniform design throughout the operation, easily visible, and shall be made of durable material. The signs and markers shall be maintained during all operations to which they pertain and shall conform to local ordinances and codes.
- (B) Signs identifying the mine area shall be displayed at all points of access to the permit area from public roads. Signs shall clearly show the name, business address, and telephone number of the permittee and the permit number issued by the division of mineral resources management. Such signs shall not be removed until after release of all performance security.
- (C) An applicant shall define the perimeter of the proposed permit area by means of clearly visible markers prior to filing an application for a permit. Such markers shall substantially comply with the following:
 - (1) Markers shall include fence posts, trees, engineering lath or stakes;
 - (2) The proposed permit boundary shall be marked either with six inches of orange paint or with an orange plastic flag, approximately three feet above the ground;
 - (3) Each marker shall be firmly placed with at least three feet extending above ground;
 - (4) Markers shall be located so that they clearly define the limits of the proposed permit area and so that when a person is standing at any marker on the proposed permit boundary, the adjacent markers in either direction are visible;
 - (5) All perimeter markers shall be maintained with reasonable diligence in place until final grading is approved; and
 - (6) This rule does not apply to that portion of any perimeter which overlaps or is contiguous to an area currently permitted to the same operator.
- (D) Where topsoil or other vegetation-supporting material is segregated and stockpiled according to rule 1501:13-9-03 of the Administrative Code, the stockpiled material shall be marked. Markers shall remain in place until the material is removed.
- (E) Buffer zones, as described in paragraph (E) of rule 1501:13-9-04 of the Administrative Code, shall be clearly marked along their boundaries as required by paragraphs (C)(1), (C)(3) and (C)(5) of this rule. Buffer zones shall be marked either with six inches of orange paint with black stripes or with an orange and black striped plastic flag, approximately three feet above the ground. Markers shall be located so that they clearly define the limits of the buffer zone and so that when a person is standing at any marker on the buffer zone boundary, the adjacent buffer zone markers in either direction are visible.

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1501:13-9-02 Casing and sealing of drilled holes.

- (A) General requirements. Each exploration hole, other drill or borehole, shaft, well, or other exposed mine opening shall be cased, sealed, or otherwise managed, as approved by the chief, to prevent acid or other toxic drainage from entering ground or surface waters, to minimize disturbance to the prevailing hydrologic balance, and to ensure the safety of people, livestock, fish and wildlife, and machinery in the permit and adjacent areas. If these openings are uncovered or exposed by coal mining activities within the permit area, they shall be permanently closed, unless approved for water monitoring, or otherwise managed in a manner approved by the chief. Use of a drilled and cased hole or borehole or monitoring well as a water well must meet the provisions of rule 1501:13-9-04 of the Administrative Code. This rule does not apply to holes solely drilled and used for blasting.
- (B) Temporary sealing of drilled holes.
- (1) For all coal mining operations, each exploration hole, other drill or boreholes, wells, and other exposed openings which have been identified in the approved permit application for use to return coal processing waste or water to underground workings, or to be used to monitor ground water conditions, shall be temporarily sealed before use and protected during use by barricades, fences, or other protective devices approved by the chief. These devices shall be periodically inspected and maintained in good operating condition by the person who conducts the coal mining activities.
 - (2) For underground mining operations only, each mine entry which is temporarily inactive, but has a further projected useful service under the approved permit application, shall be protected by barricades or other covering devices, fenced, and posted with signs, to prevent access into the entry and to identify the hazardous nature of the opening. These devices shall be periodically inspected and maintained in good condition by the person who conducts the underground mining activities.
- (C) Permanent sealing of drilled holes. When no longer needed for monitoring or other use approved by the chief, upon a finding by the chief of no adverse environmental or health and safety effect, or unless approved for transfer as a water well under rule 1501:13-9-04 of the Administrative Code, each exploration hole, other drilled hole or borehole, well, and other exposed opening, and for underground mining operations each shaft, drift, adit, tunnel, exploratory hole, entryway or other opening to the surface from underground, shall be capped, sealed, backfilled, or otherwise properly managed, as required by the chief under paragraph (A) of this rule. Permanent closure measures shall be designed to prevent access to the mine workings by people, livestock, fish and wildlife, and machinery, and to keep acid or other toxic drainage from entering ground or surface waters.

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1501:13-9-07 Disposal of excess spoil.

- (A) The objective of this rule is to ensure mass stability and protection from erosion and minimize the adverse effects of leachate and surface water runoff from the fill on surface and ground waters, using current, recognized engineering standards and practices as evaluated and approved by the chief.
- (B) Design certification. The fill and appurtenant structures shall be designed using current, prudent engineering practices and shall meet the design criteria established in this rule. An engineer experienced in the design of earth and rock fills shall certify the design of the fill and appurtenant structures.
- (C) Location. If placed on a slope, the spoil is placed upon the most moderate slope among those upon which, in the judgment of the chief, the spoil could be placed in compliance with the requirements of Chapter 1513. of the Revised Code and these rules, and shall be placed, where possible, upon, or above, a natural terrace, bench, or berm, if such placement provides additional stability and prevents mass movement.
- (D) Foundation.
 - (1) The foundation and abutments of the fill must be stable under all conditions of construction.
 - (2) Sufficient foundation investigations, as well as any necessary laboratory testing of foundation material, as deemed needed by the certifying engineer, shall be performed in order to determine the design requirements for foundation stability. The analyses of foundation conditions shall take into consideration the effect of underground mine workings, if any, upon the stability of the fill and appurtenant structures. The chief may require additional foundation investigations and laboratory testing.
 - (3) Where the slope along the profile in the disposal area is in excess of 2.8h:1v, keyway cuts or rock toe buttresses shall be constructed to ensure stability of the fill. Where the toe of the spoil rests on a downslope in excess of 2.8h:1v, stability analyses shall be performed in accordance with paragraph (N)(3) of rule 1501:13-4-05 or paragraph (P)(3) of rule 1501:13-4-14 of the Administrative Code to determine the size of rock toe buttresses and keyway cuts.
- (E) Placement of excess spoil.
 - (1) All vegetative and organic materials shall be removed from the disposal area prior to placement of the excess spoil. Topsoil shall be removed, segregated, and stored or redistributed in accordance with rule 1501:13-9-03 of the Administrative Code. If approved by the chief, organic material may be used as mulch or may be included in the topsoil to control erosion, promote growth of vegetation, or increase the moisture retention of the soil.
 - (2) All backfilling and grading requirements shall be met by placements of spoil. Face slopes shall not exceed 2h:1v. The grade of the outslope between terrace benches shall not be steeper than 2h:1v.
 - (3)
 - (a) Excess spoil shall be:
 - (i) Transported and placed in a controlled manner in horizontal lifts not exceeding four feet in thickness;
 - (ii) Concurrently compacted as necessary to ensure mass stability and to prevent mass movement

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during and after construction;

(iii) Graded so that surface and subsurface drainage is compatible with natural surroundings; and

(iv) Covered with topsoil or substitute material in accordance with rule 1501:13-9-03 of the Administrative Code.

(b) The chief may approve a design which incorporates placement of excess spoil in horizontal lifts other than four feet in thickness when it is demonstrated by the operator and certified by an engineer that the design will ensure the stability of the fill and will meet all other applicable requirements.

(4) The fill shall be designed to attain a minimum long-term static safety factor of 1.5.

(5) The final configuration of the fill shall be suitable for the approved postmining land use. Terraces may be constructed on the outslope of the fill if required for stability, control of erosion, to conserve soil moisture, or to facilitate the approved postmining land use.

(6) No permanent impoundments shall be allowed on the completed fill. Small depressions may be allowed by the chief if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation, and are not incompatible with stability of the fill.

(7) Excess spoil that is acid- or toxic-forming or combustible shall be disposed of in accordance with paragraph (J) of rule 1501:13-9-04 of the Administrative Code.

(F) Drainage control.

(1) If the disposal area contains springs, natural or man-made water courses, or wet weather seeps, the fill design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the fill, and ensure stability.

(2) Diversions shall comply with the requirements of paragraphs (F) and (I) of rule 1501:13-9-04 of the Administrative Code.

(3) Underdrains shall consist of durable rock or pipe and be designed and constructed using current, prudent engineering practices. The underdrain system shall be designed to carry the anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area and shall be protected from piping and contamination by an adequate filter. Rock underdrains shall be constructed of durable, nonacid- and nontoxic-forming rock such as natural sand and gravel, sandstone or limestone, that does not slake in water or degrade to soil material, and that is free of coal, clay, or other nondurable material. Perforated pipe underdrains shall be corrosion-resistant and shall have characteristics consistent with the long-term life of the fill.

(G) Surface area stabilization. Slope protection shall be provided to minimize surface erosion at the site. All disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction.

