

**ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS**  
**[30 U.S.C. 1265]**

**SEC. 515.** (a) Any permit issued under any approved State or Federal program pursuant to this Act to conduct surface coal mining operations shall require that such surface coal mining operations will meet all applicable performance standards of this Act, and such other requirements as the regulatory authority shall promulgate.

(b) General performance standards shall be applicable to all surface coal mining and reclamation operations and shall require the operation as a minimum to --

(1) conduct surface coal mining operations so as to maximize the utilization and conservation of the solid fuel resource being recovered so that re-affecting the land in the future through surface coal mining can be minimized;

(2) restore the land affected to a condition capable of supporting the uses which it was capable of supporting prior to any mining, or higher or better uses of which there is reasonable likelihood, so long as such use or uses do not present any actual or probable hazard to public health or safety or pose any actual or probable threat of water diminution or pollution, and the permit applicants' declared proposed land use following reclamation is not deemed to be impractical or unreasonable, inconsistent with applicable land use policies and plans, involves unreasonable delay in implementation, or is violative of Federal, State, or local law;

(3) except as provided in subsection (c) with respect to all surface coal mining operations backfill, compact (where advisable to insure stability or to prevent leaching of toxic materials), and grade in order to restore the approximate original contour of the land with all highwalls, spoil piles, and depressions eliminated (unless small depressions are needed in order to retain moisture to assist revegetation or as otherwise authorized pursuant to this Act):

Provided, however, That in surface coal mining which is carried out at the same location over a substantial period of time where the operation transects the coal deposit, and the thickness of the coal deposits relative to the volume of the overburden is large and where the operator demonstrates that the overburden and other spoil and waste materials at a particular point in the permit area or otherwise available from the entire permit area is insufficient, giving due consideration to volumetric expansion, to restore the approximate original contour, the operator, at a minimum, shall backfill, grade, and compact (where advisable) using all available overburden and other spoil and waste materials to attain the lowest practicable grade but not more than the angle of repose, to provide adequate drainage and to cover all acid-forming and other toxic materials, in order to achieve an ecologically sound land use compatible with the surrounding region: And provided further, That in surface coal mining where the volume of overburden is large relative to the thickness of the coal deposit and where the operator demonstrates that due to volumetric expansion the amount of overburden and other spoil and waste materials removed in the course of the mining operation is more than sufficient to restore the approximate original contour, the operator shall after restoring the approximate contour, backfill, grade, and compact (where advisable) the excess overburden and other spoil and waste materials to attain the lowest grade but not more than the angle of repose, and to cover all acid-forming, and other toxic materials, in order to achieve an ecologically sound land use compatible with the surrounding region and that such overburden or spoil shall be shaped and graded in such a way as to prevent slides, erosion, and water pollution and is revegetated in accordance with the requirements of this Act;

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(4) stabilize and protect all surface areas including spoil piles affected by the surface coal mining and reclamation operation to effectively control erosion and attendant air and water pollution;

(5) remove the topsoil from the land in a separate layer, replace it on the backfill area, or if not utilized immediately, segregate it in a separate pile from other spoil and when the topsoil is not replaced on a backfill area within a time short enough to avoid deterioration of the topsoil, maintain a successful cover by quick growing plant or other means thereafter so that the topsoil is preserved from wind and water erosion, remains free of any contamination by other acid or toxic material, and is in a usable condition for sustaining vegetation when restored during reclamation, except if topsoil is of insufficient quantity or of poor quality for sustaining vegetation, or if other strata can be shown to be more suitable for vegetation requirements, then the operator shall remove, segregate, and preserve in a like manner such other strata which is best able to support vegetation;

(6) restore the topsoil or the best available subsoil which is best able to support vegetation;

(7) for all prime farm lands as identified in section 507(b)(16) to be mined and reclaimed, specifications for soil removal, storage, replacement, and reconstruction shall be established by the Secretary of Agriculture, and the operator shall, as a minimum, be required to

