



# Pottsville District Mining Office

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Permitting and monitoring & compliance activities for all anthracite surface and deep mining, coal preparation plants, coal refuse disposal, and all industrial mineral quarries in the following 24 counties

*Adams, Berks, Bucks, Carbon, Chester, Columbia, Cumberland, Dauphin, Delaware, Franklin, Juniata, Lancaster, Lackawanna, Lebanon, Lehigh, Luzerne, Mifflin, Monroe, Montgomery, Montour, Northampton, Northumberland, Perry, Philadelphia, Pike, Schuylkill, Snyder, Susquehanna, Union, Wayne, Wyoming and York.*



## Rocks and Minerals mined in the Pottsville District include:

### Anthracite Coal

**Industrial Minerals:** Argillite, Bluestone (fissile siltstone), Clay, Diabase, Dolomite, Granite/Gneiss, Hornfels, Limestone, Magnetite (iron ore), Metabasalt (for roofing materials), Quartzite, Refractory Sand, Sand & Gravel, Sandstone, Schist, Serpentinite, Shale, Slag, Slate, Topsoil

### Permitted Anthracite Coal Operations

Surface, Reprocessing, etc... 278  
 Underground 67

### Permitted Industrial Minerals Operations

Large 401  
 Small 759

**Staff:** 47 employees - Permitting, Inspection, Compliance and Clerical Staff

# How big is the AML Problem?

- Anthracite Production

1870-1976 - Pre SMCRA	5,127,855,162 tons
1977-2004 - Post SMCRA	143,268,979 tons

- Bituminous Production

1877-1976 - Pre SMCRA	9,224,231,484 tons
1977-2004 - Post SMCRA	2,009,628,967 tons

# Abandoned Mine Features

- Underground mines breach aquifers and collect water forming Minepools
- Open Surface Mines with dangerous highwalls
- Abandoned processing equipment/breakers
- Culm Banks and silt dams
- Mine Subsidence and Cropfalls
- Mine Fires (approximately 40 currently burning in PA)