(H) Excess spoil may be used outside the permit area to reclaim unreclaimed mined lands adjacent to the permit area under a reclamation contract executed pursuant to section 1513.27 or 1513.37 of the Revised Code, provided that:

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- (1) If the unreclaimed lands are abandoned mined lands, they are eligible for reclamation under section 1513.27 or 1513.37 of the Revised Code;
 - (2) The excess spoil is placed in an environmentally and technically sound manner and will constitute sound engineering practices; and
 - (3) The excess spoil is placed where it will not destroy or degrade features of environmental value.
- (I) Inspections. An engineer, or other qualified professional specialist under the direction of the engineer, shall periodically inspect the fill during construction. The engineer or specialist shall be experienced in the construction of earth and rock fills.
- (1) Such inspections shall be made at least quarterly throughout construction and during critical construction periods. Critical construction periods shall include at a minimum:
 - (a) Foundation preparation, including the removal of organic material and topsoil;
 - (b) Placement of underdrains and protective filter systems;
 - (c) Installation of final surface drainage systems; and
 - (d) The final graded and revegetated fill.
 - (2) Regular inspections by the engineer or specialist shall also be conducted during placement and compaction of fill materials.
 - (3) The engineer shall provide a certified report to the chief promptly after each inspection certifying that the fill has been constructed and maintained as designed and in accordance with the approved plan, Chapter 1513. of the Revised Code and these rules. Each report shall include appearances of instability, structural weakness, and other hazardous conditions. The report after inspection of the final graded and revegetated fill shall certify, in addition, that the fill is expected to remain stable with the required safety factor.
- (4) Photographs.
- (a) The certified report on the drainage system and protective filters shall include color photographs taken during and after construction, but before underdrains are covered with excess spoil. If the underdrain system is constructed in phases, each phase shall be certified separately.
 - (b) When excess durable rock spoil is placed in single or multiple lifts such that the underdrain system is constructed simultaneously with excess spoil placement by the natural segregation of dumped materials, in accordance with paragraph (N) of this rule, color photographs shall be taken of the underdrain as the underdrain system is being formed.
 - (c) The photographs accompanying each certified report shall be taken in adequate size and number with enough terrain or other physical features of the site shown to provide a relative scale to the photographs and to identify the site specifically and clearly.
- (5) A copy of each inspection report shall be retained at or near the mine site.
- (J) Coal mine waste. Coal mine waste may be disposed of in excess spoil fills if approved by the chief and if such

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waste is:

- (1) Placed in accordance with rule 1501:13-9-09 of the Administrative Code;
 - (2) Nontoxic- and nonacid-forming; and
 - (3) Of the proper characteristics to be consistent with the design stability of the fill.
- (K) Underground disposal. Excess spoil may be disposed of in underground mine workings, but only in accordance with a plan approved by the chief and MSHA under paragraphs (N) and (O) of rule 1501:13-4-14 of the Administrative Code.
- (L) Valley fills and head-of-hollow fills. Valley fills and head-of-hollow fills shall meet the requirements of paragraphs (A) to (J) of this rule and the additional requirements of paragraph (L) of this rule.
- (1) Drainage control.
 - (a) The top surface of the completed fill shall be graded so that the final slope after settlement will be toward properly designed drainage channels. Uncontrolled surface drainage may not be directed over the outslope of the fill.
 - (b) Runoff from areas above the fill and runoff from the surface of the fill shall be diverted into stabilized diversion channels designed to meet the requirements of paragraphs (F) and (I) of rule 1501:13-9-04 of the Administrative Code and, in addition, to pass safely the runoff from a one-hundred-year, six-hour precipitation event.
 - (2) Rock-core chimney drains. A rock-core chimney drain may be used in a head-of-hollow fill, instead of the underdrain and surface diversion system normally required, as long as the fill is not located in an area containing intermittent or perennial streams. A rock-core chimney drain may be used in a valley fill if the fill does not exceed two hundred fifty thousand cubic yards of material and upstream drainage is diverted around the fill. The alternative rock-core chimney drain system shall be incorporated into the design and construction of the fill as follows:
 - (a) The fill shall have, along the vertical projection of the main buried stream channel or rill, a vertical core of durable rock at least sixteen feet thick, which shall extend from the toe of the fill to the head of the fill, and from the base of the fill to the surface of the fill. A system of lateral rock underdrains shall connect this rock core to each area of potential drainage or seepage in the disposal area. The underdrain system and rock core shall be designed to carry the anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area. Rocks used in the rock core and underdrains shall meet the requirements of paragraph (F)(3) of this rule.
 - (b) A filter system to ensure the proper long-term functioning of the rock core shall be designed and constructed using current, prudent engineering practices.
 - (c) Grading may drain surface water away from the outslope of the fill and toward the rock core. In no case, however, may intermittent or perennial streams be diverted into the rock core. The maximum slope of the top of the fill shall be 33h:1v. A drainage pocket may be maintained at the head of the fill during and after construction, to intercept surface runoff and discharge the runoff through or over the rock drain, if stability of the fill is not impaired. In no case shall this pocket or sump have a

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potential capacity for impounding more than ten thousand cubic feet of water. Terraces on the fill shall be graded with a one per cent slope toward the rock core.

- (M) Durable rock fills. The chief may approve an alternative method of disposal of excess durable rock spoil by gravity placement in single or multiple lifts, provided the following conditions are met:
- (1) Except as provided in paragraph (M) of this rule, the requirements of paragraphs (A) to (J) of this rule are met;
 - (2) The excess spoil consists of at least eighty per cent, by volume, durable, nonacid- and nontoxic-forming rock such as natural sand and gravel, sandstone or limestone, that does not slake in water or degrade to soil material, and that is free of coal, clay, or other nondurable material. Where used, noncemented clay shale, clay spoil, soil or other nondurable excess spoil materials shall be mixed with excess durable rock spoil in a controlled manner so that no more than twenty per cent of the fill volume, as determined by tests performed by an engineer and approved by the chief, is not durable rock;
 - (3) An engineer certifies that the design will ensure the stability of the fill and meet all other applicable requirements;
 - (4) The fill is designed to attain a minimum long-term static safety factor of 1.5 and an earthquake safety factor of 1.1;
 - (5) The underdrain system may be constructed simultaneously with excess spoil placement by the natural segregation of dumped materials, provided the resulting underdrain system is capable of carrying anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area and the other requirements for drainage control are met; and
 - (6) Surface water runoff from areas adjacent to and above the fill is not allowed to flow onto the fill and is diverted into stabilized diversion channels designed to meet the requirements of paragraphs (F) and (I) of rule 1501:13-9-04 of the Administrative Code and to safely pass the runoff from a one-hundred-year, six-hour precipitation event.
- (N) Preexisting benches. The chief may approve the disposal of excess spoil through placement on preexisting benches, provided that the following conditions are met:
- (1) Except as provided in paragraph (N) of this rule, the requirements of paragraphs (A), (B), and (E) to (J) of this rule are met;
 - (2) Excess spoil shall be placed only on the solid portion of the preexisting bench;
 - (3) The fill shall be designed, using current, prudent engineering practices, to attain a long-term static safety factor of 1.3 for all portions of the fill;
 - (4) The preexisting bench shall be backfilled and graded to:
 - (a) Achieve the most moderate slope possible which does not exceed the angle of repose; and
 - (b) Eliminate the highwall to the maximum extent technically practical; and
 - (5) Disposal of excess spoil from an upper actively mined bench to a lower preexisting bench by means of

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gravity transport may be approved by the chief provided that:

- (a) The gravity transport courses are determined on a site-specific basis by the operator as part of the permit application and approved by the chief to minimize hazards to health and safety and to ensure that damage will be minimized between benches, outside the set course, and downslope of the lower bench should excess spoil accidentally move;
- (b) All gravity-transported excess spoil, including that excess spoil immediately below the gravity transport courses and any preexisting spoil that is disturbed, is rehandled and placed in horizontal lifts in a controlled manner, concurrently compacted as necessary to ensure mass stability and to prevent mass movement, and graded to allow surface and subsurface drainage to be compatible with the natural surroundings and to ensure a minimum long-term static safety factor of 1.3. Excess spoil on the bench prior to the current mining operation that is not disturbed need not be rehandled except where necessary to ensure stability of the fill;
- (c) A safety berm is constructed on the solid portion of the lower bench prior to gravity transport of the excess spoil. Where there is insufficient material on the lower bench to construct a safety berm, only that amount of excess spoil necessary for the construction of the berm may be gravity-transported to the lower bench prior to construction of the berm; and
- (d) Excess spoil shall not be allowed on the downslope below the upper bench except on designated gravity transport courses which have been properly prepared according to rules 1501:13-9-03 and 1501:13-9-14 of the Administrative Code. Upon completion of the fill, no excess spoil shall be allowed to remain on the designated gravity transport course between the two benches and each transport course shall be reclaimed in accordance with the requirements of these rules.

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1501:13-9-08 Protection of underground mining.

