February 22, 2016

BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Glenn Kellow
President and Chief Executive Officer
Peabody Energy
Peabody Plaza
701 Market St.
St. Louis, MO 63101

Re: Notice of Intent to File Suit Against Peabody Energy Over Violations of the U.S. Surface Mining Control and Reclamation Act

Dear Mr. Kellow:

Pursuant to the Surface Mining Control and Reclamation Act ("SMCRA"), 30 U.S.C. § 1270, and regulations thereunder at 30 C.F.R. § 700.13, WildEarth Guardians hereby notifies you that we intend to file suit in federal court against Peabody Energy over ongoing violations of SMCRA and regulations implementing SMCRA.

Specifically, Peabody Energy is failing to comply with reclamation bonding requirements under SMCRA with regards to its operations at several permitted coal mines in Colorado, New Mexico, and Wyoming. Peabody has failed to notify respective state regulatory agencies that the company no longer qualifies for self-bonding, and to post an alternative bond within 90 days, as required by 30 C.F.R. § 800.23(g). Under SMCRA regulations, if a company fails to post an adequate bond, it must "cease coal extraction." 30 C.F.R. § 800.16(e)(2).

SMCRA provides that, "[A]ny person having an interest which is or may be adversely affected may commence a civil action [] to compel compliance [] against any [] person who is alleged to be in violation of any rule, regulation, order or permit issued pursuant to this [30 U.S.C.] subchapter [V]." 30 U.S.C. § 1270(a)(1). A civil action under SMCRA may not be commend prior to "sixty days" after the violator has been given notice of the violations. 30 U.S.C. § 1270(b)(1)(A). With this letter, WildEarth Guardians is notifying Peabody Energy that if the violations documented herein are not resolved in 60 days, we intend to file suit in federal court to enforce SMCRA. Below, we detail Peabody Energy's violations.

I. BACKGROUND

Under SMCRA, before a company can mine coal, they are required to post bonds covering the full cost of reclamation in case mining operations are abandoned prior to the completion of reclamation. *See* 30 U.S.C. § 1259 and 30 C.F.R. § 800.11. Although normally, companies post surety bonds or offer collateral to ensure the costs of reclamation can be covered, SMCRA allows companies to post self-bonds, or corporate guarantees. *See* 30 U.S.C. § 1259(c) and C.F.R. § 800.23. Self-bonds are essentially agreements between companies and regulatory authorities where the mining companies guarantee to cover the costs of reclamation, but do not actually provide direct funds, collateral, or third-party guarantees to cover such costs. *See* 30 C.F.R. § 800.5(c) (defining a self-bond as an "indemnity agreement" between permit applicants, any guarantor, and the regulatory authority).

Self-bonding is only allowed where a company has "a history of financial solvency." 30 U.S.C. § 1259(c). Under SMCRA regulations, a company is only allowed to self-bond where it meets all of certain criteria set forth at 30 C.F.R. §§ 800.23(b)-(e). Among other things, certain financial conditions must all be met, including that the company seeking to be self-bonded must:

- Have an "A" rating or higher for its most recent bond issuance, as issued by Moody's Investor Service or Standard and Poor's Corporation;
- Have a net worth of at least $10 million or fixed assets in the U.S. of at least $20 million, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; and
- Ensure that the total amount of self-bonds do not exceed 25% of the company's, or guarantor's, net worth in the United States.

30 C.F.R. §§ 800.23(b)(3) and (d). If any one of these, or other self-bonding criteria for that matter, is not met, a company is not allowed to self-bond its mining operations.

If a permittee is self-bonded, it has a mandatory duty to "immediately" notify regulatory authorities if financial conditions change such that it no longer meets the financial criteria at 30 C.F.R. §§ 800.23(b)(3) and (d). 30 C.F.R. § 800.23(g). Within 90 days of this notification, the permittee must also post an alternate bond in the "same amount as the self-bond." *Id*. If the company fails to do so, it must "cease coal extraction" and "shall immediately begin to conduct reclamation operations[.]" 30 C.F.R. § 800.16(e)(2).

The States of Colorado, New Mexico, and Wyoming all regulate coal mining pursuant to regulatory programs approved by the U.S. Office of Surface Mining Reclamation and Enforcement. *See* 30 C.F.R. §§ 906, 931, and 950. Under these programs, the states have adopted regulations related to self-bonding that effectively mirror the regulations implementing SMCRA. *See* Colorado Mined Land Reclamation Board Regulations § 3.02.4; New Mexico Administrative Code § 19.8.14.1410; and Wyoming Land Qualify Division Coal Rules and Regulations, Chapter 11. Notably, all states require that self-bonded coal mine operators notify respective state regulatory authorities when they no longer qualify for self-bonding and to post

substitute bonds within 90 days. *See* Colorado Mined Land Reclamation Board Regulations § 3.02.4(2)(e)(vii); New Mexico Administrative Code § 19.8.14.1410(F); and Wyoming Land Qualify Division Coal Rules and Regulations, Chapter 11, Section 5.

II. PEABODY ENERGY'S FINANCIAL STATUS

In the case of Peabody Energy, reports indicate that while the company self-bonds mining operations across the U.S., the company no longer meets the financial criteria for self-bonding under 30 C.F.R. § 800.23. As detailed in recent reports, the company fails as follows:

- Peabody no longer has an "A" rating or higher, as issued by both Moody's Investor Service and Standard and Poor's Corporation, rendering the company ineligible for self-bonding under 30 C.F.R. § 800.23(b)(3)(i). As disclosed in a December 2015 Moody's report, the company's corporate family rating is now "Caa3," which "reflects [Moody's] expectation of continued deterioration in the company's credit metrics[.]"[1] Further, as of July 2015, Peabody's rating with Standard and Poor's was "BB-."[2]

- Peabody's total liabilities to net worth ratio is greater than 2.5, rendering them ineligible for self-bonding under 30 C.F.R. § 800.23(b)(3)(ii) and (iii). According to Peabody's most recent filings, the company's total liabilities were reported to be $10,102,800,000 and the company's net worth, as indicated by stockholders' equity, was reported to be $869,900,000, yielding a liabilities to net worth ratio of 11.63.[3]

	Feb. 11, 2016
Total Liabilities	$10,102,800,000
Net Worth	$869,900,000
Liabilities to Net Worth Ratio	11.63

- The company's total amount of outstanding self-bonds exceed 25% of their tangible net worth in the U.S., rendering them ineligible for self-binding under 30 C.F.R. § 800.23(d). According to Peabody's most recent Form 10-K, as of the end of 2014, Peabody's total amount of self-bonding amounted to $1,361,400,000.[4]

[1] Moody's Investors Service, "Moody's downgrades Peabody's ratings (CFR to Caa3), outlook negative," website available at https://www.moodys.com/research/Moodys-downgrades-Peabodys-ratings-CFR-to-Caa3-outlook-negative--PR_341808.

[2] StreetInsider.com, "UPDATE: Standard and Poor's Downgrades Peabody Energy (BTU) to 'BB-'; Outlook to Stable," website available at http://www.streetinsider.com/Credit+Ratings/UPDATE%3A+S%26P+Downgrades+Peabody+Energy+(BTU)+to+BB-%3B+Outlook+to+Stable/10725752.html.

[3] Peabody Energy, "Peabody Energy Announces Results For the Year Ended December 31, 2015," available at https://mscusppegrs01.blob.core.windows.net/mmfiles/files/investors/quarterly-results/q415%20er%20release.pdf. Attached as Exhibit 1.

[4] Peabody Energy, "2014 10-K," available at http://app.quotemedia.com/data/downloadFiling?webmasterId=101533&ref=10101273&type=HTML&symbol=BT

> This is more than 100% of the company's current net worth, as indicated by stockholders' equity. Furthermore, even though there is a chance that Peabody may sell its Colorado and New Mexico assets, such a sale would, according to reports, eliminate only $300 million in self-bonding obligations.[5] This would eliminate only a small amount of total reclamation liability and still place the company's total liabilities to net worth ratio far above 2.5.

In spite of this, Peabody has generally asserted that it still is allowed to self-bond for its mining operations. The reason is because the guarantor of its self-bond is Peabody Investments Corporation, a subsidiary of Peabody Energy, which the company claims does meet the requirements for self-bonding.

However, filings indicate that Peabody Investment Corporation's assets are entirely pledged as collateral to Peabody Energy's debt.[6] This appears to indicate there is no possible way that this subsidiary could meet the criteria for self-bonding set forth at 30 C.F.R. § 800.23. If Peabody Investment Corporation's assets are pledged as collateral to Peabody Energy, then the subsidiary is as financially unqualified as the parent.

Peabody's poor financial status is underscored by numerous reports that the company is very likely to file for bankruptcy this year. A January 20, 2016 Bloomberg News article reported that Peabody is likely the next coal mining company to file bankruptcy, following on the heels of Patriot Coal, Walter Coal, Alpha Natural Resources, and Arch Coal. According to the Bloomberg report:[7]

> In terms of capital, Peabody had $1.4 billion in liquidity including cash and availability under its revolving loans as of Nov. 5, according to a company filing. Its cash dropped to $167.4 million on that day from $334.3 million at the end of September. At that rate, the company is going to run out of cash in nine months, Bloomberg data show.

In a January 22, 2016 filing, Peabody disclosed an extensive debt exchange proposal and ongoing discussions with debt holders to address its precarious financial status and potentially avoid bankruptcy.[8] However, industry observers have expressed skepticism that any potential

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U&companyName=Peabody+Energy+Corp.&formType=10-K&dateFiled=2015-02-25. Excerpts attached as Exhibit 2.

[5] PR Newswire, "Peabody Enters into Agreement to Sell New Mexico and Colorado Assets," website available at http://www.prnewswire.com/news-releases/peabody-energy-enters-into-agreement-to-sell-new-mexico-and-colorado-assets-300182846.html.

[6] Peabody Investment Corporation's assets are pledged as collateral to Peabody Energy's debt. *See* Peabody Energy, "Amended and Restated Credit Agreement," available at http://www.sec.gov/Archives/edgar/data/1064728/000106472813000119/btu_20130930ex101.htm. Agreement attached as Exhibit 3.

[7] Xu Klein, J. and T. Loh, "The Coal Miner 'On Everybody's List' as Next Bankruptcy Victim," *Bloomberg Business* (Jan. 21, 2016), available online at http://www.bloomberg.com/news/articles/2016-01-21/the-coal-miner-on-everybody-s-list-as-next-bankruptcy-victim. Attached as Exhibit 4.

[8] Peabody Energy, "Form 8-K" (Jan. 2, 2016), available at http://app.quotemedia.com/data/downloadFiling?webmasterId=101533&ref=10684481&type=HTML&symbol=BTU&companyName=Peabody+Energy+Corp&formType=8-K&dateFiled=2016-01-22.

debt exchange will succeed in preventing bankruptcy, noting that similar exchanges did not prevent Arch Coal and other companies from recently filing for bankruptcy.[9]

More recent reports have further highlighted Peabody's precarious financial status. According to the Wall Street Journal, the company is drawing down a $1.65 billion revolving loan to secure cash, an indication of impending bankruptcy.[10] And most recently, Peabody's attempts to sell its Colorado and New Mexico assets to Bowie Resource Partners has apparently stalled out.[11] Upon information and belief, if Peabody cannot sell its Colorado and New Mexico assets, it cannot complete its proposed debt exchange.

III. PEABODY'S SELF BONDING IN COLORADO, NEW MEXICO, AND WYOMING

Peabody Energy reports the company self-bonds a total of $1,361,400,000 in reclamation obligations across all of its operations, although this number is likely currently higher.[12] The vast majority of these self-bonding obligations are for the company's permitted coal mines in the states of Colorado, New Mexico, and Wyoming. According to a 2014 survey by the Interstate Mining Compact Commission, Peabody self-bonds a total of $1,106,718,756 in these states, covering mining and reclamation operations at five mines in Colorado, two in New Mexico, and five in Wyoming.[13] *See* Table below.

