

**SUBJECT:** Permitting Policy for Precipitation-Induced Outlets

**DATE:** November 28, 2016

**APPROVAL:**  \_\_\_\_\_

## INTRODUCTION

This policy memorandum sets forth the procedures and practices for permitting precipitation-induced outlets, including but not limited to on-bench outlets, that are used to control and/or treat discharges that primarily only occur due to precipitation events. This policy is being developed to provide consistency by establishing permitting procedures that coincide with other permitting policies, procedures and guidance.

For precipitation-induced outlet(s), DEP will apply technology-based effluent limitations along with benchmark monitoring criteria for the stream station(s). The benchmarks will be set at the chronic water quality criterion for each parameter of concern that is expected to be present in the effluent for the outlet(s). In addition, the benchmark criteria will establish an affirmative responsibility for the permittee. Should there be an exceedance of the in-stream benchmark criteria, the permittee must conduct an investigation, take appropriate action and report these actions/findings to DEP.

The implementation of the procedures set forth herein does not supersede or preclude the ability to remove water quality-based effluent limitations for any outlet as outlined in the "Post-Mining Limits under 47 CSR 30" guidance document.

## CRITICAL FLOW AND ASSIMILATIVE CAPACITY

This policy addresses the determination of the critical flow for a precipitation-induced outlet. By definition, a precipitation-induced outlet cannot discharge when a stream is at 7Q10 low-flow conditions. The 7Q10 low flow is defined as the seven-day, consecutive low flow with a ten year return frequency. This is the lowest stream flow for seven consecutive days that would be expected to occur once in ten years. Outlets that are precipitation induced would not be discharging during this period of record. If a sufficient amount of precipitation occurs for an outlet to discharge, then clearly the receiving stream will be receiving runoff and will be flowing at a higher rate than the 7Q10 low-flow. This was recognized by DEP and the West Virginia Legislature in 60 CSR 5, Antidegradation Implementation Procedures, (the "Antideg Rule") and in DEP's *Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i* (the "Narrative Guidance").

Specifically, Section 5.6.c. of the Antideg Rule states:

**Critical flow conditions for non-precipitation induced discharges are the 7Q10 flow of the receiving stream, plus either of the following: maximum permitted flow or maximum flow specified in the application, for industrial activities, or the average design flow, for wastewater treatment activities.**

(Emphasis added.) DEP acknowledged that precipitation-induced discharges must be treated differently than other outlets regarding critical flow for determining effluent limitations.

The Narrative Guidance does not apply to outlets that are precipitation-induced. This is due to the fact that these outlets discharge in response to precipitation events and are not to be addressed in the same manner as outlets that discharge continuously and/or have the potential to discharge during critical stream flow events.

Accordingly, precipitation induced discharges would not discharge during critical stream flow (7Q10 low flow) and therefore do not consume assimilative capacity in the receiving stream during the low flow conditions. These outlets are not to be included in the determination of the availability of assimilative capacity in a watershed.

Therefore, effective immediately, the BWQ Protocol for precipitation induced discharges will no longer be in effect.

### **PERMITTING PROCEDURE**

New NPDES permits, permit modifications and reissuances will be permitted in accordance with this document. Discharges that are determined to be precipitation induced will be assigned effluent limitations in accordance with the appropriate Effluent Limitation Guidelines (ELG's) listed in 40 CFR 434. In addition, monitoring requirements and /or water quality based effluent limitations will be assigned where deemed necessary to protect water quality.

In addition, DEP will require monthly concurrent monitoring of the applicable outlets for the permit and the associated stream monitoring station(s). The outlet(s) and associated stream monitoring station(s) will be utilized similarly as those used for the "narrative" special sampling condition for precipitation induced discharges (if applicable). The results of this sampling may be substituted for a normally scheduled monitoring event during the calendar period. The boilerplate language for benchmark and instream monitoring is presented in Appendix A to this document.

NPDES permits will be revised to be consistent with this policy upon reissuance. However, a permittee may apply for a major modification of its NPDES permit for precipitation-induced outlets prior to reissuance of the permit. The modification application must include a minimum of one year of monitoring data for the precipitation-induced outlets and instream monitoring stations, along with the corresponding rain gauge data for the same time period. The permit modification will be considered on an outlet-by-outlet basis and may be granted only if the

permittee can demonstrate that each requested outlet discharges solely in response to precipitation events.

