



Response to Comments

Project: AMP-Ohio Proposed Coal Fired Power Plant
Letart Falls, Meigs County
Section 401 Water Quality Certification

Ohio EPA ID #: 073145

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Ohio EPA conducted a public hearing on April 2, 2008 regarding a Section 401 Water Quality Certification application submitted by AMP-Ohio ("applicant") seeking authorization to construct a new coal fired power plant on a 1,000 acre parcel located in Letart Falls, Letart Township, Meigs County. AMP-Ohio has been authorized to impact 0.62 acres of wetlands 10,584 linear feet of headwater streams, and 3,500 linear foot of the Ohio River bank, in order to construct the new power plant, landfill, transmission line and substation, coal barge unloading facility, and other attendant features. An additional 0.39 acres of wetlands and 1,842 linear feet of headwater streams may be impacted if the power plant needs to generate gypsum due to the failure of the Powerspan technology. Ohio EPA accepted comments on the application through March 1, 2007.

Ohio EPA considers only those comments that fall within its legal authority when evaluating public input. For instance, Ohio EPA considers comments regarding the quality of streams and wetlands, the nature and scope of the proposed impacts, appropriateness of the project alternatives, justifications presented for the proposed lowering of water quality associated with the project, and quality of the proposed mitigation. Public concerns that fall outside the scope of Ohio EPA's authority, such as whether a project meets local zoning regulations or how it may affect property values, are not included in Ohio EPA's analysis. When appropriate, Ohio EPA will direct the commenter to those government agencies with authority over these issues.

Readers of this Responsiveness Summary are advised that, in some instances, it was necessary to summarize a comment, or several related comments. Every effort has been made to represent the key concern raised by commenter. An electronic version of this response to Comments and Section 401 Water Quality Certification document is available on Ohio EPA's web page.

COMMENTS REGARDING POTENTIAL WATER QUALITY IMPACTS

Comment 1: The public notice of the 401 certification request for the proposed project plainly states that, “discharges from the activity, if approved, would result in degradation to, or lowering of, the water quality of the Ohio River and upland tributaries and wetlands.” Indeed, the project would impact one acre of wetlands, more than 10,000 linear feet of streams, and a 1,000 acre tract of land near a National Wildlife Refuge. Such impacts are likely to significantly affect the area’s aquatic ecosystems.

Response 1: The language cited in the public notice regarding the lowering of water quality, which appears in all public notices for Section 401 applications, is an acknowledgement that activities that require Section 401 Water Quality Certification (WQC) will lower water quality to some degree. The extent of the lowering of water quality will vary from project to project depending upon the quality of the aquatic resources to be impacted and the nature and scope of the proposed impacts.

Upon conclusion of the Antidegradation Review, including an evaluation of alternatives, examination of justifications for the project, and consideration of public comment, Ohio EPA has concluded that the impacts to streams and wetlands resulting from the proposed AMP-Ohio project will, in fact, lower water quality, but within allowable limits. AMP-Ohio has been authorized to impact 0.62 acres of wetlands 10,584 linear feet of ephemeral and intermittent headwater streams associated with the landfill, plant and transmission line, and 3,500 linear foot of the Ohio River bank, to construct the coal barge unloading facility, and other attendant features. AMP-will avoid 2.61 acres of wetlands of the total 3.23 acres located in the project area, and 37,437 linear feet of stream of the 49,021 total linear footage of stream on-site. An additional 0.39 acres of wetlands and 1,842 linear feet of headwater streams may be impacted if the power plant needs to generate gypsum due to a failure of the Powerspan technology in which case additional authorization will be require dorm both Ohio EPA and the Ohio Power Siting Board.

Construction of the landfill accounts for the largest percentage of headwater stream impacts. Much of the stream length is due to the steep topographical features of this portion of the site. Of the 10,584 linear feet of headwater streams to be impacted, the landfill footprint will impact 8,832 linear feet. As part of the development of the landfill, this topography will be significantly altered and thus, in a pure accounting sense, these feet of stream length will be impacted. However, we do not believe that this will result in a significant impact on the area's aquatic ecosystems. The WQC specifically requires AMP-Ohio to re-sequence the order in which the landfill cells will be filled and to avoid stream bm-s13, and its tributaries, which is the highest quality stream feature proposed to be impacted. It is important to note that the landfill footprint submitted to Ohio EPA had incorporated significant avoidance of several high quality streams prior to submission of the Section 401 application.