State	Total Peabody Self-bonding Obligations	Mines (Permit No.)
Colorado	$26,000,000	Foidel Creek (C-1982-056), Sage Creek (C-2009-087), Seneca (C-1982-057), Yoast (C-1994-082), Williams Fork (C-1981-044)
New Mexico	$290,439,433	El Segundo (2015-01), Lee Ranch (19-2P)
Wyoming	$790,279,323	Caballo (433-T7), North Antelope-Rochelle (569-T8), Rawhide (240-T7), School Creek (764-T2), Shoshone I (477-T7)
TOTAL	**$1,106,718,756**	

Although all indications are that Peabody Energy no longer qualifies for self-bonding pursuant to SMCRA regulations, the company has not notified regulatory authorities in these

[9] Desjardins, D., "Peabody Energy is the Next Coal Company to go Bankrupt," *Seeking Alpha* (Jan. 28, 2016), available online at http://seekingalpha.com/article/3841246-peabody-energy-next-coal-company-go-bankrupt. Attached as Exhibit 5.
[10] Jarzemsky, M., "Peabody Energy to Draw Down Rest of $1.65 Billion Revolving Loan," *Wall Street Journal* (Feb. 10, 2016), available online at http://www.wsj.com/articles/peabody-energy-to-draw-down-rest-of-1-65-billion-revolving-loan-1455147340. Attached as Exhibit 6.
[11] Davis, M., S. Natarajan, and T. Loh, "Peabody Mine Sale Said to Hit Snag as Bowie Stalls on Financing," *Bloomberg Business* (Feb. 20, 2016), available online at http://www.bloomberg.com/news/articles/2016-02-20/peabody-mine-sale-said-to-hit-snag-as-bowie-pauses-on-financing. Attached as Exhibit 7.
[12] *Supra.* Note 4.
[13] Interstate Mining Compact Commission, "Self-bonding Survey," available at http://imcc.isa.us/Self%20Bonding%20Survey.pdf. Attached as Exhibit 8.

states that it does not qualify. Further, Peabody has not posted alternate bonds for the aforementioned mining and reclamation operations.

In fact, Peabody claims these states have continued to determine that the company qualifies for self-bonding, even though it clearly does not. Most recently, Peabody asserted that the State of Wyoming re-affirmed the company's self-bonding of its North Antelope-Rochelle and Rawhide mining operations in the state.[14] The company also asserted that the State of New Mexico approved of its self-bonding.[15] However, there is no indication that Peabody provided notification to the states of Wyoming or New Mexico, or the state of Colorado for that matter, that the company does not actually qualify for self-bonding. Regardless of the opinions of regulators in the states of Colorado, New Mexico, or Wyoming, the obligation remains upon Peabody to provide proper notification when the company no longer qualifies for self-bonding and to take steps to ensure adequate bonds are in place.

Furthermore, the circumstances that have rendered Peabody ineligible for self-bonding show no signs of dissipating. As indicated above, even though the company has expressed its intent to sell its Colorado and New Mexico assets, this sale would not eliminate sufficient bonding obligations to render the company eligible for self-bonding again. Additionally, there is skepticism that this deal may even go through and suggestions that Peabody may file for bankruptcy in the next few days.[16] If Peabody Energy files for bankruptcy, its subsidiary, Peabody Investments Corporation, will surely also file.

It is important to note that Peabody's financial status in relation to the company's self-bonding is not a new development. In early 2015, the National Wildlife Federation, Western Organization of Resource Councils, and the Natural Resources Defense Council released a report detailing signs that Peabody no longer meets the financial criteria for self-bonding.[17] Among other things, the report disclosed that Peabody's total self-bonding obligations have exceeded 25% of the company's net worth since at least 2012. *See* Graph below. Thus, Peabody's failure to provide proper notification to regulatory authorities and to post alternate bonds appears to be longstanding.

[14] *Supra*. Note 3.
[15] *Supra*. Note 4.
[16] WYCO Researcher, "Peabody Energy Could File for Bankruptcy Unless Bowie Gets Financing," *Seeking Alpha* (Feb. 8, 2016), available at http://seekingalpha.com/article/3872816-peabody-energy-file-bankruptcy-unless-bowie-gets-financing.
[17] National Wildlife Federation, Western Organization of Resource Councils, and Natural Resources Defense Council, "Undermined Promise II" (2015), report available at http://www.underminedpromise.org/UnderminedPromiseII.pdf. Attached as Exhibit 9.

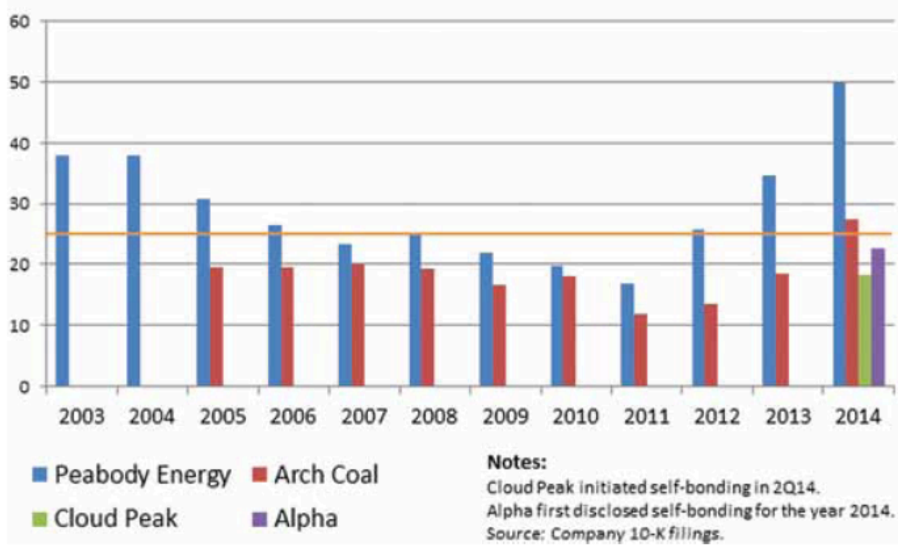

Figure 2. Aggregate reclamation self-bonding reported by Peabody Energy, Arch Coal, Cloud Peak, and Alpha Natural Resources, represented as a percentage of reported net worth. Data arrayed in Tables 3, 4, 5 and 6.

IV. VIOLATIONS OF SMCRA

Based on the aforementioned information, there is reason to believe that Peabody Energy is in violation of SMCRA with regards to bonding at its permitted coal mining and reclamation operations in Colorado, New Mexico, and Wyoming. Peabody Energy clearly no longer has a history of financial solvency, rendering the company ineligible for self-boning under SMCRA pursuant to 30 U.S.C. § 1259(c) and 30 C.F.R. § 800.23. In spite of this, Peabody has failed to provide notification to state regulatory authorities that the company no longer qualifies for self-bonding at its permitted operations, and to post alternate bonds within 90 days, a violation of 30 C.F.R. § 800.23(g). Peabody's violations of SMCRA apply to the following permitted coal mines:

Mine Name	Permit No.	Subsidiary Owner	State	County
Foidel Creek	C-1982-056	Twentymile Coal, LLC	CO	Routt
Sage Creek	C-2009-087	Peabody Sage Creek Mining, LLC	CO	Routt
Seneca	C-1982-057	Seneca Coal Company, LLC	CO	Routt
Yoast	C-1994-082	Seneca Coal Company, LLC	CO	Routt
Williams Fork	C-1981-044	Moffat County Mining, LLC	CO	Moffat
El Segundo	2015-01	Peabody Natural Resources Co.	NM	McKinley
Lee Ranch	19-2P	Peabody Natural Resources Co.	NM	McKinley
Caballo	433-T7	Peabody Caballo Mining, LLC	WY	Campbell
North Antelope-Rochelle	569-T8	Peabody Powder River Mining, LLC	WY	Campbell
Rawhide	240-T7	Peabody Caballo Mining, LLC	WY	Campbell
School Creek	764-T2	Peabody Powder River Mining, LLC	WY	Campbell
Shoshone I	477-T7	Shoshone Coal Corp.	WY	Carbon

The failure of Peabody Energy to ensure adequate reclamation bonding harms WildEarth Guardians and its members in a number of ways. WildEarth Guardians is a nonprofit environmental advocacy group that is dedicated to protecting wildlife, wild places, wild rivers, and the health of the American West. If the company ultimately dissolves and leaves reclamation obligations, then there is no certainty that full coal mine clean ups will be completed and no guarantee that the environment will be protected. This raises concerns that wildlife, wild places, wild rivers, and health stand to suffer.

V. CONCLUSION

With Peabody Energy sliding closer to bankruptcy, the need to ensure adequate bonding is critical. Guaranteeing coal mine reclamation in order to protect society and the environment is a cornerstone of SMCRA. If the aforementioned SMCRA violations are not resolved, WildEarth Guardians intends to file suit in federal court against Peabody Energy after sixty days in accordance with 30 U.S.C. § 1270(a)(1). If there are any questions or concerns, or if Peabody Energy wishes to discuss the matters set forth in this notice letter, please contact WildEarth Guardians at the information below.

Sincerely,

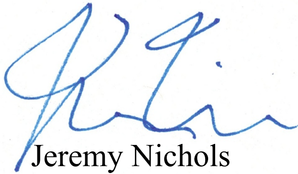

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Exhibit 1

Peabody ENERGY

News Release

CONTACT:
Vic Svec
(314) 342-7768

FOR IMMEDIATE RELEASE
February 11, 2016

PEABODY ENERGY ANNOUNCES RESULTS FOR THE YEAR ENDED DECEMBER 31, 2015

- **2015 revenues of $5.61 billion lead to Adjusted EBITDA of $434.6 million, including $23.5 million in restructuring charges**
- **Diluted Loss Per Share from Continuing Operations totals $(102.62); Adjusted Diluted EPS totals $(36.39)**
- **Australian costs per ton improve 24% to record low for platform; U.S. costs per ton improve 5% even with lower volumes; Capital spending declines 35% to $127 million**
- **2016 targets include 18 to 28 million ton decline in U.S.; Reduced hedging losses; Lower SG&A expense**
- **Amid difficult market conditions, additional aggressive steps underway to improve the business, preserve liquidity and reduce debt**

ST. LOUIS, Feb. 11 – Peabody Energy (NYSE: BTU) today reported full-year 2015 revenues of $5.61 billion. Adjusted EBITDA totaled $434.6 million, which includes $23.5 million in restructuring charges related to reductions in corporate and regional staff and Australian Mining Operations. Full-year Adjusted EBITDA excludes the impact of $1.28 billion in charges related to asset impairments. Diluted Loss Per Share from Continuing Operations totaled $(102.62) and Adjusted Diluted EPS totaled $(36.39).

"Against a brutal industry backdrop, the Peabody team delivered a strong operating performance as we improved safety, achieved over $620 million in lower costs, further reduced capital, streamlined the organization and advanced multiple work streams to address our portfolio and financial objectives," said Peabody Energy President and Chief Executive Officer Glenn Kellow. "It is clear that more must be done, and we are taking further steps to confront a prolonged industry downturn by targeting additional cost reductions, advancing non-core asset sales and pursuing aggressive actions to preserve liquidity and delever our balance sheet."

RESULTS FROM CONTINUING OPERATIONS

2015 revenues totaled $5.61 billion compared with $6.79 billion in the prior year due to lower realized pricing in the U.S. and Australia and a 21.0 million ton decline in sales. These factors drove full-year Adjusted EBITDA down 47 percent to $434.6 million as approximately

$620 million in cost improvements mitigated more than $450 million in lower pricing and $387.2 million in hedge losses compared to the prior year. Adjusted EBITDA also includes $23.5 million in charges related to reductions in corporate and regional staff and Australian Mining Operations.

In the fourth quarter, Adjusted EBITDA declined 59 percent from the third quarter to $53.0 million as a result of a $32.8 million reduction in Trading and Brokerage results, a $14.3 million charge related to the assignment of excess Australian port capacity, a decline in U.S. shipments and a decrease in Australian pricing. U.S. sales were impacted by lower energy demand, declining natural gas prices and high customer stockpiles that resulted in approximately 4 million tons of deferrals from the fourth quarter, with a significant portion of the deferrals occurring in December.

2015 U.S. Mining Adjusted EBITDA declined $145.6 million to $937.2 million, primarily due to a 13.5 million ton volume decrease as a result of lower utility coal demand based on natural gas prices and a planned reduction in volumes associated with export shipments from the Twentymile Mine. U.S. Mining costs per ton improved 5 percent as a result of lower fuel expense and cost savings initiatives.