- (A) General requirements for surface mining operations. No surface mining operations shall be conducted closer than five hundred feet to any point of either an active or abandoned underground mine in order to prevent breakthroughs and to protect the health or safety of miners, except to the extent that:
 - (1) The nature, timing, and sequence of the operations that propose to mine closer than five hundred feet to an active underground mine are jointly approved by the chief and MSHA; and
 - (2) The operations result in improved resource recovery, abatement of water pollution, or elimination of hazards to the health and safety of the public.
- (B) General requirements for underground mining operations. No underground mining operations shall be conducted closer than two hundred feet to any point of either an active or abandoned underground mine in order to prevent breakthroughs and to protect the health or safety of miners, except to the extent that:
 - (1) The nature, timing, and sequence of the operations that propose to mine closer than two hundred feet to an active underground mine are jointly approved by the chief and MSHA; and
 - (2) The operations result in improved resource recovery, abatement of water pollution, or elimination of hazards to the health and safety of the public.
- (C) General requirements for coal exploration drilling. No coal exploration drilling shall be conducted closer than two hundred feet to any point of either an active or abandoned underground mine in order to prevent breakthroughs and to protect the health or safety of miners, except to the extent that the nature, timing, and sequence of coal exploration drilling closer than two hundred feet to an active underground mine are jointly approved by the chief and MSHA.

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1501:13-9-11 Protection of fish, wildlife, and related environmental values.

- (A) Any person conducting coal mining operations shall, to the extent possible using the best technology currently available, minimize disturbances and adverse impacts on fish, wildlife and related environmental values, and achieve enhancement of such resources where practicable.
- (B)
- (1) No coal mining operation shall be conducted which:
- (a) Is likely to jeopardize the continued existence of endangered or threatened species listed by the United States secretary of the interior;
 - (b) Is likely to result in the destruction or adverse modification of designated critical habitats of such species in violation of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.); or
 - (c) Will result in the unlawful taking of a bald or golden eagle, its nest, or any of its eggs.
- (2) A person who conducts coal mining operations shall promptly report to the chief the presence in the permit area of any critical habitat of a threatened or endangered species listed by the United States secretary of the interior, any plant or animal listed by the state as threatened or endangered, or any bald or golden eagle nest, of which that person becomes aware and which was not previously reported to the chief by that person. Upon notification the chief shall consult with appropriate state and federal fish and wildlife agencies and, after consultation, shall identify whether, and under what conditions, the operator may proceed.
- (3) Nothing in these rules shall authorize the taking of an endangered or threatened species or a bald or golden eagle, its nest, or any of its eggs in violation of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., or the Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668 et seq.
- (C) Each person who conducts coal mining operations shall:
- (1) Avoid disturbances to, enhance where practicable, restore, or replace, wetlands, and riparian vegetation along rivers and streams and bordering ponds and lakes;
 - (2) Avoid disturbances to, enhance where practicable, or restore, habitats of unusually high value for fish and wildlife;
 - (3) Afford protection to aquatic communities by avoiding stream channels as required by paragraph (E) of rule 1501:13-9-04 of the Administrative Code or restoring stream channels as required in paragraph (F) of rule 1501:13-9-04 of the Administrative Code;
 - (4) To the extent possible prevent, control, and suppress range, forest, and coal fires which are not approved by the chief as part of a management plan;
 - (5) If fish and wildlife habitat is to be a postmining land use, the operator shall in addition to the requirements of rule 1501:13-9-17 of the Administrative Code:
 - (a) Select plant species to be used on reclaimed areas, based on the following criteria:
 - (i) Their proven nutritional value for fish and wildlife;

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- (ii) Their uses as cover for fish and wildlife; and
 - (iii) Their ability to support and enhance fish and wildlife habitat after release of performance security; and
 - (b) Distribute plant groupings to maximize benefit to fish and wildlife. Plants should be grouped and distributed in a manner which optimizes edge effect, cover, and other benefits for fish and wildlife;
 - (6) Where cropland, grazingland, or pastureland is to be the postmining land use, and where appropriate for wildlife and crop management practices, intersperse the fields with trees, hedges, or fence rows throughout the harvested area to break up large blocks of monoculture and to diversify habitat types for birds and other animals. Wetlands shall be preserved or created rather than drained or otherwise permanently abolished. When practical and consistent with these rules, ponds shall be designed and built as permanent ponds in order to enhance fish and wildlife habitat;
 - (7) Where undeveloped land use or fish and wildlife habitat is to be the postmining land use, and as appropriate for wildlife and other management practices, preserve or create rather than drain or permanently abolish wetlands. When practical and consistent with these rules, ponds shall be designed and built as permanent ponds in order to enhance fish and wildlife habitat; and
 - (8) Where the primary land use is to be residential, public service, or industrial land use, intersperse reclaimed lands with greenbelts utilizing species of grass, shrubs and trees useful as food and cover for birds and small animals, unless such greenbelts are inconsistent with the approved postmining land use.
- (D) Each operator shall, to the extent possible using the best technology currently available:
- (1) Ensure that electric powerlines and other transmission facilities used for, and incidental to, mining operations on the permit area are designed and constructed to minimize electrocution hazards to raptors unless the chief determines such requirements are unnecessary;
 - (2) Locate and operate haul and access roads so as to minimize impacts to important fish and wildlife species or other species protected by state or federal law; and
 - (3) Fence, cover or use other appropriate methods to exclude wildlife from ponds that contain hazardous concentrations of toxic-forming materials.
- (E) For dates of federal rules and federal laws referenced in this rule, see rule 1501:13-1-14 of the Administrative Code.

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1501:13-9-12 Slides and other damage.

- (A) An undisturbed natural barrier shall be provided beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as may be determined by the chief as is needed to assure stability. The barrier shall be retained as a barrier to slides and erosion. Where the chief determines that this natural barrier will cause environmental problems, he shall require alternative measures to be taken.
- (B) If at any time a slide occurs which may have a potential adverse effect on public property, health, safety, or the environment, the person who conducts the coal mining operation shall notify the chief by the fastest available means and comply with any remedial measures required by the chief.

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1501:13-9-15 Revegetation.

(A) Definitions.

- (1) "Countable tree" means a tree or shrub that:
 - (a) Is in place for at least two years;
 - (b) Is alive and healthy;
 - (c) Has at least one-third of its length in live crown, with green foliage during its growing season, and is not diseased or insect-infested; and
 - (d) Has a root crown or root sprouts over one foot in height. Root crowns or root sprouts over one foot in height shall count as one towards meeting the stocking requirements. Where multiple stems occur, only the tallest stem will be counted.
- (2) "Ground cover" means the area of ground covered by the aerial parts of perennial and biennial vegetation and the litter that is produced naturally onsite, expressed as a percentage of the total area of measurement.
- (3) "Herbaceous species" means grasses and non-woody legumes.
- (4) "Woody plants" means woody shrubs, trees, and vines.

(B) General requirements. The permittee shall establish on regraded areas and on all other disturbed areas except water areas and the surface areas of roads that are approved as part of the postmining land use, and other small incidental areas where revegetation would conflict with the postmining land use and no environmental harm would result, a vegetative cover that is in accordance with the approved permit and reclamation plan and that is:

- (1) Diverse, effective, and permanent;
- (2) Comprised of species native to the area, or of introduced species where desirable and necessary to achieve the approved postmining land use and approved by the chief;
- (3) At least equal in extent of cover to the natural vegetation of the area; and
- (4) Capable of stabilizing the soil surface from erosion.

(C) Use of native and introduced species.

- (1) The reestablished plant species shall:
 - (a) Be compatible with the approved postmining land use;
 - (b) Have the same seasonal characteristics of growth as the original vegetation;
 - (c) Be capable of self-regeneration and plant succession;
 - (d) Be compatible with the plant and animal species of the area; and
 - (e) Meet the requirements of applicable state and federal seed, poisonous and noxious plant, and

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introduced species laws or regulations.

