

Final Rulemaking Beneficial Use of Coal Ash

Environmental Quality Board

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Background

- Coal ash has been beneficially used in PA for about 25 years in mine reclamation and as structural fill.
- 43 coal-fired electricity producers in PA generate about 20 million tons annually.
- ~ 11 million tons/year of certified coal ash is beneficially used in mine reclamation and as structural fill.
- ~ 50 mine sites in PA are actively beneficially using coal ash at any one time.

Purpose

- Formalize through regulation DEP's policies on coal ash certification and use at mine sites.
- Adopt the recommendations of the National Academy of Sciences in its 2006 report, *Managing Coal Combustion Residues in Mines*.

Public Participation Process

- 7- 21-09 – EQB approved the proposed rulemaking.
- 11-7-09 – Published proposed rulemaking with a 67–day comment period.
- Four public hearings:
 - Pittsburgh December 7, 2009
 - Ebensburg December 8, 2009
 - Norristown December 9, 2009
 - Harrisburg December 10, 2009
- Substantial public interest; ~ 1,100 commentators.

Major Comments

- Waivers/Perceived Loopholes
- Placement within Groundwater
- Transition Periods
- Assessment and Abatement Triggers
- Use of Alternate Fuels
- Definition of Coal Ash
- Multiple Small Waste Coal Piles
- Siting Restrictions
- Multiple Sites in Watershed

Changes from Proposed Rulemaking Waivers/Perceived Loopholes

- Eliminated DEP's discretion to waive certain requirements.
- Final rule requires:
 - Minimum of 3 downgradient water quality monitoring points;
 - Minimum of 12 months of background sampling prior to placement;
 - Quarterly monitoring.
- DEP cannot waive these minimum requirements.

Changes from Proposed Rulemaking Placement within Groundwater

- Final rule prohibits placement within 8 ft of the water table except where approved by DEP for mine subsidence control, mine fire control or mine sealing.

Changes from Proposed Rulemaking Transition Periods

- For existing beneficial use or storage sites where coal ash newly subject to water quality monitoring:
 - One year to develop water quality monitoring plan.
 - One year to implement plan after DEP approval.
 - Background monitoring not required.
- For sites that had existing monitoring:
 - Existing monitoring wells are not required to meet design requirements.
 - Three months to add new analytes to sample analysis.

Changes from Proposed Rulemaking Transition Periods (con't.)

- One year to meet new requirements where coal ash has been stored under requirements in 299.153.
- Can continue to store coal ash in current manner if it can be demonstrated existing storage is protective.

Changes from Proposed Rulemaking Assessment and Abatement Triggers

- Water quality change must be detrimental and statistically significant to trigger assessment.
- Final rule incorporates federal standards for determination of statistically significant condition

Changes from Proposed Rulemaking Alternative Fuels

- Ash from co-combustion of alternative fuels with coal or waste coals can be beneficially used as coal ash if:
 - alternative fuels $\leq 20\%$ by wt of total fuel.
 - alternative fuels contribute $\leq 10\%$ by wt of the total amount of ash.

Changes from Proposed Rulemaking Definition of Coal Ash

- Final rule clarifies the definition of “coal ash” as it applies to beneficial use (Chapters 287 and 290) and disposal (Chapter 288).

Changes from Proposed Rulemaking Multiple Small Coal Refuse Piles

- Final rule promotes remediation of small coal refuse piles.
 - The pile is part of a multiple pile project.
 - The total coal ash placed at the site of one or more piles does not exceed the total material removed from all piles associated with the project.
 - Project must be designed to improve overall surface water or groundwater quality.

Changes from Proposed Rulemaking Siting Restrictions

- Storage areas that are totally enclosed and have an impermeable floor are exempted from the siting restrictions.

Changes from Proposed Rulemaking Multiple Sites in Watershed

- Final rule allows DEP to require water quality monitoring where multiple small projects will occur in the same watershed.

Final-Form Rulemaking Comments Not Adopted

- Upgradient monitoring at ALL sites. There is no upgradient water at some sites due to site topography.
- Liners MUST be required. The standards in the final rule are protective without the need for liners. Liners not feasible at mine sites.
- Financial assurance MUST be required. Major focus of this rulemaking is use at mine sites. Bonding already required at active mine sites.

Costs to Regulated Community

- Annual fee of \$2000 if coal ash is beneficially used at a permitted mine site. Reduced to \$1000 after coal ash placement is completed.
- Increased coal ash and water quality monitoring will cost \$4400 to \$6800 annually.
- Compaction testing for use as structural fill or mine reclamation will cost about \$300 annually.
- Note: Landfilling of this ash would cost industry at least an additional \$220 million per year.

Final-Form Rulemaking Implementation Schedule

- Upon publication as final for permitted mining sites.
- For storage and water quality monitoring, a transition period and interim requirements have been developed for final rulemaking based on comments received during public comment period.

Advisory Committee Review

- The Solid Waste Advisory Committee voted on May 27, 2010, to proceed with rulemaking provided the following issues are addressed:
 - Definition of “coal ash” as it related to ash for disposal.
 - Transition issues.
- These suggestions have been addressed in the final-form rulemaking.

Final Form Rulemaking: Beneficial Use of Coal Ash

FINAL RULEMAKING RECOMMENDATION

- The Department recommends that the Board approve the final-form rulemaking for the Beneficial Use of Coal Ash.
- Your consideration of this final-form rulemaking is greatly appreciated.



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Thank You
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