Despite approximately $420 million in impacts from lower pricing, 2015 Australian Mining Adjusted EBITDA increased $62.4 million to $175.4 million on sharply lower costs. Cost improvements included the benefit of a weaker Australian dollar, lower fuel prices, operational improvements and mine plan changes announced previously in the year. These resulted in record low costs for this platform of $51.07 per ton, even with lower volumes. 2015 Australian Metallurgical gross margins were adversely impacted by over $2.50 per ton from the Burton Mine, the company's only contractor-operated mine. Australian volumes decreased to 35.8 million tons and included 15.7 million tons of metallurgical coal sold at $75.04 per ton and 12.6 million tons of export thermal coal at $53.76 per ton, with the remainder delivered under domestic thermal contracts.

Trading and Brokerage Adjusted EBITDA for 2015 increased $12.1 million to $27.0 million, primarily due to favorable trading activities and a $7 million litigation settlement benefit recorded in the third quarter.

Full-year results include impairment charges of $1.28 billion, including $377.0 million in the fourth quarter. Full-year impairment charges included $969.2 million largely related to certain Australian metallurgical coal assets and $308.6 million primarily from certain non-producing reserve and non-mining assets in the United States. Results also include $67.8 million in debt extinguishment charges from refinancing the company's 2016 Senior Notes in the first half of 2015. Peabody's 2015 tax benefit totaled $135.0 million compared to a tax provision of $201.2 million the prior year. The changes include a $75.3 million benefit related to

impairments recorded in 2015 as well as a $284.0 million valuation allowance recorded in 2014 against deferred U.S. income tax assets.

Loss from Continuing Operations totaled $1.86 billion compared to $749.1 million in the prior year. Diluted Loss from Continuing Operations totaled $(102.62) per share and Adjusted Diluted EPS totaled $(36.39), which reflects adjustments from the 1-for-15 reverse stock split enacted in the fourth quarter. Loss from Discontinued Operations totaled $182.2 million.

2015 Operating Cash Flows reflect a usage of $14.4 million as cash generated by the operations was not sufficient to cover cash interest and health benefit trust payments. Proceeds from property disposals generated approximately $70 million in cash, while capital spending of $126.8 million was at the lowest level since 2001.

Regarding the company's liquidity position:

- Liquidity totaled $1.20 billion at the end of December. Peabody also had $709.0 million in letters of credit.
- The company accessed the remaining capacity under its $1.65 billion revolving credit facility, which provides Peabody with the maximum amount of control and flexibility with respect to its liquidity position in light of continued challenging market conditions.

As of Feb. 9, 2016, liquidity totaled $902.6 million, which consisted of $778.5 million in cash, $123.0 million available under the company's accounts receivable securitization and the remainder under the revolving credit facility. Peabody also had $823.7 million in letters of credit.

Peabody has previously disclosed that reported Adjusted EBITDA differs from the credit agreement terms used for calculating compliance. The adjustments may include, in certain instances, cash proceeds from asset monetization activities.

Peabody continues to qualify for self-bonding in all relevant states and, in the fourth quarter, the state of Wyoming reaffirmed self-bonding eligibility for the North Antelope Rochelle and Rawhide surface mines.

GLOBAL COAL MARKETS

Slowing global economic growth drove a wide range of commodity prices lower in 2015, resulting in the largest broad commodity market decline since 1991. Seaborne coal prices continued to fall in 2015 as a reduction in Chinese imports more than offset supply cutbacks, and U.S. coal demand was impacted by lower natural gas prices.

Within seaborne metallurgical coal markets, domestic Chinese steel demand declined approximately 5 percent in 2015 due to reduced economic growth and oversupply in the property sector, while steel production declined 2 percent. As a result, China was a net exporter of "refined" metallurgical coal in 2015 as steel exports increased 20 percent to a new record of 110 million tonnes, while Chinese metallurgical coal imports decreased more than 20 percent.

Metallurgical coal price settlements declined throughout the year, and first quarter 2016 settlements for premium hard coking coal fell 9 percent to $81 per tonne. The benchmark for low-vol PCI eased from $71 to $69 per tonne, showing relative strength to the premium coking coal product. Seaborne metallurgical coal demand declined approximately 15 million tonnes in 2015 resulting in accelerated production cutbacks primarily in the U.S. and Canada. Peabody projects modest seaborne metallurgical coal supply reductions in 2016 as further declines in the U.S. overcome small production increases from other exporting nations.

In seaborne thermal coal markets, demand declined 8 percent on a nearly 75 million tonne reduction in Chinese imports, lower European demand and a decline in international liquefied natural gas prices. The overall decline in seaborne thermal demand primarily impacted U.S. and Indonesian exports, which were down 41 percent and 23 percent, respectively.

Within U.S. coal markets, demand from electric utilities declined approximately 110 million tons in 2015 on mild weather and lower natural gas prices. Natural gas prices fell nearly 40 percent in 2015 to an average of $2.63 per mm/Btu, which drove coal's share of electricity generation in the power sector down to 34 percent compared with 40 percent in the prior year. U.S. coal production declined approximately 105 million tons in 2015 as production cutbacks accelerated during the year. As a result, fourth quarter production was down approximately 50 million tons compared with the same period in 2014. Despite supply rationalizations, reduced coal demand led to utility inventories rising nearly 30 percent above prior-year levels.

Peabody expects 2016 U.S. utility coal consumption to decline approximately 40 to 60 million tons based on projected plant retirements and lower natural gas prices. The decline in demand, combined with an expected significant reduction in utility stockpiles and lower exports, is projected to result in a 150 to 170 million ton decline in 2016 U.S. coal shipments. As a result, Peabody is lowering its 2016 U.S. sales targets by 13 percent at the midpoint, and is now fully priced for the year.

2016 CORE PRIORITIES

Peabody achieved a number of accomplishments in 2015, and the company is expanding on previous successes with a major focus on operational, portfolio and financial initiatives across the business.

Core priorities for 2016 include:

- **Driving continuous improvement in safety, productivity and costs**. In 2015, Peabody transformed its operations to respond to difficult market conditions. The company set a new record for safety, with a 13 percent reduction in the global safety incidence rate to 1.25 per 200,000 hours worked for employees and contractors. In the U.S. and Australia, Peabody improved costs by 5 percent and 24 percent, respectively, and gross margins across four of the company's five operating segments averaged 26

percent. 2015 capital spending declined 35 percent, and extensive efforts were advanced to streamline the organization leading to a 22 percent reduction in SG&A expenses, the lowest levels in nearly a decade. Given ongoing market challenges, the company continues to drive cost improvements at all levels of the organization.

- **Preserving liquidity while reducing debt**. The company continued to preserve liquidity in 2015 by completing a bond offering, modifying its credit agreement, reducing costs and lowering capital spending. Peabody and its advisors are currently in discussions with debt holders to evaluate financial alternatives, including potential debt exchanges, debt buybacks and new financing, to preserve liquidity and delever the balance sheet. Peabody also has a number of committed obligations that expire or meaningfully decline in the next two years:
  - The company's final PRB reserve installment of approximately $250 million is scheduled to be paid in the second half of 2016. The payment is related to the company's last lease-by-application process in 2012. As a result of investments in prior years, Peabody's PRB reserves represent more than 25 years of current production, which provides a competitive advantage relative to other producers.
  - Peabody's existing currency and fuel hedges decline in 2016 and expire by the end of 2017. As these positions expire, the company expects progressively lower cash settlements in 2016 and 2017 relative to realized 2015 hedge losses of $436.8 million.
  - The company proactively assigned excess Australian port capacity to another producer, which is expected to reduce infrastructure costs by approximately $60 million through 2020. In addition, Peabody recently amended contracts to reduce certain U.S. transportation and logistics costs expected to be due in early 2017. In connection with these amendments, Peabody will realize a net reduction of approximately $45 million in estimated liquidated damage payments that otherwise would have become due in early 2017.
  - The company recently amended its 2013 agreement with the United Mine Workers of America, improving Peabody's expected 2017 cash flows by $70 million while deferring the 2016 payments over 10 months.
- **Reshaping the portfolio to unlock value**. Peabody announced the planned sale of its New Mexico and Colorado assets for $358 million in November, and the purchaser is currently arranging financing. Peabody also announced plans to divest its interest in the Prairie State Energy Campus for $57 million. In 2015, the company realized cash proceeds of $70 million related to its ongoing resource management activities through the sale of surplus land and coal reserves. Peabody continues to evaluate its portfolio to

target the best markets, with a filter that includes strategic fit, value consideration, growth and cash requirements as the company further emphasizes its core mining assets in the PRB, Illinois Basin and Australia.

OUTLOOK

Peabody has lowered 2016 U.S. sales guidance by 18 to 28 million tons below 2015 levels. As a result, projected 2016 U.S. production is now fully priced, with 2017 production 35 to 45 percent unpriced based on targeted 2016 production levels. After incorporating deferrals to later periods and a change in customer mix, Peabody now has 116 million tons of PRB priced for 2016 delivery at an average of $13.30 per ton.

2016 U.S. revenues and costs per ton targets primarily reflect a reduced proportion of PRB sales compared to 2015. In the PRB, the company is working to optimize production levels and mix at the North Antelope Rochelle Mine to maximize margins. 2016 guidance includes the contributions from mines in Colorado and New Mexico, for which a sales agreement is in place.

In Australia, Peabody is lowering targeted metallurgical coal production levels in 2016 to reflect operational changes made in 2015, which is expected to result in lower PCI sales. The company also plans to place the Burton Mine on care and maintenance by the end of 2016.

Peabody expects first quarter Adjusted EBITDA to reflect current reduced seaborne coal pricing, lower PRB volumes, the impact of planned longwall moves at the Wambo and Twentymile mines, and the realization of fuel and currency hedges that are expected to improve each quarter as the year progresses. While cost improvements continue to remain a priority for Peabody, current pricing levels are a strong headwind. The company also expects to have an approximately $70 million benefit to continuing operations from the recently amended 2013 agreement with the United Mine Workers of America.

	2016 Guidance
Sales Volumes (*tons in millions*)	
U.S.	150 – 160
Australia	34 – 36
Trading & Brokerage	11 – 14
Total	195 – 210
U.S. Operations	
Revenues Per Ton	$19.65 – $19.95
Costs Per Ton	$14.70 – $15.00
Australia Operations	
Metallurgical Coal Sales	14 – 15 million tons
Export Thermal Coal Sales	12 – 13 million tons
Domestic Thermal Coal Sales	~8 million tons
Costs Per Ton	$45 – $48
Selling & Administrative Expenses	$145 – $155 million

Depreciation, Depletion and Amortization	$470 – $530 million
Capital Expenditures	$120 – $140 million

Notes: Peabody classifies its Australian mines with the Australian Metallurgical or Thermal Mining segments based on the primary customer base and reserve type. A small portion of the coal mined by the Australian Metallurgical Mining segment is of a thermal grade and vice versa. Also, Peabody may market some of its metallurgical coal products as a thermal product from time to time depending on market conditions.

Peabody Energy is the world's largest private-sector coal company and a global leader in sustainable mining, energy access and clean coal solutions. The company serves metallurgical and thermal coal customers in 25 countries on six continents. For further information, visit PeabodyEnergy.com.