Construction of the transmission line will cross over 33 primary headwater habitat streams (PHWH). However, only one stream will be impacted as a result of construction of a sub-station resulting in a total of 180 linear feet of stream impacts. The placement of either temporary or permanent fill in all other streams located along the transmission line corridor has been avoided through the careful selection of pole locations and access roads.

Although AMP-Ohio will impact 0.62 acres of wetlands, it will avoid 2.61 acres. All of the wetlands authorized to be impacted are either low quality (Category 1) and or medium quality (Category 2) wetlands. No impacted wetlands are considered high quality (Category 3) wetlands.

AMP-Ohio will also impact 3,500 linear feet of the right descending bank of the Ohio River in order to construct a barge unloading facility, and water intakes and effluent outfalls associated with the plant. In its December 7, 2007 letter to the U.S. Army Corps of Engineers, the United States U.S. Fish and Wildlife Service raised no objections or concerns regarding the Ohio River Islands National Wildlife Refuge.

In order to offset the 10,584 linear feet of stream impacts that will result from the construction of new plant, AMP-Ohio will implement a multifaceted stream mitigation plan. Stream mitigation will consist of reconstructing 1,525 linear feet of stream an-s1 on the project site, preservation of 15,620 linear feet of streams that have been avoided on the 1,000 acre site including many that provide water to the constructed Eastern Spadefoot breeding pools, preservation of 9,941 linear feet of headwater streams associated with John's Run and its tributaries located adjacent to the southwest corner of the AMP-Ohio site, and the installation of a chemical doser to treat acid mine drainage within the Leading Creek watershed west of the AMP-Ohio site, but still within Meigs County.

Ohio EPA concurs that success of reconstructed stream channels is not always assured, and therefore evaluates such proposals on a case-by-case basis. Stream an-s1 originates in the hills above the proposed power plant which flow generally northwest to the Ohio River. Much of this stream was intentionally avoided by AMP as part of the original landfill design. When this stream reaches the Ohio River terrace, it changes characteristics due to be being located in sandy soils and level slope. Segments of stream an-s1 to be impacted by AMP-Ohio consist of a previously channelized reach for agricultural purposes and reflect low in-stream habitat scores and possesses little to no riparian habitat.

AMP-Ohio will be required to reroute stream an-s1 around the proposed power plant for a distance of 1,525 linear feet of stream to be reconnected to its channel downstream from the plant. AMP-Ohio must ensure that the rerouted segments of Stream an-s1 meet or exceed its current primary headwater habitat class, and must monitor the stream for a minimum of five years. Therefore, Ohio EPA believes that reconstruction of stream an-s1 is appropriate when conducted as part of an overall mitigation strategy that entails the preservation of other stream and stream segments, and the acid mine drainage abatement measures to be implemented.

Comment 2: The approximately 2,600 coal barges that would use the facility per year would disturb aquatic ecosystems and lead to substantial polluted runoff from the coal laden surfaces of the barges.

and

We've had problems recently with things like barges hitting bridges or sinking in the river.

Response 2: Regulation of barge traffic and safety issues fall outside the scope of the WQC. Questions regarding this issue should be directed to the United States Coast Guard Marine Safety Unit located in Huntington, located at 95 Peyton Street, Barbersville, West Virginia 32504 that may be reached 304-733-0198.

Potential discharges of coal from the barges would not be regulated under the 401 WQC. Ohio EPA believes that these discharges will be adequately controlled by the federal vessel general NPDES permit issued by U.S. EPA in December 2008. This permit contains best management practice requirements designed to minimize the discharge of pollutants from decks.

Runoff from unloading areas on the shore would be covered by the storm water pollution prevention requirements of AMP's NPDES permit (Parts IV, V, and VI).

Comment 3: The application for 401 certification fails to consider the water quality impacts of increased impervious surfaces and resulting stormwater runoff that would result from the construction and operation of the power plant and landfill on the site. The 401 certification application also fails to include any measures to mitigate degradation of water quality caused by stormwater runoff and associated loading of nutrients, PAHs, and toxic and non-toxic algal blooms.

Response 3: Storm water from industrial activity from the plant and landfill will be regulated under parts IV, V, and VI of AMP-Ohio's National Pollutant Discharge Elimination System Permit OH0135372 that was issued December 1, 2008. The permit requires AMP-Ohio

to develop and implement a storm water pollution prevention plan.