- (2) The chief may grant exceptions to the requirements of paragraphs (C)(1)(b) and (C)(1)(c) of this rule when the species are necessary to achieve a quick-growing, temporary, stabilizing cover, and measures to establish permanent vegetation are included in the approved permit and reclamation plan.
 - (3) When the chief approves a cropland postmining land use, the chief may grant exception to the requirements of paragraphs (B)(1), (B)(3), (C)(1)(b) and (C)(1)(c) of this rule. The requirements of rule 1501:13-13-03 of the Administrative Code apply to areas identified as prime farmland.
- (D) Time of revegetation. Seeding and planting of disturbed areas shall be conducted during the first normal period for favorable planting conditions after replacement of the topsoil or topsoil substitute. The normal period for favorable planting shall be that planting time generally accepted locally for the type of plant materials selected. When necessary to effectively control erosion, any disturbed areas shall be seeded and planted as contemporaneously as practicable after the completion of backfilling, grading, and topsoiling with a temporary cover of small grains, grasses, or legumes until a permanent cover is established.
- (E) Mulching and other soil stabilizing practices.
- (1) Suitable mulch and/or other stabilizing practices shall be used on all areas that have been regraded and resoiled in order to control erosion, promote germination of seeds, or increase the moisture-retention capacity of the soil. The chief may suspend the requirements for mulch if the permittee can demonstrate that:
 - (a) Seasonal, soil, or slope factors result in a condition for which mulch and other soil-stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetative cover; and
 - (b) Alternative procedures will achieve the revegetation success standards of this rule for the approved postmining land use and will not cause or contribute to air or water pollution.
 - (2) Annual grasses and grains may be used alone as natural mulch, or in conjunction with another mulch, when the chief determines that they will provide adequate soil erosion control and cover and will later be replaced by perennial species approved for the postmining land use.
 - (3) Chemical soil stabilizers alone, or in combination with appropriate mulches, may be used in conjunction with vegetative covers approved for the postmining land use.
- (F) General requirements for measuring success of revegetation.
- (1) Success standards will differ depending on the approved postmining use of an area. In all revegetation efforts, the general requirements of this rule shall be met and the success of revegetation shall be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the cover occurring in natural vegetation of the area, and the requirements of paragraphs (B) and (C) of this rule. Statistically valid sampling techniques for measuring success of ground cover, production, or stocking for final performance security release shall be specified in guidelines for evaluating revegetation success compiled by the chief. The statistical sampling techniques shall use a ninety per cent confidence interval (i.e., one-sided test with a 0.10 alpha error).
 - (2) Except as provided in paragraph (F)(2)(a) of this rule the period of extended responsibility for revegetation success under the performance security requirement shall continue for not less than five full

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years.

- (a) On lands eligible for reining included in permits issued pursuant to the requirements of rule 1501:13-4-12 of the Administrative Code and renewals thereof, the period of extended responsibility for revegetation success under the performance security requirement shall continue for not less than two full years.
- (3) Except as provided in paragraph (F)(3)(a) of this rule, the period of extended responsibility shall begin on the date of the last augmented seeding, fertilizing, planting or other work necessary to ensure successful vegetation. The date of this last seeding, fertilizing, planting or other work shall be the same date that is recorded in the planting report required in paragraph (P) of this rule.
 - (a) For row crops planted on areas to be used for agricultural cropland, including prime farmland, the period of extended responsibility for revegetation shall commence on the date on which the initial planting of the crop has been completed. Promptly thereafter, the chief shall inspect the area to verify that the initial planting has been completed.
- (4) The following practices will not be considered augmentative when the practice and the rate of application is an accepted local practice for comparable unmined lands that can be expected to continue as a postmining practice:
 - (a) Seeding, applying soil amendments, and irrigating to maintain productivity, as recommended by or as specified in technical guidelines published by the Ohio state university cooperative extension service as normal practices on cropland, pasture land or grazing land;
 - (b) Limited repair of rills and gullies. The chief will classify instances of rill and gully erosion repair as either limited or extensive, based on the extent of repairs needed and the cause of the erosion. The chief will consider extensive repairs to be augmentative;
 - (c) Reseeding and adding soil amendments when necessary to repair damage to land and/or established permanent vegetation that is unavoidably disturbed in order to meet the reclamation standards of this chapter, provided that:
 - (i) The damage is not caused by a lack of planning, design, or implementation of the mining and reclamation plan, inappropriate reclamation practices on the part of the permittee, or the lack of established permanent vegetation; and
 - (ii) The total acreage of repaired areas under paragraphs (F)(4)(b) and (F) (4)(c) of this rule does not exceed ten per cent of the total land affected, with no individual area exceeding three acres;
 - (d) Replanting of trees as a reinforcement measure on areas for which the approved planting plan requires woody vegetation; and
 - (e) Reseeding of legumes within three years after the initial planting where the legumes are expected to be present at the end of the period of extended responsibility.
- (5) Reseeding of areas that have been unavoidably disturbed in the course of gaining access for removal of structures that are part of the sediment control system or initial seeding of areas upon which the sediment control system was located and subsequently removed will not restart the period of extended responsibility for revegetation success.

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- (6) For the purposes of paragraphs (F)(4)(c) and (F)(5) of this rule, permanent vegetation that is established or reestablished on these areas must have been seeded a minimum of twelve months prior to the request for phase III performance security release unless the chief determines the extent of the area of repair was limited in size and the permittee remains in compliance with paragraph (G)(3)(b) of this rule.

(G) Revegetation success standards for pasture or grazing land.

- (1) Species diversity, seasonal variety and regenerative capacity of the vegetation of the revegetated area shall be evaluated on the basis of the results which could reasonably be expected using the revegetation methods described in the reclamation plan.
- (2) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when the species planted in accordance with the approved reclamation plan, including natural succession and non-noxious volunteer species consistent with the reclamation plan, are established and the area has sufficient ground cover to control erosion. As used in this paragraph, "established" means that individual plants have matured to the point that they are deriving their nourishment from the soil instead of from stored food in the seed. Development of secondary leaves is considered an indication that a plant is established.
- (3) Revegetation shall be determined to be successful for a phase III performance security release when:
 - (a) The period of extended responsibility has expired and the species planted in accordance with the approved reclamation plan, including natural succession and non-noxious volunteer species consistent with the reclamation plan, equal or exceed the county average yield for hay for any two years of the period of extended responsibility except the first year; and
 - (b) For the last year of the period of extended responsibility and one additional year, except the first year, the ground cover shall equal or exceed ninety per cent and no single area with less than thirty per cent cover shall exceed the lesser of three thousand square feet or 0.3 per cent of the land affected.

(H) Revegetation success standards for areas to be used for agricultural cropland, other than prime farmland.

- (1) Revegetation shall be determined to be successful for a reclamation phase approval or a phase II performance security release for row and hay crops when the species planted in accordance with the approved reclamation plan meet, at a minimum, the ground-cover standards of paragraph (G)(2) of this rule.
- (2) Revegetation shall be determined to be successful for a phase III performance security release for row and hay crops when:
 - (a) The period of extended responsibility has expired and the yield data of crop harvest on the mined area for any two years of the period of extended responsibility, except the first year, equals or exceeds the average county yield for comparable crops and hay crops; and
 - (b) The vegetation meets, at a minimum, the ground cover standards of paragraph (G)(3)(b) of this rule during the last year of the period of extended responsibility.

(I) Revegetation success standards for prime farmland.

- (1) The success in revegetation shall be determined on the basis of an average crop production from the reclaimed prime farmland areas compared to the target yields specified in the web soil survey

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administered by the U.S. department of agriculture, natural resources conservation service, as approved by the chief. The website for the web soil survey is
<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

- (2) The measurement of soil productivity shall be initiated within ten years after completion of soil replacement.
- (3) The level of management applied during the measurement period shall be the same as the level of management used on nonmined prime farmland in the surrounding area.
- (4) The reference crop on which restoration of soil productivity is proven shall be selected from the crops most commonly produced on the surrounding prime farmland. Where row crops are the dominant crops grown on the prime farmland in the area, the row crop requiring the greatest rooting depth shall be chosen as one of the reference crops.
- (5) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release for row and hay crops when the yield data from three years of crop harvest on the mined area equals or exceeds the target yields specified in the web soil survey administered by the U.S. department of agriculture, natural resources conservation service, as approved by the chief. The website for the web soil survey is <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.
- (6) Revegetation shall be determined to be successful for a phase III performance security release for row and hay crops when the period of extended responsibility has expired and the yield data from at least three years of crop harvest on the mined area equals or exceeds the target yields specified in the web soil survey administered by the U.S. department of agriculture, natural resources conservation service, as approved by the chief. The website for the web soil survey is <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. The same yield data that was submitted for the phase II approval or the phase II release may be submitted for the phase III release.
- (7) The average crop yield for prime farmland may be adjusted, if approved by the chief with the concurrence of the U.S. natural resources conservation service, for:
 - (a) Disease, pest, and weather-induced seasonal variations; or
 - (b) Differences in specific management practices when the overall management practices of the crops being compared are equivalent.
- (J) Revegetation success standards for areas for which the postmining land use is industrial, residential, or commercial use, other than commercial forest land.
 - (1) For areas to be developed for the intended postmining land use within two years after regrading is completed:
 - (a) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when the species planted in accordance with the approved mining and reclamation plan provide sufficient ground cover to control erosion; and
 - (b) Revegetation shall be determined to be successful for a phase III performance security release in the last year of the period of extended responsibility for revegetation success when substantial construction has begun, the area not disturbed by construction activity has sufficient ground cover to control erosion and the period of extended responsibility has expired.

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- (2) For areas to be developed for the intended postmining land use two or more years after regrading is completed, revegetation shall meet the ground cover success standards contained in paragraph (G)(2) of this rule for reclamation phase II approval or phase II performance security release and paragraph (G)(3)(b) of this rule for phase III performance security release, except that only one ground cover evaluation in the last year of the period of extended responsibility for revegetation success is necessary for phase III performance security release.

