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SUBMISSION DATE: June 30, 2014

SUBMITTED VIA WEB-E-MAIL TO: Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477
http://www.ahs.dep.pa.gov/RegComments

CC SUBMITTED VIA E-Mail TO: **CC:** Kirit Dalal, Chief, Division of Air Resource Management, kdalal@pa.gov and Robert "Bo" Reiley, Assistant Counsel, Bureau of Regulatory Counsel rreiley@pa.gov
ATTENTION: Additional RACT Requirements for Major Sources of NO_x and VOCs [44 Pa.B. 2392] [Saturday, April 19, 2014]
RE: ARIPPA Comments including the submission of a one-page summary (see Page 2) of comments
CONTENTS: Introduction Page 1, Comments Summary Page 1-2, Attachment: Environmentally Beneficial Pages 2-3

Introduction

Organized in 1988, ARIPPA is a non-profit trade association based in Camp Hill, Pennsylvania. Its membership is comprised of electric generating plants, combusting coal refuse as primary fuel and producing alternative electrical energy and/or steam. Most ARIPPA plants are currently located in or near the anthracite or bituminous coal regions of the United States. ARIPPA plants generate approximately five percent (5%) of the total electricity produced in the Pennsylvania-West Virginia region. Hundreds to thousands of people are directly or indirectly employed by the ARIPPA industry, and live, along with their children, families, and extended families, in communities within close proximity of the ARIPPA alternative energy plants.

On behalf of its member companies, ARIPPA is proud to provide comment on Additional RACT Requirements for Major Sources of NO_x and VOCs.

Circulating fluidized bed boilers (CFB) and Fluidized bed circulating (FBC) boilers are terms that are interchangeable. Throughout these comments, the term "CFB" is used when referring to the technology used by the ARIPPA member plants.

Comments

The CFB coal refuse to alternative energy industry located in PA and WV alone have collectively (over the past 25 years) removed and converted over 212 million tons of coal refuse and converted it into a viable fuel to be used to produce alternative energy (1500 MW generated annually). The removal/conversion of coal refuse combined with the managed-regulated beneficial use of CFB ash has resulted in the reclamation of thousands of acres of land, elimination of dangerous mine land features, sedimentation problems, encouraging plant growth, sealing pathways for surface waters to groundwater, providing habitat for local wildlife, returning the land to productive use and the improvement of hundreds of miles of streams… at zero cost to taxpayers. As a result surrounding communities, lands, and streams have experienced vast environmental and economic improvements.

By removing and converting coal refuse into alternative energy, ARIPPA plants are remediating one of the major sources of contamination to surface water and groundwater in coal mining regions of the United States.

Accordingly, in general, ARIPPA supports, regulatory limits that are environmentally friendly and can in fact be met.

CFB boilers are already low emitters of NOx by nature of its low combustion temperature inherent with its design. Due to nature of the CFB boiler and its use of ash recirculation, SCR technology is not required but the technology is not applicable as well.

Accordingly, in general, ARIPPA supports the Presumptive RACT provided that permitted facilities are able to file for a site-by site determination. In order to achieve a 0.2 lbs./MMBtu emission rate for NOx, the coal refuse fired CFB units in most cases use SNCR technology (the only technology that has been demonstrated to work on coal refuse fired units using CFB technology). However, a few plants have designs and operational controls allowing them to achieve the emission rate without add-on controls.

Suggested improvements to the proposed regulation that you may consider would be:

1) A 30 month compliance schedule should replace the one-year period in the proposed rule for installation of control equipment to meet a presumptive RACT requirement/
2) 30 month compliance schedule starting at the date of DEP approval of a case-by-case RACT rather than the one-year schedule in the proposed rule.

ARIPPA appreciates this opportunity to comment on the Proposed Rule, and is available to engage in further discussion with the Department concerning appropriate and necessary revisions to the final regulation Should you have any questions concerning these comments, please contact Jeffrey A. McNelly, Executive Director, at (717) 763-7635, or jamcnelly1@arippa.org

Attachment: CFB-Coal Refuse Plants Are Environmentally Beneficial

A multi-billion dollar environmental issue that still exists today: Underground coal that was mined and brought to the surface often possessed very low heat content (British Thermal Units-BTUs) and accordingly was undesirable in the marketplace. This "overburden" material was stockpiled throughout the coal regions of America. Since the 1800's coal refuse accumulated and laid idle on thousands of acres of land...land that otherwise possessed a natural variety of aesthetic, useful, and beneficial qualities. The piles and particularly the water runoff from the piles are typically toxic to plant life, and thus are generally barren and highly erosive. Current estimates indicate that there is over 500 million tons of coal refuse stockpiled on the ground in the United States that have long imposed an environmental burden on the land.