Additionally, prior to and during construction, AMP-Ohio is required to obtain a Construction Storm Water General Permit. This permit requires, among other measures, that the company construct adequate sedimentation basins, establish vegetation, and use appropriate storm water management techniques. As part of the landfill construction, permanent sedimentation ponds will be installed that will be approved as part of the landfill approval. During operation of the landfill, the maintenance of these ponds and erosion control measures will be monitored by Ohio EPA's Solid Waste Program. The general permit also requires post-construction best management practices as follows (quoted from the applicable permit): "So that the receiving stream's physical, chemical, and biological characteristics are protected and stream functions are maintained, post-construction storm water practices shall provide perpetual management of runoff quality and quantity. To meet the post-construction requirements of this permit, the SWP3 must contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection. The rationale must address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality. Post-construction BMPs cannot be installed within a surface water of the State (e.g., wetland or stream) unless it's authorized by a CWA 401 water quality certification, CWA 404 permit, or Ohio EPA non-jurisdictional wetland/stream program approval. Note: localities may have more stringent post-construction requirements."

Comment 4 **The 401 certification application fails to evaluate the impacts of the 172 pounds of mercury that would be emitted from the power plant on the site every year, or evaluate options to reduce those emissions and impacts. Mercury is a toxic pollutant that falls into rivers, lakes and streams, bioaccumulates in aquatic ecosystems, and can lead to impaired neurological development in fetuses or young children. As a result of elevated mercury levels, the Ohio EPA has had a statewide fish consumption advisory since 1997. AMP-Ohio's contribution of additional mercury**

to Ohio and West Virginia's water must be evaluated before any certification can be issued.

Response 4: Ohio EPA's Division of Air Pollution Control (DAPC) previously addressed this issue when conducting its review of AMP-Ohio's air permit. DAPC states in its Response to Comments for Permit # 06-08138 dated February 2008:

"The AMP-Ohio Permit to Install (PTI) contains mercury emissions limits of 86 pounds of mercury per year from each of the two main boilers, which equals approximately 0.02 pounds per hour, this emission rate was compared to the current air toxics analysis as called for in Ohio Administrative Code (OAC) Rule 3745-114-01. The predicted impact of the modeled mercury emission is roughly three orders of magnitude below the limit specified in the rule. As such, we expect no short or long term additional health impact in the area of the facility as a result of these extremely small emissions.

While Ohio EPA is concerned about the potential toxic effects of the metal to the environment, these small emissions are insignificant when compared to the global mercury pool that impacts our environment every day. Atmospheric deposition of mercury occurs throughout the State of Ohio, the U.S., and the world, which by estimates is caused by the general recirculation of this global pool of mercury throughout the entire atmosphere. While this deposition can have a potential effect on the soils and waters of Ohio, the additional amount contributed by emissions from this facility will not change the existing situation "in any appreciable way."

Discharges of mercury to the Ohio River were also addressed in the National Pollutant Discharge Elimination System Permit OIB00037 issued by Ohio EPA November 7, 2008. Ohio EPA believes that any increases in pollutant loads of mercury would be undetectable under critical river conditions. Updated information from the Ohio River Valley Water Sanitation Commission (ORSANCO) show average upstream concentrations of mercury to be 1.9 nanograms per liter. At the

discharge limits contained in the NPDES permit, these concentrations would be the same downstream of the plant.

Comment 5: Though it is unclear whether the fill material will itself introduce contaminants into the effected area, it is abundantly clear that the construction of a power plant and accompanying landfill would greatly increase contaminant loading to the surrounding areas. Contaminants from construction itself, as well as those introduced afterwards from the transport, combustion, and disposal of coal, coal ash, and sludge, as well as all other sources of pollution incidental to the operation of a power plant, will result if this application is granted.

Response 5: The WQC requires that all fill placed into waters associated with construction of the power plant and attendant facilities be non-erodible and not contain any toxic material in other than trace quantities. Disposal of solid waste in the landfill will be regulated under the permit-to-install issues by the Division of Solid and Infectious Waste Management (DSIWM.) The haul road leading from the power plant to the landfill was redesigned to avoid impacts to a high quality stream and its riparian zone. While it will still cross one stream, that crossing has been designed to be perpendicular to the stream. While possible that an accident may occur resulting in solid waste spilling into a stream, Ohio EPA believes the redesign minimized that possibility.