(K) General requirements for woody vegetation.

- (1) For areas for which the approved postmining land use requires woody plants as the primary vegetation, success of revegetation shall be determined on the basis of tree, shrub, or half-shrub stocking and ground cover to ensure that commercial tree species, non-commercial tree species, or shrubs, sufficient for adequate use of available growing space, are established after coal mining.
- (2) Quality stock and proven field techniques in the science of woody revegetation on mined areas shall be employed.
- (3) The chief shall determine the appropriate stocking level of trees and shrubs, the appropriate species of trees and shrubs, the appropriate herbaceous species and mixtures of herbaceous species, and the appropriate planting arrangement after consultation with and approval by the division of forestry for areas where the approved postmining land use is forest, or consultation with and approval by the division of wildlife for areas where the approved postmining land use is fish and wildlife habitat or undeveloped land.
- (4) The number of stems per unit area will be used to determine the degree to which space is occupied by properly distributed acceptable trees. Volunteer stems of acceptable tree species may also be counted.

(L) Revegetation success standards for forest land, fish and wildlife habitat, or other postmining land uses that require establishment of woody vegetation.

- (1) For areas where the approved postmining land use is forest or fish and wildlife habitat, revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when:
 - (a) There are at least six hundred trees or shrubs per acre on each acre on which trees or shrubs are to be planted; and
 - (b) The herbaceous ground cover provides the greater of thirty per cent cover or sufficient cover to control erosion.
- (2) Revegetation shall be determined to be successful for a phase III performance security release in the last year of the period of extended responsibility for revegetation success when the period of extended responsibility has expired, the herbaceous ground cover is at least seventy per cent, and:
 - (a) For areas where the approved postmining land use is forest, the area has a minimum of four hundred fifty countable trees per acre, of which a minimum of seventy-five per cent are commercial tree species, and of which eighty per cent have been in place for at least three years, on each acre on which trees or shrubs are to be planted; or
 - (b) For areas where the approved postmining land use is fish and wildlife habitat, the area has a minimum of two hundred fifty countable trees per acre, of which eighty per cent have been in place for at least

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three years, on each acre on which trees or shrubs are to be planted.

(M) Revegetation success standards for undeveloped land.

- (1) For areas for which the approved postmining land use is undeveloped land, success of revegetation shall be determined on the basis of ground cover and the proper planting of appropriate tree and shrub species specified in the approved planting plan. Such plans shall include tree or shrub plantings over ten to fifty per cent of the revegetated area. Planting locations shall include slopes steeper than twenty degrees and areas along drainways and permanent sources of water.
- (2) In addition to meeting the general requirements for woody vegetation contained in paragraphs (K)(2) and (K)(3) of this rule, the selected tree and shrub species and herbaceous ground cover species shall have value as wildlife habitat, and the herbaceous ground cover species shall be compatible with the growth of acceptable species of trees and shrubs, as determined by the chief with consultation of the division of wildlife.
- (3) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when the herbaceous ground cover species are established and provide sufficient ground cover to control erosion.
- (4) Revegetation shall be determined to be successful for a phase III performance security release when the period of extended responsibility has expired, and:
 - (a) Acceptable species of trees and shrubs have been properly planted and in accordance with the approved planting plan at a rate of six hundred trees or shrubs per acre on each acre on which trees or shrubs are to be planted;
 - (b) The herbaceous ground cover on areas not planted with trees or shrubs meets the ground cover standards of paragraph (G)(3)(b) of this rule, except that only one ground cover evaluation in the last year of the period of extended responsibility for revegetation success is necessary for phase III performance security release; and
 - (c) The herbaceous ground cover on areas on which trees or shrubs are planted is at least seventy per cent in the last year of the period of extended responsibility for revegetation success.

(N) Revegetation success standards for recreation areas.

- (1) For areas where the approved postmining land use is developed recreation facilities, including but not limited to portions of parks, camps, and amusement areas where woody vegetation would be incompatible with the approved postmining land use, the area shall meet the ground cover standards of paragraph (G)(2) of this rule for reclamation phase II approval or phase II performance security release and paragraph (G)(3)(b) of this rule for phase III performance security release, except that only one ground cover evaluation in the last year of the period of extended responsibility for revegetation success is necessary for phase III performance security release.
- (2) For areas where the approved postmining land use is recreation area with less intensive uses, such as hiking or canoeing, the area shall meet the general requirements for woody vegetation in accordance with paragraph (K) of this rule, and the revegetation success standards of paragraph (L)(1) of this rule for reclamation phase II approval or phase II performance security release and paragraph (L)(2) of this rule in the last year of the period of extended responsibility for revegetation success for phase III performance security release.

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(O) Revegetation success standards on lands eligible for remining.

(1) For pasture and grazing land:

- (a) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when the standards of paragraph (G)(2) of this rule are met; and
- (b) Revegetation shall be determined to be successful for a phase III performance security release when the period of extended responsibility has expired and the species planted in accordance with the approved reclamation plan, including natural succession and non-noxious volunteer species consistent with the reclamation plan, have provided, during the last year of the period of extended responsibility, ground cover equal to or exceeding seventy percent cover and adequate to control erosion, with no single area with less than thirty percent cover exceeding the lesser of three thousand square feet or 0.3 per cent of the land affected.

(2) For cropland, other than prime farmland:

- (a) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when the standards of paragraph (G)(2) of this rule are met; and
- (b) Revegetation shall be determined to be successful for a phase III performance security release when:
 - (i) The period of extended responsibility has expired and the yield data of crop harvest on the mined area for any year of the period of extended responsibility, except the first year, equals or exceeds the average county yield for comparable crops and hay crops; and
 - (ii) The vegetation meets, at a minimum, the ground cover standards of paragraph (O)(1)(b) of this rule during the last year of the period of extended responsibility.

(3) For industrial, residential, or commercial land use, other than commercial forest land:

- (a) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when vegetation meets the ground cover success standards of paragraph (G)(2) of this rule; and
- (b) Revegetation shall be determined to be successful for a phase III performance security release when vegetation meets the standards of paragraph (O)(1)(b) of this rule.

(4) For forest land, fish and wildlife habitat, or other land use which requires the establishment of woody vegetation:

- (a) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release when vegetation meets the success standards of paragraph (L)(1) of this rule; and
- (b) Revegetation shall be determined to be successful for a phase III performance security release when vegetation meets the standards of paragraph (L)(2) of this rule, except that of the minimum countable trees per acre, eighty per cent have been in place for at least two years, on each acre on which trees or shrubs are to be planted.

(5) For undeveloped land:

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- (a) Success of revegetation shall be determined as provided in paragraphs (M)(1), (M)(2) and (M)(3) of this rule; and
- (b) Revegetation shall be determined to be successful for a phase III performance security release when the period of extended responsibility has expired and the vegetation meets the requirements of paragraph (M)(4) of this rule except that the herbaceous ground cover on areas not planted with trees or shrubs must meet the standards of paragraph (O)(1)(b) of this rule.

(6) For recreation areas:

- (a) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release, for areas where herbaceous vegetation comprises the ground cover, when the standard of paragraph (G)(2) of this rule are met;
- (b) Revegetation shall be determined to be successful for a phase III performance security release, for the areas listed in paragraph (O)(6)(a) of this rule, when the standards of paragraph (O)(1)(b) of this rule are met;
- (c) Revegetation shall be determined to be successful for a reclamation phase II approval or a phase II performance security release, for areas which require the planting of woody vegetation as described in paragraph (N)(2) of this rule, when the standards of paragraph (L)(1) of this rule are met; and
- (d) Revegetation shall be determined to be successful for a phase III performance security release for areas listed in paragraph (O)(6)(c) of this rule, when the standards of paragraph (L)(2) of this rule are met.

(P) Planting report. Upon completion of planting, the permittee shall file planting reports with the chief, on a form prescribed and furnished by the chief, providing the following information:

- (1) Permit number;
- (2) The type of planting or seeding, including mixtures and amounts;
- (3) The date of planting, seeding, or reseeding;
- (4) The area of land planted; and
- (5) Such other relevant information as the chief may require.

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1501:13-9-16 Cessation of operations.

(A) Temporary cessation.

- (1) Each person who conducts coal mining operations shall effectively secure surface facilities in areas in which there are no current operations, but in which operations are to be resumed under an approved permit. Temporary abandonment shall not relieve a person of his or her obligation to comply with any provisions of the approved plan of mining and reclamation for the permit.
- (2) Before temporary cessation of mining and reclamation operations for a period of thirty days or more, or as soon as it is known that a temporary cessation will extend beyond thirty days, a person who conducts coal mining operations shall submit to the chief a notice of intention to cease or abandon mining and reclamation operations. This notice shall include a statement of the exact number of acres which will have been affected in the permit area prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished, identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation, and an estimate of the date that operations will resume.

(B) Permanent cessation.

