

**PETITION FOR WITHDRAWAL OF THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM  
DELEGATION FROM THE STATE OF KENTUCKY**

Appalachian Mountain Advocates, Appalachian Voices, and Sierra Club hereby petition the United States Environmental Protection Agency, (EPA) to initiate formal proceedings under 40 C.F.R. § 123.64(b) to withdraw approval of the Commonwealth of Kentucky's National Pollutant Discharge Elimination System (NPDES) program. The Groups request that EPA formally respond to this petition in writing, as required by 40 C.F.R. § 123.64(b)(1); that EPA notify the State of Kentucky that it is not administering the permit program for discharges into the waters of Kentucky in accordance with the Clean Water Act; and that EPA schedule a public hearing regarding these violations. *See* 33 U.S.C. § 1342(c)(3); 40 C.F.R. § 123.64(b)(1). Because Kentucky has shown that it does not have the ability to administer or enforce its NPDES program in accordance with the Clean Water Act (CWA), EPA must withdraw its approval of the Kentucky NPDES delegation and assume administration and enforcement of the program. Id.

On March 15, 2010, Appalachian Mountain Advocates,<sup>1</sup> Sierra Club, Public Justice, and Kentuckians For The Commonwealth submitted a petition to EPA requesting withdrawal of Kentucky's NPDES program. The groups provided additional information in a supplement to that petition on May 3, 2010. The petition and supplement highlighted, among other things, the Kentucky Division of Water's (KDOW) failure to promulgate protective water quality standards, assure adequate assessment of state waters, comply with EPA guidelines on total maximum daily load development, and issue NPDES permits with effluent limits necessary to protect the waters of the Commonwealth. Since the time of that petition, the vast majority of those failures have not been addressed in any meaningful way. This petition, however, is not intended to be another supplement to the 2010 petition, but rather constitutes a new and separate request to withdraw Kentucky's NPDES program. The failures detailed in this petition are causing and will continue to cause significant harm to Kentucky's waterways and form an independent basis for withdrawal of approval.

**KENTUCKY HAS FAILED TO COMPLY WITH THE REQUIREMENTS OF 40 C.F.R.  
PART 123 BY IMPROPERLY IMPLEMENTING ITS NEW SELENIUM FISH TISSUE  
WATER QUALITY CRITERIA**

KDOW has failed to implement its newly-revised aquatic life "fish tissue" criteria for selenium in a manner consistent with EPA's understanding of the criteria as expressed in its decision document approving the revision, thus leading to the issuance of NPDES permits that do not comply with the Act. Specifically, Kentucky's procedures for determining compliance with the criteria set out in its general NPDES permits for coal mining operations fail to protect against impairment in streams that lack adequate fish tissue for testing.

On May 23, 2013, KDOW submitted to EPA revisions to its water quality criteria at 401 KAR 10:031. The submission included a revision of the chronic aquatic life water quality criteria for selenium that transformed the former chronic limit of 5 ug/l as measured in the water column to

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<sup>1</sup> At that time, Appalachian Mountain Advocates was known as the Appalachian Center for the Economy and Environment.

a fish tissue-based water quality criteria. The standard adopts the former regulatory limit of 5 ug/l as a “trigger” for when fish tissue need to be collected in order to determine whether the concentration of selenium in the sampled tissue exceeds the new regulatory standard. A violation of the 5 µg/L trigger does not constitute a violation of the standard. KDOW explained the new standard in this manner:

Kentucky has adopted chronic water quality criteria for selenium of 8.6 ug/g (dry weight) of whole fish tissue or, 19.3 ug/g (dry weight) of fish egg/ovary tissue in 401 KAR 10:031 Section 6, Table 1. In developing the proposed chronic water quality criteria for selenium, the agency determined that the trigger level of 5.0 ug/l is a protective approach. The 5.0 ug/l trigger level is a screening tool that will assure that fish communities, and therefore aquatic life, are protected from potentially harmful selenium bioaccumulation.

November 1, 2013, letter from Kentucky Department of Environmental Protection Commissioner Bruce Scott, to Region IV Water Protection Division Director James Giattina, attached as Exhibit 1.

