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### CFB Ash (if unreasonably regulated) is not the next waste coal to alternative energy industry issue...it is the LAST INDUSTRY ISSUE

If EPA declares CFB ash to be hazardous (following 5 separate EPA reports over the past 10 years declaring it not to be such) or does <u>not allow CFB ash to be used for mine reclamation</u> (after 20 years of PADEP studies finding NO environmental pollution due to CFB ash) then likely:

- THE ENVIRONMENTAL LAND RECLAMATION BENEFITS WE PROVIDE WILL VANISH
- THOUSANDS OF WORKERS WILL BECOME UNEMPLOYED
- 10% OF PENNSYLVANIA'S TOTAL ENERGY WILL BE LOST
- OUR ALTERNATIVE ENERGY PLANTS WILL CLOSE DOWN

### TAX FREE ENVIRONMENTAL LAND RECLAMATION BENEFITS WILL VANISH

Industry data on estimated costs to handle ash in a manner that differs from its current industry practice of filling existing unsafe abandoned deep (and strip) mines, (which are known environmental hazards) into usable and attractive reclaimed lands featuring natural vegetation (a successful practice going on for over 20 years) indicate:

- 1. Currently utilized as a <u>Regulated Beneficial Use</u>, CCR management costs average \$1,687,220/yr or \$3.45/MWhr per plant (waste coal to alternative energy)
- 2. If declared Non-Hazardous Waste the average (per plant) CCR management costs will increase almost 9 fold to \$18, 331,105/yr or \$30.40/MWhr (\*operate at a loss)
- 3. If declared <u>Hazardous Waste</u> the average (per plant) CCR management costs will increase <u>more than 31 times</u> to \$55,017,736/yr or \$108.24/MWhr (\*operate at a loss)

(\*Note the electric rate range in the PJM grid area was approx \$40 to \$50 per MWhr in 2009)

### THOUSANDS OF WORKERS WILL BECOME UNEMPLOYED

Industry data on estimated labor force <u>directly employed</u> by the waste coal to alternative energy industry total 1304 employees or an average of 69 workers per plant. Estimates of those <u>indirectly employed</u> or affected by the waste coal to alternative energy industry total 3798 workers or an average of 199 workers per plant.

### 10% OF PENNSYLVANIA'S TOTAL ENERGY CAPACITY WILL BE LOST

The amount of electricity produced at waste coal to alternative energy plants in PA total 1449 MW's or an average of 97MGW per plant...add these figures to the amount produced in WV and the totals increase to 1721 MW's or an average per plant of 91 MGW

### IT IS UNFAIR TO COMPARE http://www.tva.gov/kingston/photo gallery/index.htm

The unfortunate TVA ash accident that occurred is a primary reason for the heightened national attention to coal combustion residue (CCR or ash) regulation. However it is unfair to make any comparison between the TVA ash handling methods and correlating accident (wet ash slurry retention dam/pond failed...located at/on the bend of a river) to regulated CFB ash residue managed in a highly regulated, time tested (safely utilized for over 20 years) environmentally beneficial manner to reclaim reviously mined areas.

Please don't agree to CCR regulations that unfairly affect the environmentally beneficial alternative energy industry...throwing out the environmentally beneficial baby with the TVA ash bathwater is simply unfair...and unwise.

### SUMMARY OF COMMENTS CONCERNING CFB ASH BENEFICIAL USE

The 2006 National Academy of Sciences Report states:

"Ohio and Pennsylvania have monitoring requirements for CCRs that are substantially greater than SMCRA requirements...Some states, such as Indiana and Pennsylvania, specifically require monitoring for particular CCR parameters....Additionally, some states specify a minimum number of downgradient monitoring wells, such as North Dakota and Washington, which require at least two downgradient wells, and Indiana and Pennsylvania, which require at least one"

"Thus, the committee (NAS) 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"

The National Academy of Sciences made several recommendations in their 2006 report including the citing of a number of benefits of using FBC waste coal to energy ash. The report made a number of recommendations aimed to address those circumstances where little if any regulatory oversight was present...unlike Pennsylvania, who has had in place a comprehensive "model" regulated program since the 1980's.

2007 Tera D. Buckley Marketing Research Specialist University of North Dakota Energy & Environmental Research Center for EPA...2007 REPORT CONCLUSIONS: 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 uccessfully using CCPs in mine applications make Pennsylvania a model state for the use of CCPs in mine applications."

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".

<u>March 10, 2009</u> 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 <u>PA used over 11 million tons of ash in the mining program</u>. 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."

### April 2009 ARIPPA NEWS RELEASE: ARIPPA ALTERNATIVE ENERGY PLANTS RESTORE OVER 4500 ACRES OF ABANDONED MINE LANDS AND MILES OF DEGRADED STREAMS IN 2008

"The industry now totals (data recording began in1988) over <u>4,500 acres</u> of reclaimed mine-scarred lands which will also restore life to hundreds of miles of formerly dead streams.

"Reclamation efforts by our industry, valued at <u>approximately 90 million dollars</u> has positive effects not only on the directly improved community, but also on many other affect counties nearby, and government efforts which utilize tax-payer dollars". McNelly emphasized.

Collectively the industry has removed and converted <u>over 145 million tons</u> of waste coal into alternative energy. Its removal and conversion efforts added together with the highly regulated use of beneficial ash to reclaim environmentally damaged lands makes it one of the few environmentally beneficial alternative energy industries in the world."

On April 10, 2009 Thomas Fidler, PADEP Secretary Waste, Air and Radiation Management in a letter to EPA wrote: "coal ash has been successfully used for mine reclamation throughout the Commonwealth"...we have found no indication of ground water degradation attributable to the placement of coal ash"

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":

• PA DEP Response to Clean Air Task Force Report: "Impact on Water Quality From Placement of Coal Combustion Waste in Pennsylvania Coal Mines"

Coal Ash Beneficial Use in Mine Reclamation and Mine Drainage Remediation in Pennsylvania

<u>May 14, 2009</u> American Coal Ash Association (ACAA) wrote "The CCP industry has considered Pennsylvania to be a model state for beneficial use of CCPs in mining activities."

### October 14 2009 letter from Keith Brady, Bureau of Mining and Reclamation, Division of Permits PADEP to Tom Adams ACAA

I wonder what data they (EPA) are considering in making their decisions. Attached are a couple of slides that may be of interest. This past summer we were able to have an intern compile all our ash chemistry data and do statistical summaries. The slides show the 8 RCRA metals, PA DEP's leaching limits for approval for beneficial use (our certification numbers), and the actual measured values of coal ash (75th percentile values; i.e., 75% of ash values less than this number). Actual ash chemistry values are more than an order of magnitude below the RCRA numbers.

Currently 100% of our fluidized bed power plant ash is being used for mine reclamation and that's on the order of 8 million tons of ash per year. An additional 3 million tons from other generation sources are also used for mine reclamation in PA.

There have been a variety of allegations claiming that beneficially used coal ash has caused pollution in PA (chiefly by the Clean Air Task Force and its offspring). In every case that we've examined we've been able to debunk the allegations. Our debunking efforts are posted on our coal ash website page.

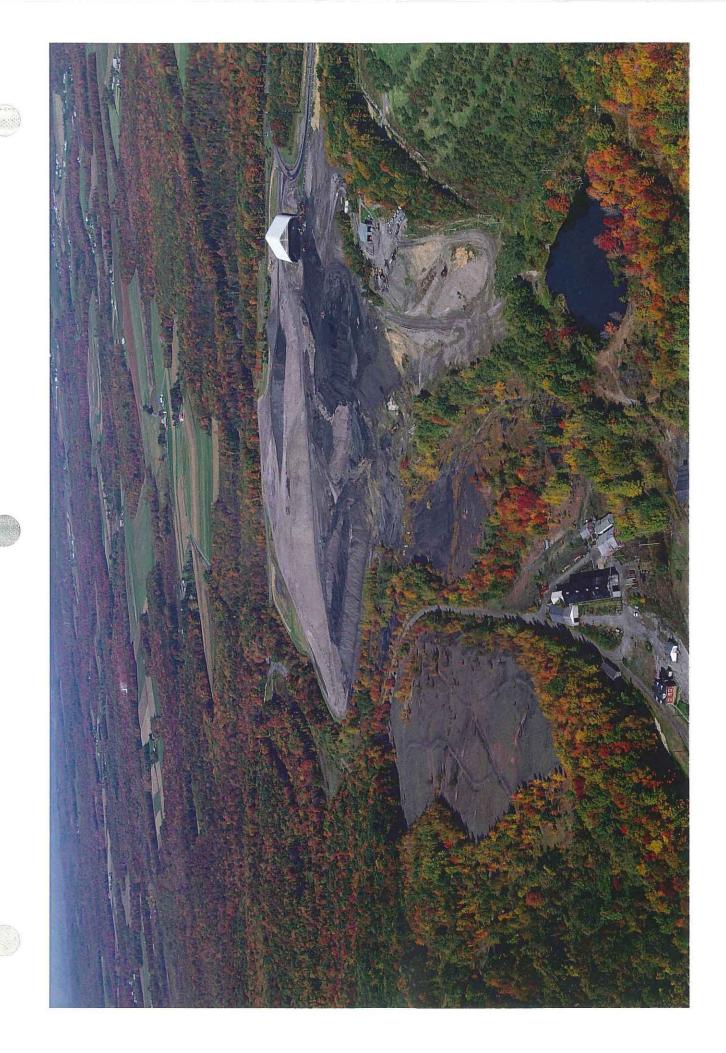
The slide show I mentioned earlier has been posted on our website. It's called: <u>Coal Ash Beneficial</u> <u>se Program outreach presentation (PDF) Oct. 2009</u>. Again, our website is: <a href="http://www.dep.state.pa.us/dep/deputate/minres/bmr/programs/beneficial.htm#Forms">http://www.dep.state.pa.us/dep/deputate/minres/bmr/programs/beneficial.htm#Forms</a>.

