be ensured by periodic testing. All backfill must be certified by the RPE as obtaining a minimum safety factor of 1.3.

While the specifics of the sampling and analyzing program have not been described in detail, Virginia has reasonably explained its authority and procedures for ensuring that only nontoxic forming material will be placed in the backfill areas, or that the permittee must demonstrate that the placement of these materials will not result in toxic/ acid mine drainage. In addition, Virginia also explained that the regulatory authority has ample authority to ensure that appropriate measures are taken to prevent acid and toxic drainage and adverse effects to the hydrologic balance. Such measures could reasonably include the addition of limestone or other alkaline materials to the backfill when the regulatory authority determined it necessary to provide an appropriate measure of safety.

b. Virginia is proposing to amend paragraph 480-03-19.816/817(e)(2) to provide that the disposal of coal processing waste and underground development waste in the mined-out area as a refuse pile and not to backfill disturbed areas to AOC shall be in accordance with 480-03-19,816/817.81 and 480-03-19.816/817.83. The Division, may approve a variance to 490-03-19.816/817.83(a)(2), concerning drainage controls, if the applicant demonstrates that the area above the refuse pile is small and that appropriate measures will be taken to direct or convey runoff across the surface area of the pile in a controlled manner.

The proposed language differs from the Federal regulations at 30 CFR 816/ 817.102(e) in that the Federal regulations do not provide for a variance from the requirements at 30 CFR 816/ 817.83(a)(2) concerning drainage controls. In effect, the proposed variance could eliminate an additional safeguard against erosion of the fill.

In its submittal of this amendment, Virginia provided the following explanation of how the regulatory authority will interpret and implement 480–0319.816/817.102(e)(2).

[i] Proposed 480–03–19.816/817.102(e)(2) requires compliance with 480–03–19.816/ 817.81, and 480–03–19.816/817.83 when a refuse pile is to be constructed in the minedout area. In this respect, it is identical to the Federal requirements. However, this rule also provides for a variance from the surface runoff diversion requirements of 480–03– 19.816/817.83(a)(2) under certain conditions.

[ii] The proposed rule at 480–03–19.816/ 817.102(e)(2) is applicable only to coal mine waste piles built in mined-out areas. Usually, when a permittee has "suitable coal mine waste" and the permit area includes previously mined benches, an opportunity exists to achieve two separate objectives of the Act. The suitable coal mine waste can be used to achieve AOC on the existing benches, thus reclaiming AML [abandoned mine lands] that would likely never be reclaimed otherwise. Also, by using the suitable coal mine waste on the pre-existing benches, the disturbance of off-site areas and construction of a conventional refuse pile becomes unnecessary. Thus, DMLR is able to minimize areas disturbed or affected by the mining operation.

[iii] It is DMLR's practice to require the placement of suitable coal mine waste on pre-existing benches as backfill when sufficient and suitable benches are available. However, when the volume of coal mine waste will exceed the AOC configuration of the available bench, DMLR still prefers placement of the coal mine waste on the bench rather than on undisturbed areas. In such cases, DMLR will require the construction of the refuse pile to be consistent with both 480–03–19.816/817.81 and 83.

[iv] DMLR proposes to grant the variance contained at proposed 480–03– 19.817.102(e)(2) in such case, but only when certain conditions are met. DMLR will consider the area above the refuse pile as small if there are no channeled flows and if during storm events there is only sheet flow. However, DMLR will not grant the variance if the drainage area above the pile on any point excess 500 feet, measured along the slope.

[v] DMLR will accept only those appropriate measures that can be shown, using standard engineering practices to convey the flow across the pile safely and prevent erosion. Such practices may include sufficient vegetation to prevent erosion or the use of terrances that direct runoff from the areas above the refuse pile and runoff from the surface of the refuse pile into stabilized channels designed to safely pass runoff from the 100-year, 6-hour precipitation event.

As detailed above, Virginia has clarified those instances where a variance could be granted. In addition, Virginia has limited the size of areas which could qualify for an exemption to "small" areas. Virginia has defined "small" quantitatively as slopes less than 500 feet in length, and functionally, as zones where runoff during storm events is only sheet flow. Virginia has also reasonably explained how the Virginia program would safeguard refuse piles in mined-out areas from erosion despite an authorization of the proposed variance.

The Federal regulations at 30 CFR 732.15(a) require that the State's laws and rules, collectively, be in accordance with SMCRA and consistent with the Federal regulations. That is, the State's statutes, rules, policy statements, and similar materials are compared, collectively, with the Federal statute

and rules, collectively, to ensure that the State's program, as a whole, meets the Federal requirements. Therefore, while Virginia's proposed provisions are not identical to the counterpart Federal regulations, OSM has reviewed the Virginia program, collectively, to determine consistency with the Federal regulations. The detailed explanation and scope of the proposed amendments which were submitted by Virginia on October 31, 1994, provide a clear explanation of Virginia's assertion that the Virginia program, with the proposed amendments, remains no less effective than the Federal regulations.

The Director concurs that the Virginia program will not be rendered less effective than the Federal regulations in controlling erosion, preventing acid and toxic drainage, and providing for the stability of fills of coal processing waste and underground development waste in mined-out areas if the program is implemented as discussed in the October 31, 1994, submittal, provided that the required amendments discussed below are added to the program.

The Federal regulations at 30 CFR 816/817.83(a) provide for drainage control at refuse piles. Specifically, the regulations require diversions and underdrains to control erosion, prevent water infiltration into the disposal facility, and to ensure stability if the area contains springs, natural or manmade watercourses, or wet weather seeps. These provisions pertain most appropriately to piles or deposits which, when placed, would interfere with the natural, preexisting drainage patterns. Directing drainage away from those refuse piles would help prevent the creation of impoundments and would help prevent excessive infiltration into the pile that could weaken the structure. Diversions and underdrains do not serve those purposes, however, when the refuse is used for backfill to return to AOC. That is because the AOC complements and assists the area's natural surface drainage patterns. Therefore, returning a site to AOC should itself prevent the creation of impoundments and other interferences with natural drainage patterns. Virginia will not require these diversions and underdrains for coal refuse disposals on benches that are only being returned to AOC. For the above stated reasons, the Director agrees that Virginia need not require placement of underdrains and diversions in coal refuse sites returned to AOC.

The Federal regulations at 30 CFR 816/817.83(b) provide for the stabilization and revegetation of surface areas at refuse piles in order to minimize surface erosion. The Virginia