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Confirmation of receipt requested by rusty.taylor@resfuel.com

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Robindale comments: "Beneficial Use of Coal Ash" as published in the November 7, 2009 Pennsylvania Bulletin

Date: December 22, 2009

Subject: Beneficial Use of Coal Ash Proposed Regulations

Dear Environmental Quality Board:

Robindale Energy Services, Inc. (and its affiliated company RNS Services, Inc. and Seward Operating LLC) comments represent nearly 100 salaried and production employees, 50 IBEW employees and nearly 225 contracted truck owner / operators working to re-mine and deliver for electric generation over 4 million tons of bituminous waste coal per year. Since 1991 this company has delivered over 28 million tons of waste coal, beneficially used over 25 million tons of CFB ash and reclaimed over 500 acres of previously abandoned mine lands.

Robindale Energy Services, Inc. (Robindale), on behalf of its employees and affiliated contractors, hereby provides comments on PADEP's (Bureau of Mining and Reclamation) Beneficial Use of Coal Ash Proposed Regulations. Robindale appreciates this opportunity to comment.

I. <u>Description of Robindale Energy Services, Inc.</u>

- contributed over \$80 million to Pennsylvania economy in 2008 in terms of direct wages and supplies
- operates bituminous waste coal removal operations in Cambria, Indiana, Somerset, Allegheny, Westmoreland and Clearfield Counties
- have reclaimed over 500 acres of abandoned mine lands since 1991
- currently have over 1500 acres permitted
- currently have over 125 acres under Contract (GFCC)

- operates five (5) AMD plants
- pumps and reports to PaDEP more than 50 groundwater monitoring wells, many of which are downgradient of beneficial use ash permitted sites.
- monitors groundwater quality below a beneficial use permit that stopped receiving ash 14 years ago and have not detected any changes to groundwater quality
- restored land for recreational use and improved the water quality of many rivers and streams in Western Pennsylvania including the headwaters of the West Branch Susquehanna River by using CFB ash
- have used beneficial use ash as a soil amendment / soil substitute to reclaim over 100 acres of abandoned mine lands with great long term success
- received "Erosion and Sediment Control Award" from Cambria County Conservation District in 2001
- received "Erosion and Sedimentation Pollution Control Award" from Pennsylvania Association of Conservation Districts, Inc. in 2001
- received statewide reclamation award from Pennsylvania Coal Association in 2009
- were the contract miner for Air Products and Chemicals, Inc. when that company was presented the 1996 Governor's Award for Environmental Excellence for "Small Pile Reclamation Program in Two Major Pennsylvania Watersheds'

II. <u>General Comments</u>

Robindale has many concerns and comments about the proposed Chapter 290 regulations that parallel those being submitted by ARIPPA and therefore would like to incorporate them into this submittal;

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III. General Comments:

ARIPPA does not oppose the promulgation or implementation of effective needed regulations to ensure the adequate protection of human health and the environment within the Commonwealth. However, ARIPPA requests that the application of all proposed regulations be timely, equitable and consistent, and not unduly burden the beneficial waste-coal to alternative energy industry activities. Unfortunately the newly proposed regulations concerning beneficial use of ash do not meet these criteria; accordingly ARIPPA is opposed to the adoption of such regulations at this time. (our reasoning is outlined below)

Nonetheless ARIPPA has also submitted comments specifically outlined in the last section of this document so that the Department has a clear understanding of specific industry concerns that will, if adopted, improve the proposed regulations.

ARIPPA's opposition outlined:

A. Misguided motivation

The draft regulations propose significant new requirements relating to the beneficial use of coal ash, as well as the storage of coal ash, whether or not intended for beneficial use. A review of the Departments preamble reveals that the motivation for these proposed regulations appears to be based on and prompted by the new "national attention to ash" based on the 2006 National Academy of Sciences' Study, and the Martins Creek, Pennsylvania and Kingston, Tennessee ash impoundment breaches.