-End-

Certain statements in this press release are forward-looking as defined in the Private Securities Litigation Reform Act of 1995. The company uses words such as "anticipate," "believe," "expect," "may," "forecast," "project," "should," "estimate," "plan," "outlook," "target," "likely," "will," "to be" or other similar words to identify forward-looking statements. These forward-looking statements are based on numerous assumptions that the company believes are reasonable, but they are open to a wide range of uncertainties and business risks that may cause actual results to differ materially from expectations as of Feb. 11, 2016. These factors are difficult to accurately predict and may be beyond the company's control. The company does not undertake to update its forward-looking statements. Factors that could affect the company's results include, but are not limited to: supply and demand for the company's coal products; price volatility and customer procurement practices, particularly in international seaborne products and in the company's trading and brokerage businesses; impact of alternative energy sources, including natural gas and renewables; global steel demand and the downstream impact on metallurgical coal prices; impact of weather and natural disasters on demand, production and transportation; reductions and/or deferrals of purchases by major customers and the company's ability to renew sales contracts; credit and performance risks associated with customers, suppliers, contract miners, co-shippers, and trading, banks and other financial counterparties; geologic, equipment, permitting, site access, operational risks and new technologies related to mining; transportation availability, performance and costs; availability, timing of delivery and costs of key supplies, capital equipment or commodities such as diesel fuel, steel, explosives and tires; impact of take-or-pay agreements for rail and port commitments for the delivery of coal; successful implementation of business strategies, including, without limitation, the actions we are implementing to improve our organization and respond to current market conditions; negotiation of labor contracts, employee relations and workforce availability; our ability to successfully consummate the planned sale of our assets in New Mexico and Colorado (including the purchaser's ability to successfully obtain financing) and the divestiture of our interest in the Prairie State Energy Campus; changes in postretirement benefit and pension obligations and their related funding requirements; replacement and development of coal reserves; our ability to successfully negotiate transactions with our debt holders, including debt exchanges and debt buybacks; adequate liquidity and the cost, availability and access to capital and financial markets, including our ability to secure new financing; ability to appropriately secure the company's obligations for reclamation, federal and state workers' compensation, federal coal leases and other obligations related to our operations, including our ability to remain eligible for self-bonding and/or successfully access the commercial surety market; impacts of the degree to which we are leveraged and our ability to comply with financial and other restrictive covenants in our credit agreement; effects of changes in interest rates and currency exchange rates (primarily the Australian dollar); effects of acquisitions or divestitures; economic strength and political stability of countries in which the company has operations or serves customers; legislation, regulations and court decisions or other government actions, including, but not limited to, new environmental and mine safety requirements, changes in income tax regulations, sales-related royalties, or other regulatory taxes and changes in derivative laws and regulations; any additional liabilities or obligations that we may have as a result of the Patriot Coal bankruptcy, including, without limitation, as a result of litigation filed by third parties in relation to that bankruptcy; litigation, including claims not yet asserted; terrorist attacks or security threats, including cybersecurity threats; impacts of pandemic illnesses; and other risks detailed in the company's reports filed with the Securities and Exchange Commission (SEC).

Included in the company's release of financial information accounted for in accordance with generally accepted accounting principles (GAAP) are certain non-GAAP financial measures, as defined by SEC regulations. The company has defined below the non-GAAP financial measures that are used and has included in the tables following this release reconciliations of these measures to the most directly comparable GAAP measures.

Adjusted EBITDA is used by management as the primary metric to measure our segments' operating performance. We also believe non-GAAP performance measures are used by investors to measure operating performance and lenders to measure our ability to incur and service debt. Adjusted EBITDA is defined as (loss) income from continuing operations before deducting net interest expense, income taxes, asset retirement obligation expense, depreciation, depletion and amortization, asset impairment and mine closure costs, charges for the settlement of claims and litigation related to previously divested operations and changes in deferred tax asset valuation allowance and amortization of basis difference related to equity affiliates. A reconciliation of income (loss) from continuing operations to Adjusted EBITDA is included in this release. Adjusted EBITDA is not intended to serve as an alternative to U.S. GAAP measures of performance and may not be comparable to similarly-titled measures presented by other companies.

Adjusted (Loss) Income from Continuing Operations and Adjusted Diluted EPS are defined as (loss) income from continuing operations and diluted earnings per share from continuing operations, respectively, excluding the impacts of asset impairment and mine closure costs and charges for the settlement of claims and litigation related to previously divested operations, net of tax, and the remeasurement of foreign income tax accounts on the company's income tax provision. The company calculates income tax benefits related to asset impairment and mine closure costs and charges for the settlement of claims and litigation related to previously divested operations based on the enacted tax rate in the jurisdiction in which they have been or will be realized, adjusted for the estimated recoverability of those benefits. Management also believes that excluding the impact of the remeasurement of foreign income tax accounts represents a meaningful indicator of the company's ongoing effective tax rate.

Condensed Consolidated Statements of Operations (Unaudited)
For the Quarters and Years Ended Dec. 31, 2015 and 2014

(In Millions, Except Per Share Data)

	Quarter Ended		Year Ended	
	Dec. 2015	Dec. 2014	Dec. 2015	Dec. 2014
Tons Sold	57.9	64.3	228.8	249.8
Revenues	$ 1,313.1	$ 1,684.5	$ 5,609.2	$ 6,792.2
Operating Costs and Expenses [1]	1,233.3	1,401.2	5,007.7	5,716.9
Depreciation, Depletion and Amortization	141.6	171.8	572.2	655.7
Asset Retirement Obligation Expenses	5.1	34.5	45.5	81.0
Selling and Administrative Expenses	47.6	55.5	176.4	227.1
Restructuring and Pension Settlement Charges	0.5	26.0	23.5	26.0
Other Operating (Income) Loss:				
Net Gain on Disposal of Assets	(24.8)	(15.5)	(45.0)	(41.4)
Asset Impairment	377.0	154.4	1,277.8	154.4
Loss from Equity Affiliates:				
Results of Operations [1]	3.5	9.6	12.0	49.6
Change in Deferred Tax Asset Valuation Allowance	(0.6)	52.3	(1.0)	52.3
Amortization of Basis Difference	0.7	1.7	4.9	5.7
Loss from Equity Affiliates	3.6	63.6	15.9	107.6
Operating Loss	(470.8)	(207.0)	(1,464.8)	(135.1)
Interest Income	(1.1)	(3.7)	(7.7)	(15.4)
Interest Expense:				
Interest Expense	121.4	103.7	465.0	414.0
Interest Charges Related to Litigation	—	1.5	0.4	12.6
Loss on Debt Extinguishment	—	—	67.8	1.6
Interest Expense	121.4	105.2	533.2	428.2
Loss from Continuing Operations Before Income Taxes	(591.1)	(308.5)	(1,990.3)	(547.9)
Income Tax (Benefit) Provision:				
(Benefit) Provision	(44.4)	169.1	(59.2)	203.9
Tax Benefit Related to Asset Impairment	(7.9)	—	(75.3)	—
Remeasurement Expense (Benefit) Related to Foreign Income Tax Accounts	0.5	1.2	(0.5)	(2.7)
Income Tax (Benefit) Provision	(51.8)	170.3	(135.0)	201.2
Loss from Continuing Operations, Net of Income Taxes	(539.3)	(478.8)	(1,855.3)	(749.1)
Income (Loss) from Discontinued Operations, Net of Income Taxes	20.5	(34.2)	(182.2)	(28.2)
Net Loss	(518.8)	(513.0)	(2,037.5)	(777.3)
Less: Net (Loss) Income Attributable to Noncontrolling Interests	(0.8)	1.6	7.1	9.7
Net Loss Attributable to Common Stockholders	$ (518.0)	$ (514.6)	$ (2,044.6)	$ (787.0)
Adjusted EBITDA	$ 53.0	$ 207.7	$ 434.6	$ 814.0
Diluted EPS - Loss from Continuing Operations [2][3]	$ (29.55)	$ (26.88)	$ (102.62)	$ (42.52)
Diluted EPS - Net Loss Attributable to Common Stockholders [2]	$ (28.43)	$ (28.79)	$ (112.66)	$ (44.09)
Adjusted Diluted EPS [2]	$ (9.27)	$ (18.18)	$ (36.39)	$ (34.03)

(1) Excludes items shown separately.

(2) Weighted average diluted shares outstanding were 18.2 million and 17.9 million for the quarters ended Dec. 31, 2015 and 2014, respectively, and 18.1 million and 17.9 million for the years ended Dec. 31, 2015 and 2014, respectively,as retroactively restated to reflect the company's 1-for-15 reverse stock split that became effective on Oct. 1, 2015.

(3) Reflects loss from continuing operations, net of income taxes less net (loss) income attributable to noncontrolling interests.

This information is intended to be reviewed in conjunction with the company's filings with the SEC.

Supplemental Financial Data (Unaudited)

For the Quarters and Years Ended Dec. 31, 2015 and 2014

	Quarter Ended		Year Ended	
	Dec. 2015	Dec. 2014	Dec. 2015	Dec. 2014
Revenue Summary (In Millions)				
U.S. Mining Operations	$ 840.4	$ 983.6	$ 3,529.4	$ 4,023.8
Australian Mining Operations	465.6	676.3	2,005.4	2,671.8
Trading and Brokerage Operations	0.1	12.1	42.8	58.4
Other	7.0	12.5	31.6	38.2
Total	$ 1,313.1	$ 1,684.5	$ 5,609.2	$ 6,792.2
Tons Sold (In Millions)				
Powder River Basin Mining Operations	35.7	37.3	138.8	142.6
Midwestern U.S. Mining Operations	4.6	6.1	21.2	25.0
Western U.S. Mining Operations	4.2	5.8	17.9	23.8
Australian Metallurgical Mining Operations	4.0	4.8	15.7	17.2
Australian Thermal Mining Operations	5.1	5.5	20.1	21.0
Trading and Brokerage Operations	4.3	4.8	15.1	20.2
Total	57.9	64.3	228.8	249.8
Revenues per Ton - Mining Operations				
Powder River Basin (1)	$ 13.23	$ 13.02	$ 13.45	$ 13.49
Midwestern U.S. (2)	45.59	45.99	46.18	47.99
Western U.S.	37.30	37.86	38.09	37.90
Total - U.S. (1)(2)	18.87	20.02	19.84	21.03
Australian Metallurgical	64.63	87.97	75.04	93.81
Australian Thermal	40.71	46.39	41.00	50.46
Total - Australia	51.18	65.97	55.96	69.99
Operating Costs per Ton - Mining Operations (3)				
Powder River Basin (1)	$ 9.64	$ 9.62	$ 9.97	$ 9.92
Midwestern U.S.	34.64	34.31	33.49	35.70
Western U.S.	28.43	28.08	27.78	26.69
Total - U.S. (1)	14.01	14.84	14.57	15.37
Australian Metallurgical	68.65	84.33	76.20	102.60
Australian Thermal	32.95	35.40	31.36	37.87
Total - Australia	48.58	58.44	51.07	67.03
Gross Margin per Ton - Mining Operations (3)				
Powder River Basin (1)	$ 3.59	$ 3.40	$ 3.48	$ 3.57
Midwestern U.S. (2)	10.95	11.68	12.69	12.29
Western U.S.	8.87	9.78	10.31	11.21
Total - U.S. (1)(2)	4.86	5.18	5.27	5.66
Australian Metallurgical	(4.02)	3.64	(1.16)	(8.79)
Australian Thermal	7.76	10.99	9.64	12.59
Total - Australia	2.60	7.53	4.89	2.96
Other Supplemental Financial Data (In Millions)				
Adjusted EBITDA - U.S. Mining	$ 216.2	$ 254.3	$ 937.2	$ 1,082.8
Adjusted EBITDA - Australian Mining	23.7	77.3	175.4	113.0
Adjusted EBITDA - Trading and Brokerage	(3.4)	7.2	27.0	14.9
Adjusted EBITDA - Resource Management (4)	14.9	16.2	32.2	30.9
Corporate Hedging Results	(110.2)	(42.4)	(436.8)	(49.6)
Selling and Administrative Expenses	(47.6)	(55.5)	(176.4)	(227.1)
Restructuring and Pension Charges	(0.5)	(26.0)	(23.5)	(26.0)
Other Operating Costs, Net (5)	(40.1)	(23.4)	(100.5)	(124.9)
Adjusted EBITDA	53.0	207.7	434.6	814.0
Operating Cash Flows	76.2	86.5	(14.4)	336.6
Acquisitions of Property, Plant and Equipment	49.9	86.9	126.8	194.4
Coal Reserve Lease Expenditures	187.4	187.3	277.2	276.7

(1) The finalization of pricing under a customer sales agreement resulted in additional Powder River Basin revenues per ton, operating costs per ton, and gross margin per ton of $0.23, $0.04, and $0.19, respectively, for the year ended Dec. 31, 2014. The impact on Total - U.S. revenues per ton, operating costs per ton, and gross margin per ton was $0.18, $0.04, and $0.14, respectively, for that period.

(2) The finalization of pricing under a customer sales agreement resulted in lower Midwestern U.S. revenues per ton and gross margin per ton of $1.56 for the quarter ended Dec. 31, 2014. The impact on Total - U.S. revenues per ton and gross margin per ton was $0.19 for that period.