Comment 6: Pursuant to Ohio Administrative Code, Ohio EPA must deny AMP's application for a 401 certification because AMP failed to demonstrate, as required by OAC 3745-32-05 that the project will:

(1) Not prevent or interfere with the attainment or maintenance of applicable water quality standards;

(2) Not result in a violation of any applicable provision of the following sections of the Federal Water Pollution Control Act including:

(a) Effluent limitations as described in section 301;

- (b) **Water quality related effluent limitations as described in section 302;**
- (c) **Water quality standards and implementation plans as described in section 303;**
- (d) **National standards of performance as described in section 306; or**
- (e) **Toxic and pretreatment effluent standards as described in section 307.**

Indeed, despite Ohio EPA's acknowledgement that the proposed coal-fired power plant will degrade water quality, AMP's application for a 401 certification is entirely devoid of any reference to applicable water quality standards, evaluation of impacts on water quality, any demonstration that impacts to aquatic resources have been avoided or minimized, or any incorporation of best management practices and technologies to reduce and eliminate impacts to water quality. Thus, it would be arbitrary, capricious, and contrary to law for Ohio EPA to grant the 401 certification to AMP.

Response 6: Ohio EPA has considered the requirements in OAC Rule 3745-32-05 and believes that the applicant has adequately demonstrated that the discharge of fill material to waters of the state will not prevent or interfere with the attainment or maintenance of applicable water quality standards and will not result in a violation of any applicable provision of the following sections of the Federal Water Pollution Control. The fact that there is an acknowledgment that the project will have an impact on water quality does not equate to a violation of water quality standards or a violation of provisions of the Clean Water Act.

When the authorized impacts are viewed in the context of the efforts made to avoid and reduce impacts, the mitigation required to account for resources that are being impacted, and the nature, characteristics and the site specific circumstances of the specific waters that are being impacted, we do not believe that one could conclude the impacts will prevent or interfere with the attainment or maintenance of applicable water quality standards nor will they result in a violation of any applicable

provision of the following sections of the Federal Water Pollution Control.

Comment 7: The last sentence of page 9 [of the mitigation plan] compares the impact to the Ohio River of Locks and Dams projects to the impact of the AMP-Ohio project. However, little evidence is provided regarding the impact of the Locks and Dams project. Also, for such a comparison to be appropriate and meaningful, the permit must include not only the impact, but also the benefit, including social and economic, of both projects.

Response 7: Ohio EPA did not rely on a comparison of impacts to the Ohio River from the Locks and Dams project to those resulting from the construction of the AMP-Ohio project. Ohio EPA believes that documentation of impacts and the proposed Ohio River mitigation contained in the May 4, 2007 Section 401 application, and supplemental submissions are sufficient to review the project.

COMMENTS REGARDING STREAM AND WETLAND MITIGATION

Comment 8: AMP proposes to create 1.77 acres of wetlands in order to compensate for the 1.01 acres of wetlands that would be destroyed to construct the new plant. AMP's mitigation plan to compensate for the loss of wetlands is inadequate because wholesale creation of wetlands has proved largely unsuccessful, the plan does not include any measures to evaluate the effective replacement of wetland functions, which are crucial to maintaining water quality, and the less than 1:2 replacement ratio is far too low to compensate for the destruction of natural wetlands.

Response 8: Man-made wetlands, when properly designed and constructed, can adequately replace the functions and values of the natural impacted wetland. Wetland mitigation conducted in the late 1980s and early 1990s often resembled ponds rather than wetlands. Over this time, Ohio EPA has acquired a more robust understanding of the factors that determine the success of a wetland mitigation site. In this instance, given the acreage,

quality, and functions and values associated with the wetlands to be impacted, in conjunction with the location and proposed functions and values of the mitigation wetlands, Ohio EPA believes the wetland mitigation adjacent to stream an-s1 represents a viable and appropriate mitigation site.

Impacted wetlands on the AMP-Ohio site are small features located adjacent to streams that store flood water filter pollutants. AMP-Ohio will establish 1.77 acres of jurisdictional riparian wetlands that will provide similar ecological functions to the impacted wetlands. The mitigation will occur on the same 1,000 acre site and within the same watershed as the impacted wetlands.

The WQC obligates AMP-Ohio to a minimum five year monitoring period of the mitigation wetlands. Annual reports will be submitted to Ohio EPA following construction of the mitigation wetlands to determine if the mitigation wetlands are meeting established performance criteria.

AMP-Ohio will have to perform rigorous vegetative sampling to ensure the mitigation wetlands achieve a Vegetative Index of Biotic Integrity (VIBI), of at least 60. A VIBI score is derived from the number of plant community types present, such as forested, emergent marsh, and scrub-scrub wetlands, the number of different plant species present in each vegetation community, and the ecological sensitivity of each species. A score of 60 indicates that the wetland is at least a medium quality wetland. Ohio EPA will not accept low quality wetlands as mitigation, even if low quality wetlands were impacted.