On March 6 2009 PADEP's published the following summary to its proposed new beneficial use ash regulations:

"Recently, there have been many news stories involving mishaps with coal ash. Most notable are the Tennessee Valley Authority's coal ash impoundment failure in Roane County, Tennessee, where over five million cubic yards of ash spilled into the Emory River and the Gambrills, Maryland, site where private wells were contaminated due to ash placement. In August 2006 Pennsylvania had its own mishap with coal ash when a leak in an impoundment at the Martins Creek Steam Electric Station, in Northampton County, released 100,000,000 gallons of water and fly ash to the surrounding area and into the Delaware River. Fortunately, a thorough study found no adverse impacts to the river, wildlife or human health. Although none of these cases involved beneficial use of ash as defined by Pennsylvania law or were subjected to the restrictive criteria imposed in Pennsylvania for beneficially used ash, these stories have raised the level of public awareness and concern on the storage, disposal and beneficial use of coal ash.... the Department is proposing a targeted rulemaking focused on the storage and beneficial use of coal ash in order to move expeditiously on coal ash issues"

A review of these motivations reveals some basic flaws in the Departments interpretations, timing, and bases to develop and propose new regulations:

1. In the 2006 National Academy of Sciences' Study Managing Coal Combustion Residues in Mines

(THE NATIONAL ACADEMIES PRESS Washington, D.C.) <u>www.nap.edu</u> the committee (NAS) concluded on page 153-154 as follows: "The committee recommends that enforceable federal standards be established for the disposal of CCRs (coal combustion residue's) in minefills to ensure that states have specific authority and implement adequate safeguards.

There are three primary regulatory mechanisms that could be used to develop enforceable standards that would reduce the risks imposed by CCR minefilling:

- Changes to SMCRA regulations to address CCRs specifically;
- Joint OSM-EPA rules pursuant to the authority of SMCRA and RCRA; or
- RCRA-D rules that are enforceable through a SMCRA permit."

The study does not suggest that each state (currently regulating beneficial use of ash) or specifically the Commonwealth should rewrite their current regulations. Conversely the study clearly emphasizes the outstanding performance of the Commonwealths current beneficial use efforts and regulations:

"Ohio and Pennsylvania have monitoring requirements for CCRs that are substantially greater than SMCRA requirements"...and "Some states, such as Indiana and Pennsylvania, specifically require monitoring for particular CCR parameters." p138 "Therefore, the committee recommends that secondary uses of CCRs that pose minimal risks to human health and the environment be strongly encouraged....'Government agencies should examine ways in which they can promote CCR use or remove impediments to its use" p4 and p148

Page 43 of the NAS Study clearly outlines why the committee felt strongly that government agencies should examine ways in which they can promote CCR use or remove impediments to its use. PA's current "model" regulated approach has produced environmental benefits as well as employment, alternative energy and a vast savings to the Commonwealth citizens.

"It is estimated that the acid leached from the coal refuse in these abandoned coal mines in Pennsylvania contributed to the degradation of more than 3,100 miles of streams. Pennsylvania's Bureau of Abandoned Mine Reclamation estimates the cost to eliminate these abandoned mine problems to be \$14.6 billion. Pennsylvania receives an average of \$30 million annually from the Office of Surface Mining (OSM) Abandoned Mine Lands (AML) fund; at this rate, it would take Pennsylvania nearly 500 years to complete the cleanup of its AML sites. The advent of FBC technology in the late 1980s enabled the once-useless coal refuse to be used as fuel. The FBC plants' ability to use the coal refuse as fuel, coupled with the potential to place the CCRs into nearby mines, makes the arrangement economically viable and has enabled privately funded reclamation of 3,400 acres of AML as of 2002. An example of this cost offset is the Big Gorilla Project (Sidebar 2.7), which has currently cost the Pennsylvania Department of Environmental Protection (PADEP) \$4.5 million; without the independent power producers, this project would have cost the state an estimated \$80 million (National Mining Association, Washington, DC, written communication, July 2005). SOURCE: Pennsylvania's Department of Environmental Protection, (PADEP) 2004."p 43

The NAS study also outlines the many advantages of current beneficial use of ash: "Cementations fly ash is especially effective for such use, and FBC fly ashes have been shown to have sufficient bearing capacity for most post-mining uses. Underground mines may be sealed off to decrease the possibility of AMD from polluting the surface waters, to reduce the occurrence mine fires, or for the overall safety of the general public. Alkaline CCRs (especially FBC CCRs) can be used to neutralize existing acidity in groundwater (see Chapter 3). CCRs can also act as a seal to reduce the oxidation of pyrite in the coal spoil, thus slowing the rate of generation of additional AMD". P 46 "The main advantages of CCR mine placement are (1) it can assist in meeting reclamation goals (such as remediation of abandoned mine lands), and (2) it avoids the need, relative to landfills and impoundments, to disrupt undisturbed sites". p148

2. The unfortunate TVA ash accident <u>http://www.tva.gov/kingston/photo_gallery/index.htm</u> that occurred in December of 2008 was due to the breach or failure of a retention dam/pond wall...and has no logical comparison to the beneficial use of ash or the Commonwealths regulations.

