

July 20, 2009 draft

**Proposed Change to Article 69-05.2
Surface Coal Mining and Reclamation Operations
Case No. RC-09-543
July 2009**

69-05.2-09-02. Permit applications - Operation plans - Maps and plans.
Each application must contain an appropriate combination of 1:4,800 scale topographic maps, planimetric maps, and plans of the proposed permit and adjacent areas showing:

1. Scale, date, permit boundaries, company name, legal subdivision boundaries, and legend.
2. Lands to be affected throughout the operation and any change in a facility or feature caused by the operations, if the existing facility or feature was shown under chapter 69-05.2-08.
3. The boundaries of areas to be affected during the permit term according to the sequence of mining and reclamation operations and a description of size and timing of operations for each coal removal subarea.
4. Pit layout and proposed sequence of mining operations, crop line, spoil placement areas, final graded spoil line, highwall areas to be backsloped, and areas for stockpiling suitable plant growth material or other suitable strata.
5. Location of proposed surface water management structures and identification of permanent water impoundments or stream channel alignments.
6. Location of coal processing waste dams and embankments under section 69-05.2-09-09, and fill areas for the disposal of initial cut and other excess spoil under section 69-05.2-09-14 and North Dakota Century Code section 38-14.1-24.
7. Buildings, utility corridors, proposed and existing haul roads, mine railways, and other support facilities.
8. Each coal storage, cleaning and loading area, and each coal waste and noncoal waste storage area. For noncoal wastes that will be disposed of in the proposed permit area, the applicant must provide a description of any wastes listed under subdivision i of subsection 2 of section 33-20-02.1-01 and any other wastes requiring a permit from the state department of health. The location of any such disposal areas must be shown on a map of the permit area.

9. Each explosive storage and handling facility.
10. Each air pollution collection and control facility.
11. Each habitat area to be used to protect and enhance fish and wildlife and related environmental values.
12. Each source of waste and each waste disposal facility relating to coal processing or pollution control.
13. Each bond area, scheduled according to the proposed sequence of operations. Include the bond or guarantee amount for each area.
14. If an applicant proposes to remine or otherwise disturb lands that were affected by coal mining activities prior to January 1, 1970:
 - a. Detailed maps and other available information that clearly depicts the boundaries of the site that was previously affected by mining activities before January 1, 1970. This includes the identification any sinkholes and other features that are the result of any past underground coal mining activities.
 - b. The applicant must identify and describe potential environmental and safety problems related to prior mining activity at the site and those that could be reasonably anticipated to occur. This identification must be based on a due diligence investigation which includes visual observations at the site, a record review of past mining at the site, and any necessary environmental sampling tailored to the current condition of the site.
 - c. With regard to potential environmental and safety problems referred to in subdivision b, a description of the mitigative measures that will be taken to ensure that the applicable reclamation requirements can be met.

Maps and plans required under subsections 5, 6, and 12 must be prepared by, or under the direction of, and certified by a qualified registered professional engineer, a qualified registered land surveyor, or qualified professional geologist with assistance from experts in related fields. However, maps, plans, and cross sections submitted according to section 69-05.2-09-09 may only be prepared by, or under the direction of, and certified by a qualified registered professional engineer or qualified registered land surveyor.

History: Effective August 1, 1980; amended effective June 1, 1983; June 1, 1986; May 1, 1990; June 1, 1997:_____.

General Authority: NDCC 38-14.1-03

Law Implemented: NDCC 38-14.1-14

69-05.2-22-07. Performance standards - Revegetation - Standards for success.