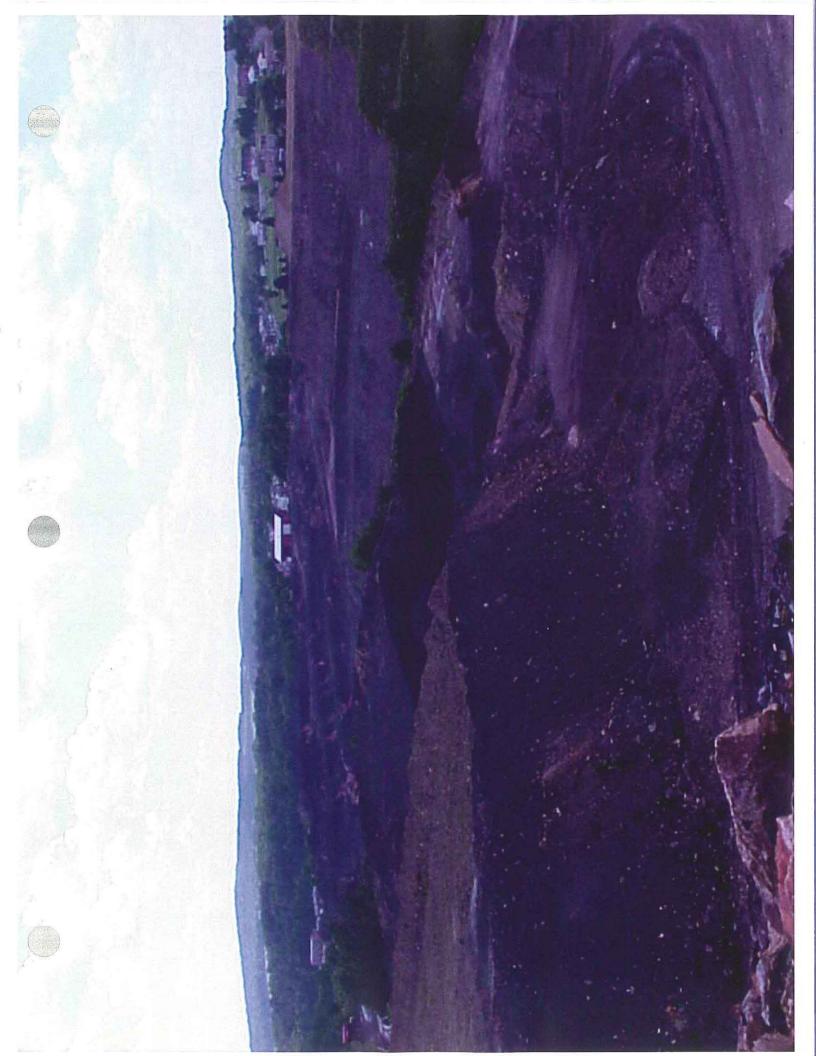




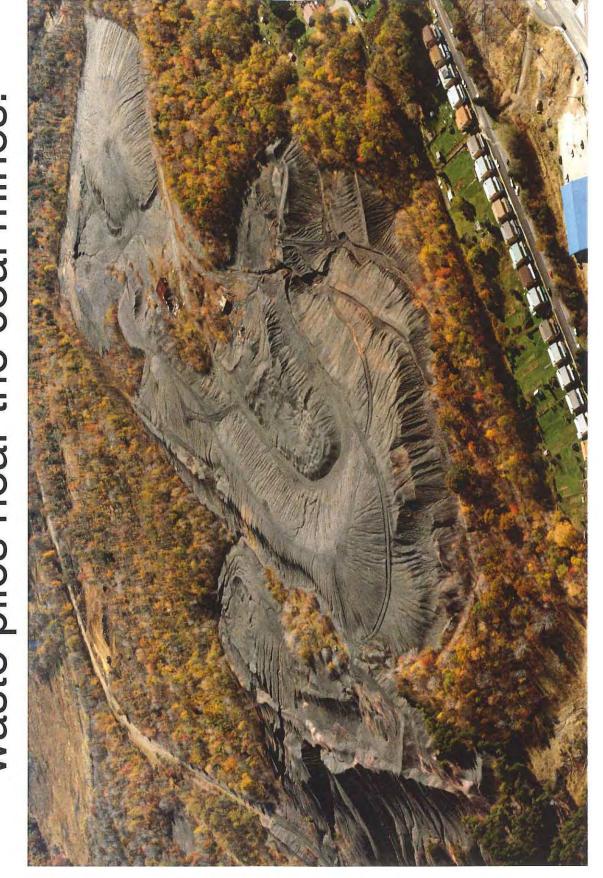
Aerial photo circa 1988 showing the Revloc sites



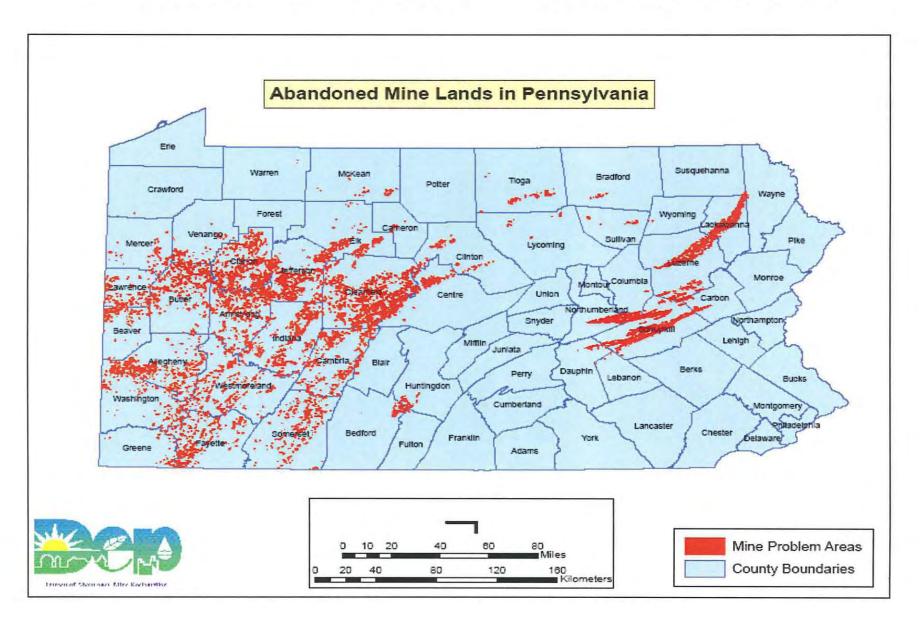




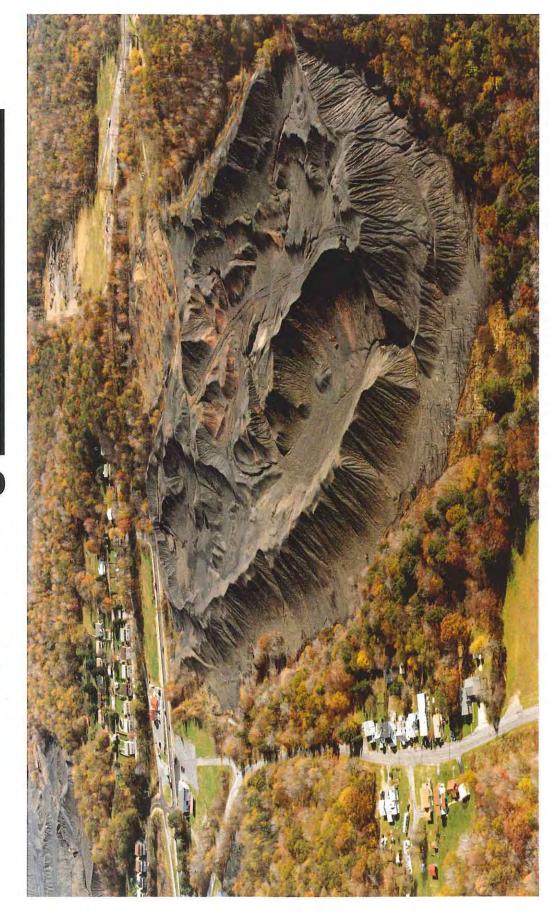
Much of this refuse was left in large waste piles near the coal mines.