- (1) Persons who cease coal mining operations permanently shall close or backfill or otherwise permanently reclaim all affected areas, in accordance with Chapter 1513. of the Revised Code, these rules and the approved plan of mining and reclamation for the permit.
- (2) All underground openings, equipment, structures, or other facilities not required for monitoring, unless approved by the chief as suitable for the postmining land use or environmental monitoring, shall be removed and the affected land reclaimed.

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1501:13-9-17 Postmining use of land.

- (A) All affected areas shall be reclaimed in a timely manner:
- (1) To conditions that are capable of supporting the uses which they were capable of supporting before any mining; or
 - (2) To higher or better uses achievable under criteria and procedures of paragraph (D) of this rule.
- (B) The premining uses of land to which the postmining land use is compared shall be those uses which the land previously supported, if the land has not been previously mined and has been properly managed.
- (1) The postmining land use for land that was mined pursuant to a license issued prior to April 10, 1972, shall be judged on the basis of the highest and best use that can be achieved which is compatible with surrounding areas and does not require the disturbance of areas previously unaffected by mining.
 - (2) The land may be returned to the undeveloped postmining land use category only if the land was categorized as undeveloped land prior to mining.
- (C) "Land use" means specific uses or management-related activities, rather than the vegetation or cover of the land. Land use is categorized in the following categories. Changes of land use or uses from one of the following categories to another shall be considered as a change to an alternative land use which is subject to approval by the chief pursuant to paragraph (D) of this rule.
- (1) The cropland category includes land in the production of adapted crops for harvest, alone or in a rotation with grasses and legumes, and includes row crops, small grain crops, hay crops, nursery crops, orchard crops, and other similar specialty crops. Land used for facilities in support of cropland farming operations which is adjacent to or an integral part of these operations is also included for purposes of these land use categories.
 - (2) The pastureland category includes land occasionally cut for hay and land used primarily for the long-term production of adapted, domesticated forage plants to be grazed by livestock or occasionally cut and cured for livestock feed. Land used for facilities in support of pastureland or land occasionally cut for hay which is adjacent to or an integral part of these operations is also included.
 - (3) The grazingland category includes both grassland and forest land where the indigenous vegetation is actively managed for grazing, browsing, or occasional hay production. Land used for facilities in support of ranching operations which are adjacent to or an integral part of these operations is also included.
 - (4) The industrial category includes land used for extraction or transformation of materials for fabrication of products, wholesaling of products or for long-term storage of products. This includes all heavy and light manufacturing facilities such as lumber and wood processing, chemical manufacturing, petroleum refining, and fabricated metal products manufacture. Land used for facilities in support of these operations which is adjacent to or an integral part of that operation is also included. Support facilities include, but are not limited to, all rail, road, and other transportation facilities.
 - (5) The commercial category includes land used for retail or trade of goods or services, including hotels, motels, stores, restaurants, and other commercial establishments. Land used for facilities in support of commercial operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, parking, storage, or shipping facilities.

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- (6) The developed water resources category includes land used for storing water for beneficial uses such as stockponds, irrigation, fire protection, flood control, and water supply.
 - (7) The recreation category includes land used for public or private leisure-time use, including developed recreation facilities such as parks, camps, and amusement areas, as well as areas for less intensive uses such as hiking, canoeing and other undeveloped recreational uses.
 - (8) The residential category includes land used for single and multiple-family housing, mobile home parks, and other residential lodgings. Land used for facilities in support of residential operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, vehicle parking and open space that directly relate to the residential use.
 - (9) The forest category includes land used for the commercial or noncommercial production of wood, wood fiber, or wood derived products and land used for facilities in support of forest harvest and management operations which is adjacent to or an integral part of these operations.
 - (10) The fish and wildlife habitat category includes land used wholly or partially for the production, protection or management of species of fish or wildlife.
 - (11) The undeveloped land use category includes land that is not currently being used or managed or, if previously used or managed, is land that has been allowed to return naturally to an undeveloped state or has been allowed to return to forest through natural succession.
- (D) An alternative postmining land use may be approved by the chief of the division of reclamation, after consultation with the landowner or the land management agency having jurisdiction over state or federal lands, if the following criteria are met.
- (1) The proposed land use is compatible with adjacent land use and, where applicable, with existing local, state, or federal land use policies and plans.
 - (2) The use will not be impractical or unreasonable.
 - (3) The plans show the feasibility of the postmining land use and include a schedule showing how the proposed use will be developed and achieved within a reasonable time.
 - (4) The plans include letters of commitment from other parties to provide for necessary public facilities that are required for the proposed use.
 - (5) The proposed use or uses will neither present actual or probable hazard to public health or safety, nor will they pose any actual or probable threat of water flow diminution or pollution.
 - (6) The use or uses will not involve unreasonable delays in reclamation.
 - (7) The use will not cause or contribute to violation of federal, state, or local law.
 - (8) The proposed postmining land use identifies measures to prevent or mitigate adverse effects on fish and wildlife, and threatened or endangered plants or animals or their critical habitats, and an opportunity to comment has been provided in accordance with paragraph (A)(3) of rule 1501:13-5-01 of the Administrative Code to appropriate state and federal fish and wildlife management agencies.

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1501:13-10-01 Roads: performance standards.

(A) Road classification system.

- (1) Each road shall be classified as either a primary road or a secondary road.
- (2) A "primary road" is any road which is:
 - (a) Used for transporting coal or spoil;
 - (b) Frequently used for access or other purposes for a period in excess of six months; or
 - (c) To be retained for an approved postmining land use.
- (3) A "secondary road" is any road not classified as a primary road.

(B) Performance standards. Primary and secondary roads shall be located, designed, constructed, reconstructed, used, maintained and reclaimed so as to:

- (1) Control or prevent erosion, siltation and the air pollution attendant to erosion, including road dust as well as dust occurring on other exposed surfaces, by measures such as vegetating or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices;
- (2) Control or prevent damage to fish, wildlife, or their habitat and related environmental values;
- (3) Control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area;
- (4) Neither cause nor contribute to, directly or indirectly, the violation of state or federal water quality standards applicable to receiving waters;
- (5) Minimize the diminution to or degradation of the quality or quantity of surface- and ground-water systems;
- (6) Refrain from significantly altering the normal flow of water in streambeds or drainage channels;
- (7) Prevent or control damage to public or private property; and
- (8) Use nonacid- or nontoxic-forming substances in road surfacing.

(C) Design and construction limits and establishment of design criteria. To ensure environmental protection and safety appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and construction or reconstruction of roads shall incorporate appropriate limits for grade, width, surface materials, surface drainage control, culvert placement, culvert size, and any necessary design criteria established by the chief.

(D) Location.

- (1) No part of any road shall be located in the channel of an intermittent or perennial stream unless specifically approved by the chief in accordance with paragraphs (A), (B), (E), (F), (J), (K) and (M) of rule 1501:13-9-04 of the Administrative Code.
- (2) Roads shall be located to minimize downstream sedimentation and flooding.

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(E) Maintenance.

- (1) A road shall be maintained throughout the life of the permit to meet the performance standards of this rule and any additional criteria specified by the chief.
- (2) A road damaged by a catastrophic event, such as a flood or earthquake, shall be repaired as soon as practical after the damage has occurred.

(F) Reclamation. A road not to be retained for use under an approved postmining land use shall be reclaimed immediately after it is no longer needed for mining and reclamation operations, including:

- (1) Closing the road to traffic;
- (2) Removing all bridges and culverts;
- (3) Restoring the natural drainage patterns;
- (4) Reshaping all cut and fill slopes to be compatible with the postmining land use and to complement the drainage pattern of the surrounding terrain;
- (5) Scarifying or ripping the road bed, replacing topsoil and revegetating disturbed surfaces in accordance with rules 1501:13-9-03 and 1501:13-9-15 of the Administrative Code; and
- (6) Removing or otherwise disposing of road-surfacing materials that interfere with the postmining land use.

(G) Primary roads. In addition to paragraphs (A) to (F) of this rule, primary roads shall meet the requirements of paragraph (G) of this rule.

(1) Certification.

- (a) The plans and drawings of primary roads shall be prepared by, or under the direction of, an engineer, and shall be certified by an engineer, or jointly by an engineer and a surveyor to the extent such joint certification is permitted by state law, as meeting: the requirements of Chapters 1501:13-1 to 1501:13-14 of the Administrative Code; current, prudent engineering practices; and any design criteria established by the chief.
- (b) The construction or reconstruction of primary roads shall be certified in a report to the chief by an engineer or a surveyor, or jointly by an engineer and a surveyor to the extent required by state law, as having been completed as designed and in accordance with the approved plan.

(2)

- (a) Location. To minimize erosion, a primary road is to be located, insofar as practical, on the most stable available surfaces.
- (b) Stream fords by primary roads are prohibited unless they are specifically approved by the chief as temporary routes during periods of construction.