If it becomes apparent that the mitigation wetlands are not achieving the performance criteria set forth in the 401 certification, AMP-Ohio is obligated to either remedy identified problems at the approved mitigation site and/or provide additional wetland mitigation elsewhere on the site.

Finally, the wetland mitigation ratios set forth in Ohio Administrative Code Rule 3745-1-54 were established after an exhaustive rule-making process that culminated in 1998. Ohio EPA examined existing state programs, and considered

comments from both the regulated and environmental communities as part of the rule development. The mitigation ratios were part of an overall rule package that set forth Ohio's Wetland Antidegradation Review criteria. The resulting ratios are based on sound science and reflect the extent and quality of the wetland being impacted, whether they are forested or non-forested, and the proximity to the impact site.

Comment 9: AMP's application concedes that the "primary function of the on-site headwaters is to provide high quality water to the Ohio River." However, the application fails to outline how the resulting loss of headwaters will not result in water quality degradation and the proposed stream mitigation plan is both too vague and inadequate to compensate for the destruction of over 10,000 linear feet of headwater streams. The stream mitigation plan includes creating 1,525 linear feet of streams, but there is no scientific evidence that streams can be "created" where they did not previously exist. Streams are complex ecosystems that depend on a variety of factors to function properly. Groundwater and surface flows, sediment routing, soil characteristics, vegetation, and its position on the landscape are all factors leading to a living, self-sustaining stream system. Simply mimicking the structure of a stream does not mean that it will function ecologically as a stream. The created streams will not replace natural waters; indeed, "[t]he very concept of creating a stream that has comparable levels of ecological functioning to natural channels remains untested and is scientifically implausible."

Response: 9: In order to offset the 10,584 linear feet of headwater stream impacts that will result from the construction of new plant, AMP-Ohio will implement a multifaceted stream mitigation plan. Stream mitigation will consist of reconstructing 1,525 linear feet of stream an-s1 on the project site, preservation of 15,620 linear feet of streams that have been avoided on the 1,000 acre site including many that provide water to the constructed Eastern Spadefoot breeding pools, preservation of 9,941 linear feet of headwater streams associated with John's Run and its tributaries located adjacent to the southwest corner of the AMP-

Ohio site, and the installation of a chemical doser to treat acid mine drainage within the Leading Creek watershed west of the AMP-Ohio site, but still within Meigs County.

Ohio EPA concurs that success of reconstructed stream channels is not always assured, and therefore evaluates such proposals on a case-by-case basis. Stream an-s1 originates in the hills above the proposed power plant which flow generally northwest to the Ohio River. Much of this stream was intentionally avoided by AMP as part of the original landfill design. When this stream reaches the Ohio River terrace, it changes characteristics due to be being located in sandy soils and level slope. Segments of stream an-s1 to be impacted by AMP-Ohio consist of a previously channelized reach for agricultural purposes and reflect low in-stream habitat scores and possess little to no riparian habitat.

AMP-Ohio will be required to reroute stream an-s1 around the proposed power plant for a distance of 1,525 linear feet of stream to be reconnected to its channel downstream from the plant. AMP-Ohio must ensure that the rerouted segments of Stream an-s1 meet or exceed its current primary headwater habitat class, and must monitor the stream for a minimum of five years. Therefore, Ohio EPA believes that reconstruction of stream an-s1 is appropriate when conducted as part of an overall mitigation strategy that entails the preservation of other stream and stream segments, and the acid mine drainage abatement measures to be implemented.

Comment 10: Page 10, paragraph 2 references 1911 navigation charts. These charts are not provided in the permit nor is there a reference to where they can be examined.

Response 10: A digitized version of the 1911 navigation charts may be found at: <http://www.archive.org/details/ohioriverchartsd00unitrich>. Additional information may be found using any available internet search engine under "1911 Ohio River Navigation Charts" if this link does not provide the information being sought.

Comment 11: The last sentence of paragraph 2 on page 10 provides an opinion regarding reduction in sediment runoff. This opinion is provided without evidence or justification.

Response 11: Ohio EPA believes the statement referenced in the comment, although lacking a site specific analysis, is clearly based on sound science. Establishment of riparian buffers is a commonly accepted best management practice used to minimize both stream bank erosion and sediment from reaching streams.

Comment 12: Section 3.2, page 13, paragraph 2 states that the cover that the impacted wetlands provides to commercial species is more than offset by the creation of mitigation area Y. No evidence or justification is provided to support this statement.