## Million tons of discarded "waste coal" covering 1000's of acres

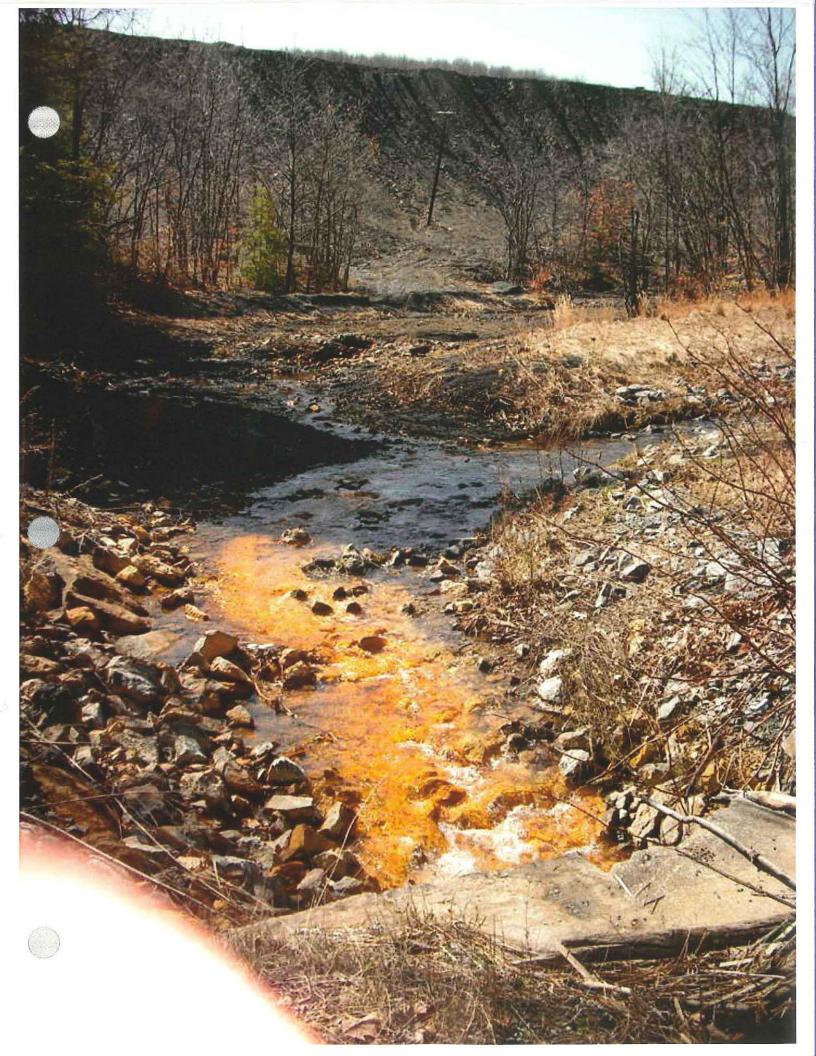


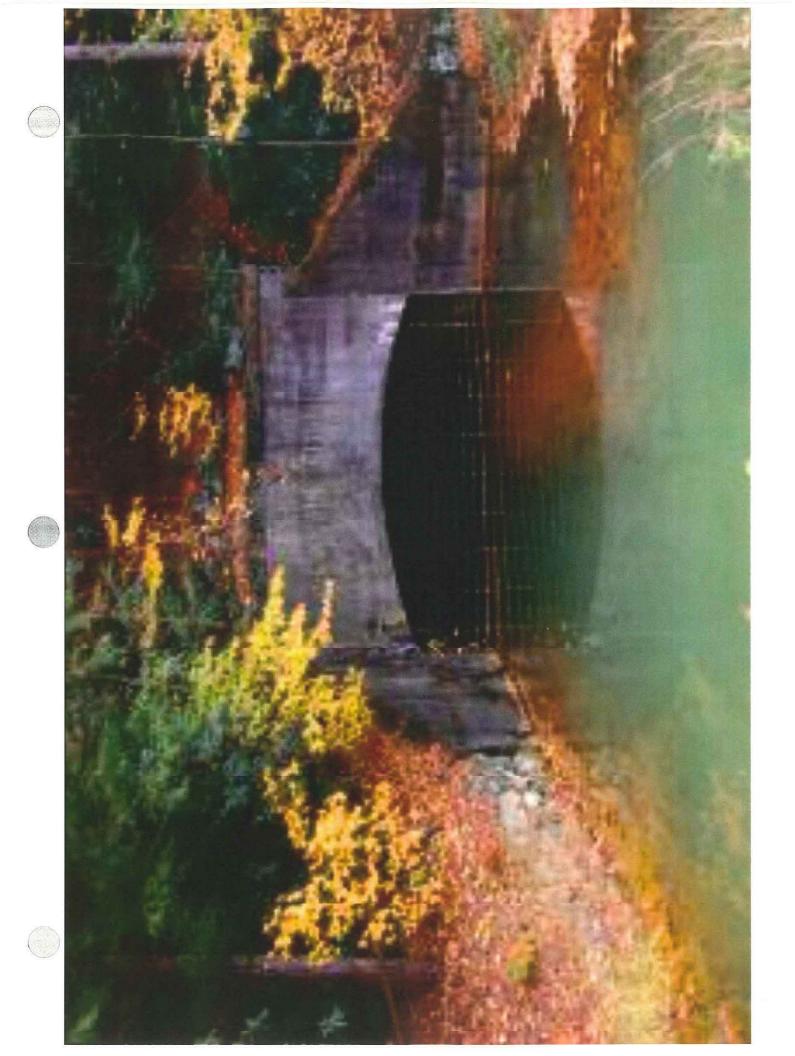
### Over 820 abandoned coal refuse piles... over 8,500 acres...over 212,465,000 cubic vards...millions of tons of coal refuse





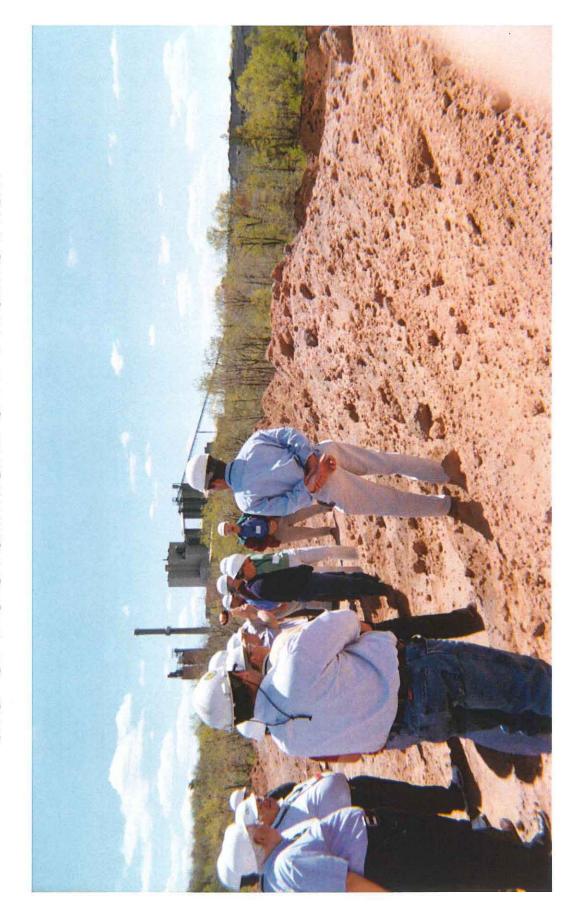






### CFB Ash has an exemplary record as a reclamation material

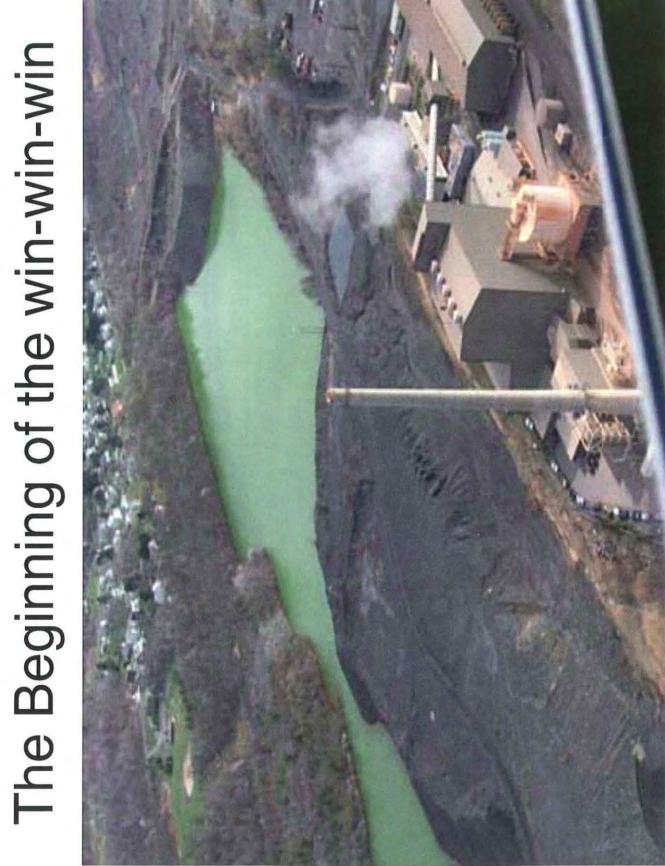
(ilia)





### Low permeability and benign chemical properties





### SIDEBAR 2.6 Pennsylvania's Program for Coal Mine Reclamation and Mine Drainage Remediation

Pennsylvania's coal miners have extracted approximately 16.3 billion short tons of anthracite and bituminous coal from the state's mines since commercial mining began in 1800. While mines permitted under the Surface Mining Control and Reclamation Act (SMCRA) are required to be reclaimed after the coal is extracted, many pre-SMCRA mines were abandoned prior to reclamation. In Pennsylvania, there are more than 5,000 abandoned, unreclaimed mining areas covering approximately 189,000 acres and more than 820 abandoned coal refuse piles. The coal refuse piles cover 8,500 acres, contain a volume of more than 200 million cubic yards of waste material, and can be substantial in size (see Figure 2.6).



FIGURE 2.6 Westwood FBC plant near Tremont in the southern anthracite field showing a coal refuse pile by the plant. Note: Photograph courtesy of Pennsylvania Department of Environmental Protection.

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.

One approach that Pennsylvania has taken to its AML problem is encouraging private funding for reclamation of abandoned coal refuse piles. The advent of FBC technology in the late 1980s enabled the once-useless coal refuse to be used as fuel. As of 2004, 15 independent power producers constructed plants near Pennsylvania's coal refuse piles, using the refuse as fuel for their FBC boilers. Between 1987 and 2002, these plants used 88 million short tons of coal refuse for the generation of electricity and process steam—energy that would otherwise have been derived from another virgin fuel source. The FBC CCRs generated by coal refuse-fired facilities are highly alkaline and have been used in mine reclamation and for treatment of acid mine drainage in areas near the plant. For example, the Mount Carmel co-generation plant consumed a total of 8 million short tons of coal refuse from 1990 through 2002 and produced 5 million short tons of CCR for mine reclamation neighboring the plant during that period, reclaiming 209 acres.

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).

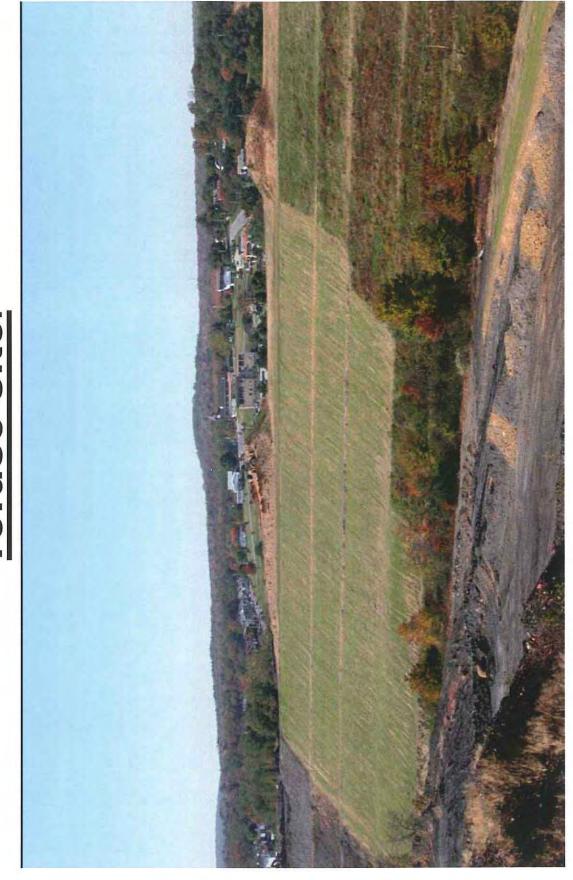
SOURCE: Pennsylvania's Department of Environmental Protection, (PADEP) 2004.