In comments to both KDOW and EPA, citizen groups criticized the new fish tissue-based criteria for, among other things, failing to protect against impairment in streams where adequate fish tissue could not be collected to determine compliance with the standard. In a March 7, 2013, letter from the Kentucky Ecological Services Field Office of the U.S. Fish and Wildlife Service to KDOW, attached as Exhibit 2, Field Supervisor Virgil Lee Andrews, Jr. likewise criticized the standard for failing to address situations where “fish are absent in selenium-affected waters.” In an October 25, 2013, letter to the Kentucky Cabinet, attached as Exhibit 3, EPA requested “information concerning how the Commonwealth plans to establish KPDES permit limitations for the chronic fish tissue criteria for dischargers where fish are present in or immediately downstream of the receiving water and also where fish are not present in such waters.” In its November 1, 2013, response, Kentucky explained that

The agency has developed draft procedures for the collection of fish tissue for the analysis of selenium residue to determine compliance with the proposed KPDES permit. These procedures shall be required in the proposed KPDES permit. The procedures require the collection of fish tissue in successive stream segments in the effluent-receiving stream where the effects of the discharge may be realized, beginning below the outfall(s) that exceeded the effluent screening trigger concentration of 5.0 µg/L and potentially extending downstream to and terminating at the confluence of the next receiving stream. . . . [I]n the event that sufficient fish tissue cannot be obtained, the proposed KPDES permit will state that if adequate fish tissue cannot be obtained to determine permit compliance with the fish-tissue limit the permit holder will be deemed to be in non-compliance with the proposed KPDES permit for exceeding the chronic trigger level as established in the proposed KPDES permit.

Exhibit 1 (emphasis added).

On November 15, 2013, EPA approved Kentucky's revision to its chronic selenium standard. EPA premised its approval on an assurance from KDOW, made in response to EPA's comments to KDOW, that "in the event that sufficient fish tissue cannot be obtained, the permit holder will be deemed to be in non-compliance with the proposed KPDES permit for exceeding the chronic trigger level of 5.0 µg/L." November 15, 2013, Letter from USEPA Region 4 to Kentucky Energy and Environment Cabinet, attached as Exhibit 4.

Contrary to the Cabinet's representations to EPA, Kentucky's procedures for determining compliance with its fish tissue-based selenium effluent limits allow for complete extirpation of aquatic life in the direct receiving streams. In the general KDPES permits for coal mining facilities in Eastern and Western Kentucky, KYGE40000 and KYGW40000, submitted to EPA on May 15, 2014 and issued by KDOW on September 1, 2014, KDOW included selenium limits expressed only in terms of fish tissue concentrations, testing for which is triggered by a monthly average exceedance of 5 µg/L at the outfall. Permits KYGE40000 and KYGW40000, available at <http://kydep.wordpress.com/2014/09/02/kentucky-division-of-water-issues-two-new-kentucky-pollution-discharge-elimination-system-general-permits-for-coal-mining-operations-in-kentucky/>.

In Appendix A to the permits, KDOW provided procedures for collection and analysis of the fish tissue. KDOW's implementing procedures direct fish sampling personnel to attempt to obtain the composite tissue samples within the first 100 yards of the direct receiving stream. If the required samples cannot be obtained in that stretch, KDOW directs personnel to

continue downstream using successive 100-meter reaches until adequate target species composite and duplicate/replicate samples are obtained or the stream receiving the effluent empties into its receiving stream. In the event the effluent receiving stream is less than 100 meters in length every effort shall be made to collect fish from the available habitat of that stream, but when fish are not present in such streams the collection effort is extended into the next receiving stream. That collection effort will continue at the point the stream empties into its receiving stream with sampling conducted in successive downstream 100-meter reaches.

. . . Should the stream receiving the effluent discharge empty into its receiving stream less than four successive 100-meter reaches from the point of effluent discharge, then sampling shall continue in the receiving stream from that confluence until one has sampled linear reaches totaling no more than four successive (inclusive of all reaches sampled) 100-meter reaches.

KYGE40000, Appendix A §§ 10.1.5.3.2, 10.1.5.6.2 (emphasis added).

KDOW's procedures for the general KPDES permits that will authorize pollution discharges from the vast majority of coal mining operations in the Commonwealth thus allow compliance with the fish tissue standard to be determined entirely on the basis of fish obtained not from the direct receiving stream but from the next higher order stream. Such higher order streams are likely to provide dilution such that fish obtained from those streams will not reflect the

impairment of the direct receiving stream. Those procedures allow for the complete extirpation of fish communities in the direct receiving stream without finding any permit violation or requiring effluent treatment.<sup>2</sup> Those procedures directly contradict Kentucky's earlier statement to EPA that compliance with effluent limits implementing the revised criteria would be determined by testing fish tissue taken from below the outfall and "extending downstream to and terminating at the confluence of the next receiving stream." KDOW's failure to properly implement its revised selenium criteria provides grounds for EPA to withdraw approval of Kentucky's NPDES program under 40 C.F.R. §§ 123.63(a)(2)(ii) and 123.63(a)(5).