(3) Includes revenue-based production taxes and royalties; excludes depreciation, depletion and amortization; asset retirement obligation expenses; selling and administrative expenses; restructuring and pension settlement charges; asset impairment; and certain other costs related to post-mining activities.

(4) Includes certain asset sales, property management costs and revenues, and coal royalty expense.

(5) Includes loss from equity affiliates (before the impact of related changes in deferred tax asset valuation allowance and amortization of basis difference), costs associated with post-mining activities, and minimum charges on certain transportation-related contracts.

This information is intended to be reviewed in conjunction with the company's filings with the SEC.

Condensed Consolidated Balance Sheets
As of Dec. 31, 2015 and 2014

(In Millions)

	(Unaudited) Dec. 31, 2015	Dec. 31, 2014
Cash and Cash Equivalents	$ 261.3	$ 298.0
Accounts Receivable, Net	221.3	563.1
Inventories	307.8	406.5
Deferred Income Taxes	53.5	80.0
Other Current Assets	402.1	363.4
Total Current Assets	1,246.0	1,711.0
Property, Plant, Equipment and Mine Development, Net	9,258.5	10,577.3
Deferred Income Taxes	2.2	0.7
Investments and Other Assets	466.0	902.1
Total Assets	$ 10,972.7	$ 13,191.1
Current Portion of Long-Term Debt	$ 23.0	$ 21.2
Accounts Payable and Accrued Expenses	1,446.3	1,809.2
Other Current Liabilities	15.6	32.7
Total Current Liabilities	1,484.9	1,863.1
Long-Term Debt, Less Current Portion	6,292.6	5,965.6
Deferred Income Taxes	69.1	89.1
Other Noncurrent Liabilities	2,256.2	2,546.8
Total Liabilities	10,102.8	10,464.6
Stockholders' Equity	869.9	2,726.5
Total Liabilities and Stockholders' Equity	$ 10,972.7	$ 13,191.1

This information is intended to be reviewed in conjunction with the company's filings with the SEC.

Reconciliation of Non-GAAP Financial Measures (Unaudited)
For the Quarters and Years Ended Dec. 31, 2015 and 2014

(In Millions, Except Per Share Data)	Quarter Ended		Year Ended	
	Dec. 2015	Dec. 2014	Dec. 2015	Dec. 2014
Adjusted EBITDA	$ 53.0	$ 207.7	$ 434.6	$ 814.0
Depreciation, Depletion and Amortization	141.6	171.8	572.2	655.7
Asset Retirement Obligation Expenses	5.1	34.5	45.5	81.0
Change in Deferred Tax Asset Valuation Allowance Related to Equity Affiliates	(0.6)	52.3	(1.0)	52.3
Amortization of Basis Difference Related to Equity Affiliates	0.7	1.7	4.9	5.7
Interest Income	(1.1)	(3.7)	(7.7)	(15.4)
Interest Expense	121.4	105.2	533.2	428.2
Income Tax (Benefit) Provision, Excluding Tax Items Shown Separately Below	(44.4)	169.1	(59.2)	203.9
Adjusted Loss from Continuing Operations [(1)]	(169.7)	(323.2)	(653.3)	(597.4)
Asset Impairment	377.0	154.4	1,277.8	154.4
Tax Benefit Related to Asset Impairment	(7.9)	—	(75.3)	—
Remeasurement Expense (Benefit) Related to Foreign Income Tax Accounts	0.5	1.2	(0.5)	(2.7)
Loss from Continuing Operations, Net of Income Taxes	$ (539.3)	$ (478.8)	$ (1,855.3)	$ (749.1)
Net (Loss) Income Attributable to Noncontrolling Interests	$ (0.8)	$ 1.6	$ 7.1	$ 9.7
Diluted EPS - Loss from Continuing Operations [(2)]	$ (29.55)	$ (26.88)	$ (102.62)	$ (42.52)
Asset Impairment, Net of Income Taxes	20.25	8.62	66.26	8.63
Remeasurement Expense (Benefit) Related to Foreign Income Tax Accounts	0.03	0.08	(0.03)	(0.14)
Adjusted Diluted EPS	$ (9.27)	$ (18.18)	$ (36.39)	$ (34.03)

(1) In order to arrive at the numerator used to calculate Adjusted Diluted EPS, it is necessary to deduct net (loss) income attributable to noncontrolling interests from this amount.

(2) Reflects loss from continuing operations, net of income taxes, less net (loss) income attributable to noncontrolling interests.

This information is intended to be reviewed in conjunction with the company's filings with the SEC.

Supplemental Hedging Data
As of January 31, 2016

Australian Dollar Hedging	**1Q 2016**	**2Q 2016**	**3Q 2016**	**4Q 2016**	**FY 2017**
Percent Hedged - as of 1/31/16	60%	58%	41%	36%	26%
Hedge Rate	$0.95	$0.91	$0.90	$0.91	$0.88
All-in Rate	$0.85	$0.83	$0.79	$0.78	$0.74

Fuel Derivatives Hedging	**1Q 2016**	**2Q 2016**	**3Q 2016**	**4Q 2016**	**FY 2017**
Percent Hedged - as of 1/31/16	70%	62%	67%	74%	45%
Hedge Price (per gallon equivalent)	$2.48	$2.61	$2.41	$2.38	$2.35
All-in Price (per gallon equivalent)	$2.02	$2.00	$1.97	$2.06	$1.73

Cost Sensitivity					
Unhedged AUD position sensitivity to $0.05 move	$10	$10	$15	$16	$74
Unhedged Fuel position sensitivity to $0.25/gal move	$2	$3	$3	$2	$18

Note: Hedge percentages only include economic hedges expected to be realized in each respective period presented. Estimated hedge percentages and cost sensitivities based on 2016 projected requirements of ~$2.0 billion AUD and ~130 million gallons of diesel fuel. Fuel hedge percentages include derivative hedges, such as swaps or options, and exclude Coal Supply Agreement hedges, which are a fuel cost pass-through provision in certain customer contracts.

Exhibit 2

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2014

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number 1-16463

PEABODY ENERGY CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	13-4004153
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
701 Market Street, St. Louis, Missouri	63101
(Address of principal executive offices)	*(Zip Code)*

(314) 342-3400
Registrant's telephone number, including area code

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class	*Name of Each Exchange on Which Registered*
Common Stock, par value $0.01 per share	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☑	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

Aggregate market value of the voting stock held by non-affiliates (shareholders who are not directors or executive officers) of the Registrant, calculated using the closing price on June 30, 2014: Common Stock, par value $0.01 per share, $4.4 billion.

Number of shares outstanding of each of the Registrant's classes of Common Stock, as of February 20, 2015: Common Stock, par value $0.01 per share, 274,817,605 shares outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Proxy Statement to be filed with the Securities and Exchange Commission in connection with the Company's 2015 Annual Meeting of Shareholders (the Company's 2015 Proxy Statement) are incorporated by reference into Part III hereof. Other documents incorporated by reference in this report are listed in the Exhibit Index of this Form 10-K.

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PEABODY ENERGY CORPORATION
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2014	2013
	(Amounts in millions, except per share data)	
ASSETS		
Current assets		
Cash and cash equivalents	$ 298.0	$ 444.0
Accounts receivable, net of allowance for doubtful accounts of $5.8 at December 31, 2014 and $7.4 at December 31, 2013	563.1	557.9
Inventories	406.5	506.7
Assets from coal trading activities, net	57.6	36.1
Deferred income taxes	80.0	66.4
Other current assets	305.8	381.6
Total current assets	1,711.0	1,992.7
Property, plant, equipment and mine development, net	10,577.3	11,082.5
Deferred income taxes	0.7	7.8
Investments and other assets	902.1	1,050.4
Total assets	$ 13,191.1	$ 14,133.4
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Current maturities of long-term debt	$ 21.2	$ 31.7
Liabilities from coal trading activities, net	32.7	6.1
Accounts payable and accrued expenses	1,809.2	1,764.0
Total current liabilities	1,863.1	1,801.8
Long-term debt, less current maturities	5,965.6	5,970.7
Deferred income taxes	89.1	40.9
Asset retirement obligations	722.3	691.8
Accrued postretirement benefit costs	781.9	684.0
Other noncurrent liabilities	1,042.6	996.3
Total liabilities	10,464.6	10,185.5
Stockholders' equity		
Preferred Stock — $0.01 per share par value; 10.0 shares authorized, no shares issued or outstanding as of December 31, 2014 or December 31, 2013	—	—
Perpetual Preferred Stock — 0.8 shares authorized, no shares issued or outstanding as of December 31, 2014 or December 31, 2013	—	—
Series Common Stock — $0.01 per share par value; 40.0 shares authorized, no shares issued or outstanding as of December 31, 2014 or December 31, 2013	—	—
Common Stock — $0.01 per share par value; 800.0 shares authorized, 285.7 shares issued and 271.7 shares outstanding as of December 31, 2014 and 283.9 shares issued and 270.1 shares outstanding as of December 31, 2013	2.9	2.8
Additional paid-in capital	2,383.3	2,340.0
Treasury stock, at cost — 14.0 shares as of December 31, 2014 and 13.8 shares as of December 31, 2013	(467.1)	(464.7)
Retained earnings	1,570.5	2,449.8
Accumulated other comprehensive loss	(764.8)	(419.2)
Peabody Energy Corporation stockholders' equity	2,724.8	3,908.7
Noncontrolling interests	1.7	39.2
Total stockholders' equity	2,726.5	3,947.9
Total liabilities and stockholders' equity	$ 13,191.1	$ 14,133.4

See accompanying notes to consolidated financial statements

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Financial Instruments with Off-Balance Sheet Risk

As of December 31, 2014, the Company had the following financial instruments with off-balance-sheet risk:

	Reclamation Obligations	Coal Lease Obligations	Workers' Compensation Obligations	Other(1)	Total
			(Dollars in millions)		
Self bonding	$ 1,361.4	$ —	$ —	$ —	$ 1,361.4
Surety bonds	325.2	103.8	92.3	11.4	532.7
Bank guarantees	319.8	—	—	117.4	437.2
Letters of credit	17.6	—	34.1	100.9	152.6
	$ 2,024.0	$ 103.8	$ 126.4	$ 229.7	$ 2,483.9

(1) Other includes the $79.7 million in letters of credit related to Dominion Terminal Associates and the PBGC, as described below, and an additional $150.0 million in bank guarantees, letters of credit and surety bonds related to road maintenance, performance guarantees and other operations.

The Company owns a 37.5% interest in Dominion Terminal Associates, a partnership that operates a coal export terminal in Newport News, Virginia under a 30-year lease that permits the partnership to purchase the terminal at the end of the lease term for a nominal amount. The partners have severally (but not jointly) agreed to make payments under various agreements which in the aggregate provide the partnership with sufficient funds to pay rents and to cover the principal and interest payments on the floating-rate industrial revenue bonds issued by the Peninsula Ports Authority, and which are supported by letters of credit from a commercial bank. As of December 31, 2014, the Company's maximum reimbursement obligation to the commercial bank was in turn supported by four letters of credit totaling $42.7 million.

The Company is party to an agreement with the PBGC and TXU Europe Limited, an affiliate of the Company's former parent corporation, under which the Company is required to make special contributions to two of the Company's defined benefit pension plans and to maintain a $37.0 million letter of credit in favor of the PBGC. If the Company or the PBGC gives notice of an intent to terminate one or more of the covered pension plans in which liabilities are not fully funded, or if the Company fails to maintain the letter of credit, the PBGC may draw down on the letter of credit and use the proceeds to satisfy liabilities under the Employee Retirement Income Security Act of 1974, as amended. The PBGC, however, is required to first apply amounts received from a $110.0 million guarantee in place from TXU Europe Limited in favor of the PBGC before it draws on the Company's letter of credit. On November 19, 2002, TXU Europe Limited was placed under the administration process in the U.K. (a process similar to bankruptcy proceedings in the U.S.) and continues under this process as of December 31, 2014. As a result of these proceedings, TXU Europe Limited may be liquidated or otherwise reorganized in such a way as to relieve it of its obligations under its guarantee.

