



# Reclamation ▲ Advisory Memorandum

**From:** Susan C. Bush, Commissioner  
**Date:** August 15, 2005  
**Subject:** KPDES Permits for Coal Mining Activities:  
New Antidegradation Requirements

## RAM # 138

### Introduction

The Kentucky Department for Natural Resources is providing this document as a service to the regulated community and as a courtesy to the Division of Water (DOW).

This memorandum defines categories of water within the Commonwealth, instances when an individual KPDES permit is required, new conditions of an individual permit imposed by the antidegradation rule, and the step by step permitting process for each category of water.

On April 12, 2005 EPA approved the Commonwealth of Kentucky's Antidegradation Rule as promulgated in 401 KAR 5:030. Clarification was provided by letter commitments from the Commonwealth, dated August 10, 2004, February 25, 2005 and April 11, 2005. This regulation establishes a tiered approach to the implementation of the Antidegradation Rule. The regulation defines four (4) categories of water with varying degrees of implementation procedures. These categories are: Outstanding National Resource Waters, Exceptional Waters, High Quality Waters, and Impaired Waters.

Implementation of the Antidegradation Rule as it relates to coal mining is specified by 401 KAR 5:030 and the February 25, 2005 commitment letter. The following procedures apply only to those new or expanded operations which file a KPDES NOI-CM (general permit coverage) or a KPDES individual permit application on or after April 12, 2005.

### Permitting Procedures

The initial step of Implementation Requirements is to identify the category of water relevant to the proposed mining operation to determine the degree of antidegradation review required. The Division of Water makes this determination using the following resources: (1) 401 KAR 5:030, Section 1, (2) the 303(d) List of Waters for Kentucky, and (3) the 305(b) Report to Congress.

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The information requirements and permitting process for each of the four (4) categories are detailed as follows:

### Impaired Waters

These are surface waters that are on the latest version of the 303(d) List of Waters for Kentucky and 305(b) Report to Congress. All existing uses shall be protected and the level of water quality necessary to protect those existing uses shall be assured. Most discharges into surface waters categorized as Impaired Waters are eligible for the KPDES Coal General Permit coverages or Individual Permits.

Individual permits are required for new or expanded discharges to Impaired Waters if the impairment is for one or more pollutants commonly associated with coal mining (i.e. sedimentation, solids, pH, metals, alkalinity and acidity).

The procedures for obtaining an Individual KPDES Permit for an Impaired Water is as follows:

1. Applicant must submit completed KPDES Forms 1 and C.
2. DOW will develop a draft permit.
3. Public notice (30 day) of the proposed action.
4. Final permit determination shall be made.

For those new or expanded discharges into Impaired Waters where the impairment is **NOT** for one or more pollutants commonly associated with coal mining (i.e. sedimentation, solids, pH, metals, alkalinity and acidity) coverage under the KPDES Coal General Permit may be sought.

The procedure for obtaining General Permit Coverage for an Impaired Water is as follows:

1. Submit Notice of Intent (NOI) for coverage under the KPDES Coal General Permit.
2. DOW grants coverage.

### Outstanding National Resource Waters (ONRW)

There are three ONRWs listed in 401 KAR 5:030, Section 1(1). These waterbodies are: (1) Red River: From mile point 49.2 to mile point 68.6 (Menifee and Wolfe Counties), (2) Underground River System: Mammoth Cave National Park (Barren, Edmonson and Hart Counties), and (3) Big South Fork of the Cumberland River: From mile point 45.0 to mile point 55.2 (McCreary County).

New or expanded discharges to these waterbodies are prohibited.

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### Exceptional Waters

There are approximately 218 surface waters categorized as Exceptional Waters. These are listed in 401 KAR 5:030, Section 1(2). Outstanding State Resource Waters (ORW) and Cold Water Aquatic Habitat (CAH) are included in this category. The KPDES Coal General Permit KYG040000 excludes from coverage those waters categorized as Exceptional Waters, therefore a KPDES Individual Permit is required.

The procedures for obtaining an Individual KPDES Permit for an Exceptional Waters are as follows:

1. Applicant must submit completed KPDES Forms 1 and C.
2. DOW will develop a draft permit.
3. Public notice (30 day) of the proposed action.
4. Final permit determination shall be made.

Permit conditions new to the Individual Permit as required by the Antidegradation Rule are:

1. Chronic Toxicity Testing and Limit of 1.0 TUc [Toxicity Units Chronic – Whole Effluent Toxicity (WET) testing of the effluent to determine if the discharge has a negative effect on the growth of the fathead minnow and/or the reproduction rate of the water flea].
2. Chloride Limit of 250 mg/l.
3. Total Recoverable Iron Limits are halved to 0.5 mg/l monthly average and 2.0 daily maximum.

If the applicant does not accept these limitations, then the applicant shall demonstrate, to the satisfaction of the Cabinet, that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area. This alternatives analysis and socioeconomic demonstration shall follow the guidelines in "Interim Economic Guidance for Water Standards Workbook," EPA, March 1995. KPDES Form EWAA shall be used as a supplement to the alternative analysis.

### High Quality Waters

This category includes all waters that are not an ONRW, Exceptional Water or an Impaired Water and include the majority of the surface waters in the Commonwealth of Kentucky. These waters are eligible for coverage under the KPDES Coal General permit and Individual Permits. The process for obtaining this coverage has been changed as a result of the February 25, 2005 commitment letter and is described below.

The procedure for obtaining General Permit Coverage for a High Quality Water is as follows:

1. Submit Notice of Intent (NOI) for coverage under the KPDES Coal General Permit.
2. Submit Form HQAA.
3. DOW reviews the DNR permit record after the DNR permit is issued.
4. DOW public notices (30 day) intent to grant KPDES Coal General Permit Coverage.
5. Respond to comments and grant coverage.

The procedure for obtaining an Individual KPDES Permit for a High Quality Water is as follows:

1. Applicant must submit completed KPDES Forms 1 and C.
2. DOW will develop a draft permit.
3. Public notice (30 day) of the proposed action.
4. Final permit determination shall be made.

Permit conditions new to the Individual Permit as required by the Antidegradation Rule are:

1. Total Recoverable Iron Limits are halved to 0.5 mg/l monthly average and 2.0 daily maximum.

If the applicant does not accept these limitations then the applicant shall demonstrate to the satisfaction of the Cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area. This alternative analysis and socioeconomic demonstration shall be made using KPDES Form HQAA.

If you have any questions regarding the KPDES General or Individual Permit application procedures, please contact Laurie Veal or Larry Sowder of the DOW KPDES Branch at (502) 564-2320.

**DISCLAIMER:** This document represents the Cabinet's present understanding of the EPA approved Antidegradation Rule for Kentucky. The contents of this document may in whole or part, be modified in response to the resolution of current litigation.