Response 12: Ohio EPA believes that the 1.77 acres of mitigation wetlands will re-establish the geomorphic conditions and habitat types found in the wetlands authorized to be impacted. The impacted wetlands are located adjacent to streams, and as stated in the mitigation plan, provide the ecological services of water filtering and storage and wildlife habitat. As a practical matter, Ohio EPA concurs with AMP-Ohio that the commercial value of the impacted wetlands is limited due to their size and the nature of disturbances. Because the mitigation wetlands will be similar to the impacted wetlands, those ecological services will be re-established.

Comment 13: Section 3.2, page 14, paragraph 1 states that the mitigation area Y will provide more than adequate in-kind mitigation for the biological functions. No evidence or justification is provided to support this statement.

Response 13: When assessing the quality of a wetland proposed for impacts, Ohio EPA uses the Ohio Rapid Assessment Method (ORAM) score for that wetland. The ORAM is a tool developed specifically for the classification of wetlands for use in a regulatory context. The ORAM measures the degree of "intactness", or conversely, the degree of disturbance to which a wetland has been subjected. The ORAM generates a score, ranging from 0 to 100, wherein 0 is a low score and 100 is the

highest score possible. Based on the ORAM score, a wetland is then categorized as either a Category 1, (low quality wetland), Category 2, (medium quality wetland), or Category 3, (high quality wetland).

In some instances more rigorous methods are required to fully characterize a wetland. Therefore, Ohio EPA has also developed biological criteria to measure the quality of plant communities, the VIBI discussed above, and amphibians in a wetland, referred to as the Vegetative Index of Biotic Integrity (VIBI). Because the VIBI scores and AmphIBI scores are highly correlated to the ORAM categories, in most cases, Ohio EPA is able to rely on the ORAM as surrogate for these more intensive biocriteria tools.

In this case, AMP-Ohio prepared ORAM scores for all 24 wetlands located on the AMP-Ohio site, including the five mile transmission line. Based on the ORAM scores, all wetlands are either Category 1 or 2. ORAM scores for all wetlands located with the project area may be seen in Appendix III of the WQC. Ohio EPA is confident that the ORAM scores in Appendix III accurately reflect the biological integrity of the wetlands.

Comment 14: Section 3.2, page 14, paragraph 2 states that the mitigation area Y will more than offset the recreational value. No evidence or justification is provided to support this statement.

Response 14: Given their small size and location on private property, Ohio EPA believes the wetlands on the AMP-Ohio site offer marginal recreation opportunities at best. The most prevalent recreation that Ohio EPA observed was trespassing off road activities which are not conducive to wetland quality. Therefore, the recreation value of the wetlands was not a consideration in Ohio EPA's permit review.

Comment 15: Section 4.8, page 18, paragraph 1 discusses the 5-year Monitoring Plan including data gathering and analysis is repeated at specific time intervals. I could not find where the time intervals were specified.

- Response 15: In order to determine if the stream and wetland mitigation sites are meeting the performance criteria specified in the Section 401 water quality certification, AMP-Ohio will be required to monitor the sites for a mandatory minimum of five years. Annual reports must be submitted for each year. Monitoring may be extended beyond the five year period, if, in the judgment of Ohio EPA, the site is not meeting the performance criteria but simply needs more time to develop. Should Ohio EPA determine that the mitigation site will not satisfy the performance criteria, AMP-Ohio will be required to correct any deficiencies at the current mitigation and/or develop additional mitigation sites.
- Comment 16: Section 4.8, page 18, paragraph 1 discusses SOP's for the 5-year Monitoring Plan but no detail of these SOP's is provided. This section lacks specificity with no metrics of success or processes to be used if the mitigation plan does not provide adequate results.**
- Response 16: Mitigation monitoring protocols are described in detail in Section III.C. of the 401 water quality certification that accompanies this Response to Comments. The suite of documentation and sampling protocols for stream and wetland mitigation is standardized and varies little from certification to certification.
- Comment 17: Section 4.9 states that creation of wetland mitigation Y will provide more than adequate replacement for water quality functions. No evidence or justification is provided to support this statement.**
- Response 17: Ohio EPA believes the establishment of 1.77 acres riparian wetlands will re-establish pollutant filtering and water storage functions provided by the impacted wetlands. While some research indicates that several small wetlands located within the upper reaches of watersheds may be more effective at flood storage and pollutant filtering than one larger wetland located in the lower reaches of a watershed, watershed location should not be a factor in this case due to the size of the wetlands being impacted.
- Comment 18: Section 4.10 states that AMP-Ohio intends to impose development restrictions through deed statements. The**

language lacks power and is not convincing. There should be a legal opinion provided or some assurance that these restriction will and can be imposed.