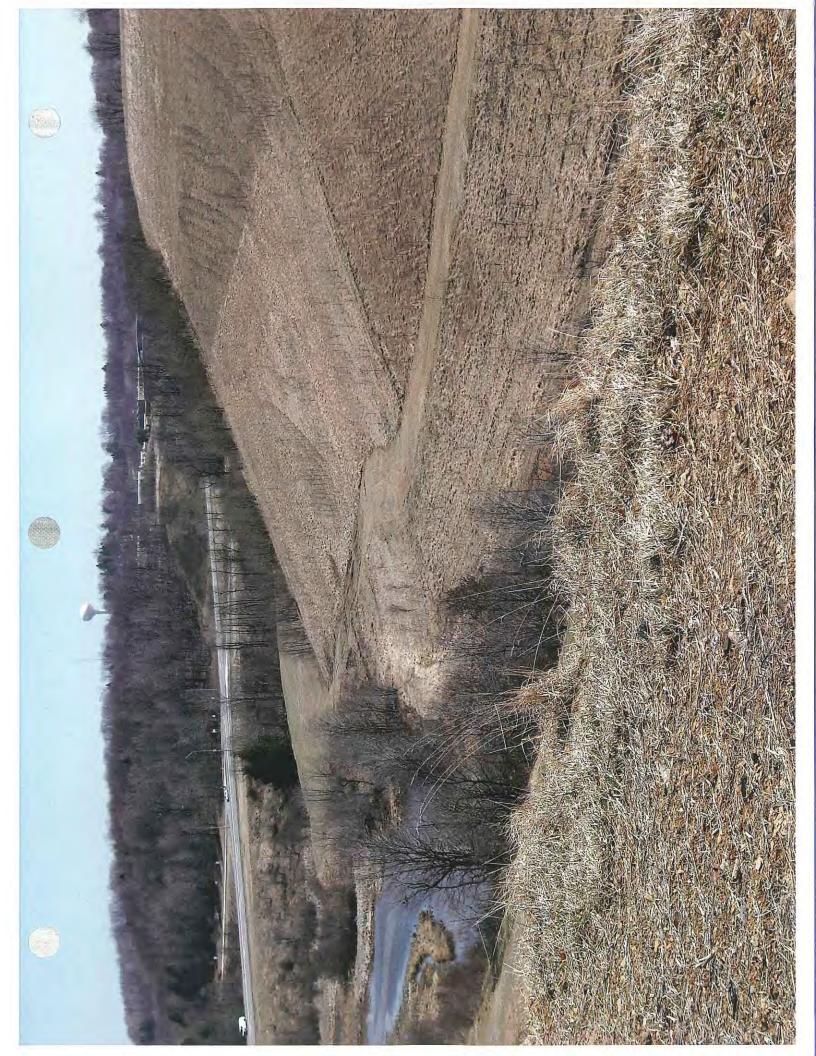
### AML AMD: PADEP: 2007

- 189,000 acres of abandoned mines
- Over <u>200 miles</u> of highwalls
- 1000's of miles of polluted streams & groundwater
- Over <u>800 coal refuse piles</u>
   covering more than 8,500 acres
- Correction would cost over 10 billion tax dollars
- Abandoned mine features are dangerous and deadly!!!

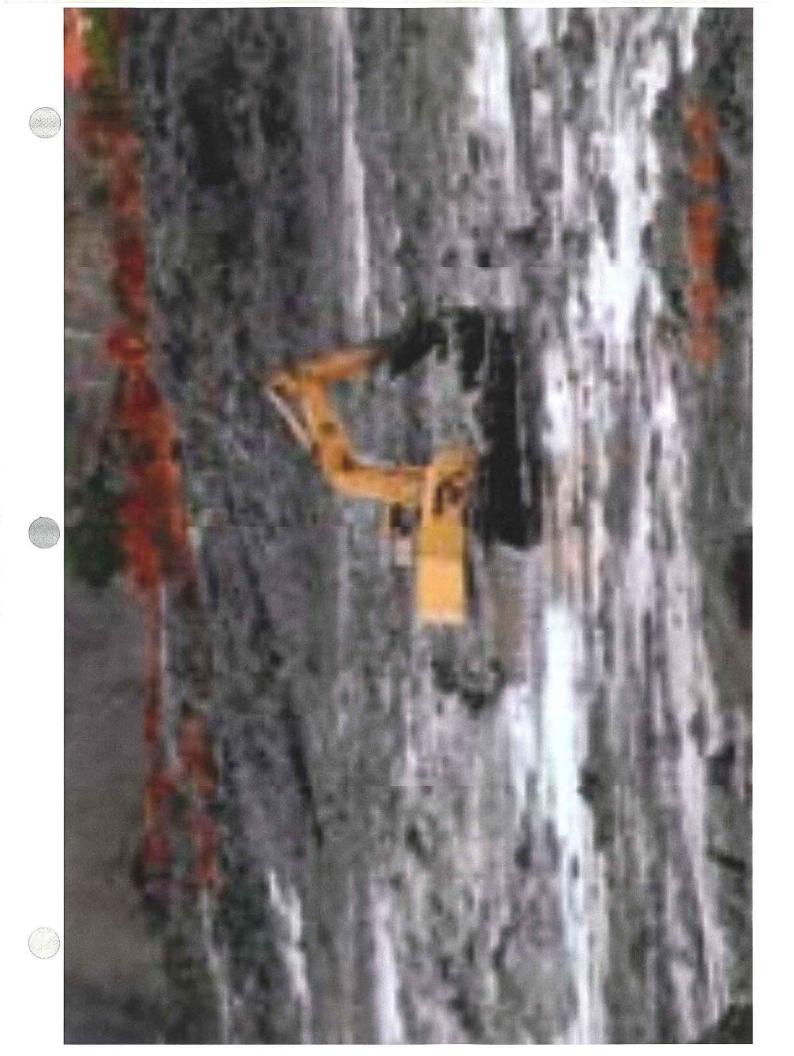
"ARIPPA plants convert legacy mine spoil piles to valuable electric power, while reclaiming our impacted landscape."

### Reclaimed portions of the Revloc 1 refuse site.









### Aerial Image of Kingston Ash Slide Pre-Event 2008

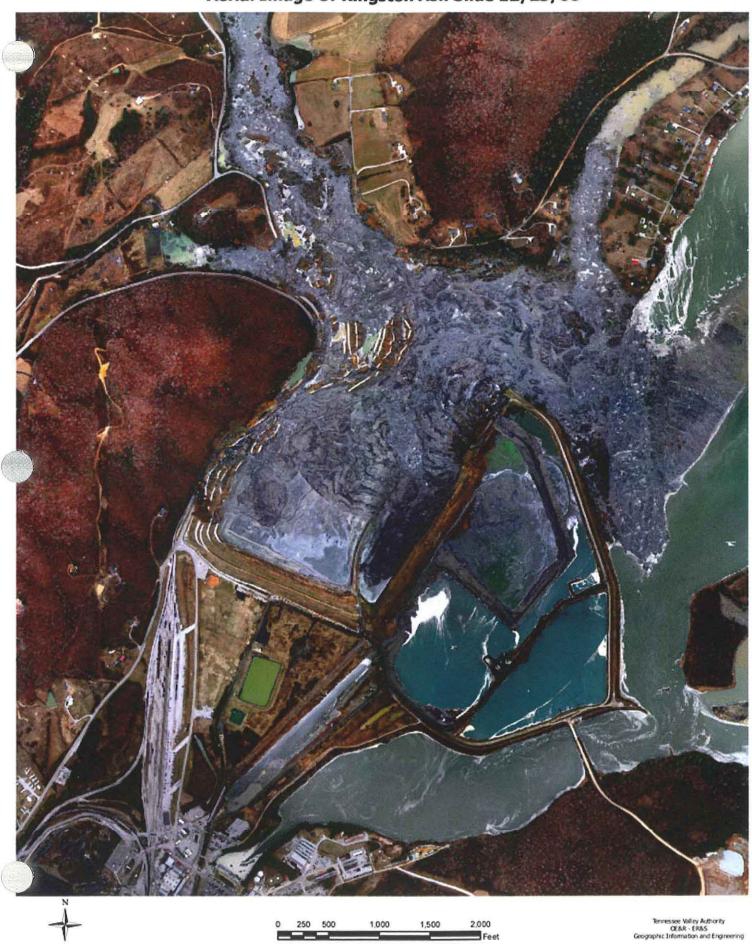






Tennessee Valley Authority CE&R - ER&S Geographic Information & Engineering

### Aerial Image Of Kingston Ash Slide 12/23/08



### **Renewing the Environment**





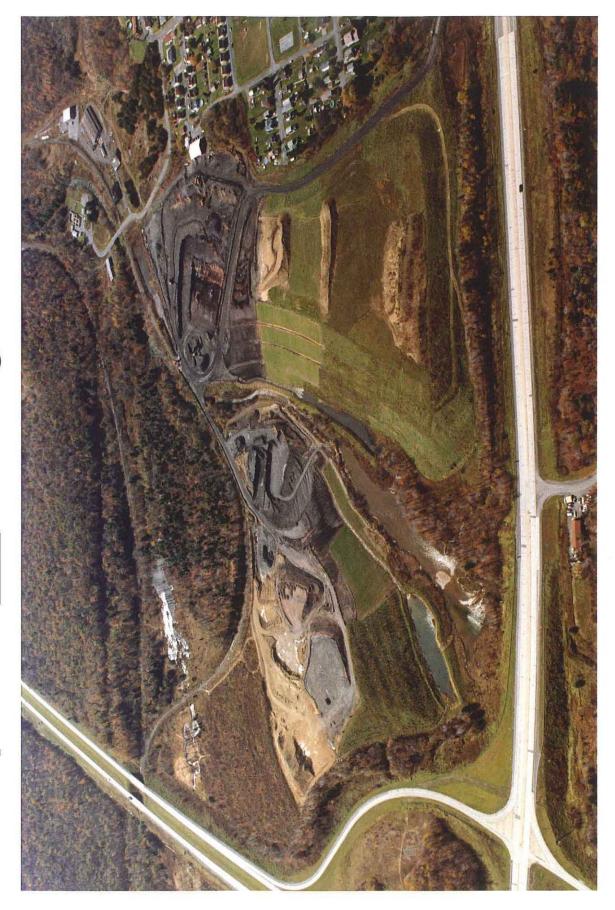
Abandoned surface mining pits are filled with coal ash.