As of December 31, 2014, the Company's wholly-owned captive insurance subsidiary was party to a letter of credit arrangement for $22.7 million in relation to certain of its workers' compensation and other insurance-related obligations whereby that subsidiary has pledged $32.6 million of its investments in debt securities as collateral. This arrangement reduces the letters of credit drawn on the Company's 2013 Credit Facility and effectively lowers the fees associated with the related letters of credit.

Patriot Bankruptcy Reorganization

Refer to Note 25. "Matters Related to the Bankruptcy Reorganization of Patriot Coal Corporation" for a discussion of certain credit support provided to Patriot as part of the settlement agreement related to its emergence from bankruptcy, which support included $81.4 million of surety bonds and $22.4 million of letters of credit included in the table above, in addition to $18.4 million of corporate guarantees to Patriot beneficiaries as of December 31, 2014.

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Exhibit 3

Exhibit 10.1

AMENDED AND RESTATED CREDIT AGREEMENT
as Amended and Restated as of September 24, 2013

among

PEABODY ENERGY CORPORATION,
as Borrower,

CITIBANK, N.A.,
as Administrative Agent, Swing Line Lender and L/C Issuer,
and
The Other Lenders Party Hereto

CITIGROUP GLOBAL MARKETS, INC.,
MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED,
BNP PARIBAS SECURITIES CORP.,
CRéDIT AGRICOLE CORPORATE AND INVESTMENT BANK,
HSBC SECURITIES (USA) INC.,
MORGAN STANLEY SENIOR FUNDING, INC.,
PNC CAPITAL MARKETS LLC,
and
RBS SECURITIES INC.,
as
Joint Lead Arrangers and Joint Book Managers

BANK OF AMERICA, N.A.,
as
Syndication Agent,
and
UNION BANK, N.A.,
COMPASS BANK,
CREDIT SUISSE SECURITIES (USA) LLC,
J.P. MORGAN SECURITIES LLC,
STANDARD CHARTERED BANK,
U.S. BANK NATIONAL ASSOCIATION
and
WELLS FARGO BANK N.A.
as
Co-Documentation Agents

EXHIBIT G-1

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PLEDGE AGREEMENT

among

PEABODY INVESTMENTS CORP.

and

CITIBANK N.A.,

as Administrative Agent

Dated as of September 24, 2013

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EXHIBIT A Form of Uncertificated Securities Control Agreement A-1

PLEDGE AGREEMENT, dated as of September 24, 2013, among Peabody Investments Corp., a Delaware corporation (the "Pledgor"), and Citibank, N.A., as administrative agent (in such capacity, the "Administrative Agent") for (a) the banks and other financial institutions or entities (the "Lenders") from time to time parties to the Amended and Restated Credit Agreement, dated as of the date hereof (the "Credit Agreement"), among Peabody Energy Corporation, a Delaware corporation (the "Borrower"), the Lenders, Citibank N.A., as Administrative Agent, Swing Line Lender and L/C Issuer and the other parties party thereto and (b) the other Secured Parties (as hereinafter defined). The Lenders, L/C Issuers, Swing Line Lender and Administrative Agent shall be referred to collectively herein as the "Credit Parties".

W I T N E S S E T H:

WHEREAS, pursuant to the Credit Agreement, the Lenders have severally agreed to make extensions of credit to the Borrower upon the terms and subject to the conditions set forth therein;

WHEREAS, the Borrower is a member of an affiliated group of companies that includes the Pledgor;

WHEREAS, the proceeds of the extensions of credit under the Credit Agreement will be used in part to enable the Borrower to make valuable transfers to the Pledgor in connection with the operation of their businesses;

WHEREAS, the Borrower and the Pledgor are engaged in related businesses, and the Pledgor will derive substantial direct and indirect benefit from the making of the extensions of credit under the Credit Agreement; and

WHEREAS, it is a condition precedent to the obligation of the Lenders to make their respective extensions of credit to the Borrower under Article IV of the Credit Agreement

that the Pledgor shall have executed and delivered this Agreement to the Administrative Agent for the benefit of the Secured Parties.

NOW, THEREFORE, in consideration of the premises and to induce the Administrative Agent and the Lenders to enter into the Credit Agreement and to induce the Lenders and the L/C Issuers to make their respective extensions of credit to the Borrower thereunder and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Pledgor hereby agrees with the Administrative Agent, for the benefit of the Secured Parties, as follows:

SECTION 1. DEFINED TERMS

1.1 Definitions. (a) Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement, and the following terms which are defined in the UCC are used herein as so defined (and if defined in more than one article of the UCC shall have the meaning specified in Article 9 thereof): Certificated Security, Securities Account and Uncertificated Security.

(b) The following terms shall have the following meanings:

"Additional Pledged Stock": all Equity Interests in the Issuer acquired by the Pledgor after the date hereof.

"Agreement": this Pledge Agreement, as the same may be amended, restated, supplemented or otherwise modified from time to time.

"Collateral": as set forth in Section 2.

"Collateral Account": any collateral account established by the Administrative Agent as provided in Section 5.1.

"Controlling Parties" shall mean, prior to Payment In Full, the Required Lenders, and, thereafter, the Majority Holders.

"Credit Agreement": as set forth in the preamble hereto.

"Discharge of the Secured Obligations": (a) Payment in Full and (b) with respect to any Cash Management Obligations and Swap Obligations guaranteed under Section 2.1(a) of the Guaranty, (i) payment in full of such obligations (other than in respect of contingent obligations, indemnities and expenses related thereto that are not then payable or in existence), (ii) the entry by the Guarantors into an amendment, amendment and restatement or replacement of this Guaranty in connection with a refinancing or replacement of the Obligations that guarantees such Cash Management Obligations and Swap Obligations on substantially the same terms as the refinanced or replaced Obligations or in substantially the same manner as this Guaranty or (iii) the guarantee by the Borrower of such Cash Management Obligations and Swap Obligations or the provision by the Borrower of other credit support arrangements for the benefit of the

Qualified Counterparties with respect to such obligations that is reasonably satisfactory to them (it is understood that the Administrative Agent may rely, without further inquiry, on a certificate of a Responsible Officer of the Borrower to establish that the requirements of this clause (b) have been satisfied).

"Initial Pledged Stock": all Equity Interests in the Issuer owned by the Pledgor on the date hereof, including the Equity Interests listed on Schedule 1 hereto.

"Issuer": Peabody IC Funding Corp., a Delaware corporation.

"Majority Holders": as set forth in Section 8.1(b).

"Permitted Liens": the Liens permitted under Section 7.01 of the Credit Agreement.

"Pledged Stock": the Initial Pledged Stock and the Additional Pledged Stock.

"Proceeds": all "proceeds" as such term is defined in Section 9-102(a)(64) of the UCC and, in any event, shall include, without limitation, all dividends or other income from the Pledged Stock, collections thereon and distributions or payments with respect thereto.

"Qualified Counterparty": any Person who is a counterparty to a Specified Cash Management Agreement or Secured Hedge Agreement.

"Secured Hedge Agreement": any Swap Contract evidencing Swap Obligations.

"Secured Parties": the Credit Parties and each Qualified Counterparty.

"Securities Act": the Securities Act of 1933, as amended.

"UCC": the Uniform Commercial Code as in effect from time to time in the State of New York; provided, however, that in the event that, by reason of mandatory provisions of law, any or all of the perfection or priority of, or remedies with respect to, any Collateral is governed by the Uniform Commercial Code as enacted and in effect in a jurisdiction other than the State of New York, the term "UCC" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions hereof relating to such perfection, priority or remedies.

1.2 Other Definitional Provisions. (a) Where the context requires, terms relating to the Collateral or any part thereof, when used in relation to the Pledgor, shall refer to the Pledgor's Collateral or the relevant part thereof.

(b) The interpretative provisions of Section 1.02 of the Credit Agreement shall be incorporated herein mutatis mutandis.

(c) All references herein to provisions of the UCC shall include all successor provisions under any subsequent version or amendment to any Article of the UCC.

SECTION 2. GRANT OF SECURITY INTEREST

The Pledgor hereby assigns and transfers to the Administrative Agent, and hereby grants to the Administrative Agent, for the benefit of the Secured Parties, a security interest in, all of the following property, in each case, wherever located and now owned or at any time hereafter acquired by the Pledgor or in which the Pledgor now has or at any time in the future may acquire any right, title or interest (collectively, the "Collateral"), as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of the Secured Obligations:

(a) all Pledged Stock;

(b) all Collateral Accounts; and

(c) to the extent not otherwise included all Proceeds, products, accessions, rents and profits of any and all of the foregoing.

SECTION 3. REPRESENTATIONS AND WARRANTIES

To induce the Administrative Agent and the Lenders to enter into the Credit Agreement and to induce the Lenders and the L/C Issuers to make their respective extensions of credit to the Borrower thereunder, the Pledgor hereby represents and warrants to each Credit Parties that:

3.1 Representations in Credit Agreement. The representations and warranties set forth in Article V of the Credit Agreement as they relate to the Pledgor or to the Loan Documents to which the Pledgor is a party, each of which is hereby incorporated herein by reference mutatis mutandis, are true and correct, in all material respects, except to the extent that such representations and warranties specifically refer to an earlier date, in which case such representations and warranties shall be true and correct in all material respects as of such earlier date, and the Credit Parties shall be entitled to rely on each of such representations and warranties as if they were fully set forth herein, provided that each reference in each such representation and warranty to any Borrower's knowledge shall, for the purposes of this Section 3.l, be deemed to be a reference to the Pledgor's knowledge.

3.2 Title; No Other Liens. The Pledgor owns each item of the Collateral free and clear of any and all Liens or claims, including, without limitation, liens arising as a result of the Pledgor becoming bound (as a result of merger or otherwise) as Pledgor under a security agreement or pledge agreement entered into by another Person, except for non-consensual Liens arising by operation of law and pari passu or junior Permitted Liens under Sections 7.01(t) and 7.01(u) of the Credit Agreement. No financing statement or other public notice with respect to all or any part of the Collateral is on file or of record in any public office, except such as have been filed in favor of the Administrative Agent, for the benefit of the Secured Parties, pursuant to this Agreement or as are permitted by the Credit Agreement.

3.3 Valid, Perfected First Priority Liens. The security interests granted pursuant to this Agreement constitute a legal and valid security interest in favor of the Administrative Agent, for the benefit of the Secured Parties, securing the payment and performance of the Pledgor's Secured Obligations and upon completion of the filings and other actions specified on Schedule 2 (all of which, in the case of all filings and other documents referred to on said Schedule, have been delivered to the Administrative Agent in duly completed and duly executed form, as applicable, and may be filed by the Administrative Agent at any time) and payment of all filing fees, will constitute fully perfected security interests in all of the Collateral prior to all other Liens on the Collateral except for non-consensual Liens arising by operation of law and pari passu Permitted Liens under Sections 7.01(t) and 7.01(u) of the Credit Agreement. To the extent requested by the Administrative Agent, the Pledgor has taken all actions necessary, including without limitation those specified in Section 4.2 to establish the Administrative Agent's "control" (within the meanings of Sections 8-106 and 9-106 of the UCC) over any portion of the Collateral constituting Certificated Securities or Uncertificated Securities.

3.4 Name; Jurisdiction of Organization, Etc. As of the Closing Date, (a) the Pledgor's exact legal name (as indicated on the public record of the Pledgor's jurisdiction of formation or organization), jurisdiction of organization and the location of the Pledgor's chief executive office or sole place of business are specified on Schedule 3; (b) the Pledgor is organized solely under the law of the jurisdiction so specified and has not filed any certificates of domestication, transfer or continuance in any other jurisdiction; (c) except as otherwise indicated on Schedule 3, the jurisdiction of the Pledgor's organization or formation is required to maintain a public record showing the Pledgor to have been organized or formed; (d) except as specified on Schedule 3, it has not changed its name, jurisdiction of organization, chief executive office or sole place of business (if applicable) or its corporate structure in any way (e.g. by merger, consolidation, change in corporate form or otherwise) within the past five years and has not within the last five years become bound (whether as a result of merger or otherwise) as Pledgor under a security agreement entered into by another Person, which has not heretofore been terminated; and (e) unless otherwise stated on Schedule 3, the Pledgor is not a transmitting utility as defined in UCC § 9-102(a)(80).

