Bond Schedule for the Calculation of Bond Amounts on Noncoal Mining Operations

Aggregate Advisory Board Meeting

February 18, 2016
Noncoal Bond Schedule

- Bond Schedule was published on March 5, 2011 in *Pennsylvania Bulletin*

- Can be found on DEP website (www.dep.pa.gov) at: DEP>Business>Land>Mining>Bureau of Mining Programs>Programs and Services>Bonding

- Rates were based on 2010 coal bond rates and industry estimates.

- Rates are in effect until they are revised through a subsequent notice in the *Pennsylvania Bulletin*
General Methodology

• Large noncoal sites use a flat per-acre rate to cover minor grading and revegetation.

• Supplement that to account for spoil storage, backfilling, highwall blasting, demolition or other site-specific costs.

• Mining of consolidated materials below the water table to include reclamation slopes to a depth 50 ft below post-mining water level.
Lateral Phase Mine Sites

• Operator can choose to bond the permit area by phase

• Bond Liability is based on the maximum portion of the permitted area that the permittee is authorized to disturb at any specific time.
Per-Acre Rates

• $3,000 per acre for mining area (this includes select grading and revegetation)

• Coal 2010 rate for select grading was $1,150 and revegetation was $1,615.

• $1,500 per acre for support areas (this rate includes revegetation)
Spoil Storage/Earthmoving

• $0.90 (per cubic yard) for grading applies to stored spoil or other additional earthmoving (such as backfilling contour mines).

• Rate is based on 2010 coal grading average of $0.80 for less than 500 ft and $1.00 for over 500 ft.
Blasting to Achieve Reclamation Slope
Highwall Height per Linear Ft of Highwall

<table>
<thead>
<tr>
<th>Height Range</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 20</td>
<td>$10.00</td>
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<tr>
<td>&gt;20 &lt;30</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>&gt;50</td>
<td>$60.00</td>
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</tbody>
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• Based on 2010 industry estimates
Additional Items

- $3,800 per pond requiring reclamation
- $300 per junk large equipment tire
- 4% of amount up to $40,000 for mobilization costs
- Structure demolition costs calculated using Means Building Construction Cost Data or Walker’s Building Estimator’s Reference Book.
- Structures with reasonable post-mining land use are not required to be bonded.
- Rates based on 2010 coal amounts
Large Noncoal – Unconsolidated

- Includes sites mining above and below groundwater table
- Selective grading to achieve reclamation slopes and safety bench around water impoundment
- Use 2010 coal selective grading of $1,600 per acre
Large Noncoal – Unconsolidated

- Highwall grading cost above groundwater table is based on the area of the highwall (length of highwall x horizontal width of slope)
  - $1,600 per acre for highwall up to 35 ft
  - $2,000 per acre highwall 35 to 65 ft
  - $3,500 per acre over 65 ft
Large Noncoal – Unconsolidated

- Safety bench on water impoundments cost based on area around perimeter of impoundment x width of safety bench
  - $1,600 per acre for safety bench
- Sites using unmarketable material for reclamation use the $0.90 per cubic yard rate
Small Noncoal that Comply with 25 Pa. Code § 77.108(e)(4)

- Reclamation conducted on a one for one basis – 1 acre reclaimed for 1 acre effected, with no more than 1 acre of mineral extraction unreclaimed.

- $1,500 per acre the permittee is authorized to disturb at any specific time.
Small Noncoal that Exceed 25 Pa. Code § 77.108(e)(4) 1-Acre Limit

• Consolidated Material including GP-105 (Bluestone)
  – $1,500 per acre for support
  – $3,000 per acre for mining up to 35 feet
  – $4,000 per acre for mining 35 to 65 feet
  – $5,000 per acre for mining over 65 feet

• Unconsolidated Material
  – $3,000 per acre flat rate
2015 Coal Bond Rate Summary

- Grading (<500 Ft push)  $0.90 per Cu Yd
- Grading (≥500 Ft push/haul)  $1.50 per Cu Yd
- Selective Grading  $1,700 per Acre
- Revegetation  $1,900 per Acre
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