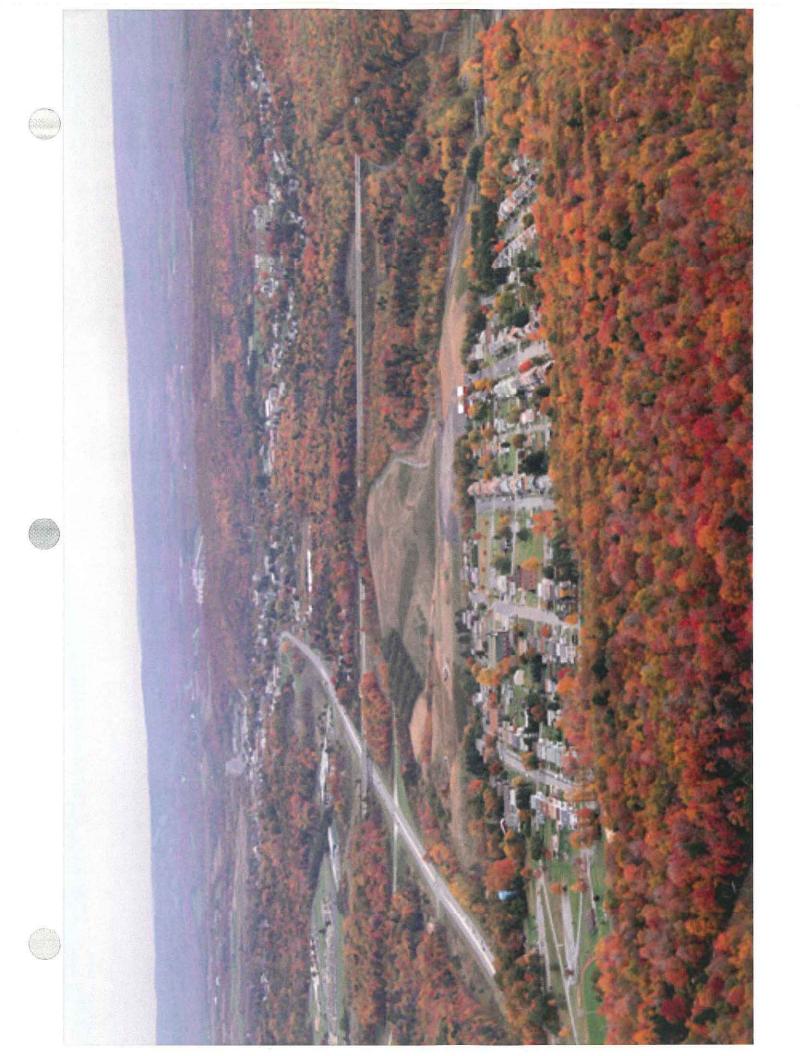


Reclamation complete — Environment restored for productive use!

# Aerial photo 1998 showing the Revloc sites







### CFB ASH...IS UNIQUE! PADEP Bureau of Mining and Reclamation November 9, 2007:

- Power plants that burn coal refuse <u>add</u> <u>limestone to the boiler to prevent air</u> <u>pollution</u>.
- The limestone adds to the volume of ash, but it also <u>imparts alkalinity to CFB ash</u>
- Coal ash is a <u>low-permeability</u>, highalkaline material
  - PA is employing a variety of approaches to address its thousands of miles of polluted streams and contaminated groundwater (AML AMD) among them is the beneficial use of coal ash
  - CFB coal ash has been used to safely reclaim mine sites.

Pennsylvania Department of Environmental Protection Response to Clean Air Task Force Report: "Impacts on Water Quality from Placement of Coal Combustion Waste In Pennsylvania Coal Mines"

DEP Bureau of Mining and Reclamation DEP Bureau of District Mining Operations
ovember 9, 2007

http://www.dep.state.pa.us/dep/deputate/minres/bmr/beneficial use/PADEP reply to CATF rept 110907.pdf

### Ash from FBC (waste coal refuse to energy) plants is UNIQUE

- There is a <u>special type</u> of power plant that can burn coal refuse...utilize a technology known as fluidized bed combustion (FBC). FBC plants alone burn 10 million tons of coal refuse per year.
- Power plants that burn coal refuse produce a higher percentage of ash than other types of power plants because much of the fuel is rock that does not burn, <u>plus these plants add limestone to the boiler to prevent air pollution</u>.
- The limestone adds to the volume of ash, but it also imparts alkalinity to FBC ash.
- Coal ash is also a low-permeability, high-alkaline material that can be transported in large quantities.
- Ash is often <u>returned to the area from which the coal refuse was extracted</u>, thus substituting an <u>alkaline</u> <u>material for an acidic material</u>.

### Ash from FBC (waste coal refuse to energy) plants is HIGHLY REGULATED

- In the <u>mid-1980s</u>, the Pennsylvania Department of Environmental Protection began to approve coal ash utilization for mine reclamation.
- When an applicant proposes to use a source of coal ash for beneficial use in Pennsylvania, <u>extensive</u> chemical testing is required of the ash to determine concentrations of elements that might cause environmental problems.
- The Department has <u>guidelines for permissible concentration levels</u>. (ARIPPA NOTE: Following a
  review of the report PADEP proposed some changes (open to public comment) to it's already robust
  program in order to further enhance the guidelines and to assure that such guidelines are current and
  may serve as a model beneficial use program or states or Federal regulators may adopt.)
- <u>Twenty-one different parameters are used</u> to assess the dry ash composition and the leachate characteristics. <u>If an ash exceeds the limits, it cannot be used beneficially and must be disposed</u> in a lined facility.
- The Department <u>reviews the geology and hydrology of the mine site</u> to assure that the ash can be placed in an environmentally safe manner.
- If the Department determines that placement of ash at a mine would create a problem (either because of the site or the ash quality), the proposal is rejected.

### Ash from FBC (waste coal refuse to energy) plants is Environmentally Beneficial

- Pennsylvania coal fueled this country's industrial revolution. At that time there were no environmental regulations that required the mined land be reclaimed or the water to be protected.
- This legacy <u>has left 189,000 acres of abandoned mines</u>, over 200 miles of highwalls, thousands of miles of polluted streams, and large areas of contaminated groundwater.
- There are also over <u>800 coal refuse piles encompassing more than 8,500 acres</u>. These abandoned mine features are dangerous and deadly.
- Correction of these problems would cost over 10 billion dollars.
- 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 <u>coal ash has been used to safely reclaim</u> mine sites.

Sources for these figures are: Dalberto, A.D., et al., 2004. Chapter 1. Overview: Coal ash beneficial use and mine land reclamation. In: Coal Ash Beneficial Use in Mine Reclamation and Mine Drainage Remediation in Pennsylvania. PA DEP and Penn State Materials Research Institute; National Abandoned Land Inventory System, 2003. Pennsylvania Department of Environmental Protection, Harrisburg, PA; and EPA, 2001. Coal Remining – Best Management Practices Guidance Manual, EPA-621-8-01-010.

### A Comparison of Numbers

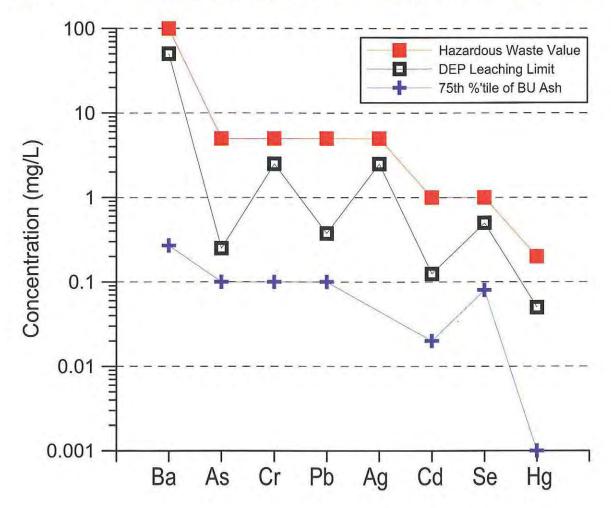
Leaching Values (mg/L)

Parameter	Hazardous	DEP	75 <sup>th</sup> Percentile		
	TCLP	SPLP	PC	A-FB	B-FB
Arsenic	5.0	0.25	0.10	0.05	0.05
Barium	100	50	0.25	0.26	0.27
<b>Q</b> admium	1.0	0.125	0.005	0.02	0.02
Chromium	5.0	2.5	0.08	0.10	0.08
Lead	5.0	0.375	0.05	0.1	0.1
Mercury	0.2	0.05	0.0002	0.0004	0.001
Selenium	1.0	0.5	0.08	0.05	0.06
Silver	5.0	2.5	not enough data yet		

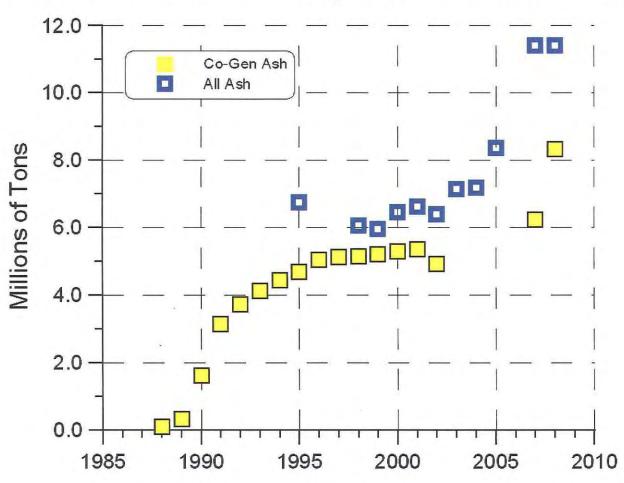
PC: Pulverized coal A-FB: Anthracite fluidized bed B-FB Bituminous fluidized bed

# Is Beneficially Used Ash Toxic? The answer is NO.

PA "Certified" coal ash is more than an order of magnitude less than "toxic" values



# **CCBs from Waste Coal (aka Co-Gen Ash)**





# Pennsylvania Department of Environmental Protection

#### Rachel Carson State Office Building P. O. Box 8472 Harrisburg, PA 17105-8472

April 10, 2009

Office of Waste, Air and Radiation Management

717-772-2724

Mr. Matt Hale, Director Office of Resource Conservation and Recovery U.S. Environmental Protection Agency 1200 Pennsylvania Avenue NW Washington, DC 20460

Dear Mr. Hale:

We would like to thank EPA for giving the Pennsylvania Department of Environmental Protection (DEP) the opportunity to provide comments in advance of your agency's efforts to develop regulations on the management of coal combustion waste. The management of coal combustion waste is very important to the state, both environmentally and economically as most of the facilities generating electricity in Pennsylvania combust either pulverized coal or waste coal as fuel and depend on an environmentally sound program to ensure the effective management of their waste coal ash.