Response 18: Ohio EPA requires that stream and wetland mitigation sites be protected in perpetuity. AMP-Ohio has proposed to place all streams and wetlands to be preserved under this WQC into conservation easement, and has engaged in discussions with the Meigs County Soil and Water Conservation District to act as the easement holder. The easements would encompass stream and wetland mitigations sites located on the 1,000 acre project, the 2,000 linear feet of the Ohio River riparian zone, and steams located in the John's Run watershed located immediately southwest of the landfill .

AMP-Ohio will also fund the installation and maintenance of an acid mine treatment doser in the Leading Creek watershed at Bailey Run Road. Because the on-site stream and wetland mitigation and John's Runs stream preservation will satisfy AMP-Ohio's mitigation needs, operation and protection in perpetuity of the doser site in not required.

Comment 19: Section 4.10 mentions security measures. This section lacks detail to assess if the security measures will be effective and if they themselves will negatively impact the environment. In addition, detail must be provided to assess if the security measures are compatible with the mitigations for the biological functions, for the mitigations for the recreational value, and for the mitigations to cover for the commercial species.

Response 19: Security measures are intended primarily to prevent trespassers from intruding upon the mitigation areas. Because off-road recreational activities may adversely impact the mitigation area, measures will be taken to prevent this from occurring. The security measures should have no adverse impacts to the mitigation areas.

Comment 20: Section 5.1, paragraph 2 mentions 1950s aerial photography of the site. These photographs are not

provided in the plan and there is no reference to where these photographs may be examined.

Response 20: The 1950's vintage aerial photography mentioned at Appendix B – Mitigation Plan, Section 5.1, Page 22 may be obtained at the Meigs County U.S. Department of Agriculture office.

Comment 21: AMP's idea to perform additional off-site mitigation to remediate impairments caused by acid mine drainage in another area entirely removed from the proposed project site will not protect and maintain water quality standards for the specific waters or water segments affected by the proposed activity. Moreover, AMP's 401 certification application merely discusses such a project as an option, but does not include any plan or proposal for such an effort because there is none. Thus, Ohio EPA should not consider such a theoretical mitigation effort in any way to meet the project's obligations to not degrade water quality.

Response 21: Ohio EPA acknowledges that at the time of the public hearing, final details of the off-site acid mine drainage abatement proposal were still conceptual. It is common for details regarding the project impacts or mitigation plan to evolve during the course of the 401 review. Details of the off-site AMD abatement program at the West Branch Thomas Fork of Leading Creek came into focus over the summer of 2008 subsequent to the hearing. Ohio EPA felt it was necessary and appropriate to proceed with the public hearing when it did, with the information at hand, rather than delay the hearing until all the final detail plans of the mitigation plan had been submitted.

Ohio EPA does believe that sufficient detail was available in pages 23 through 25 of the mitigation plan contained in the May 4, 2007 to understand the basic concepts of the proposed acid mine abatement proposal. The selected location of the doser on the West Branch Thomas Fork at Bailey Run Road was described as one of the options in the mitigation plan.

Comment 22: The mitigation plan indicates that there are negotiations regarding the Leading Creek watershed for potential off-site stream mitigation options. What is the current status of

these negotiations and what are the names of the people involved and how may they be contacted?

Response 22: AMP-Ohio has engaged in ongoing discussions with the Meigs County Soil and Water Conservation District regarding the best location for, and operation and maintenance of, the proposed acid mine drainage treatment unit. The SWCD has advised Ohio EPA that it is highly supportive of the proposed Acid Mine Drainage Abatement plan in Leading Creek as part of the mitigation plans for the AMP-Ohio project. The 401 certification will establish time frames for stream and wetland preservation sites to be under conservation easements by the SWCD and the doser installation. The Meigs County SWCD, located at 33101 Hiland Road, Pomeroy, Ohio 45769, may be reached by telephone at (740)992-4282.

COMMENTS REGARDING THE ANTIDEGRADATION REVIEW

Comment 23: AMP has failed to present any information to support a determination that lower water quality is necessary to accommodate important social or economic development in the area and Ohio EPA is not justified in granting the 401 certification on such grounds.

Response 23: Information regarding the Antidegradation Analysis is presented in pages 1 through 53 of the *Question 10, Supplementary Responses* tab of the Section 401 water quality certification application dated May 4, 2007.

Comment 24: Several commenters expressed support for the project, the sentiment that construction of the power plant would aid the local economy; that Meigs County residents or their children would no longer have to travel to Athens or Columbus to find work.