The wet ash slurry impoundment that breached (failed) was located at/on the bend of a river. The ash accident spill in Tennessee has raised the need for regulatory improvements pertaining to wet impoundments...however such improvements are not applicable to the regulation of dry ashes produced by waste coal to alternative energy facilities. Accordingly it is unreasonable to make any comparison between the unfortunate TVA ash storage accident to dry CFB ash residue managed in a highly regulated, time tested (safely utilized for over 20 years) environmentally beneficial manner. A regulated effort that to date has reclaimed previously mine damaged lands and streams.

3. ARIPPA is concerned that the Departments motivation to propose regulations is based on "political media appeasement" versus scientific fact. The proposed changes to beneficial use regulations are not based on actual consequences of current regulations, practices or data...rather they appear to be motivate by an effort to placate critics of a process that has been demonstrated and recognized nationally as successful.

Even though PADEP has been recognized nationwide, as a model for regulating the use of ash residue (CCR's) in abandoned mine land reclamation activities, certain environmental activists' associations have criticized the Commonwealth agency. The lengthy, and questionably accurate report by the Clean Air Task Force published in July 2007 attempted to draw "persuasive" conclusions based on their interpretation of outlier data. More recently, the similarly alarmist report "Waste Deep" published by Earth Justice in 2008 alleges the practice of using CCR's in mine reclamation is a dangerous practice. Both documents represent efforts by special interests groups to indirectly implement their goal of eliminating all fossil-fueled power plants by attacking the use of CCR's in mining and other activities.

Questionable reports by the Clean Air Task Force published in July 2007 attempted to draw "persuasive" conclusions based on their interpretation of outdated data. More recently, the similarly alarmist report "Waste Deep" published by Earth Justice in 2008 alleges the practice of using CCRs in mine reclamation is a dangerous practice...without sound scientific basis. Both documents represent

efforts by special interests groups to indirectly implement their goal of eliminating all fossil-fueled power plants by attacking the use of CCRs in mining and other activities.

Under the current Commonwealth regulatory format industry has had a 20-year performance record resulting in "no indication of ground water degradation to the placement of coal ash". One can only reasonably conclude that the Department is adopting a position to accept questionable unscientific alarmist reports and claims, written by special interest groups with known and published goals of riding our society of fossil fueled power plants. ARIPPA would prefer that federal and state regulation of ash be based on unbiased, scientifically based historic data, and findings.

The proposed changes to these regulations do not appear to be based on any actual negative consequences of current practices or regulations. Accordingly, any proposed changes to the regulations should address acknowledged shortcomings based on scientific evidence...and not be changed to simply create a more costly and restrictive process that satisfies the whims of special interests groups at the expense of the recognizable rewards the use of beneficial ash has to date produced

B. Improper timing and development:

1. ARIPPA believes that the timing and expedient development of these proposed regulations is unwise and unnecessary.

The sudden unnecessary "rush to action" regulatory approach may produce overly burdensome and unnecessary regulations that may prove to be ineffective. ARIPPA believes that proposing new regulations is properly motivated and necessary when scientifically based truths reveal that current regulations are inadequate to address such truths. Such is not the case with these proposed extremely costly new regulations. Our regulated industry has had a 20 year performance record resulting in "no indication of ground water degradation to the placement of coal ash"...and a perfect of adherence to "model" regulations... how does our industry improve upon such a perfect record? Accordingly these newly proposed regulations represent a clear example of costly government over-regulation of current time tested sound industry methods.

EPA is at this time conferring with other Federal entities such as OSM to draft federal regulations as suggested in the 2006 NAS study. In a New York Times interview on March 6, 2009 Matt Hale the Director of EPA's <u>Office of Resource Conservation and Recovery</u>, indicated that: "We're committing to develop a regulatory proposal for comment by the end of this (2009) calendar year."

Accordingly PADEP's "move expeditiously" approach ignores NAS directives and the pending EPA ash regulations that have been slated to be published later this year (2009)...and may very well put the Department and industry into the extremely costly position of completely re-writing these regulations, and completely revamping management plans concerning CFB ash beneficial use, placement, and monitoring requirements Accordingly ARIPPA believes that it is foolish to propose and adopted regulations in the Commonwealth at this time...knowing that they may all become moot within a short period of time.