3.5 Pledged Stock. (a) Schedule 1 hereto sets forth all of the Initial Pledged Stock owned by the Pledgor and such Pledged Stock constitutes 100% of the issued and outstanding Equity Interests of the Issuer. All of the shares of the Pledged Stock have been duly and validly issued and are fully paid and nonassessable.

(b) None of the Pledged Stock is credited to any Securities Account.

(c) There are no outstanding warrants, options or other rights to purchase, or shareholder, voting trust or similar agreements outstanding with respect to, or property that is convertible into, or that requires the issuance or sale of, any Pledged Stock.

SECTION 4. COVENANTS

The Pledgor covenants and agrees with the Credit Parties that, from and after the date of this Agreement until the Payment in Full:

4.1 Covenants in Credit Agreement. The Pledgor shall take, or shall refrain from taking, as the case may be, each action that is necessary to be taken or not taken, as the case may be, so that no Default or Event of Default is caused by the failure to take such action or to refrain from taking such action by the Pledgor.

4.2 Delivery and Control of Pledged Stock. If any of the Collateral becomes evidenced or represented by any Certificated Security, such Certificated Security shall be promptly delivered to the Administrative Agent, duly endorsed in a manner satisfactory to the Administrative Agent, to be held as Collateral pursuant to this Agreement. If any of the Collateral becomes evidenced or represented by an Uncertificated Security, the Pledgor shall promptly cause the Issuer either (a) to register the Administrative Agent as the registered owner of such Uncertificated Security, upon original issue or registration of transfer, or (b) to agree in writing with the Pledgor and the Administrative Agent that the Issuer will, upon an Event of Default, comply with instructions with respect to such Uncertificated Security originated by the Administrative Agent without further consent of the Pledgor, such agreement to be in substantially the form of Exhibit A or in form and substance reasonably satisfactory to the Administrative Agent.

4.3 Maintenance of Perfected Security Interest. The Pledgor shall maintain the security interest created by this Agreement as a perfected security interest having at least the priority described in Section 3.3 and shall take all reasonable actions to defend such security interest against the claims and demands of all Persons whomsoever (subject to Liens permitted to exist on the Collateral under Section 3.3).

4.4 Pledged Stock. (a) If the Pledgor shall become entitled to receive or shall receive any stock or other ownership certificate (including, without limitation, any certificate representing a stock dividend or a distribution in connection with any reclassification, increase or reduction of capital or any certificate issued in connection with any reorganization), or option or rights in respect of the Pledged Stock of the Issuer, whether in addition to, in substitution of, as a conversion of, or in exchange for, any shares of or other ownership interests in the Pledged Stock, or otherwise in respect thereof, the Pledgor shall accept the same as the agent of the Secured Parties, hold the same in trust for the Secured Parties and deliver the same forthwith to the Administrative Agent in the exact form received, duly endorsed by the Pledgor to the Administrative Agent, if required, together with an undated stock power covering such certificate duly executed in blank by the Pledgor to be held by the Administrative Agent, subject to the terms hereof, as additional collateral security for the Secured Obligations. If an Event of Default shall have occurred and be continuing and any sums of money or property so paid or distributed in respect of the Pledged Stock shall be received by the Pledgor, the Pledgor shall,

until such money or property is paid or delivered to the Administrative Agent, hold such money or property in trust for the Secured Parties, segregated from other funds of the Pledgor, as additional collateral security for the Secured Obligations. Without the prior written consent of the Administrative Agent, the Pledgor will not enter into any material agreement or undertaking restricting the right or ability of the Pledgor or, in connection with an exercise of remedies hereunder, the Administrative Agent to sell, assign or transfer any of the Pledged Stock or Proceeds thereof or any interest therein (other than any intercreditor agreement which the Pledgor is required to execute, including any Junior Lien Intercreditor Agreement or Pari-Passu Intercreditor Agreement or security agreement contemplated thereby or any debt document in respect of Indebtedness permitted to be incurred under the Credit Agreement which such document permits the Lien of the Administrative Agent on the Pledged Stock).

4.5 Voting and Other Rights with Respect to Pledged Stock. Unless an Event of Default shall have occurred and be continuing and the Pledgor shall have received notice from the Administrative Agent, the Pledgor shall be permitted to receive all dividends and distributions paid in respect of the Pledged Stock, to the extent permitted by the Credit Agreement, and to exercise all voting and corporate rights with respect to the Pledged Stock. If an Event of Default shall occur and be continuing and the Pledgor shall have received notice from the Administrative Agent: (i) all rights of the Pledgor to exercise or refrain from exercising the voting and other consensual rights with respect to Pledged Stock which it would otherwise be entitled to exercise shall cease and all such rights shall thereupon become vested in the Administrative Agent who shall thereupon have the sole right, but shall be under no obligation, to exercise or refrain from exercising such voting and other consensual rights, (ii) the Administrative Agent shall have the right to transfer all or any portion of the Pledged Stock to its name or the name of its nominee or agent, (iii) the Administrative Agent shall have the right at any time, without notice to the Pledgor, to exchange any certificates or instruments representing any Pledged Stock for certificates or instruments of smaller or larger denominations and (iv) in order to permit the Administrative Agent to exercise the voting and other consensual rights which it may be entitled to exercise pursuant hereto and to receive all dividends and other distributions which it may be entitled to receive hereunder, the Pledgor shall promptly execute and deliver (or cause to be executed and delivered) to the Administrative Agent all proxies, dividend payment orders and other instruments as the Administrative Agent may from time to time reasonably request and the Pledgor acknowledges that the Administrative Agent may utilize the power of attorney set forth herein. The Pledgor hereby authorizes and instructs the Issuer to (i) comply with any instruction received by it from the Administrative Agent in writing that (x) states that an Event of Default has occurred and is continuing and (y) is otherwise in accordance with the terms of this Agreement, without any other or further instructions from the Pledgor, and the Pledgor agrees that the Issuer shall be fully protected in so complying, and (ii) if an Event of Default shall have occurred and be continuing and the Issuer shall have received notice from the Administrative Agent, pay any dividends or other payments with respect to the Pledged Stock directly to the Administrative Agent.

SECTION 5. REMEDIAL PROVISIONS

5.1 Proceeds to be Turned Over To Agent. If an Event of Default shall occur and be continuing, all Proceeds received by the Pledgor consisting of cash, cash equivalents, checks and other near-cash items shall be held by the Pledgor in trust for the Secured Parties, segregated from other funds of the Pledgor, and shall, forthwith upon request by the Administrative Agent, be turned over to the Administrative Agent in the exact form received by the Pledgor (duly endorsed by the Pledgor to the Administrative Agent, if required). All Proceeds received by the Administrative Agent hereunder shall be held by the Administrative Agent in a Collateral Account maintained under its sole dominion and control. All Proceeds while held by the Administrative Agent in a Collateral Account (or by the Pledgor in trust for the Secured Parties) shall continue to be held as collateral security for all the Secured Obligations and shall not constitute payment thereof until applied as provided in Section 5.2.

5.2 Application of Proceeds. If an Event of Default shall have occurred and be continuing, at any time at the Administrative Agent's election, the Administrative Agent may (and, if directed by the Required Lenders, shall), notwithstanding the provisions of Section 2.05(c), (d) and (e) and Section 2.06 of the Credit Agreement, apply all or any part of the Collateral and/or net Proceeds thereof (after deducting fees and expenses as provided in Section 5.3) realized through the exercise by the Administrative Agent of its remedies hereunder, whether or not held in any Collateral Account, and any proceeds of the guarantee set forth in Section 5.1 of the Guaranty (all references in this Section 5.2 to Proceeds shall include proceeds of such guarantee), in payment of the Secured Obligations in accordance with and pursuant to Section 8.4 of the Credit Agreement. Any Proceeds not applied shall be held by the Administrative Agent as Collateral.

5.3 Code and Other Remedies. (a) If an Event of Default shall occur and be continuing, the Administrative Agent, on behalf of the Secured Parties, may exercise, in addition to all other rights and remedies granted to them in this Agreement and in any other instrument or agreement securing, evidencing or relating to the Secured Obligations, all rights and remedies of a secured party under the UCC (whether or not the UCC applies to the affected Collateral) and all rights under any other applicable law or in equity. Without limiting the generality of the foregoing, the Administrative Agent, without demand of performance or other demand, defense, presentment, protest, advertisement or notice of any kind (except any notice required by law referred to below) to or upon the Pledgor or any other Person (all and each of which demands, presentments, protests, defenses, advertisements and notices are hereby waived), may in such circumstances forthwith collect, receive, appropriate and realize upon the Collateral, or any part thereof, and/or may forthwith sell, lease, license, assign, give option or options to purchase, or otherwise dispose of and deliver the Collateral or any part thereof (or contract to do any of the foregoing), in one or more parcels at public or private sale or sales, at any exchange, broker's board or office of any Secured Party, on the internet or elsewhere upon such terms and conditions as it may deem advisable and at such prices as it may deem best, for cash or on credit or for future delivery without assumption of any credit risk. Each Secured Party shall have the right upon any such public sale or sales, and, to the extent permitted by law, upon any such private sale or sales, to purchase the whole or any part of the Collateral so sold or to become the licensor of all or any such Collateral, free of any right or equity of redemption in the Pledgor, which right or equity is hereby waived and released. For purposes of bidding and

making settlement or payment of the purchase price for all or a portion of the Collateral sold at any such sale made in accordance with the UCC or other applicable laws, including, without limitation, the Bankruptcy Code of the United States, the Administrative Agent, as agent for and representative of the Secured Parties (but not any Secured Party or Secured Parties in its or their respective individual capacities unless the Controlling Parties shall otherwise agree in writing), shall be entitled to credit bid and use and apply the Secured Obligations (or any portion thereof) as a credit on account of the purchase price for any Collateral payable by the Administrative Agent at such sale, such amount to be apportioned ratably to the Secured Obligations of the Secured Parties in accordance with their pro rata share of such Secured Obligations. Each purchaser at any such sale shall hold the property sold absolutely free from any claim or right on the part of the Pledgor, and the Pledgor hereby waives (to the extent permitted by applicable law) all rights of redemption, stay and/or appraisal which it now has or may at any time in the future have under any rule of law or statute now existing or hereafter enacted. The Pledgor agrees that, to the extent notice of sale shall be required by law, at least ten (10) days' notice to the Pledgor of the time and place of any public sale or the time after which any private sale is to be made shall constitute reasonable notification. The Administrative Agent shall not be obligated to make any sale of Collateral regardless of notice of sale having been given. The Administrative Agent may adjourn any public or private sale from time to time by announcement at the time and place fixed therefor, and such sale may, without further notice, be made at the time and place to which it was so adjourned. The Administrative Agent may sell the Collateral without giving any warranties as to the Collateral. The Administrative Agent may specifically disclaim or modify any warranties of title or the like. The foregoing will not be considered to adversely affect the commercial reasonableness of any sale of the Collateral. The Pledgor agrees that it would not be commercially unreasonable for the Administrative Agent to dispose of the Collateral or any portion thereof by using Internet sites that provide for the auction of assets of the types included in the Collateral or that have the reasonable capability of doing so, or that match buyers and sellers of assets. The Pledgor hereby waives any claims against the Administrative Agent arising by reason of the fact that the price at which any Collateral may have been sold at such a private sale was less than the price which might have been obtained at a public sale, even if the Administrative Agent accepts the first offer received and does not offer such Collateral to more than one offeree. The Administrative Agent shall have no obligation to marshal any of the Collateral.

(b) The Administrative Agent shall deduct from such Proceeds all reasonable costs and expenses of every kind incurred in connection with the exercise of its rights and remedies against the Collateral or incidental to the care or safekeeping of any of the Collateral or in any way relating to the Collateral or the rights of the Secured Parties hereunder, including, without limitation, reasonable and documented attorneys' fees and disbursements. Any net Proceeds remaining after such deductions shall be applied in accordance with Section 5.2. If the Administrative Agent sells any of the Collateral upon credit, the Pledgor will be credited only with payments actually made by the purchaser and received by the Administrative Agent. In the event the purchaser fails to pay for the Collateral, the Administrative Agent may resell the Collateral and the Pledgor shall be credited with proceeds of the sale. To the extent permitted by applicable law, the Pledgor waives all claims, damages and demands it may acquire against any Secured Party arising out of the exercise by it or them of any rights hereunder.