1. Success of revegetation must be measured by using statistically valid techniques approved by the commission. Comparison of ground cover and productivity may be made on the basis of reference areas, through the use of standards in technical guides published by the United States department of agriculture, or through the use of other approved standards. If reference areas are used, the management of the reference area during the responsibility period required in subsection 2 must be comparable to that required for the approved postmining land use of the permit area. If standards are used, they must be approved by the commission and the office of surface mining reclamation and enforcement. Approved standards are contained in the commission's Standards for Evaluation of Revegetation Success and Recommended Procedures for Pre- and Postmining Vegetation Assessments.
2. The period of responsibility under the performance bond requirements of section 69-05.2-12-09 will begin following augmented seeding, planting, fertilization, irrigation, or other work, except for cropland and prime farmland where the period of responsibility begins at the date of initial planting of the crop being grown or a precropland mixture of grasses and legumes, and must continue for not less than ten years. However, for eligible lands that are remined, the revegetation responsibility period must continue for not less than five years.
3. Vegetation establishment, for the purpose of the third stage bond release provided for in subdivision c of subsection 7 of North Dakota Century Code section 38-14.1-17, will be determined for each postmining land use according to the following procedures:
 - a. For native grassland, tame pastureland, and fish and wildlife habitat where the vegetation type is grassland, ground cover on the permit area must be equal to or greater than that of the approved reference area or standard with ninety percent statistical confidence. All species used in determining ground cover must be perennial species not detrimental to the approved postmining land use.
 - b. For cropland, vegetation will be considered established after the successful seeding of the crop being grown or a precropland mixture of grasses and legumes.

- c. For prime farmland, annual average crop production from the permit area must be equal to or greater than that of the approved reference area or standard with ninety percent statistical confidence for a minimum of three crop years.
 - d. For woodland, shelterbelts, and fish and wildlife habitat where the vegetation type is woodland, the number of trees and shrubs must be equal to or greater than the approved standard. Understory growth must be controlled. Erosion must be adequately controlled by mulch or site characteristics.
 - e. For fish and wildlife habitat where the vegetation type is wetland, the basin must exhibit the capacity to hold water and support wetland vegetation. Ground cover of the contiguous areas must be adequate to control erosion.
4. The success of revegetation on the permit area at the time of final bond release must be determined for each postmining land use according to the following:
- a. For native grassland, the following must be achieved for any two years after year six of the responsibility period:
 - (1) Ground cover and productivity of the permit area must be equal to or greater than that of the approved reference area or standard with ninety percent statistical confidence; and
 - (2) Diversity, seasonality, and permanence of the vegetation of the permit area must equal or exceed the approved standard.
 - b. For tame pastureland, ground cover and productivity of the permit area must be equal to or greater than that of the approved standard with ninety percent statistical confidence for any two years after year six of the responsibility period.
 - c. For cropland, crop production from the permit area must be equal to or greater than that of the approved reference area or standard with ninety percent statistical confidence for any two years after year six of the responsibility period.
 - d. For prime farmlands, a showing that the requirements for the restoration of productivity as specified in subdivision c of subsection 3 have been met and that the ten-year period of responsibility has elapsed.

- e. For woodlands and fish and wildlife habitat where the vegetation type is woodland, the following must be achieved during the growing season of the last year of the responsibility period:
 - (1) The number of woody plants established on the permit area must be equal to or greater than the number of live woody plants of the same life form of the approved standard with ninety percent statistical confidence. Trees, shrubs, half-shrubs, root crowns or root sprouts used in determining success of stocking must meet the following criteria:
 - (a) Be healthy;
 - (b) Be in place for at least two growing seasons; and
 - (c) If any replanting of woody plants took place during the responsibility period, the total number planted during the last six years of that period must be less than twenty percent of the total number of woody plants required. Any replanting must be by means of transplants to allow for adequate accounting of plant stocking; and
 - (d) Volunteer trees and shrubs of approved species will be considered at least two years of age and can be counted toward meeting success standards; however, volunteer trees must be at least thirty inches (76 centimeters) in height to be included in the count. Suckers on shrubby vegetation can be counted as volunteer plants when it is evident the shrub community is vigorous and expanding;
 - (2) The ground cover must be equal to or greater than ninety percent of the ground cover of the approved standard with ninety percent statistical confidence and must be adequate to control erosion; and
 - (3) Species diversity, seasonal variety, and regenerative capacity of the vegetation on the permit area must be evaluated on the basis of species stocked and expected survival and reproduction rates.
- f. For shelterbelts, the following must be achieved during the growing season of the last year of the responsibility period:

- (1) Trees, shrubs, half-shrubs, root crowns, or root sprouts used in determining success of stocking must meet the following criteria:
 - (a) Be healthy;
 - (b) Be in place for at least two growing seasons; and
 - (c) If any replanting of woody plants took place during the responsibility period, the total number planted during the last six years of that period must be less than twenty percent of the total number of woody plants required. Any replanting must be by means of transplants to allow for adequate accounting of plant stocking; and
 - (d) Volunteer trees and shrubs of approved species will be considered at least two years of age and can be counted toward meeting success standards; however, volunteer trees must be at least thirty inches (76 centimeters) in height to be included in the count. Suckers on shrubby vegetation can be counted as volunteer plants when it is evident the shrub community is vigorous and expanding;
 - (2) Shelterbelt density and vigor must be equal to or greater than that of the approved standards; and
 - (3) Erosion must be adequately controlled.
- g. For fish and wildlife habitat, where the vegetation type is wetland, vegetation zones and dominant species must be equal to those of the approved standard during the growing season of the last year of the responsibility period. In addition, wetland permanence and water quality must meet approved standards.
- h. For fish and wildlife habitat, where the vegetation type is grassland, the following must be achieved during the growing season of the last year of the responsibility period:
- (1) Ground cover must be equal to or greater than that of the approved standard with ninety percent statistical confidence and must be adequate to control erosion.
 - (2) Species diversity, seasonal variety, and regenerative capacity of the vegetation must meet or exceed the approved standard.

- i. For previously mined areas that were not reclaimed to the requirements of this chapter, any reclamation requirements in effect when the areas were mined must be met. In addition, the ground cover must not be less than can be supported by the best available plant growth material in the reaffected area, nor less than the ground cover existing before redisturbance. Adequate measures must be in place to control erosion as approved by the commission. If lands affected by coal mining activities prior to January 1, 1970 are remined or otherwise redisturbed, the applicable standard must be met for the last two consecutive years of the minimum five year responsibility period that applies to remined lands. However, if the postmining land use for the remined area is woodlands, shelterbelts or fish and wildlife habitat, the applicable standard must be met for just the last year of the responsibility period.
 - j. For areas to be developed for water, residential, or industrial and commercial uses within two years after the completion of grading or soil replacement, the ground cover on these areas must not be less than required to control erosion.
 - k. For areas to be developed for recreation, woody plants must meet or exceed the stocking and plant establishment standards for woodlands or shelterbelts found in paragraph 1 of subdivision e or in subdivision f as applicable. In addition, ground cover must not be less than required to achieve the approved postmining land use.
 - l. If a reclaimed tract contains a mixture of prime and nonprime farmlands, the commission may approve a single yield standard for the entire tract based on the soil types that occurred on the prime and nonprime areas prior to mining. The operator must provide a detailed description and comparison of the soil mapping units, acreages, and yield calculations in the reclamation plan as required by subsection 8 of section 69-05.2-09-15. When a single yield standard is approved, the operator must demonstrate that the standard has been achieved for any three years starting no sooner than the sixth year of the responsibility period. If this option is approved, the operator must also meet the applicable requirements of section 69-05.2-26-05 for the entire tract.
5. Throughout the liability period the permittee must:
- a. Maintain any necessary fences and use proper management practices; and

- b. Conduct periodic measurements of vegetation, soils, and water prescribed or approved by the commission.

History: Effective August 1, 1980; amended effective June 1, 1983; May 1, 1990; May 1, 1992; January 1, 1993; June 1, 1997; May 1, 1999; May 1, 2001; March 1, 2004; April 1, 2007;_____.

General Authority: NDCC 38-14.1-03

Law Implemented: NDCC 38-14.1-24