

**SUBJECT: Post Mining Limits under 47 CSR 30**

**DATE: January 3, 2014**

**APPROVAL: Harold Ward – Acting Director**

## **INTRODUCTION**

This memorandum supersedes the previous guidance concerning post-mining limits issued by the agency on February 28, 1995. In the eighteen years since the last guidance was issued, significant changes have occurred to the procedures for preparing effluent limitation for mining permits. The purpose of this guidance is to ensure that evaluations of effluent limits for Post-Mining Areas are processed in a consistent manner with full consideration of the type of outlet, the applicable effluent limitations, and the protection of the receiving stream. This guidance provides a uniform method for the review and assignment of both technology-based effluent limitations (TBELs) and water quality-based effluent limits (WQBELs) for post-mining areas.

## **DISCUSSION**

Effluent limits are separated into two categories – technology-based effluent limits (TBELs) and water quality-based effluent limits (WQBELs)... TBELs are established to require “a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through WQBELs.” *NPDES Permit Writers’ Manual*, p. 5-1.

TBELs for coal mining facilities are set forth in the effluent limitation guidelines (“ELGs”) in 40 CFR 434. This regulation sets forth categories applicable to different types and stages of mining activities. WQBELs are based on the water quality standards set forth in 47 CSR 2. Whereas TBELs are specified by regulation, WQBELs are calculated, when appropriate to protect receiving water quality, based upon the procedures set forth in EPA’s *Technical Support Document for Water-Quality-Based Toxics Control* (the “TSD”).

This document sets for the procedure for assigning effluent limitations for facilities that are classified as a “Post Mining Area” under 40 CFR § 434.11(k). This document also explains the requirements for water quality data for applications to revise effluent limitations for Post Mining Areas.

## PROCEDURE

### *TBELs*

Under 40 CFR § 434.11(k), the following operations are classified as a Post Mining Areas:

- (1) A reclamation area, which is the surface area of a coal mine which has been returned to required contour and on which revegetation (specifically, seeding or planting) work has commenced, or
- (2) The underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

Neither of these are based upon a requirement for raw water quality, unlike the requirement for classification as “alkaline mine drainage.” This is logical, because TBELs are not related to receiving water quality. Instead, this role is served by WQBELs set to protect West Virginia’s water quality standards.

The determination for classification as a Post Mining Area is based on three factors: (1) mining in the area is completed; (2) the surface area has been returned to contour; and (3) revegetation has commenced. This determination is made on an outlet-by-outlet basis. The drainage area associated with each outlet will be assessed individually to determine whether each of the three factors is satisfied. It is possible for one or more outlet to be classified as a Post-Mining Area, while other outlets do not qualify for reclassification.

Once an outlet qualifies as a Post Mining Area, manganese effluent limitations may be re-evaluated immediately. If the permit contains WQBELs for manganese that is necessary to protect a public water supply intake, then the manganese effluent limitations must remain. If the permit does not contain WQBELs for manganese for an outlet, then the manganese effluent limitations may be removed for any outlet that discharges from an area classified as a “reclamation area” under 40 CFR § 434.11(k).

Past versions of DEP guidance precluded deep mine discharges, pump discharge, and instream ponds located in intermittent or perennial streams from classification as Post-Mining Areas. This contradicts Federal regulations set forth in 40 CFR 434. **However, as a practical matter, classification as a Post Mining Area does not change the effluent limitations for a discharge from the underground workings of an underground mine, since the applicable TBELs for underground workings of underground mines are the same for active mining areas and post-mining areas.** See 40 CFR § 434.55(b) and 40 CFR § 434.35. As with active mining areas, manganese can be removed if the discharge from an underground working of an underground mine at a Post-Mining Area can meet the criteria for classification as “alkaline mine drainage.”

## ***WQBELs***

While TBELs apply to all outlets, the majority of outlets have also been assigned WQBELs. Therefore, both types of effluent limitations must be evaluated when reviewing an application for post mining limits. Likewise, the review process for on-bench outlets is different than the process for instream outlets or deep mine discharges. Importantly, the classification of an outlet as a Post Mining Area **does not affect any WQBELs** assigned to the outlet. Because WQBELs are assigned based on reasonable potential to cause or contribute to a violation of water quality criteria in the receiving stream, WQBELs can only be removed from an outlet by following the procedure set forth in the following paragraphs.<sup>1</sup>

**On-bench outlets.** Prior to applying for post-mining limits, the permittee must provide one of the following data sets for each outlet:

- Twelve (12) months DMR data plus 1 raw sample, if the outlet is not chemically treated;
- Six (6) months of raw sample data collected prior to any chemical treatment;
- If the outlet does not flow consistently, 12 months DMR data plus 1 raw sample with confirmation from the DEP inspector; OR
- If the outlet does not discharge, 12 months of DMR demonstrating no flow with confirmation from the DEP inspector.