PADEP's hurried motivation, in this case, to draft and implement proposed regulations is both questionable and unreasonable given the exemplary scientifically-based results (20 years of data and monitoring) of this specifically regulated substance and activity. PADEP's approach to "move expeditiously" included the recent adoption of ash guidelines which were implemented without any published response to our industry comments (or we assume the comments of countless others). Accordingly the Department's position and reasoning concerning such guidelines and comments remain unknown and unpublished. And yet the latest proposed regulations:

- More than double industry costs including fees, bonding, and water monitoring.
- Do not allow for a clear, fair transition, "grand fathering", or treatment of existing beneficial use ash procedures/sites still in process or completed within the past (10 years plus potentially).

2. It is illogical to draw any conclusion from the NAS study or the TVA accident that CFB ash has in any way changed in composition or should be handled in any different manner from its current regulated beneficial use.

The NAS study specifically states: "EPA has not identified <u>any cases</u> in which exceedances in water quality standards could be attributed directly to CCR mine placement.p87

- EPA concluded that regulation was warranted under either RCRA or SMCRA or some combination.p89
- In 2000, EPA published a regulatory determination on wastes from the combustion of fossil fuels (65 FR 32214) and concluded that CCRs do not warrant regulation under subtitle C (hazardous waste) of RCRA.p101
- EPA further justified its choice of subtitle D regulation by noting that it did not want to place any unnecessary barriers on the beneficial reuse of CCRs and the consequent environmental benefits associated with such reuse.p102
- The U.S. Environmental Protection Agency (EPA) has not specifically attributed significant environmental problems to CCR use in minefills.p147"

C. Current ash beneficial use regulations are "EFFECTIVE"

On November 9, 2007 PADEP in response to a highly questionably unscientific report by the Clean Air Task Force made the following written comments:

- "In the mid-1980s, the Pennsylvania Department of Environmental Protection began to approve coal ash utilization for mine reclamation. Twenty-one different parameters are used to assess the dry ash composition and the leachate characteristics. If an ash exceeds the limits, it cannot be used beneficially and must be disposed in a lined facility.
- Pennsylvania is employing a variety of approaches to address this legacy; among them is the beneficial use of coal ash. This approach has resulted in an effective program in which coal ash has been used to safely reclaim mine sites".
- "Because the main beneficial use for coal ash has been placement at mine sites for reclamation, it is imperative to understand the environment into which the material is placed. Foremost, one must recognize the historical legacy discussed above. The surface water and groundwater in the coal regions can be severely impacted by acid mine drainage (AMD). AMD renders the local groundwater undrinkable and regional streams hostile to native aquatic life. Common characteristics of mine drainage are low pH (<6.0, frequently as low as 3.0); high concentrations of metals such as iron, manganese, aluminum, lesser concentrations of zinc, nickel, selenium and other metals; and high concentrations of sulfate. Iron, manganese and aluminum can be at concentrations in tens of parts per million, and occasionally over 100 parts per million. The other metals can occur up to a few parts per million. Sulfate is typically hundreds to thousands of parts per million. But, not all mine drainage is acidic and not all has high metals.
- The environment for ash placement typically consists of abandoned mine features such as coal refuse (waste coal or rock associated with coal) piles, and mine pits and underground workings areas that are often polluted by mine drainage. These features provide a means by which precipitation and clean surface waters can become polluted by interacting with acid-producing minerals to generate more AMD. Through the use of coal ash (CCR's) these old mines can be restored to productive land and **reduce** the amount of pollution coming from the old mines. Many of the sites reclaimed with coal ash would not likely be otherwise reclaimed.
- Most of the allegations made by the CATF in its report are a rehash of issues raised by CATF associates in the past. These have been time after time examined through Department investigations and found to be erroneous. The CATF is an advocacy organization that had stated its opposition to the beneficial use of coal ash combustion products repeatedly to the public prior to the investigations documented in their report. This response to the CATF report demonstrates, once again, that the CATF allegations of pollution from ash are seriously flawed."
- PA DEP Response to Clean Air Task Force Report: "Impact on Water Quality From Placement of Coal Combustion Waste in Pennsylvania Coal Mines"

<u>Coal Ash Beneficial Use in Mine Reclamation and Mine Drainage Remediation in</u>
<u>Pennsylvania</u>

On March 10, 2009 Keith Brady, Bureau of Mining and Reclamation, Division of Permits PADEP wrote in response to an ACAA inquiry:

"Despite claims to the contrary, we have not seen pollution from beneficially used ash. Last year PA used over 11 million tons of ash in the mining program. With the amount that's been used for mine reclamation in PA, if it were going to pollute we should be seeing pollution. We aren't."