- (3) Stability. Each primary road embankment shall have a minimum static safety factor of 1.3 or be designed in accordance with paragraph (M)(2) of rule 1501:13-4-05 or paragraph (L)(2) of rule 1501:13-4-14 of the Administrative Code.

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(4) Drainage control.

- (a) Each primary road shall be designed, constructed or reconstructed, and maintained to have adequate drainage control, using structures such as, but not limited to, bridges, ditches, cross drains, and ditch relief drains. The drainage control system shall be designed to pass the peak runoff safely from a ten-year, six-hour precipitation event or greater event, as specified by the chief.
- (b) Drainage pipes and culverts shall be constructed to avoid plugging or collapse and erosion at inlets and outlets.
- (c) Drainage ditches shall be designed to prevent uncontrolled drainage over the road surface and embankment. Trash racks and debris basins shall be installed in the drainage ditches where debris from the drainage area may impair the functions of drainage and sediment control structures.
- (d) Culverts shall be designed, installed, and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road.
- (e) Natural stream channels shall not be altered or relocated without the prior approval of the chief in accordance with rule 1501:13-9-04 of the Administrative Code.
- (f) Except as provided in paragraph (G)(2)(b) of this rule, drainage structures for stream channel crossings shall be made using bridges, culverts or other structures designed, constructed, and maintained using current, prudent engineering practices.

(5) Surfacing. Primary roads shall be surfaced with rock, crushed gravel, asphalt, or other material approved by the chief as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road.

(6) Maintenance. Routine maintenance of primary roads shall include repairs to the road surface, blading, filling potholes and adding replacement gravel or asphalt. It shall also include revegetation, brush removal, and minor reconstruction of road segments as necessary.

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1501:13-12-01 Underground operations.

- (A) Underground operations shall comply with Chapters 1501:13-1 to 1501:13-14 of the Administrative Code except where indicated otherwise.
- (B) Underground operations shall comply with all applicable requirements of Chapter 1513. of the Revised Code.

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1501:13-13-03 Operations on prime farmland.

- (A) Special requirements. Coal mining and reclamation operations conducted on prime farmland shall meet the following requirements:
- (1) A permit shall be obtained for those operations under paragraph (F) of rule 1501:13-4-12 of the Administrative Code; and
 - (2) Soil materials to be used in the reconstruction of the prime farmland soil shall be removed before drilling, blasting, or mining, in accordance with paragraphs (B) and (C) of this rule and in a manner that prevents mixing or contaminating these materials with undesirable material. Where removal of soil materials results in erosion that may cause air and water pollution, the chief shall specify methods to control erosion of exposed overburden.
- (B) Soil reconstruction specifications. The chief shall use soil reconstruction specifications established by the U.S. natural resources conservation service for prime farmland soil removal, storage, replacement, and reconstruction as guidelines in carrying out his or her responsibilities under paragraph (F) of rule 1501:13-4-12 of the Administrative Code and Chapter 1501:13-7 of the Administrative Code.
- (C) Soil removal.
- (1) Coal mining and reclamation operations on prime farmland shall be conducted to:
 - (a) Separately remove the topsoil or other suitable soil materials if such soil materials will create a final soil having a greater productive capacity than that which existed prior to mining. If not utilized immediately the material shall be stockpiled separately from other rooting medium and spoil; and
 - (b) Separately remove the B horizon of the soil, or a combination of B horizon and underlying C horizon, or other suitable soil material if such soil material will create a reconstructed soil of equal or greater productive capacity than that which existed before mining.
 - (2) The minimum depth of soil and soil material to be removed for use in reconstruction of prime farmland soils shall be sufficient to meet the soil replacement requirements of paragraph (E)(1) of this rule.
- (D) Soil stockpiling. If not utilized immediately, the topsoil or other suitable soil materials specified in paragraph (C)(1)(a) of this rule and the B horizon or other suitable soil materials specified in paragraph (C)(1)(b) of this rule shall be stored separately from each other and from spoil. These stockpiles shall be placed within the permit area where they are not disturbed or exposed to excessive water or wind erosion before the stockpiled horizons can be redistributed. Stockpiles in place for more than thirty days shall meet the requirements of paragraph (E) of rule 1501:13-9-03 of the Administrative Code.
- (E) Soil replacement. Coal mining and reclamation operations on prime farmland shall be conducted according to the following:
- (1) The minimum depth of soil and soil material to be reconstructed for prime farmland shall be forty-eight inches, or a depth equal to the depth to a subsurface horizon in the natural soil that inhibits root penetration, whichever is shallower. The chief shall specify a depth greater than forty-eight inches wherever necessary to restore productive capacity. Soil horizons shall be considered as inhibiting root penetration if their densities, chemical properties, or water supplying capacities restrict or prevent penetration by roots of plants common to the vicinity of the permit area and have little or no beneficial effect on soil productive capacity;

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- (2) Soil material shall only be replaced on land which has been first returned to final grade and scarified according to paragraph (C) of rule 1501:13-9-03 of the Administrative Code, unless site-specific evidence is provided and approved by the chief showing that scarification or its equivalent will not enhance the capability of the reconstructed soil to achieve equivalent or higher levels of yield;
 - (3) The soil horizons or other suitable soil materials shall be replaced with proper compaction and uniform depth;
 - (4) The B horizon or other suitable material specified in paragraph (C)(1)(b) of this rule shall be replaced to the thickness needed to meet the requirements of paragraph (E) of this rule;
 - (5) The topsoil or other suitable soil materials specified in paragraph (C)(1)(a) of this rule shall be replaced as the final surface soil layer. This surface soil layer shall equal or exceed the thickness of the original soil, as determined in paragraph (F)(2)(a) of rule 1501:13-4-12 of the Administrative Code, and shall be placed in a manner that protects the surface layer from wind and water erosion before it is seeded or planted; and
 - (6) Nutrients and soil amendments shall be applied as needed to establish vegetative growth quickly.
- (F) Revegetation. Each person who conducts coal mining and reclamation operations on prime farmland shall meet the ground-cover and cropping requirements specified under rule 1501:13-9-15 of the Administrative Code.

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1501:13-14-01 Inspections.

(A) For purposes of this rule:

- (1) "Chief" shall mean the chief, his or her authorized representative, or any inspection officer.
- (2) "Inactive coal mining and reclamation operation" means an operation:
 - (a) For which the chief has secured from the permittee the written notice required under paragraph (A) of rule 1501:13-9-16 of the Administrative Code; or
 - (b) For which reclamation phase II as defined in paragraph (B)(1)(b) of rule 1501:13-7-05 or paragraph (B)(1)(b) of rule 1501:13-7-05.1 of the Administrative Code has been completed.
- (3) "Abandoned coal mining and reclamation operation" means an operation where the chief has found in writing that:
 - (a) All surface and underground coal mining and reclamation activities at the site have ceased;
 - (b) The chief has issued at least one notice of violation, and either:
 - (i) Is unable to serve the notice despite diligent efforts to do so; or
 - (ii) The notice was served and has progressed to a failure-to-abate cessation order;
 - (c) The chief:
 - (i) Is taking action to ensure that the permittee and operator, and owners and controllers of the permittee and operator, will be precluded from receiving future permits while violations continue at the site; and
 - (ii) Is taking action pursuant to rules 1501:13-14-02 and 1501:13-14-06 of the Administrative Code, or section 1513.02, 1513.15, 1513.40, or 1513.99 of the Revised Code to ensure that abatement occurs or that there will not be a recurrence of the failure-to-abate, except where after evaluating the circumstances, the chief concludes that further enforcement offers little or no likelihood of successfully compelling abatement or recovering any reclamation costs; and
 - (d) Where the site is, or was, permitted and performance security was provided:
 - (i) The permit has either expired or been revoked; and
 - (ii) The chief initiated and is diligently pursuing forfeiture of, or has forfeited, any available performance security.
- (4) "Active coal mining and reclamation operation" means an operation other than an inactive or abandoned coal mining and reclamation operation.

(B) The chief shall have a right of entry to, upon, or through any coal mining and reclamation operations, coal exploration operations, any premises in which any records required to be maintained are located and any area of land upon which the chief has reason to believe that coal mining and reclamation operations are being conducted.

(C) The chief shall conduct an average of at least one partial inspection per month of each active coal mining and

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reclamation operation under his or her jurisdiction, and shall conduct such partial inspections of each inactive coal mining and reclamation operation under his or her jurisdiction as are necessary to ensure effective enforcement. A "partial inspection" is an on-site or aerial review of a person's compliance with some of the permit conditions and requirements imposed under Chapter 1513. of the Revised Code and these rules.