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 throughout 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, such as flue gas desulfurization (FGD) sludge and gypsum, and requires permits prior to the beneficial use of these wastes.

DEP understands EPA is considering three options for managing coal combustion waste: as hazardous waste under RCRA Subtitle C, as industrial waste under RCRA Subtitle D, or a combination of the two. We believe regulation of coal combustion waste as hazardous waste is unnecessary, as none of these wastes generated by Pennsylvania power plants has been observed to exhibit characteristics of hazardous waste. Classification of coal combustion waste as hazardous would likely end its beneficial use without any tangible increase in environmental protection. Pennsylvania has no commercial permitted hazardous waste disposal facilities, and none are being proposed. Therefore, all coal combustion waste generated in Pennsylvania would need to be transported to other states for disposal causing the power industry to incur significant costs for transportation and disposal.



In summary the broad classification and regulation of coal ash as a hazardous waste is not supported by science, and if coal ash were to be classified as hazardous waste it would have a significant economic impact to Pennsylvania, leading to higher electricity production costs for industry and increases in costs for electricity for businesses and every citizen of the Commonwealth.

From our perspective, regulation of coal combustion wastes under Subtitle D affords sufficient environmental protection and allows beneficial use opportunities. Pennsylvania, however, would be supportive of ending the exclusion from regulation as hazardous waste under the Bevill Amendment. While this would have little or no effect on Pennsylvania coal combustion waste generators, the more stringent management standards of Subtitle C would then apply to coal ash waste that actually exhibits the well established and nationally accepted characteristics of hazardous waste in RCRA.

While we understand that federal rules are needed for states that have lax or no regulatory oversight of coal combustion waste, there are states, like Pennsylvania, that have established and implemented effective programs. In the federal rulemaking, EPA should be careful not to preempt states that have programs that work well.

As stated above, DEP has a great deal of experience with coal combustion waste. Some of our experiences are documented in our report Coal Ash Beneficial Use in Mine Reclamation and Mine Drainage Remediation in Pennsylvania, found at: http://www.dep.state.pa.us/dep/deputate/minres/bmr/beneficial\_use/Index.htm. We will be happy to provide additional information on our program or meet with you to discuss our experience in beneficially managing this waste stream for the betterment of the Commonwealth.

Sincerely,

Thomas K. Fidler Deputy Secretary

#### EWSRELEASE COMMONWEALTH OF PENNSYLVANIA March 2009

CONTACT: Tom Rathbun

Phone: (717) 787-1323

#### DEP RESTORES 960 ACRES OF ABANDONED MINE LANDS, DEGRADED STREAMS IN 2008

Agency Invests \$32 Million to Complete 57 Abandoned Mine Reclamation Projects

HARRISBURG – Environmental Protection acting Secretary John Hanger reported today that DEP completed
57 abandoned mine reclamation projects in 2008 that reclaimed more than 960 acres of mine-scarred lands
and will restore life to dead streams. Hanger said abandoned mine lands endanger the public and limit
economic development and recreational opportunities in former mining communities.

"We are reclaiming more than just abandoned mine lands – we are reclaiming entire communities that have struggled for years to overcome the scars of our industrial past," Hanger said. "The projects completed in 2008 pumped \$32 million into Pennsylvania's economy and provided millions more in indirect benefits by returning former wastelands to productive use, eliminating significant safety hazards, and restoring life to long-dead streams."

In addition to the projects completed in 2008, another 47 reclamation projects are underway in Pennsylvania that will reclaim 1,710 acres of abandoned mine lands at a projected cost of nearly \$57.8 million. The largest source of funding for the reclamation of mine sites in Pennsylvania is the federal Abandoned Mine Lands Fund, which is overseen by the U. S. Office of Surface Mining. The fund is supported by a fee on the modern mining industry and is distributed to states as annual grants to reclaim mine sites that were abandoned prior to passage of the federal Surface Mining Control and Reclamation Act of 1977. Other funding sources include rowing Greener grants, which are used primarily to fund mine drainage projects through local watershed groups, and forfeitures of reclamation bonds that are posted by mining companies to cover the cost of reclaiming mine sites if the company is unable or unwilling to complete site restoration once mining is finished.

DEP also operates innovative programs to encourage modern coal companies to reopen abandoned mines that still contain mineable coal reserves and complete reclamation at no cost to the taxpayers. In 2008, 10 such mining contracts were completed, reclaiming 131 acres of abandoned mine lands and eliminating nearly 5,000 feet of dangerous highwall at a value to the commonwealth of more than \$220,000.

"Since Governor Rendell took office in 2003, DEP's Bureau of Abandoned Mine Reclamation <a href="https://has.com/has.c

Governor Rendell was instrumental in working with Congress and other coal mining states to extend abandoned mine funds for another 15 years. Pennsylvania will receive \$29 million from the fund in 2009 and is projected to receive \$1.1 billion by 2022.

Congress also authorized states to set aside up to 30 percent of each annual grant for the abatement and treatment of acid mine discharges. Pennsylvania will use those resources to fund construction and long-term operation and maintenance costs for hundreds of necessary mine drainage treatment facilities statewide.

Pennsylvania has approximately 180,000 acres of abandoned mine lands dating back to when coal mining regan in the commonwealth in the 1700s. More than two billion tons of waste coal sits in piles across the state and an estimated 4,600 miles of rivers and streams are degraded by mine drainage. For more information, visit www.depweb.state.pa.us, and keyword: Abandoned Mines.



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Organized in 1988, ARIPPA is a trade association comprised currently of thirteen (13) waste coal-fired electric generating plants. Accordingly, ARIPPA represents the owners and operators of independent, non-utility waste coal (alternative energy) electric power generation stations

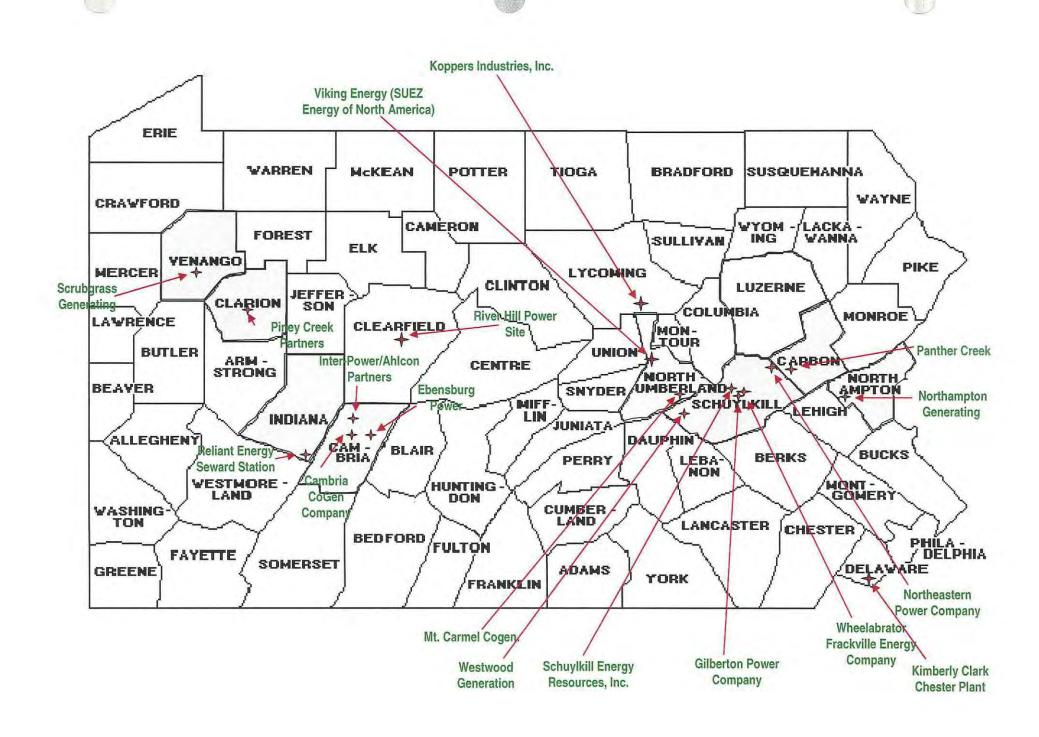
ARIPPA member plants are located in the <u>anthracite and bituminous coal</u> regions of the <u>United States</u> and provide a unique environmental benefit by converting waste coal as fuel and utilizing circulating fluidized bed ("CFB") technology. ARIPPA facilities <u>utilize coal refuse from both past and current mining activities</u>, and thereby reclaim abandoned strip mines and abate acid mine drainage from waste coal piles <u>at no cost to taxpayers</u>.

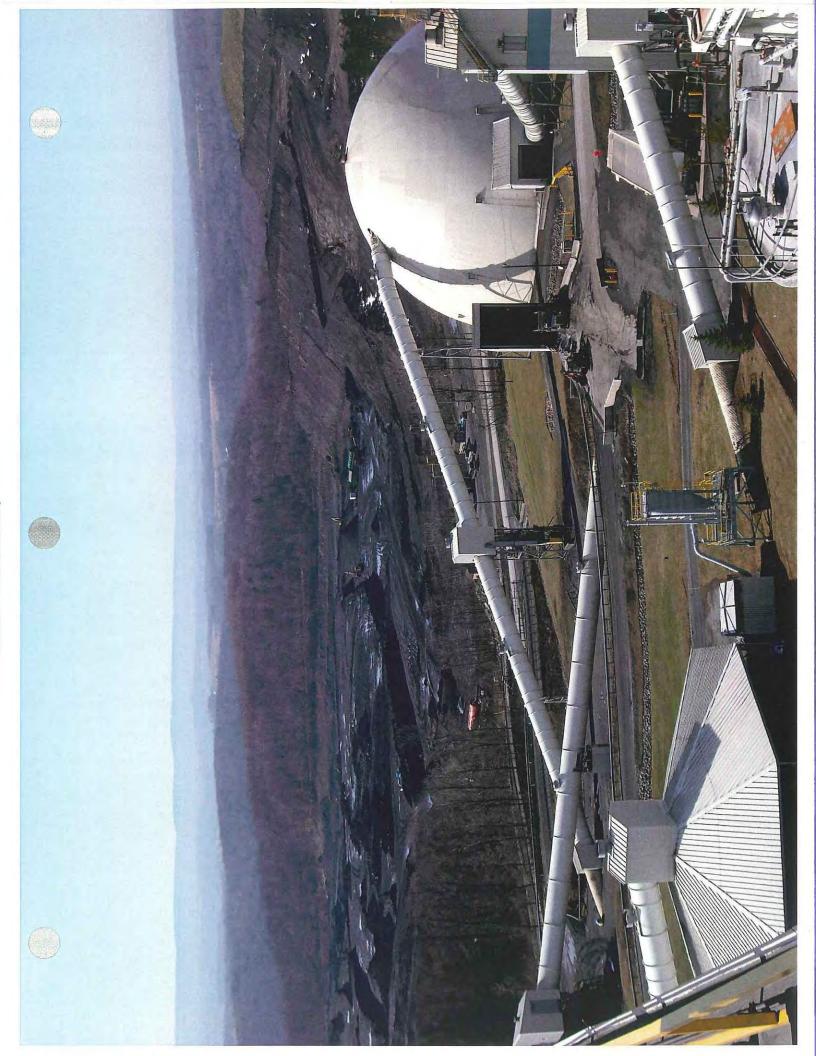
CFB units are designed as inherently <u>Clean Coal burning sources of electricity</u>, with emissions at significantly reduced rates relative to conventional coal-fired utility units. By combusting waste coal piles, ARIPPA members are removing one of the principal sources of contamination to surface water and groundwater.