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(A) segregate the A horizon of the natural soil, except where it can be shown that other available soil materials will create a final soil having a greater productive capacity; and if not utilized immediately, stockpile this material separately from other spoil, and provide needed protection from wind and water erosion or contamination by other acid or toxic material;

(B) segregate the B horizon of the natural soil, or underlying C horizons or other strata, or a combination of such horizons or other strata that are shown to be both texturally and chemically suitable for plant growth and that can be shown to be equally or more favorable for plant growth than the B horizon, in sufficient quantities to create in the regraded final soil a root zone of comparable depth and quality to that which existed in the natural soil; and if not utilized immediately, stockpile this material separately from other spoil, and provide needed protection from wind and water erosion or contamination by other acid or toxic material;

(C) replace and regrade the root zone material described in (B) above with proper compaction and uniform depth over the regarded spoil material; and

(D) redistribute and grade in a uniform manner the surface soil horizon described in subparagraph (A);

(8) create, if authorized in the approved mining and reclamation plan and permit, permanent impoundments of water on mining sites as part of reclamation activities only when it is adequately demonstrated that -

(A) the size of the impoundment is adequate for its intended purposes;

(B) the impoundment dam construction will be so designed as to achieve necessary stability with an adequate margin of safety compatible with that of structures constructed under Public Law 83-566 (16 U.S.C. 1006);

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(C) the quality of impounded water will be suitable on a permanent basis for its intended use and that discharges from the impoundment will not degrade the water quality below water quality standards established pursuant to applicable Federal and State law in the receiving stream;

(D) the level of water will be reasonably stable;

(E) final grading will provide adequate safety and access for proposed water users; and

(F) such water impoundments will not result in the diminution of the quality or quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial recreational, or domestic uses;

(9) conducting any augering operation associated with surface mining in a manner to maximize recoverability of mineral reserves remaining after the operation and reclamation are complete; and seal all auger holes with an impervious and noncombustible material in order to prevent drainage except where the regulatory authority determines that the resulting impoundment of water in such auger holes may create a hazard to the environment or the public health or safety: Provided, That the permitting authority may prohibit augering if necessary to maximize the utilization, recoverability or conservation of the solid fuel resources or to protect against adverse water quality impacts;

(10) minimize the disturbances to the prevailing hydrologic balance at the mine-site and in associated offsite areas and to the quality and quantity of water in surface and ground water systems both during and after surface coal mining operations and during reclamation by -

(A) avoiding acid or other toxic mine drainage by such measures as, but not limited to -

(i) preventing or removing water from contact with toxic producing deposits;

(ii) treating drainage to reduce toxic content which adversely affects downstream water upon being released to water courses;

(iii) casing, sealing, or otherwise managing boreholes, shafts, and wells and keep acid or other toxic drainage from entering ground and surface waters;

(B)(i) conducting surface coal mining operations so as to prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow, or runoff outside the permit area, but in no event shall contributions be in excess of requirements set by applicable State or Federal law;

(ii) constructing any siltation structures pursuant to subparagraph (B)(i) of this subsection prior to commencement of surface coal mining operations, such structures to be certified by a qualified registered engineer or a qualified registered professional land surveyor in any State which authorizes land surveyors to prepare and certify such maps or plans to be constructed as designed and as approved in the reclamation plan;

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**Note:** Subsection 515(b)(10)(B)(ii) amended October 30, 1986.

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(C) cleaning out and removing temporary or large settling ponds or other siltation structures from drainways after disturbed areas are revegetated and stabilized; and depositing the silt and debris at a site and in a manner approved by the regulatory authority;

(D) restoring recharge capacity of the mined area to approximate premining conditions;

(E) avoiding channel deepening or enlargement in operations requiring the discharge of water from mines;

(F) preserving throughout the mining and reclamation process the essential hydrologic functions of alluvial valley floors in the arid and semiarid areas of the country; and

(G) such other actions as the regulatory authority may prescribe;