On April 10, 2009 Thomas Fidler, PADEP Secretary Waste, Air and Radiation Management in a letter to EPA wrote:

Since 1985, DEP has provided oversight on the use of the beneficial use of coal ash for mine reclamation and other uses. In 1992, Pennsylvania implemented regulations governing the management of coal combustion wastes covering storage, disposal and beneficial use. Under those regulations and oversight, coal has been successfully used for mine reclamation throughou the Commonwealth. Through our groundwater monitoring program and data collected at reclamation sites, we have found no indication of ground water degradation attributable to the placement of coal ash. In addition to coal ash, DEP regulates other coal combustion wastes, sucl as flue gas desulfurization (FGD) sludge and gypsum, and requires permits prior to the beneficia use of these wastes.

PADEP, Penn State University, and University of North Dakota studies and conclusions continue to establish that current regulated practices are the most comprehensive and dependable in the country ...sound...even "model":

- <u>2007 Tera D. Buckley Marketing Research Specialist University of North Dakota Energy &</u> <u>Environmental Research Center for EPA report conclusions</u>: "Pennsylvania's estimated 60%– 70% CCP utilization rate is due largely to the fact that CCP use in mining applications is defined as a beneficial use in Pennsylvania, unlike many other states that consider it to be disposal. PA DEP residual waste coal ash beneficial use regulations and program implementation policies are perhaps the most comprehensive and dependable in the country, particularly for abandoned mine reclamation. These regulations coupled with the state's 14 CFB power plants successfully using CCRs in mine applications make Pennsylvania a model state for the use of CCRs in mine applications."
- May 2009 The American Coal Ash Association "The CCP industry has considered Pennsylvania to be a model state for beneficial use of CCRs in mining activities. Based on your work with Penn State University, the Department of Energy, electric utilities and others, the thoughtful and technically comprehensive process of using ashes from waste coal burning facilities has resulted in many successes within the Commonwealth. In fact, the National Academy cited a number of benefits of using FBC ashes produced from the burning of waste coals piles in their 2006 report. "..."In conclusion, we believe that Pennsylvania's current regulations largely address the proper management and beneficial use of CCRs. Any proposed changes to the regulations should address acknowledged shortcomings and not be changed just to be more restrictive of a process that is working well."

D. The proposed regulations will require new vastly increased industry and governmental costs

• The process to obtain approval will now require... 4 samples within the past year for initial approval... twelve background samples from each monitoring point to establish pre-ash groundwater conditions (monthly water quality background samples for one year prior to placement of coal ash)...approx six new parameters to be analyzed, including fluoride, each

with maximum acceptable leachate concentrations...and a minimum of 1 up gradient and 3 down gradient water quality monitoring points

- Adds costly deed and landowner notices including giving local authorities an unlimited time frame to comment on ash placement
- Water quality monitoring, bonding, and an annual "permit filing fee" of \$2000 payable to the Department is proposed to be required for 10 years after final placement of coal ash: Quarterly monitoring up to a minimum of 10 years (the Department can require a longer indefinite monitoring period if it so desires).
- PADEP utilizes coal ash in its own publicized reclamation activities. ARIPPA assumes that the Commonwealth/Department will likewise experience vastly increased costs to adhere to their own "expeditiously" drafted guidelines.

E. The draft regulations do not distinguish among the various types of coal combustion byproducts based on the combustion and control technologies.