The first CFB plant in Pennsylvania became operational in 1987, and since that time, the plants have collectively converted <u>110 million tons of waste coal and beneficially utilized over 73 million tons of CFB ash for reclamation of abandoned mine lands</u>. It is estimated that the state's CFB plants annually convert <u>10.7</u> million tons of waste coal to electricity and consequently produce approximately 7.9 million tons of alkaline-rich byproducts per year.

Understanding the unique environmental advantages of the continued beneficial use of waste coal is not only pivotal to understanding the true artnership our industry shares with the goals and ideals of the PA Department of Environmental Resources.









2015 Chestnut Street Camp Hill PA 17011 Phone: 717 763 7635, Fax: 717 763 7455 **NOTABLE QUOTES AND FACT SHEET:** 

eneral Email: office@arippa.org Web: www.arippa.org

Kathleen A. McGinty, Secretary, PA Department of Environmental Protection

"Pennsylvania's existing waste coal industry has and continues to provide tremendous environmental and economic benefits to the Commonwealth's citizens. However, because many of the smaller merchant facilities have power purchase agreements that will expire, in many cases, by 2013 we believe there is a need to continue to incentivize their existence and the reclamation work they are doing." "These independent power producers have been very useful in converting legacy mine spoil piles to valuable electric power, while reclaiming our impacted landscape. We support the fair and continued operation of these facilities, and urge you to seek exemption of these units from the CAIR SO2 trading program."

Senator Mary Jo White, Chairman, and Raphael J. Musto, Democratic Chairman, Senate Environmental Resources & Energy Committee. "These small, independent plants contribute greatly to cleaning up waste coal piles and reducing the threat posed from air and water pollution. Already, Pennsylvania waste coal facilities have removed over 95 million tons of waste coal and reclaimed over 3,500 acres of abandoned mine lands. Additionally, the generating capacity is crucial to meeting the Commonwealth's energy supply needs. Nearly 2,500 Pennsylvania jobs are either directly or indirectly connected to these plants. We urge you to ensure that the U.S. Environmental Protection Agency implements the Clean Air Act's provisions and exempts these waste coal plants from the SO2 requirements of the CAIR program. Pennsylvania Secretary of Environmental Protection Kathleen McGinty has also expressed her support for this exemption."

Representative Bud George Chairman of the Pennsylvania House Environmental Resources and Energy Committee "First, these plants are successfully eliminating the threats of air and groundwater contamination in the mining region of Pennsylvania, where hundreds of millions of tons of waste coal remain the ground from the mining industry. I also understand that the plants were built with state-of-the-art technology, and have SO2 emissions that are far lower than other power producers. I believe that we all share the responsibility of ensuring the continued operation of these facilities."

Representative Scott E. Hutchinson, Minority Chairman of the Pennsylvania House Environmental Resources and Energy Committee "These waste coal plants also provide high-paying manufacturing jobs for our citizens, and often are located in areas that already suffer economically. I understand that the plants account for approximately 800 direct and 1700 indirect jobs. Municipal bondholders' interests are also at stake: the plants were financed by Resource Recovery municipal bonds in order to provide the multiple benefits delivered by these small power producers to the Commonwealth. They are also among the cleanest power generators in terms of mercury emissions."

Brian J. Hill, President and Chief Executive Officer, Pennsylvania Environmental Council "PEC has been actively engaged in efforts to promote remediation of abandoned mine sites through the Commonwealth, both at the program and policy level. The recent extension of the Federal Abandoned Mine Land Trust Fund underscores the extent of the need in Pennsylvania...To date, Pennsylvania waste coal facilities have removed more than 95 million tons of waste coal and reclaimed over 3,500 acres of abandoned mine lands. Waste coal facilities were originally exempt from the SO2 cap and trade program because they were relatively small, met all of the environmental control criteria included under Title IV of the Clean Air Act, and were required to sell their power at fixed contracted rates....PEC urges your assistance to help maintain the waste coal facility exemption consistent with Congress's intent." PennFuture (referred to by the Philadelphia Inquirer as PA's leading environmental organization) "PennFuture's leadership was crucial in creating a new energy law, the Advanced Energy Portfolio Standard, which helps create a market for both renewable energy, and for eliminating the tons of waste coal by using new technology to convert that waste to energy."

## **Supporting Members:**

Black River Generation, LLC P.O. Box 849 Fort Drum, NY 13602 Phone (315) 773-2314 Fax (315) 773-3416

Edison Energy Mission P.O. Box 159 Grant Town, WV 26574 Phone (304) 278-6117 Fax (304) 278-7437 http://www.edison.com/

Morgantown Energy Associates 555 Beechurst Ave. Morgantown, WV 26505 Phone (304) 284-2500 Fax (304) 284-2509

River Hill Power Company 94 Spruce St Indiana, PA 15701 Phone (724)464-0503 Fax (724) 464-0433

Sunbury Generation Old Trail Road Box 517 Shamokin Dam, PA 17876 Phone(570) 884-1241 Fax(570) 884-1207

United Corrstack 720 Laurel St Reading, PA 19602 Phone(610) 374-3000 Fax(610) 376-8215

#### **Proposed Plants:**

- 1. Beech Hollow Power Plant Robinson Township, PA
- 2. Nemacolin Power Plant Cumberland Township, PA

Dominion Generation North Branch Power Station 2000 Energy Way Gormania, WV 26720-9706 Phone (304) 259-4438 Fax (304) 259-4433 http://www.dom.com/about/companies/generation/index.jsp

Koppers Industries, Inc. P.O. Box 189 Montgomery, PA 17752 Phone (570) 547-1651 Fax (570) 547-1964 http://www.koppers.com/

Viking Energy of Northumberland SUEZ Energy Generation NA 909 Cannery Road Northumberland, PA 17857 Phone (570) 473-7261 Fax (570) 473-7272

#### Non-Members:

Mt. Carmel Cogen Inc. P. O. Box 409 Marion Heights, PA 17832 Phone (540) 373-3999 Fax (570) 373-1389

Reliant Energy - Seward Station 595 Plant Road New Florence, PA 15944 Phone (814) 446-7100 Fax (814) 446-7118 www.reliant.com

Sunnyside Cogeneration Associates P. O. Box 10 East Carbon, UT 84520 Phone (435) 888-4476 Fax (435) 888-2538

Rosebud Operative Services, Inc 2215 N Frontage Road Billings, MT 59101



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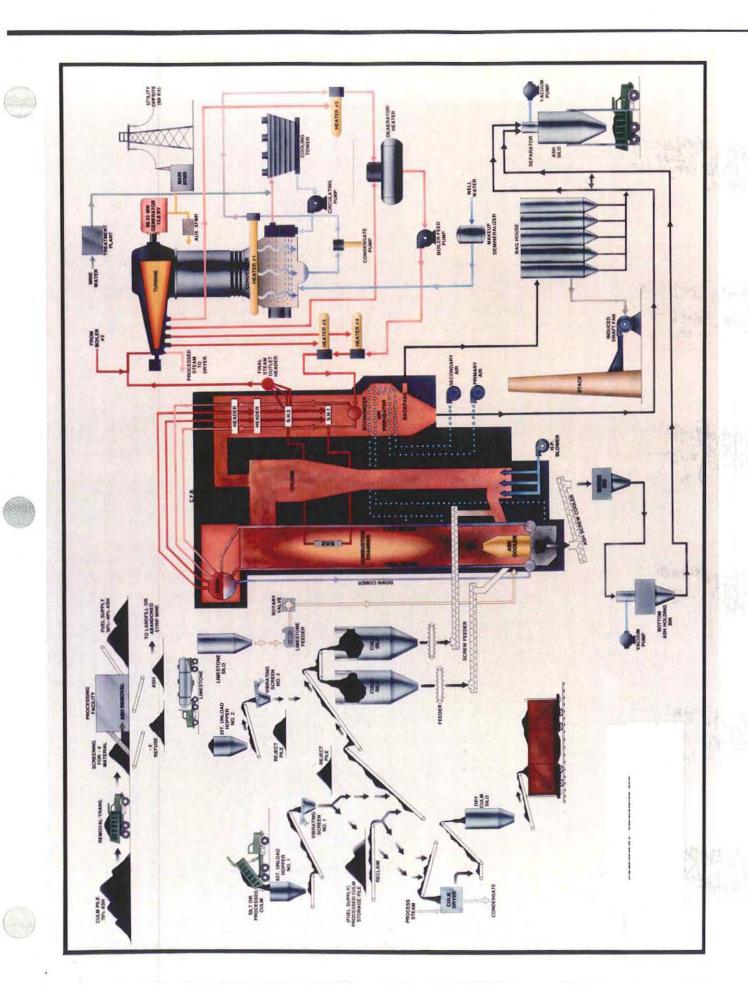
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#### FOR IMMEDIATE RELEASE

4/22/2009

#### CONTACT:

Jeff A McNelly, Executive Director,

Phone: 717 763 7635

# ARIPPA ALTERNATIVE ENERGY PLANTS RESTORE OVER 4500 ACRES OF ABANDONED MINE LANDS AND MILES OF DEGRADED STREAMS IN 2008

Environmentally Beneficial Electric Generating plants remove waste coal and utilize beneficial use ash to reclaim lands back to their natural beauty...without any expenditure of tax dollars.