# Abandoned Anthracite Surface Mine



08 30 2001



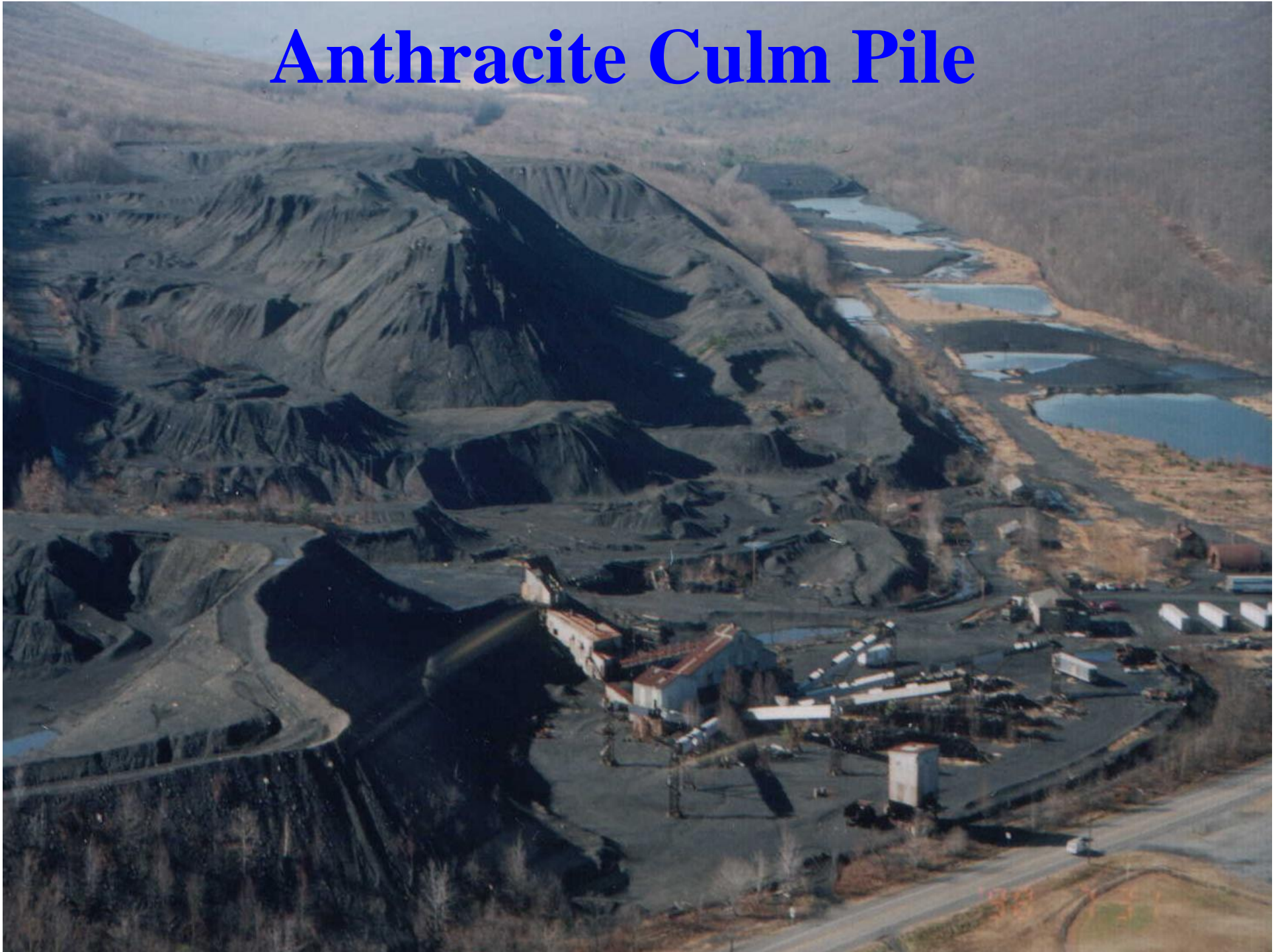








# Anthracite Culm Pile





# Gob Pile





# Remining Incentives

- 1. Government-Financed Construction Contracts (GFCC)**
- 2. Designating Areas Suitable for Reclamation by Remining (DASRR)**
- 3. Remining Operator's Assistance Program (ROAP)**
- 4. Financial Guarantees to Insure Reclamation (FG)**
- 5. Reclamation Bond Credits**

# **1) Government-Financed Reclamation Contracts** **(GFCC)**

Contracted operations that will reclaim abandoned mine land sites at little or no cost to the public.

- **Program began in 1991 – formerly No-Cost Contracts**
- **Allows removal of incidental coal or coal refuse during the reclamation of an abandoned mine land site.**
- **Value of the coal or coal refuse that must be removed to reclaim the site offsets the cost of the reclamation project.**
- **Modified in 1999 as part of “Reclaim PA” and allows reclamation of AML adjacent to active mining operations using excess spoil.**
- **Mostly all projects to date have been in the Bituminous Region**



## GFCC - Summary

- **1339.5 acres of AML Reclaimed**
- **71 Projects completed**
- **Total of 154 projects**

## 2) Designated Areas Suitable for Reclamation by Remining (DASRR)

- The Department has not promulgated regulations nor established a program for designating areas suitable for remining. An analysis has indicated that there is no feasible way to implement this program at this time.



### **3) Remining Operator's Assistance Program** **(ROAP)**

The Department provides financial assistance towards the cost of obtaining a permit a remining area.

- **Program began in 1996**
- **31 operators applied**
- **43 permits issued as result of ROAP**
- **Funding for program ceased in 2003**

# ROAP - Summary

- 187.7 AML acres reclaimed as of Dec 1996
- Value of Reclamation is \$1,126,200
- Estimated 1997.8 AML acres is the total estimated AML acreage to be reclaimed under approved permits.
- Estimated \$11,986,800 value of approved permits.



## **4) Financial Guarantees to Insure Reclamation (FG)**

The Department provides low-cost bonds to guarantee reclamation of the remaining area under a surface mining permit.

- **Program began in 1996 and revised in 2006 to increase allocated amounts.**
- **Maximum of \$300,000 per permit and a total of \$1,000,000 per operator.**
- **No \$100 reclamation fee is required**
- **Operator pays 1% per year – non-refundable**

## FG – Summary

- **\$15,081,000 Reclamation value of completed projects**
- **2,513.5 acres of AML have been completed**
- **141 Operators participating**
- **520 Financial Guarantees issued**
- **Since 1996 , one in every 5 bond instruments issued have included FGs**
- **There are \$9,589,071 FG on permits**



## **5) Bond Credits**

Provides an incentive to an operator to voluntarily reclaim an abandoned area that the industry would not ordinarily reclaim.

- **Program began in 1996**
- **Implemented under a Consent Order and Agreement with the Department.**
- **The value of the bond credit for the reclamation cost.**
- **Each bond credit may be used twice by the operator in lieu of normal bond.**

# Bond Credits - Summary

- **\$217,271- reclamation value for completed projects**
- **31.0 acres reclaimed**
- **5 projects**

## Summary of Reclamation and Remining Incentives Programs 1996 - 2006

<u>Program</u>	<u>Year</u>	<u>Number of Companies</u>	<u>Number of Projects</u>	<u>AML Acres Reclaimed as of 12/31/06</u>	<u>Reclamation Value of Projects Completed</u>
Government- Financed Reclamation Contracts	91-06	71	154	1,339.5	\$5,037,000
ROAP	97-06	31	43	187.7	\$1,126,200
Financial Guarantee	96-06	141	520	2,513.5	\$15,081,000
Bond Credits	96-06	5	6	31.0	\$217,271
<b>Totals</b>			<b>740</b>	<b>4,071.7</b>	<b>\$21,461,471</b>



# Anthracite Remining Operation





# Active Surface Mine



3/25/1999



# Daylighting Deep Mines





# Proposed Remining Incentives

**Incentives that will augment the existing programs by paying for implementation of BMPs .**

**Eligible projects must contain pre-existing mine drainage discharges that will be eliminated or realize improvement from remining activity.**

# Anthracite vs Bituminous Production (2002)

- Anthracite
  - Underground = 203,253
  - Surface = 2,165,192
  - Reprocessing = 1,894,411
- Bituminous
  - Underground = 55,266,926
  - Surface = 12,837,245
  - Reprocessing = 1,940,514