- (1) If the chief or his or her authorized representative conducts an aerial inspection, the aerial inspection shall be conducted in a manner which reasonably ensures the identification and documentation of conditions at each coal mining and reclamation site inspected.
 - (2) Any potential violation observed during an aerial inspection shall be investigated on site within three calendar days after the aerial inspection, provided that any indication of a condition, practice or violation constituting cause for issuance of a cessation order under division (D)(1) of section 1513.02 of the Revised Code shall be investigated on site immediately, and provided further that an on-site investigation of a potential violation observed during an aerial inspection shall not be considered to be an additional partial or complete inspection for the purposes of paragraph (C) or (D) of this rule.
- (D) The chief shall conduct an average of at least one complete inspection per calendar quarter of each active and inactive coal mining and reclamation operation under his or her jurisdiction. A "complete inspection" is an on-site review of a person's compliance with all permit conditions and requirements imposed under Chapter 1513. of the Revised Code and these rules.
- (E) In lieu of the inspection frequency established in paragraphs (C) and (D) of this rule, the chief shall inspect each abandoned site on a set frequency commensurate with the public health and safety and environmental considerations present at each specific site, but in no case shall the inspection frequency be set at less than one complete inspection per calendar year.
- (1) In selecting an alternate inspection frequency authorized under paragraph (E) of this rule, the chief shall first conduct a complete inspection of the abandoned site and provide public notice under paragraph (E)(2) of this rule. Following the inspection and public notice, the chief shall prepare and maintain for public review a written finding justifying the alternative inspection frequency selected. This written finding shall justify the new inspection frequency by affirmatively addressing in detail all of the following criteria:
 - (a) How the site meets each of the criteria under the definition of an abandoned site under paragraph (A)(3) of this rule and thereby qualifies for a reduction in inspection frequency;
 - (b) Whether, and to what extent, there exist on the site impoundments, earthen structures, or other conditions that pose, or may reasonably be expected to pose imminent dangers to the health or safety of the public or significant environmental harms to land, air, or water resources;
 - (c) The extent to which existing impoundments or earthen structures were constructed and certified in accordance with prudent engineering designs approved in the permit;
 - (d) The degree to which erosion and sediment control is present and functioning;
 - (e) The extent to which the site is located near or above urbanized areas, communities, occupied dwellings, schools, and other public or commercial buildings and facilities;
 - (f) The extent of reclamation completed prior to abandonment and the degree of stability of unreclaimed areas, taking into consideration the physical characteristics of the land mined and the extent of

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settlement or revegetation that has occurred naturally with time; and

(g) Based on a review of the complete and partial inspection report record for the site during at least the last two consecutive years, the rate at which adverse environmental or public health and safety conditions have and can be expected to progressively deteriorate.

(2) The public notice and opportunity to comment required under paragraph (E)(1) of this rule shall be provided as follows:

(a) The chief shall place a notice in the newspaper with the broadest circulation in the locality of the abandoned site providing the public with a thirty-day period in which to submit written comments; and

(b) The public notice shall contain the permittee's name, the permit number, the precise location of the land affected, the inspection frequency proposed, the general reasons for reducing the inspection frequency, the performance security status of the permit, the telephone number and address where written comments on the reduced inspection frequency may be submitted, and the closing date of the comment period.

(F) The chief shall conduct such inspections of all coal exploration operations as are necessary to ensure compliance with Chapter 1513. of the Revised Code and rules adopted thereunder.

(G) Except as provided in paragraph (M) of this rule, the inspections required under paragraphs (C), (D), (E), and (F) of this rule shall:

(1) Occur without advance notice or search warrant and upon presentation of appropriate credentials;

(2) Be carried out on an irregular basis, so as to monitor compliance at all operations, including those which operate nights, holidays, and weekends;

(3) Occur without prior notice to the permittee or operator being inspected or any agent or employee of such permittee or operator, except for necessary on-site meetings;

(4) Include the prompt filing of inspection reports or other documents adequate to enforce the requirements of and to carry out the terms and purposes of Chapter 1513. of the Revised Code and rules adopted thereunder;

(5) Include the collection of evidence with respect to every violation; and

(6) Allow for inspection of any monitoring equipment or method of exploration or operation and allow access to and acquisition of copies of any records required to be maintained under Chapter 1513. of the Revised Code and rules adopted thereunder.

(H) Citizen's request for inspection.

(1) A citizen may request an inspection by furnishing to the chief a signed, written statement (or an oral report followed by a signed, written statement) giving:

(a) The reason for believing that a violation exists; and

(b) A phone number and address where the citizen can be contacted.

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- (2) The identity of any person supplying the information to the chief in a request for an inspection shall remain confidential, if requested by the person, unless the person elects to accompany the inspector on the inspection or unless disclosure is required under the state's freedom of information laws.
 - (3) If an inspection is to be conducted as a result of information provided by the citizen, the citizen shall be notified as far in advance as is practicable when the inspection is to occur and shall be allowed to accompany the inspector. The citizen shall be in the presence of and under control, direction, and supervision of the inspector during the inspection. The citizen does not have the right to enter buildings without consent of the permittee or without a search order.
 - (4) Within ten days of the inspection or, if there is no inspection, within fifteen days of receipt of the citizen's written statement, the chief or his or her representative shall send the citizen and the permittee the following:
 - (a) If an inspection was made, a description of the enforcement action taken or an explanation of why no enforcement action was taken;
 - (b) If no inspection was conducted, an explanation of the reason why; and
 - (c) An explanation of the citizen's right to informal review of the action of the chief.
 - (5) The chief shall give copies of all materials in paragraphs (H)(4)(a) and (H)(4)(b) of this rule within the time limits specified in those paragraphs to the person, permittee, or operator alleged to be in violation, except that the name of the citizen shall be removed unless disclosure of the citizen's identity is permitted under paragraph (H)(2) of this rule.
- (I) Inspection of operations where coal is extracted incidental to the extraction of other minerals.
- (1) Authorized representatives of the chief and of the U.S. secretary of the interior shall have the right to conduct inspections of operations claiming the exemption from the requirements of Chapter 1513. of the Revised Code in accordance with rule 1501:13-4-16 of the Administrative Code.
 - (2) Each authorized representative of the chief or of the U.S. secretary of the interior conducting an inspection under paragraph (I)(1) of this rule:
 - (a) Shall have a right of entry to, upon, and through any mining and reclamation operations without advance notice or a search warrant, upon presentation of appropriate credentials;
 - (b) May, at reasonable times and without delay, have access to and copy any records relevant to the exemption; and
 - (c) Shall have a right to gather physical and photographic evidence to document conditions, practices, or violations at a site.
 - (3) No search warrant shall be required with respect to any activity under paragraphs (I)(1) and (I)(2) of this rule, except that a search warrant may be required for entry into a building.
- (J) Informal review.
- (1) Any person who is or may be adversely affected by a coal mining and reclamation operation may request, in writing, the chief to review informally an authorized representative's or inspection officer's decision not to inspect or take appropriate enforcement alleged by that person in a request for inspection under

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paragraph (H) of this rule. The request for review shall include a statement of how the person is or may be adversely affected and why the decision merits review.

- (2) The chief shall conduct the review and inform the person, in writing, of the results of the review within thirty days of receipt of the request. The person alleged to be in violation shall also be given a copy of the results of the review, except that the name of the person who is or may be adversely affected shall not be disclosed unless confidentiality has been waived or disclosure is required under the state's freedom of information laws.
 - (3) Informal review under this rule shall not affect any right to formal review or to a citizen's suit under Chapter 1513. of the Revised Code and rules adopted thereunder.
- (K) Any person who is or may be adversely affected by coal exploration or a coal mining and reclamation operation may notify the chief, in writing, of any alleged failure to make adequate and complete or periodic inspections as provided in paragraphs (C), (D), (E), and (F) of this rule.
- (1) The notification shall include sufficient information to create a reasonable belief that this rule is not being complied with and to demonstrate that the person is or may be adversely affected.
 - (2) The chief shall, within fifteen days of receipt of the notification, determine whether this rule is being complied with, and if not, shall immediately order an inspection.
 - (3) The chief shall furnish the complainant with a written finding, stating his or her determination and actions.
- (L) The permittee or operator may accompany the chief during any inspection.
- (M) Compliance review.
- (1) A permittee may request an on-site compliance review with the chief or his or her authorized representative to review the compliance status of any condition or practice proposed at any coal exploration or coal mining and reclamation operation. Any such review shall not constitute an inspection within the meaning of division (C)(1) of section 1513.09 of the Revised Code or paragraph (C), (D), (E), or (F) of this rule.
 - (2) The chief or his or her authorized representative may accept or refuse any request to conduct a compliance review under paragraph (M)(1) of this rule.
 - (3) The chief or his or her authorized representative shall, at any compliance review, review the proposed conditions and practices in order to advise whether any such condition or practice may become a violation of any requirement under Chapter 1513. of the Revised Code, these rules, or the permit.
 - (4) Neither the holding of a compliance review under this rule nor any opinion given by the chief or his or her authorized representative at such review shall affect:
 - (a) Any rights or obligations of the state or the permittee with respect to any inspection, notice of violation or cessation order, whether prior or subsequent to such compliance review; or
 - (b) The validity of any notice of violation or cessation order issued with respect to any condition or practice reviewed at the compliance review.