Over time wind, rain, fire, and other naturally occurring environmental conditions caused the piles of coal refuse to alter and/or expand their negative environmental footprint on our limited land and water resources.

Abandoned Mine Drainage or Acid Mine Drainage (AMD) is caused when pyrite (an iron sulfide found in stockpiled coal refuse) is exposed and reacts with air and water to form sulfuric acid and dissolved iron. There are a number of major environmental problems caused by AMD; its acid runoff dissolves heavy metals such as copper, lead, and mercury into ground or surface water. It is estimated that in Pennsylvania alone, the acid leached from abandoned coal mines and/or coal refuse stockpiles contributed to the degradation and contamination of more than 3,000 miles of streams and associated ground waters. AMD is Pennsylvania's most extensive water-pollution problem affecting four of its major river basins.

Sixty percent of Abandoned Mine Lands (AML) can be found in just three states: Kentucky, Pennsylvania, and West Virginia. In 2010 Pennsylvania's Department of Environmental Protection reported that

> *"Pennsylvania alone has the nation's largest abandoned mine problem, with approximately 180,000 acres of cliffs, coal refuse piles and other dangerous features encompassing abandoned mine lands, (AML) some dating back to the 1700s. More than two billion tons of coal refuse sits in piles across the state resulting in acid mine drainage (AMD) which is the largest source of water pollution in the state, degrading 5,500 miles of rivers and streams" Pennsylvania's Bureau of Abandoned Mine Reclamation estimates the cost to eliminate these abandoned mine problems and complete the cleanup of AML-AMD sites in Pennsylvania to be approximately $14.6 billion of tax-payer funds and take nearly 500 years.*

Laws were enacted in the late 1970s that now require coal mining companies to reclaim the sites that they currently mine and secure markets for newly mined coal refuse. But by the time that these laws were enacted, a billion tons of coal refuse had been stockpiled, thousands of miles of waterways were contaminated, mine sites were abandoned...and the former legally responsible parties had vanished.

The key to reclamation of many of these coal refuse stockpile sites (AML) and the correlating polluted waterways (AMD) is to remove the material and convert the limited fuel-value of the material into alternative energy. There is only one industry that accomplishes such activity...an industry which has successfully done so for over 25 years...the CFB coal refuse to alternative energy industry. The President and CEO of Penn Future, (one of Pennsylvania's *leading environmental activist groups)* George Jugovic Jr. stated on October 27, 2012 +

> *"We recognize that burning waste coal provides substantial environmental benefit. Sometimes you need to be sensible about protecting and cleaning up your environment."*

Following two decades of safe and successful management of coal refuse stockpiles Keith Brady, PG Chief, Surface Mining, Bureau of Mining and Reclamation, Pennsylvania Department of Environmental Protection commented to EPA in March 2011 (Solid Waste Rule-Identification of Non-Hazardous Secondary Materials)

> *"Coal refuse piles that are not removed (i.e., burned for fuel) generally create severe acid mine drainage, with pH in the 2.5 range and elevated metals, including arsenic"... "It is important for Pennsylvania's environmental wellbeing that these dangerous polluting features (i.e. Coal refuse piles steep slopes and unstable landforms) be reclaimed"... "The biggest environmental benefit is the reduction or elimination of pollution load to steams through removing the coal waste piles"... "Pennsylvania has relied on industry to address the water pollution caused by legacy refuse piles by removing these piles"... "The most effective means of reclaiming these coal refuse piles is through the use of coal refuse as a fuel. Everything should be done to encourage this practice"*

EPA has, in the recent past, recognized the multi-media environmental benefits provided by coal refuse fired EGUs utilizing CFB Technology. This recognition is found in the preambles of many proposed regulations published under proposed/adopted the Clean Air Act.

> *"Presently, the coal refuse fired EGUS in Pennsylvania and West Virginia have burned over 200 million tons of coal refuse. These EGUS have reclaimed over 7,200 acres using the alkaline CFB Fly ash while meeting the State's Beneficial Use Criteria. In the process, coal refuse sites have been reclaimed, eliminating the potential for coal refuse to combust in place and ameliorate water quality. Vegetation has been established on these lands, and the reclaimed property has been returned to productive land use."*

These benefits have been recognized by elected Congressional officials, the Environmental Protection Agency (EPA), the Federal Office of Surface Mining Reclamation and Enforcement (OSMRE) the Pennsylvania Legislature, the Pennsylvania Department of Environmental Protection (PADEP), as well as local environmental, watershed, and conservation groups based in Pennsylvania