**CAMP HILL** – In recognition of Earth Week, ARIPPA's Executive Director Jeff A McNelly reported today that the waste-coal-to-alternative-energy industry reached a significant milestone in its ongoing efforts to reclaim amaged abandoned mine reclamation lands. The industry now totals (data recording began in1988) over <a href="...500 acres">...500 acres</a> of reclaimed mine-scarred lands which will also restore life to hundreds of miles of formerly dead streams.

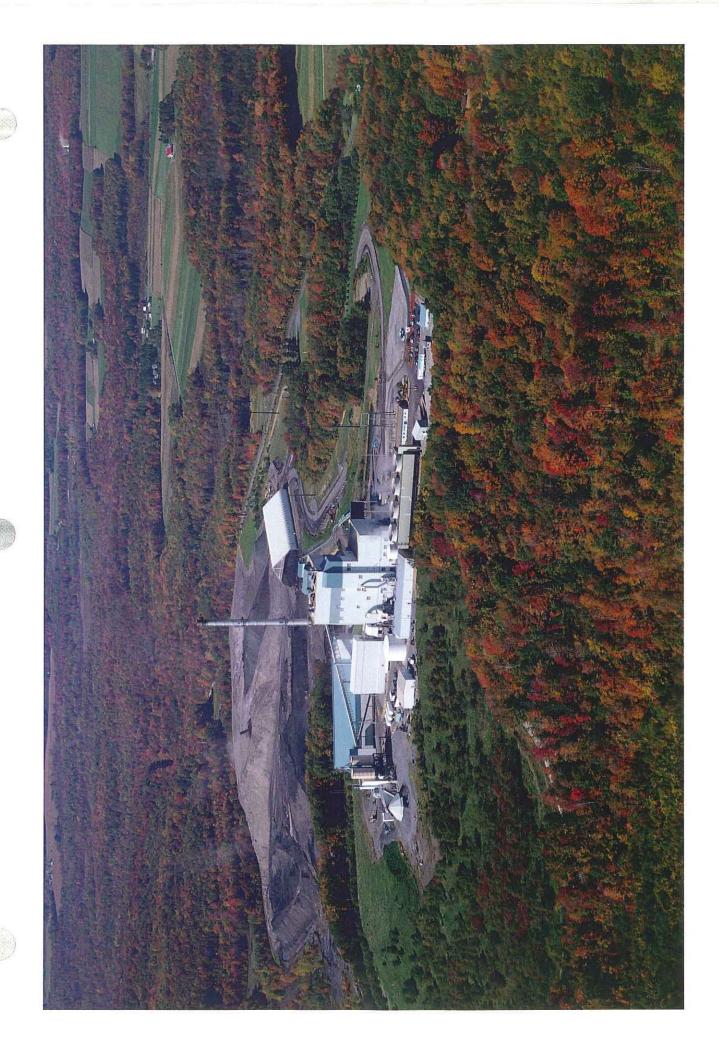
McNelly said that he is proud that the industry has reached this significant milestone and is happy to add the industry's successful efforts (without the use of tax dollars) with those of PADEP. PADEP recently announced that they had successfully restored 960 damaged acres at an approximate tax-payer cost of 32 million dollars.

"Our industry's successful efforts without the use of tax dollars together with the Commonwealth's tax-payer supported efforts add up to a dedicated and concentrated effort to rid our lands of the significant environmental hazards that abandoned mine lands have created" McNelly stated. "Such hazards endanger the public and limit economic development and recreational opportunities in mining communities", he added.

"Reclamation efforts by our industry, valued at <u>approximately 90 million dollars</u> has positive effects not only on the directly improved community, but also on many other affect counties nearby, and government efforts which utilize tax-payer dollars". McNelly emphasized.

CFB (Circulating Fluidized Bed) clean-coal technology, universally utilized by the industry, annually generates approximately 10% of the total electric generation in the Commonwealth of PA...supplying hundreds of thousands of homes and industry with much needed alternative energy, while at the same time directly and indirectly employing approximately 2500 workers and pumping millions of dollars into the economy.

Collectively the industry has removed and converted <u>over 145 million tons</u> of waste coal into alternative energy. Its removal and conversion efforts added together with the highly regulated use of beneficial ash to eclaim environmentally damaged lands makes it one of the few environmentally beneficial alternative energy dustries in the world.



# Industry Awards Presented to ARIPPA Members: As of May 2009

#### American Bituminous Power Partners (Grant Town, WV):

1999 Rock Burner of the Year Award - Bituminous

1998 Rock Burner of the Year Award - Bituminous

2001 West Virginia Safety Council Governor's Safety Award Honorable Mention

2001 West Virginia Coal Association Reclamation Award

2008 Plant Safety Award

#### Cambria CoGen Company:

2008 Most Energy Availability - Multiple Boilers-Bituminous

2008 Highest Capacity Percentage-Bituminous

2008 Plant Safety Award

2007 Dept of Labor - MSHA - Certificate of Achievement in Safety

2007 Highest Capacity Percentage-Bituminous

2007 Most Energy Availability - Multiple Boilers (Tied) -Bituminous

2007 Rock Burner of the Year Award - Bituminous

2006 Rock Burner of the Year Award - Bituminous

2004 Rock Burner of the Year Award - Bituminous

2002 Rock Burner of the Year Award - Bituminous

2001 Rock Burner of the Year Award - Bituminous

2001 Conservation Organization of the Year - Cambria County Conservation Dist

2000 Governor's Award for Safety Excellence

2000 Rock Burner of the Year Award - Bituminous

1996 Governor's Award for Environmental Excellence

1995 Rock Burner of the Year Award – Bituminous (Tie)

1994 Rock Burner of the Year Award - Bituminous

1993 Rock Burner of the Year Award - Bituminous

1993 Industry Conservation Award - Conservation District of PA

1992 Power Magazine's Power Plant of the Year Award

1992 Rock Burner of the Year Award - Bituminous

1991 Rock Burner of the Year Award - Bituminous

# **Ebensburg Power Company:**

2003 Rock Burner of the Year Award - Bituminous

1996 Rock Burner of the Year Award - Bituminous

#### Gilberton Power Company:

2004 Rock Burner of the Year Award - Anthracite

1998 Rock Burner of the Year Award - Anthracite

1996 Rock Burner of the Year Award - Anthracite

1994 Rock Burner of the Year Award - Anthracite

#### Inter-Power/Ahlcon Partners LP - Colver Power Plant:

2008 Plant Safety Award

2002 Governor's Award for Safety Excellence

2001 Community Action Council 18th Annual Humanitarian Award

2000 (Induction Date) Power Magazine's Power Hall of Fame

2000 National Safety Council Outstanding Achievement Award

1999 PA Resources Council 60th Anniversary Award for Outstanding Achievement by a

Business in Promoting a Sustainable Environment

1999 National Safety Council Outstanding Achievement Award

1998 Environmental Protection Magazine Facility of the Year

1998 National Safety Council Outstanding Achievement Award

1998 PA Recycling Association Waste Watchers Award

1997 Three Rivers Environmental Award for Environmental Stewardship

1997 Governor's Award for Environmental Excellence

1997 National Safety Council Outstanding Achievement Award

1996-1997 Power Engineering International Power Plant of the Year Award

1996 McGraw-Hill Power Plant Award

1996 National Safety Council Quality Achievement Award

#### Kimberly-Clark Chester PA Plant::

2008 Plant Safety Award

2007 Plant Safety Award

#### **Morgantown Energy Associates:**

1997 Rock Burner of the Year Award - Bituminous

#### Mt Carmel Cogeneration, Inc.:

2001 Rock Burner of the Year Award - Anthracite

1991 Power Magazine's Power Plant of the Year

1992 Rock Burner of the Year Award - Anthracite

#### **Northampton Generating Plant:**

2008 Most Energy Availability - Single Boiler-Anthracite

2008 Highest Capacity Percentage-Anthracite

2007 Outstanding Environmental Achievement Award

1998 Governor's Award for Environmental Excellence - Land Use Category

1998 OSM National Reclamation Award

1996 Governor's Award for Environmental Excellence

#### **Northeastern Power Company:**

2008 Plant Safety Award

1991 Rock Burner of the Year Award - Anthracite

## **Panther Creek Partners:**

2008 Most Energy Availability - Multiple Boilers- Anthracite

2007 Plant Safety Award

2003 Rock Burner of the Year Award - Anthracite

2000 Rock Burner of the Year Award - Anthracite

1999 Governor's Award for Environmental Excellence

1999 OSM Excellence in Surface Coal Mining Reclamation Award

On-Ground Achievement of the Surface Mining Control and Reclamation Act

1997 Rock Burner of the Year Award – Anthracite

#### Piney Creek L.P.:

2008 Plant Safety Award

2008 Most Energy Availability - Single Boiler- Bituminous

2007 Plant Safety Award

2005 Rock Burner of the Year Award – Bituminous (Tie)

2004 MSHA Certificate of Achievement in Safety

2003 MSHA Joseph A. Holmes Certificate of Honor- 52609 work hrs/ no lost time accidents

2001 Governor's Award for Environmental Excellence in Energy Efficiency

1995 Rock Burner of the Year Award – Bituminous (Tie)

1993 Power Magazine Power Plant of the Year Award

#### Reliant Energy - Seward Station:

2007 Most Energy Availability - Multiple Boilers (Tied)

2004 Power Magazine's Power Plant of the Year

#### Schuylkill Energy Resources, Inc.:

2006 Rock Burner of the Year Award - Anthracite

2002 Rock Burner of the Year Award - Anthracite

# **Scrubgrass Generating Plant:**

2000 Governor's Environmental Excellence Award 2000 Three Rivers Environmental Award for Environmental Stewardship 1998 Governor's Award for Environmental Excellence – Pollution Prevention Category

## Wheelabrator Frackville Energy Co., Inc.:

2008 Plant Safety Award

2007 Highest Capacity Percentage- Anthracite

2007 Most Energy Availability - Single Boiler

2007 Rock Burner of the Year Award - Anthracite

2005 Rock Burner of the Year Award - Anthracite

1999 Rock Burner of the Year Award - Anthracite

1996 OSHA (Voluntary Protection Program) Star Worksite for Excellence in Workplace Health & Safety

1995 Rock Burner of the Year Award - Anthracite

1993 Rock Burner of the Year Award - Anthracite

#### **WPS Westwood:**

2008 Plant Safety Award 2007 Plant Safety Award