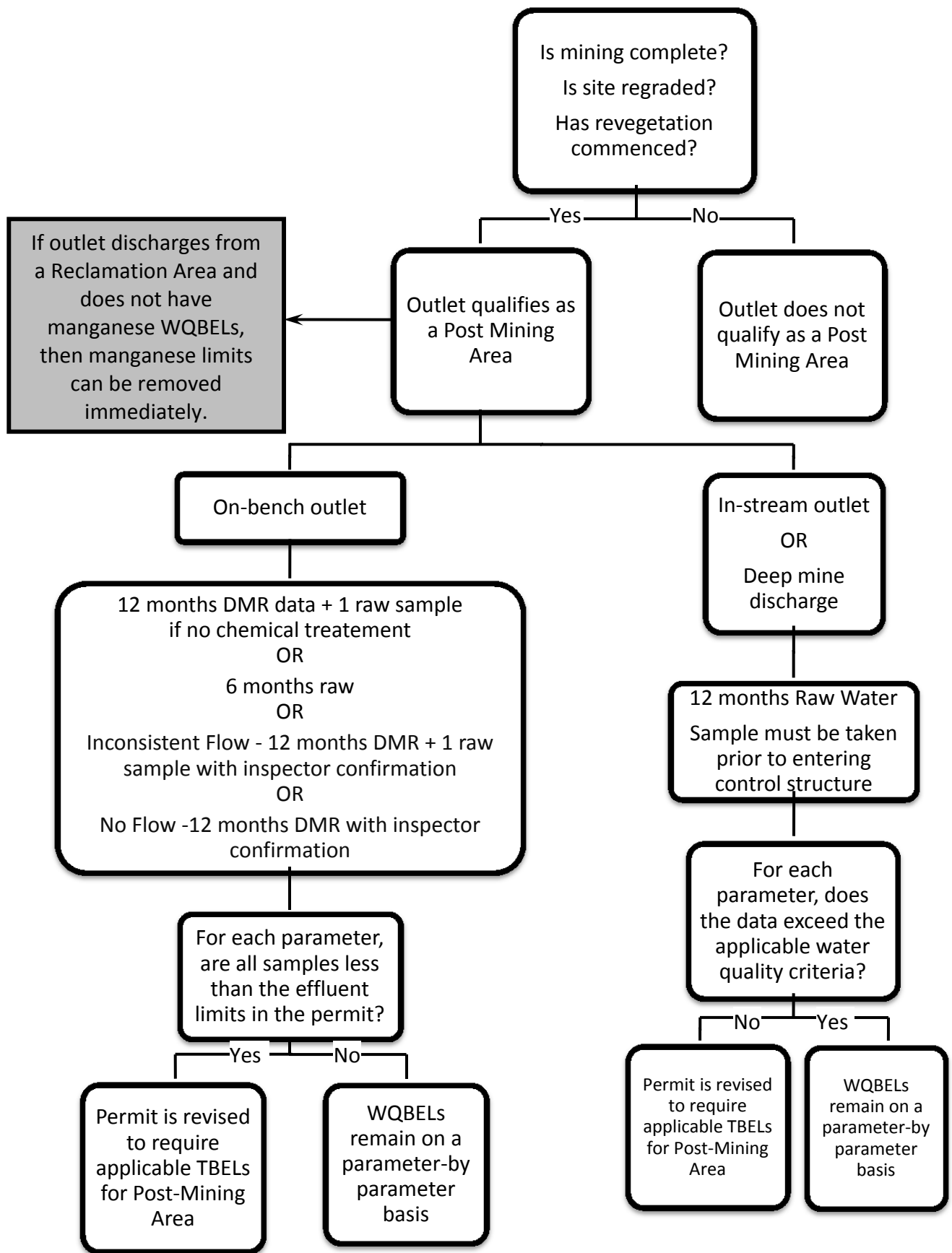
The data will be compared to the corresponding outlet's effluent limitations. If the data meets all WQBELs in the permit, then the outlet will be assigned the appropriate TBELs for a Post-Mining Area specified in 40 CFR 434. WQBELs will remain in the permit for any parameter that does not meet the effluent limitations set forth in the NPDES permit.

**Instream or deep mine outlets.** Prior to applying for post-mining limits, the permittee must provide 12 months raw water data for each outlet, prior to chemical treatment. This sample needs to be taken prior to the water entering the associated control structure. The agency will compare the data to the applicable water quality criteria. If the data does not exceed the corresponding water quality criteria, then the outlet will be assigned the appropriate TBELs for a Post-Mining Area specified in 40 CFR 434. WQBELs will remain in the permit for any parameter that exceeds the applicable water quality criteria in the receiving stream.

The agency has developed the following flow diagram to represent the procedure for revising both WQBELs and TBELs for Post-Mining Areas:

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<sup>11</sup> Limited situations may arise that are not addressed by this guidance. In those situations, discretion may be exercised by the permit writer, after consultant with DEP headquarters. In addition, this policy does not affect the requirements for pond removal under SMCRA.



## **CONCLUSION**

Most outlets have both TBELs and WQBELs assigned to them. TBELs are based solely on regulation and are independent of water quality of the outlet and receiving stream. WQBELs, on the other hand, are designed specifically to protect water quality in the receiving stream. The evaluation for post mining limits must evaluate both the relevant TBELs for that category as well as the need for WQBELs to assure protection of instream water quality.