CFB waste coal to alternative energy ash is unique...yet the guidelines do not include a definition or specific regulatory distinctions for CFB ash beneficially used, including approval, placement, isolation distance from groundwater, and monitoring requirements:

- <u>PADEP's November 9, 2007 comments</u>: "(CFB) Coal ash is also a low-permeability, highalkaline material that can be transported in large quantities...Ash is often returned to the area from which the coal refuse was extracted, thus substituting an alkaline material for an acidic material."
- PADEP's April 6th 2009 PA Bulletin Bureau of Mining and Reclamation DOCUMENT NUMBER: 563-2112-225 TITLE: Mine Site Approval for the Beneficial Use of Coal Ash INTERIM FINAL INTRODUCTION states: "Coal ashes vary considerably in their chemical and physical properties depending on the fuel source, the combustion technology used, air pollution control practices, and ash handling procedures. These factors must be carefully weighed when evaluating the appropriateness of using a particular coal ash for a specific purpose at a given site. A use, such as alkaline addition, that is appropriate for a highly-alkaline, pozzolonic ash from a Fluidized Bed Combustion (FBC) boiler may be inappropriate for a neutral-pH ash from a conventional coal boiler. Both ashes may have legitimate beneficial uses at mine sites, but it is not a given that they are interchangeable. For example, the isolation distance from groundwater may be a far more important consideration for a coal ash with high permeability as compared to a low permeability ash."

All of the peer-reviewed and regulatory agency research conducted and presented to the U.S. Environmental Protection Agency, the Office of Surface Mining, and the National Academy of Sciences between 2000 and 2008 has confirmed that no environmental damage has resulted from the placement of CFB ash in abandoned coal and non-coal mines. Further, neither EPA nor any other regulatory agency found the claims of the alleged damage claims relating to placement of CFB ash in any other settings to be credible. Despite this, there is no attempt in the draft regulations to distinguish between CFB ash and other coal combustion byproducts, either through separate provisions for CFB ash or variance provisions specifically aimed at CFB ash.

F. The draft regulations do not appear to clearly differentiation between implementation at capped/completed sites, existing operational sites, and future sites.

Of special concern is the situation where the beneficial use of coal ash has previously been approved under a mining activity permit. In particular, the new water quality monitoring requirements may require substantial redesign of existing monitoring systems.

GENERAL COMMENT SUMMARY

ARIPPA member plants have established a successful and unblemished regulatory adherence track record that includes tax-free assistance in the effort to clean-up environmental problems associated with abandoned mine sites. Further, our reported and published industry data demonstrates that CFB ash used in mine land reclamation has had a positive impact on the environment and mine land/stream reclamation. We believe the proposed regulations vastly exceed what is necessary to insure that many of the concepts raised by the NAS Study are addressed in a timely national format. The proposed Department regulations make significant changes that are not needed, and/or impose significant industry costs to be absorbed by an industry largely unable to pass such costs on to the electric ratepayer. Accordingly the proposed regulations almost assuredly will hinder or eliminate any new development of waste coal to alternative electricity plants

Accordingly ARIPPA is opposed at this time to the adoption of newly proposed regulations concerning Beneficial Use of Ash that:

- Are motivated by erroneous allegations or "media based awareness" that are neither factual or based on sound scientific factors or societal needs
- 2. Are statewide in scope only and proposed in advance of pending Federal regulations
- 3. Are lacking in differentiation between CFB ash characteristics-management and other coal ashes
- 5. Unnecessarily double industry costs including new fees, bonding, and water monitoring
- 6. Do not allow for a clear, fair transition, "grand fathering", or treatment of existing beneficial use ash procedures/sites still in process or completed within the past (10 years plus potentially).

ARIPPA agrees with the NAS committee, which recommends that enforceable federal standards be established for the disposal of CCR's in minefills to ensure that states have specific authority and implement adequate safeguards. Accordingly ARIPPA would support and endorse, at this time, the development of federal regulations that specifically address prevention of wet ash storage management accidents such as occurred at TVA and federally coordinated dry ash regulations that are based on scientific data and experience. Once developed, ARIPPA would, at the appropriate time, be willing to work with the Commonwealth to develop changes or clarifications to statewide Beneficial Use of Ash regulations that are in line with federal standards.

END OF ARIPPA COMMENTS

III. Specific Comments on the Proposed Regulations

This section provides specific comments on the proposed regulations that are applicable to Chapter 290. Generally, this section is presented by providing a copy of the specific proposed regulations, followed by a comment on the proposed regulation and then finally, suggested regulatory language that reflects that comment.

Chapter 290. Beneficial Use of Coal Ash

Proposed Regulation:

§ 290.1. Scope.

(b) if coal ash is mixed with residual waste or ash produced by **co-firing coal or waste coal with an alternative fuels,** the beneficial use must be authorized by a permit issued under this article and the requirements of this chapter must be met.