The review will be conducted on a parameter-by-parameter basis. No change will be available for any parameter which effluent limitations were established in accordance with an approved TMDL or where the immediate receiving stream is listed as impaired in the operative 303d list.

For other parameters not included in the ELG's but may require effluent limitations to be applied; the most stringent acute value will be assigned to the outlet(s) for the parameter(s). When additional parameters are added to the outlet(s) an in-stream bench mark value must be added to the permit condition in Appendix A utilizing the most stringent chronic criterion.

Aluminum – Where applicable, surrogate tech-based limitations of 3.0 mg/l average monthly and 6.0 mg/l maximum daily shall be utilized for total aluminum.

Selenium – Where applicable, outlets will be assigned report only monitoring for the average monthly and daily maximum limitations.

## APPENDIX A

X. The following monitoring requirements apply to outlet(s) and associated down-stream monitoring stations as specified herein:

- a. In the event of a rainfall event equal to or greater than 0.3 inches occurs, during each calendar month monitoring will be conducted for the constructed on-bench outlet (precipitation induced) which has been disturbed by mining activity with the largest component drainage area and the constructed on-bench outlet (precipitation induced) at the lowest elevation on the down dip portion of the operation that has been disturbed by mining activity. The stream monitoring stations associated with these outlets must also be monitored at approximately the same time. The monitoring can be initiated at any point after rain gauge data indicates 0.3 inches of precipitation has occurred and shall be completed no later than eighteen (18) hours after cessation of the precipitation event. A qualifying event defined herein as any event where 0.3 inches or more of rainfall occurs within a consecutive 24 hour period.

In the event a discharge from a precipitation induced outlet is sampled, the sample(s) must be analyzed for all parameters listed in Section A of the permit for each respective outlet and parameters listed in Section D, 3 of the permit for the associated stream monitoring station(s). Analysis must be reported as a regular discharge monitoring report (DMR) and may be substituted for one of the required semi-monthly samples for the outlet(s). Once a qualified event is sampled in a given calendar month, this condition is satisfied for that calendar month. Rain gauge information must be maintained during the term of the life of the permit and made available to the Director upon request.

- b. When deemed by the WVDEP to be a Parameter of Concern, the following benchmark values (example list) shall be assigned for stream station(s):

<u>Pollutant</u>	<u>Benchmark Values</u>	
	<u>Warm Water</u>	<u>Cold Water (Trout)</u>
Total Iron	1.50 mg/l	1.00 mg/l
Total Manganese (if applicable)	1.00 mg/l	1.00 mg/l
Dissolved Aluminum	0.75 mg/l	0.087 mg/l
Total Selenium	5.00 µg/l	5.00 µg/l
pH	6.0 to 9.0 s.u.	6.0 to 9.0 s.u.

- c. In the event an instream station exceeds the applicable water quality criteria (benchmark value) for the pollutant, the permittee must notify the Permit Inspector within 24 hours of discovery of the exceedance. The facility shall then conduct an investigation and take corrective action if appropriate to prevent a future exceedance of the water quality criteria at the instream station. Within 7 days of the exceedance, a letter stating the revised and implemented best management practices shall be submitted to:

West Virginia Department of Environmental Protection  
DMR – NPDES Program Manager  
601 57th Street S.E.  
Charleston, WV 25304  
and  
WVDEP – Regional Office - Permit Inspector

- d. If the Director determines that any outlet is causing or contributing to the violation of water quality criteria in the receiving stream, the Director shall notify the Permittee and shall require the submission of an application to modify the NPDES permit for imposition of WQBELs to protect instream water quality.
  
- e. Reporting Forms – The attached reporting form(s) must be completed, signed and attached to the ESS Quarterly Discharge Monitoring Report (DMR) submittal. Additionally, the original signed form(s) must be submitted to the permit inspector in the appropriate regional office. A blank reporting form is attached for permits that may contain additional parameters not included in the pre-formatted form.