Response 24: Ohio EPA acknowledges these comments. Because they support economic justification information provided in the application, no further response is required.

Comment 25: Thirty days was not enough time to thoroughly read the application.

Response 25: Announcement of a public hearing must be published in the newspaper with the widest circulation in the county in which the project will occur at least 45 days prior to the date of the hearing. Because the public notice appeared in the Daily Sentinel on February 15, 2008 and the hearing was conducted April 2, 2008, the public was made aware of the hearing 47 days prior to it being conducted.

In addition, in an effort to make the application materials for all AMP-Ohio permits pending before Ohio EPA easier to access, Ohio EPA established an information repository at the Racine Public Library, including the 401 application. The 401 application was placed into the Racine Public Library, sometime during the fall of 2007 shortly after the October 9, 2007 determination that the application was considered complete. Therefore, the application was available for review for approximately six months prior to the date of the public hearing.

COMMENTS REGARDING IMPACTS TO DRINKING WATER SUPPLIES

Comment 26: The United States Environmental Protection Agency states impacts resulting from supporting industries should be taken into consideration that when licensing and constructing a power plant. I have concerns with underground coal mining. Up until now we've heard there hasn't been a commitment as to what coal would be purchased, but in a city council meeting in Cleveland , AMP-Ohio indicated they would mix locally mined coal with coal from Wyoming.

I have two source water protection assessments that were done previously. I would request that you [Ohio EPA] honor the original findings in those reports that our drinking water wells are extremely vulnerable to migratory contaminates.

and;

I'd like to know what hazardous waste routes have been proposed or constructed. There were also recommendations to have an emergency plan should there be spills of the chemicals that would be transported on-site. There should be an early release notification system for spills and an emergency response plan.

and;

I have a lot of concern about dioxins and everything else that's in the Ohio River, especially when you look at the proximity to our drinking water wells and what might migrate in. I'd like to see what plan is put in place to protect our drinking water wells.

and;

On the West Virginia side of the [Ohio] river, there's a coal mining operation by the same company that would like to operate one here and what we're hearing locally is that those miners are standing waist deep in water. Production from that coal mine is half of what is projected because the problems with the water in the mines. Since water does not respect boundaries, I'd like to know that if this coal mine is opened up in close proximity to our drinking water, and if there are issues with water going into these mines, I think it would behoove us to see what impacts there will be cumulatively to our water as a supporting industry.

Response 26: Ohio EPA's Division of Drinking and Ground Water has advised the 401 Section that no public water system wells or intakes are located within one mile of the project area. In addition, no drinking water source protection area, emergency management zones or corridor management zones extend to within one mile of the project area. The nearest public water supply system is the Village of Racine, the drinking water source protection area lies within approximately four miles north of the project area. The closest downstream intake serves the City of Ironton and lies approximately 86 river miles from the proposed AMP-Ohio Generating Station. Impacts to streams associated with the

proposed project should not impact any wells or intakes or the water quality for nearby public water systems.

Proposed impacts to water quality or public water supplies resulting from ancillary, or supporting industries, will be subject to approval under independent permitting reviews at the time those applications are made regardless of whether those companies supply coal to AMP-Ohio or any other power generating companies.

The commenter may wish to direct questions or concerns regarding working conditions within the mines to the Occupational Safety and Health Administration. The Agency's web page may be accessed at www.osha.gov.

Comment 27: **I understand that one of the things that AMP-Ohio would like to convert the coal combustion waste to agricultural use fertilizer. In our area, we have problems with nitrates in our drinking water, which is a carcinogen. I've not seen any human health study that shows what the cumulative impacts would be to our drinking water supply from what AMP would be releasing, the power plants, the entire footprint, so I'd like to know if that fertilizer is made, what would the factory's impact be to our community as well as if that fertilizer would be used in our community when we're already saturated with that type of contamination.**

Response 27: The AMP-Ohio power plant, which received its air permit 06-08138 on February 7, 2008, will generate an ammonium sulfate by-product within the utilities boilers' (B001 & B002) Flue Gas Desulfurization units. AMP-Ohio will generate ammonium sulfate, rather than gypsum, due to an AMP-Ohio business decision to use ammonia as a reactant instead of lime or limestone. Because the by-product contains ammonium sulfate, it is considered a premium fertilizer. The by-product will be processed and distributed by a third party, currently The Anderson's Company, and will be made available for commercial distribution. No material will be applied at the 1,000 acre AMP-Ohio site.

End Response to Comments