Comment:

Many coal fired generators have Title V permits which recognize "pet coke" or "wood" as an approved fuel source. The above language, if left unchanged, would mean that anytime a coal fired generator was burning pet coke or co-firing wood, in **any** amount, that it would have to get a general permit (GP) to use its ash beneficially.

Suggested language:

(b) if coal ash is mixed with residual waste or ash produced by co-firing coal or waste coal with an alternative fuel, the beneficial use must be authorized by a permit issued under this article and the requirements of this chapter must be met. However if the alternative fuel represents less than twenty (20) percent of the heat input to the boiler, the resulting coal ash shall be defined and classified as "coal ash."

Subchapter B. Beneficial Use of Coal Ash

Proposed Regulation:

§ 290.101. General requirements for the beneficial use of coal ash.

(d) a water quality monitoring plan in accordance with...must be developed and implemented if either more then 10,000 tons of coal ash per acre is to be used on a project or more than 100,000 tons of coal ash in total will be used at a project. The department may require a water quality monitoring plan for projects involving lesser quantities where site conditions warrant.

Comment:

We need to be assured that the department will make this decision within 30 days of application, regarding the need for a water quality monitoring program, and not require the operator to add after a permit or contract has been issued.

Suggested Language:

(d) a water quality monitoring plan in accordance with...must be developed and implemented if either more then 10,000 tons of coal ash per acre is to be used on a project or more than 100,000 tons of coal ash in total will be used at a project. The department may require a water quality monitoring plan for projects involving lesser quantities where site conditions warrant, however the department will inform the permittee early in the application process if this is the case.

Proposed Regulation:

§ 290.103. Use of coal ash as a soil substitute or soil additive.

Comment:

Using CFB or PC ash as a soil additive or substitute will be cost prohibitive if the suggested language is adopted without change. For example;

- a) chemical analysis of coal ash in proposed regulations will require that it meets the definition for alkaline addition and exceed 10% CCE,
- b) combination of soil and incorporated coal ash shall not exceed 12 inches,
- c) coal ash cannot be used where soil is less than pH 5.5? All soils found beneath waste coal sites fall into this category!
- d) cumulative contaminate loading rate is a combination of metals contained in the coal ash and soil beneath the site on a dry weight basis. Heavy metal leachate from waste coal sites are contained in the soil underneath the waste coal pile and therefore, when added to metals in coal ash on a dry weight basis, will preclude the ability to use coal ash, in any amount.

Proposed Regulations:

§ 290.104. Beneficial use of ash at coal mining activity sites.

(c) Permit filing fee. (1) a nonrefundable permit filing fee payable to the "commonwealth of PA" for the beneficial use of coal ash as a coal mining activity site is to be paid **annually** in the amount of \$2,000. This annual filing fee is to be paid until **final bond release** for the coal mining activity site. And also (3) the Department will review the adequacy of the fees established...

Comment:

Since the operator is being required to monitor the site for 10 years after final ash placement, and therefore have bonds still in place, we would prefer to see this annual fee requirement terminate at the completion of ash placement and not extend for this additional 10 year period. Also, the annual fee should remain constant over the life of the project determined by its amount at permit issuance.

Suggested Language:

(c) (1) a nonrefundable permit filing fee payable to the "commonwealth of PA" for the beneficial use of coal ash as a coal mining activity site is to be paid annually in the amount of \$2,000. This annual filing fee is to be paid until final placement of coal ash on the coal mining activity site. And also annual fees will be fixed at the time of permit or contract issuance.

Proposed Regulation:

§ 290.104. Beneficial use of ash at coal mining activity sites.

(f) (4) Coal ash must achieve a minimum compaction of 90% of the maximum dry density as determined by...Ash from each source must be tested individually.

Comment:

Clarification is needed. How can operator ensure adequate compaction in the field based on a proctor of each individual ash source if those ashes are mixed at the site not only with each other but also with spoil material as is allowed in paragraph (2)?

Suggested Language:

Coal ash must achieve a minimum compaction of 90% of the maximum dry density as determined by the Modified Proctor Test, or 95% of the maximum dry density as determined by the Standard Proctor Test. The test must be conducted at a time and in site location(s) that are representative of conditions at the site. The Proctor test must be conducted by a certified laboratory on a semiannual basis unless the Department requires more frequent testing.

Proposed Regulation:

§ 290.104. Beneficial use of ash at coal mining activity sites.

