final bond release to ensure that channeled flows do not form in those areas. Should such channeled flows subsequently develop, Virginia must require the operators to repair and revegetate the area to return to sheet flow, or construct diversions of that flow so that it goes around the pile rather than over the pile in channeled flow. The Director notes that limiting the area above the pile to 500 feet along the slope provides an additional restriction to approval of the variance.

Therefore, the Director finds, to the extent that the proposed amendments will be implemented as explained by Virginia in its October 31, 1994, submittal to OSM, that the proposed amendments at 480-03-19.816/ 817.102(e) (1) and (2) can be approved. However, in addition, the Director is requiring that Virginia further clarify the implementation of these amendments by amending the Virginia program as follows: (1) Define the term "suitable." The definition should clarify the criteria, both physical and chemical, to be used to distinguish between materials which can and cannot be used for the backfilling of pre-existing benches or mined-out areas; (2) add a requirement to the Virginia rules to explicitly require the determination of the location of seeps, springs, or other discharges in the designing of a backfill; (3) add to 480-03-19.773.17 a specific requirement that a permit condition be imposed requiring a quarterly analysis of coal mine waste as it is placed in a refuse pile or in an area being backfilled; and (4) add a definition of "small" to mean that there are no channeled flows, that during storm events there is only sheet flow, and that no variance would be approved if the drainage area above the pile on any point exceeds 500 feet, measured along the slope.

Finally, the Director finds that where coal refuse will be placed on preexisting benches (for the purpose of returning benches to OAC), Virginia must require compliance with its performance standards at 480-03-19.816/817.74 concerning the placement of excess spoil on pre-existing benches. Compliance with these performance standards is necessary because coal refuse presents at least as many stability problems as does the placement of excess spoil on pre-existing benches. While Virginia recognizes this need and currently requires that the placement of coal refuse on pre-existing benches (for the purpose of returning to AOC) meet the standards concerning the placement of excess spoil on pre-existing benches, those requirements are not codified in the Virginia program. Therefore, the

Director is requiring that the State amend the Virginia program by adding a requirement that whenever coal refuse is placed on pre-existing benches for the purposes of returning the benches to AOC, the performance standards for the placement of excess spoil on preexisting benches will be followed. This requirement can be in the form of either a regulation or an official policy statement.

## IV. Summary and Disposition of Comments

## Federal Agency Comments

Pursuant to section 503(b) of SMCRA and 30 CFR 732.17(h)(11)(i), comments were solicited from various interested Federal agencies. The Fish and Wildlife Service (FWS) of the U.S. Department of the Interior expressed concern that the proposed amendments may negatively affect water quality, and thus potentially affect Federal listed threatened and endangered aquatic species in southwestern Virginia (Administrative Record Number VA-848). FWS further stated that on December 12, 1994, FWS met with DMLR to discuss the proposed amendments and visit active mine sites with ongoing backfill activities. FWS learned that despite the proposed amendments, all downgradient surface water runoff controls for all disturbed areas are still required by the Virginia program. Additionally, the "suitability" of the material for purposes of backfilling or disposing as a refuse pile must be demonstrated by tests for acidity, and the Virginia program continues to prohibit the burial or storage of acid- and toxic-forming materials in proximity to any drainage course. It is clear, FWS stated, that all current regulations will continue in force that require treatment of surface water runoff from the entire disturbed area. The FWS concluded that the proposed amendments are not likely to adversely affect listed species or critical habitat.

## Public Comments

A public comment period and opportunity to request a public hearing was announced in the November 16, 1994, **Federal Register** (59 FR 59187). The comment period closed on December 16, 1994. No comments were received and no one requested an opportunity to testify at the scheduled public hearing so no hearing was held.

## Environmental Protection Agency (EPA)

Under 30 CFR 732.17(h)(11)(ii), the Director is required to obtain the written concurrence of the Administrator of the EPA with respect to any provisions of a State program amendment that relate to air or water quality standards promulgated under the authority of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or the Clean Air Act (42 U.S.C. 7401 *et seq.*). The Director has determined that this amendment contains no provisions in these categories and that EPA's concurrence is not required. Pursuant to 732.17(h)(11)(i), OSM

Pursuant to 732.17(h)(11)(i), OSM solicited comments on the proposed amendment from EPA. EPA responded on December 6, 1994 (Administrative Record Number VA–845), and on January 19, 1995 (Administrative Record Number VA–849). The EPA expressed concerns with potential pollution from the proposed coal refuse disposal on abandoned steep mining areas. In particular, EPA was concerned that the proposed allowance of hillside runoff from "small" drainage areas over the refuse pile could result in acid and toxic seepage and runoff.

Virginia indicated to EPA that construction of ditches along the top of the steep mined areas to divert the runoff around the disposal sites would be impractical due to the unstable nature of abandoned highwalls. Virginia also stated that acid and toxic refuse would not be regarded as suitable for such disposal unless isolated and hydrologically separated from drainage courses. Virginia also indicated to the EPA that refuse would be tested in the permitting stage for suitability as well assuring the placement stage.

The EPA stated that disposal of coal refuse on abandoned mine sites, such as proposed by Virginia or in any other manner, is subject to effluent guideline limits as described in 40 CFR 434 subpart B for Coal Preparation Plant Associated Areas during the active and reclamation stages. However, even if treatment during these stages results in compliance with effluent guideline limits and water quality standards, a major concern is the potential of perpetual acid and toxic drainage after closure. EPA stated that it is important to emphasize that any refuse disposal sites which will be exposed to any runoff or infiltration should be free of acid or toxic forming substances. Even where no such substances are initially evident, EPA said, diversion of runoff to the extent possible should be provided and limestone or other alkaline materials should be added to the refuse for added safety. The Director notes that Virginia explained in its October 31, 1994, submittal that the State regulatory authority has ample authority to ensure that appropriate measures are taken to prevent acid and toxic drainage and adverse affects to the hydrologic balance. Virginia also continues to