**KENTUCKY HAS FAILED TO COMPLY WITH THE REQUIREMENTS OF 40 C.F.R.  
PART 123 BY FAILING TO ISSUE NPDES PERMITS FOR POINT SOURCE  
DISCHARGES AT BOND RELEASED MINING SITES**

Kentucky has failed to issue/obtain NPDES permits for point source dischargers at bond released mining sites with ongoing point source pollution discharges. The related failure of KDOW to issue protective NPDES permits for pollution discharges at bond forfeiture and abandoned mine land sites was addressed in the March 15, 2010, petition. For sites that were previously permitted under Kentucky's SMCRA program and have had their SMCRA permits and bonds released (not forfeited), KDOW has not just failed to include protective effluent limits in NPDES permits, but rather has entirely failed to require the continuance of NPDES permits for ongoing point source pollution discharges, or to issue new NPDES permits for the current landowner or other responsible party.

Many Kentucky bond released sites continue to produce polluted mine drainage. Valley fills are a common feature of surface mines in Kentucky. Once constructed, they are permanent features, remaining after reclamation and SMCRA permit and bond release. Although SMCRA requires that any discharges from reclaimed mines meet water quality standards before permits can be released, in practice Kentucky's Division of Mine Reclamation and Enforcement (DMRE) maintains a much lower bar. The release application only requires permittees to certify "all reclamation, restoration, and abatement work" has been completed. The release application does not appear to require any demonstration that the discharges from the site are meeting water quality standards. Once the SMCRA permit is released, KDOW releases the KPDES permit for the site. KDOW does not require the permittee to show that no discharges of pollutants remain.

Instead, reclaimed valley fills are permitted to continue to discharge pollutants into their receiving streams. A recent study consistently found elevated levels of selenium and conductivity below reclaimed valley fills.<sup>3</sup> Nearly 90% of the streams below reclaimed valley fills sampled in the study exhibited biological impairment.

To our knowledge and belief, no bond-released mine sites have KPDES permits for their continued discharges. As a result, there are hundreds of unpermitted discharges from valley fills

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<sup>2</sup> In streams that naturally lack fish, allowing compliance to be determined based on samples from higher order streams impermissibly allows adverse impacts to other components of the aquatic life community.

<sup>3</sup> Pond, G. J., Passmore, M. E., Pointon, N. D., Felbinger, J. K., Walker, C. A., Krock, K. J., Fulton, J.B. & Nash, W. L. (2014). Long-Term Impacts on Macroinvertebrates Downstream of Reclaimed Mountaintop Mining Valley Fills in Central Appalachia. *Environmental Management*, 1-15.

across Kentucky. Both EPA and the federal courts have made clear that point source discharges after bond release require NPDES permits, and that such discharges made in the absence of a permit constitute violations of the Act. As the U.S. Court of Appeals for the Fourth Circuit explained:

EPA issued regulations in 1985 establishing that post-mining discharges are covered by the NPDES scheme. *See* 50 Fed. Reg. 41296 (Oct. 9, 1985). In those regulations, the EPA “reemphasize[d] that post-bond release discharges are subject to regulation under the Clean Water Act,” observing that “[i]f a point source discharge occurs after bond release, then it must be regulated through an NPDES permit.” *Id.* at 41298. The comments to the rule sharpen this point, flatly stating that “[a]ny point source discharge after bond release does require a permit.” *Id.* at 41304 (emphasis added). To the extent parties do not comply, the regulations state that they will be “subject to enforcement action by EPA under section 309 of the Act and by citizens under section 505(a)(1) of the Act.” *Id.* at 41298.

West Virginia Highlands Conservancy, Inc. v. Huffman, 625 F.3d 159, 166 (4th Cir. 2010). Neither KDOW nor DMRE has ever taken enforcement action against a post-bond release discharge.

Uncontrolled discharges from bond-released mines continue to cause harm to streams and aquatic communities. Many of these discharges contain high levels of the ions that are measured as total dissolved solids (TDS) and conductivity, and that have been shown to harm aquatic life below valley fills. A 2014 study found that conductivity’s negative impact on downstream biological communities is long-term. The study’s findings were summarized thusly:

In addressing our three central questions, we determined that (1) temporal ecological impacts persist downstream of VFs, given 11–33 years post-reclamation; (2) many expected taxa were missing from VF streams (suggesting local extinctions) and the scraper feeding group was significantly reduced; and (3) water quality is most likely the primary barrier to recovery but proximity to clean sources (intervening tributaries) may contribute some sensitive taxa that increase the biological indices used to measure condition.<sup>4</sup>

By failing to issue NPDES permits for point source discharges from bond released mine sites and failing to take enforcement action against unpermitted discharges from such sites, KDOW is abdicating its duties under the approved NPDES program. KDOW’s failure to appropriately implement the NPDES program in regards to point source discharges from bond released coal mining sites provides grounds for EPA to withdraw approval of Kentucky’s NPDES program under 40 C.F.R. §§ 123.63(a)(2)(i) and 123.63(a)(3)(i).

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<sup>4</sup> Pond, G. J., et. al. (2014). Long-Term Impacts on Macroinvertebrates Downstream of Reclaimed Mountaintop Mining Valley Fills in Central Appalachia. *Environmental Management*, 1-15.