

**RULES  
OF  
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
WATER RESOURCES DIVISION**

**CHAPTER 0400-42-08  
PHOSPHATE**

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**0400-42-08-.01 INTRODUCTION.**

In addition to fulfilling all requirements of T.C.A. §§ 59-8-201 through 59-8-228 and all requirements of Chapters 0400-42-01 through 0400-42-06, the following special provisions contained in this Chapter shall be adhered to by all operators of phosphate mines.

**Authority:** T.C.A. §§ 59-8-201 et seq. and 4-5-201 et seq. **Administrative History:** Original rule filed August 2, 2012; effective October 31, 2012. Rule renumbered from 0400-03-08.

**0400-42-08-.02 ACCESS ROADS.**

(1) Definition.

“Access road or haulageway” shall mean any road constructed, improved or used by the operator (except public roads) which ends at the pit or mine and which is located within the permitted area.

(2) Planning and Construction.

Operators are required to plan such roads in accordance with accepted engineering standards with proper protection of streams by culverts where traversed. No road shall be constructed up a watercourse or drainage channel proper, or so close to its banks that material would spill into the channel during construction, use or maintenance. The location of the proposed haulageway shall be identified on the site by visible markings at the time the reclamation and mining plan is preinspected and prior to commencement of construction.

(3) Abandonment of Access Roads.

If the haulageway is to remain as a permanent road, it shall be left properly surfaced and drained for minimum maintenance by the landowner. If the road will be abandoned, it shall be graded to the approximate contour of the adjacent land and sown in grasses.

**Authority:** T.C.A. §§ 59-8-201 et seq. and 4-5-201 et seq. **Administrative History:** Original rule filed August 2, 2012; effective October 31, 2012. Rule renumbered from 0400-03-08.

**0400-42-08-.03 OPERATION, BACKFILLING AND GRADING.**

(1) Mining and Regrading Requirements.

Initial stripping operations and mining shall be conducted so as to facilitate backfilling and grading to approximately the original or rolling topography and elimination of all highwalls, spoil piles and water-collecting depressions.

(Rule 0400-42-08-.03, continued)

(2) Water Control.

Operators will conduct their operations so as to minimize adverse effects to streams. There shall be no mining in stream beds and under no circumstance, whatever will access roads be constructed so as to interfere with streams. Stream crossings shall include culverts or other structures adequate to accommodate peak water flow, and such structures shall be removed at the conclusion of reclamation unless special circumstances preclude such action. Where there is potential for undue siltation, the operator shall construct either log or rock silt traps designed to reduce water velocity and permit the settlement of excess suspended matter.

(3) Reclamation Timing

(a) Reclamation shall proceed concurrently with mining. The reclamation grading shall be concluded within three (3) months after completion of the removal of the mineral from any given acre, as required by T.C.A. § 59-8-208(c). However, the Division recognizes the necessity for maintaining acceptable quality of material for furnace feed so the operator may temporarily abandon a pit, leaving no more than two (2) acres of stripped mineral and unreclaimed surface. The unreclaimed surface must be "dressed" and the shaped areas shall be sown to retard erosion and to hasten returning the adjacent surfaces to useful production.

(b) With the characteristic limestone "cutters" in the phosphate field, where frequently there is a dearth of fill material, operators will not be required to haul fill material in to accomplish grading to the "original contour". In these circumstances, first priority in use of available material will be the filling of the cavities and pits which might be hazardous with the remaining mine-scarred areas to be graded to the best advantage.

(4) Regrading Where Bench is Produced.

Where rim or collar deposits produce a bench, operators may regrade the area so that a rolling terrace is produced, but the highwall must be reduced to a stable slope no steeper than 35 degrees. The terrace shall be smoothly graded with all available fill material.

(5) Water Impoundments.

The operator may elect to impound water to provide lakes or ponds for wildlife, recreation or water supply purposes, provided such impoundments will not create conditions that will contribute to soil erosion, or stream pollution or jeopardize the health, safety or property of adjacent landowners. Impoundments must be included in the mine and reclamation plan and details concerning the size and location and the construction plans of dams, embankments and spillway must be included. The proposed impoundment must meet safety requirements of appropriate State agencies and must be approved by the Department if the surface area exceeds one acre.

**Authority:** T.C.A. §§ 59-8-201 et seq. and 4-5-201 et seq. **Administrative History:** Original rule filed August 2, 2012; effective October 31, 2012. Rule renumbered from 0400-03-08.

**0400-42-08-.04 REVEGETATION.**

(1) Revegetation Plan.

Each operator shall submit a Revegetation Plan in accordance with T.C.A. § 59-8-209 and Chapter 0400-42-05. Since most of the area mined for phosphate will be returned to farmland or pasture, no specific planting requirements are established. However, the plan must provide for stabilization of the area as quickly as possible, after it has been mined in order to prevent erosion and siltation of streams, and to return the area to productive use.

(Rule 0400-42-08-.04, continued)

(2) Evaluation of Vegetation Survival

- (a) Inspection and evaluation of vegetation for cover and survival shall be made as soon as it is possible to determine if a satisfactory stand has been established. In no instance shall this vegetative cover check be made until after the completion of the first growing season. A revelation evaluation report shall be prepared and filed by the inspector.
- (b) If the regraded area is planted in row crops, the revegetation inspection may be made and the report filed as soon as the crop germination becomes evident. The Commissioner shall then cause the remainder of the bond to be released.

(3) Standards for Legumes and/or Perennial Grasses.

Standards for legumes and/or perennial grasses shall require at least an eighty percent (80%) ground cover. Bare areas shall not exceed 2,500 square feet (50 feet by 50 feet) in size, nor total more than twenty percent (20%) of the area seeded unless such areas are too stony to support vegetation.

(4) Performance Bond Release.

After the vegetative cover has been inspected and approved, the operator shall submit his final report to the Commissioner and request release of the remaining portion of the performance bond still in force. No revegetation performance bonds will be released until the approved revegetation plan has been carried out unless the Commissioner determines that further efforts toward revegetation are impractical. No revegetation plans will be considered to have been carried out until satisfactory coverage and survival have been obtained.

**Authority:** T.C.A. §§ 59-8-201 et seq. and 4-5-201 et seq. **Administrative History:** Original rule filed August 2, 2012; effective October 31, 2012. Rule renumbered from 0400-03-08.