(i) Additional coal ash sampling. A person using coal ash at a coal mining activity site shall, each quarter that coal ash is being used at the site, sample the ash after it has been placed at the site and such sample shall be analyzed in accordance with...

Comment:

This requirement is redundant and onerous. If the generators have been issued a CA number associated with their ash and the site operator is approved to receive that ash and the site operator is required to maintain proof that each load it has received came from a source that is approved what is the point of additional sampling?

Suggested language:

Strike this proposed requirement.

Proposed Regulation:

§ 290.105. Coal ash beneficial use at abandoned coal surface mine sites.

Comment:

This section replaces 287.664 which is titled "coal ash beneficial use at abandoned coal **and non-coal** surface mine sites." Is the Department now eliminating the mining community's ability to fill in and reclaim non-coal surface mining sites, i.e. quarries?

Suggested Language:

§ 290.105. Coal ash beneficial use at abandoned coal and non-coal surface mine sites.

Proposed Regulation:

§ 290.105. Coal ash beneficial use at abandoned coal surface mine sites.

(e) Operating requirements. (1) The pH of the coal ash as placed must be in the range of 6.0 to 9.0, unless otherwise approved by the Department.

Comment:

Again, we would prefer to see language requiring that the coal ash only be required to meet § 290.201. Coal ash certification.

Suggested language:

The pH of the coal ash as placed must meet applicable ash qualification or certification requirements in § 290.201.

Subchapter D. Water Quality Monitoring.

Proposed Regulation.

§ 290.304 Assessment plan.

(a) A person shall prepare and submit to the Department an assessment plan within 60 days after one of the following occurs:

(1) data obtained from monitoring by the Department or the person indicates a **significant** change of groundwater or surface water from background levels...at any downgradient monitoring point. UNLESS (b) one of the following applies:

(1) within 10 working days after receipt of the sample results indicating ...degradation, the person resamples OR (2) within 20 working days after receipt of samples indicating ...degradation, the person demonstrates that the degradation was caused entirely by seasonal variations or activities unrelated to coal ash placement.

Comment:

First of all, what constitutes "significant"? Secondly, is waste coal removal going to be considered "activities unrelated to coal ash placement"? This concerns companies in the waste coal removal and reclamation business. What if the operator collects 12 months of water quality data above and below a waste coal pile that has been either reclaimed and is dormant or is un-reclaimed but has been sitting dormant for many years and then when waste coal removal activity begins ground water quality starts to change? Active waste coal removal may occur for many months prior to ash deposition. The downgradient wells will not show improvement until later in the life of the project when a large majority of the waste coal has been removed and replaced by beneficial use ash. Will the operator be battling with DEP all through this period? These regulations are customized more to oversee "beneficial use ash disposal" sites where the ash will be the source of the perceived problem that needs to be assessed and possibly abated. In the case of a waste coal pile that has already contaminated the groundwater, the removal of the pile and return of coal ash IS the abatement! These draft regulations do not account for that.

Suggested language:

An operator shall prepare and submit to the Department an assessment plan within 60 days after one of the following occurs:

(1) data obtained from monitoring by the Department or the operator indicates a statistically significant degradation of groundwater or surface water from background levels...at any downgradient monitoring point. UNLESS (b) one of the following applies:

Concluding comments:

As stated previously, Robindale / RNS Services has been in the waste coal removal and reclamation business since 1991. Initially, the only mechanism, from a permit standpoint, was a Surface Mining Permit or a modified Coal Refuse Disposal Permit. The cost to prepare and submit an application was significant and therefore only large waste coal piles were permitted. The Department then developed the "No Cost Contracts" (1994) followed several years later by the "GFCC" program (1999). This opened the door to smaller waste coal piles being removed and reclaimed with the help of beneficial use ash. The proposed Chapter 290 regulations will "kill" the GFCC program and force the waste coal removal industry back onto the large piles and leave the smaller ones, sometimes in very close proximity to streams. The waste coal power generators scattered across the Commonwealth have done a tremendous job of cleaning up a host of abandoned coal sites across the state, both large and small refuse piles. The "one-size-fits-all" language contained in the proposed Chapter 290 regulations will not be a step in the right direction as it relates to "environmental protection" and the waste coal industry. Beneficial Use ash will now be concentrated in larger sites and none of the benefits will be realized.

Robindale Energy Services, Inc. would like to thank the EQB for this opportunity to comment and make suggestions on this very important, although questionably timed, proposed regulations.

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