5.4 Effect of Securities Laws. The Pledgor recognizes that the Administrative Agent may be unable to effect a public sale of any or all of the Pledged Stock by reason of certain prohibitions contained in the Securities Act and applicable state securities laws or otherwise, and may be compelled to resort to one or more private sales thereof to a restricted group of purchasers which will be obliged to agree, among other things, to acquire such securities for their own account for investment and not with a view to the distribution or resale thereof. The Pledgor acknowledges and agrees that any such private sale may result in prices and other terms less favorable than if such sale were a public sale and, notwithstanding such circumstances, agrees that any such private sale shall be deemed to have been made in a commercially reasonable manner. The Administrative Agent shall be under no obligation to delay a sale of any of the Pledged Stock for the period of time necessary to permit the Issuer thereof to register such securities for public sale under the Securities Act, or under applicable state securities laws, even if the Issuer would agree to do so.

5.5 Deficiency. The Pledgor shall remain liable for any deficiency if the proceeds of any sale or other disposition of the Collateral are insufficient to pay its Secured Obligations and the reasonable and documented fees and disbursements of any attorneys employed by any Secured Party to collect such deficiency.

SECTION 6. POWER OF ATTORNEY AND FURTHER ASSURANCES

6.1 Administrative Agent's Appointment as Attorney-in-Fact, Etc. (a) The Pledgor hereby irrevocably constitutes and appoints the Administrative Agent and any officer or agent thereof, with full power of substitution, as its true and lawful attorney-in-fact with full irrevocable power and authority in the place and stead of the Pledgor and in the name of the Pledgor or in its own name, for the purpose of carrying out the terms of this Agreement, to take any and all appropriate action and to execute any and all documents and instruments which may be necessary or desirable to accomplish the purposes of this Agreement, and, without limiting the generality of the foregoing, the Pledgor hereby gives the Administrative Agent the power and right, on behalf of the Pledgor, without notice to or assent by the Pledgor, to do any or all of the following:

(i) in the name of the Pledgor or its own name, or otherwise, take possession of and endorse and collect any checks, drafts, notes, acceptances or other instruments for the payment of moneys with respect to any Collateral and file any claim or take any other action or proceeding in any court of law or equity or otherwise deemed appropriate by the Administrative Agent for the purpose of collecting any and all such moneys due with respect to any other Collateral whenever payable;

(ii) pay or discharge taxes and Liens levied or placed on or threatened against the Collateral, effect any repairs or purchase any insurance called for by the terms of the Loan Documents and pay all or any part of the premiums therefor and the costs thereof;

(iii) execute, in connection with any sale provided for in Section 5.3 or 5.4, any endorsements, assignments or other instruments of conveyance or transfer with respect to the Collateral; and

(iv) (1) ask or demand for, collect, and receive payment of and receipt for, any and all moneys, claims and other amounts due or to become due at any time in respect of or arising out of any Collateral; (2) sign and endorse any assignments, verifications, notices and other documents in connection with any of the Collateral; (3) commence and prosecute any suits, actions or proceedings at law or in equity in any court of competent jurisdiction to collect the Collateral or any portion thereof and to enforce any other right in respect of any Collateral; (4) defend any suit, action or proceeding brought against the Pledgor with respect to any Collateral; (5) settle, compromise or adjust any such suit, action or proceeding and, in connection therewith, give such discharges or releases as the Administrative Agent may deem appropriate; and (6) generally, sell, transfer, pledge and make any agreement with respect to or otherwise deal with any of the Collateral as fully and completely as though the Administrative Agent were the absolute owner thereof for all purposes, and do, at the Administrative Agent's option and the Pledgor's expense, at any time, or from time to time, all acts and things which the Administrative Agent deems necessary to protect, preserve or realize upon the Collateral and the Secured Parties' security interests therein and to effect the intent of this Agreement, all as fully and effectively as the Pledgor might do.

Anything in this Section 6.1(a) to the contrary notwithstanding, the Administrative Agent agrees that, except as provided in Section 6.1(b), it will not exercise any rights under the power of attorney provided for in this Section 6.1(a) unless an Event of Default shall have occurred and be continuing.

(b) If the Pledgor fails to perform or comply with any of its agreements in this Agreement, the Administrative Agent, at its option, but without any obligation so to do, may perform or comply, or otherwise cause performance or compliance, with such agreements; provided, however, that unless an Event of Default has occurred and is continuing, the Administrative Agent shall not exercise this power without first making demand on the Pledgor and the Pledgor failing to promptly comply therewith.

(c) The expenses of the Administrative Agent incurred in connection with actions undertaken as provided in this Section 6.1 shall be payable by the Pledgor to the extent that they would be payable by the Borrower pursuant to Section 10.04(a) of the Credit Agreement.

(d) The Pledgor hereby ratifies all that said attorneys shall lawfully do or cause to be done by virtue hereof. All powers, authorizations and agencies contained in this Agreement are coupled with an interest and are irrevocable until a Discharge of the Secured Obligations.

6.2 Authorization of Financing Statements. The Pledgor acknowledges that pursuant to Section 9-509(b) of the UCC and any other applicable law, the Administrative Agent is authorized to file or record financing or continuation statements, and amendments thereto, and other filing or recording documents or instruments with respect to the Collateral in

such form and in such offices as the Administrative Agent reasonably determines appropriate to perfect or maintain the perfection of the security interests of the Administrative Agent under this Agreement. The Pledgor agrees that such financing statements may describe the collateral in the same manner as described in this Agreement or such other description as the Administrative Agent, in its reasonable judgment, determines is necessary or advisable. A photographic or other reproduction of this Agreement shall be sufficient as a financing statement or other filing or recording document or instrument for filing or recording in any jurisdiction.

SECTION 7. LIEN ABSOLUTE

7.1 Security Interest Absolute. All rights of the Administrative Agent and all obligations of the Pledgor hereunder shall be absolute and unconditional irrespective of, and Pledgor hereby waives all rights, claims, and defenses that it might otherwise have (now or in the future) (other than related to payment and performance) with respect to, in each case: (a) any lack of validity or enforceability of the Credit Agreement, any other Loan Document, any of the Secured Obligations or any other agreement or instrument relating to any of the foregoing, (b) any renewal or extension of, or any increase in the amount of the Secured Obligations, any change in the time, manner or place of payment of, or in any other term of, all or any of the Secured Obligations, or any other amendment, supplement, modification or waiver of or any consent to any departure from the Credit Agreement or any other Loan Document (other than this Agreement) or any Secured Hedge Agreement or Secured Cash Management Agreement, (c) any defense, set-off or counterclaim which may at any time be available to or be asserted by the Borrower or any other Person against any Credit Party, (d) any exchange, release or nonperfection of any Lien on other collateral, or any release or amendment or waiver of or consent under or departure from any guarantee, securing or guaranteeing all or any of the Secured Obligations or (e) any other circumstance that might otherwise constitute a defense available to, or a discharge of, the Pledgor in respect of the Secured Obligations or this Agreement.

7.2 Continuing Rights. When making any demand hereunder or otherwise pursuing its rights and remedies hereunder against the Pledgor, the Administrative Agent may, but shall be under no obligation to, make a similar demand on or otherwise pursue such rights and remedies as it may have against Borrower, the Pledgor or any other Person or against any collateral security or guarantee for the Secured Obligations or any right of offset with respect thereto, and any failure by the Administrative Agent to make any such demand, to pursue such other rights or remedies or to collect any payments from Borrower, the Pledgor or any other Person or to realize upon any such collateral security or guarantee or to exercise any such right of offset, or any release of Borrower, the Pledgor or any other Person or any such collateral

security, guarantee or right of offset, shall not relieve the Pledgor of any obligation or liability hereunder, and shall not impair or affect the rights and remedies, whether express, implied or available as a matter of law, of Secured Party against the Pledgor. For the purposes hereof "demand" shall include the commencement and continuance of any legal proceedings.

SECTION 8. THE ADMINISTRATIVE AGENT

8.1 Authority of Agent. (a) The Pledgor acknowledges that the rights and responsibilities of the Administrative Agent under this Agreement with respect to any action taken by the Administrative Agent or the exercise or non-exercise by the Administrative Agent of any option, voting right, request, judgment or other right or remedy provided for herein or resulting or arising out of this Agreement shall, as between the Administrative Agent and the other Secured Parties, be governed by the Credit Agreement and by such other agreements with respect thereto as may exist from time to time among them, but, as between the Administrative Agent and the Pledgor, the Administrative Agent shall be conclusively presumed to be acting as agent for the Secured Parties with full and valid authority so to act or refrain from acting, and the Pledgor shall not be under any obligation, or entitlement, to make any inquiry respecting such authority.

(b) The Administrative Agent has been appointed to act as the Administrative Agent hereunder by the Lenders and, by their acceptance of the benefits hereof, the other Secured Parties. The Administrative Agent shall be obligated, and shall have the right hereunder, to make demands, to give notices, to exercise or refrain from exercising any rights, and to take or refrain from taking any action (including, without limitation, the release or substitution of Collateral), solely in accordance with this Agreement and the Credit Agreement; provided that the Administrative Agent shall, after Payment in Full, exercise, or refrain from exercising, any remedies provided for herein and otherwise act in accordance with the instructions of the holders of a majority (the "Majority Holders") of the sum of (x) the aggregate settlement or termination amount (exclusive of expenses and similar payments but including any early termination payments then due) under all Secured Hedge Agreements and (y) all amounts payable under Secured Cash Management Agreements (exclusive of expenses and similar payments). For purposes of the foregoing sentence, the settlement or termination value for any hedge that has not been terminated or closed out at the time of the relevant determination shall be a termination, close-out unwind or equivalent value as calculated by the appropriate swap counterparties and reported to the Administrative Agent upon request or, if any such counterparty does not provide such calculation, such value as shall be determined by the Administrative Agent in its sole discretion; provided that any Secured Hedge Agreement with a termination or close-out amount that is a negative number shall be disregarded for purposes of determining the Majority Holders. The provisions of the Credit Agreement relating to the Administrative Agent, including without limitation, the provisions relating to resignation or removal of the Administrative Agent, subject to Section 8.3(e) hereof) and the powers and duties and immunities of the Administrative Agent, are incorporated herein by this reference and shall survive any termination of the Credit Agreement.

8.2 Duty of Agent. The Administrative Agent's sole duty with respect to the custody, safekeeping and physical preservation of the Collateral in its possession, under Section 9-207 of the UCC or otherwise, shall be to deal with it in the same manner as the Administrative Agent deals with similar property for its own account. Neither the Administrative Agent nor any other Secured Party nor any of their respective officers, directors, partners, employees, agents, attorneys or other advisors, attorneys-in-fact or affiliates shall be liable for failure to demand, collect or realize upon any of the Collateral or for any delay in doing so or shall be under any obligation to sell or otherwise dispose of any Collateral upon the request of the Pledgor or any other Person or to take any other action whatsoever with regard to the Collateral or any part thereof. The powers conferred on the Secured Parties hereunder are solely to protect the Secured Parties' interests in the Collateral and shall not impose any duty upon any Secured Party to exercise any such powers. The Secured Parties shall be accountable only for amounts that they actually receive as a result of the exercise of such powers, and neither they nor any of their officers, directors, partners, employees, agents, attorneys and other advisors, attorneys-in-fact or affiliates shall be responsible to the Pledgor for any act or failure to act hereunder, except to the extent that any such act or failure to act is found in a final, non-appealable judgment by a court of competent jurisdiction to have resulted from their own bad faith, gross negligence or willful misconduct.

8.3 Exculpation of the Administrative Agent. (a) The Administrative Agent shall not be responsible to any Secured Party for the execution, effectiveness, genuineness, validity, enforceability, collectability or sufficiency hereof or of any Security Document or the validity or perfection of any security interest or for any representations, warranties, recitals or statements made herein or therein or made in any written or oral statements or in any financial or other statements, instruments, reports or certificates or any other documents furnished or made by the Administrative Agent to the Secured Parties or by or on behalf of any Secured Party to the Administrative Agent or any Secured Party in connection with the Security Documents and the transactions contemplated thereby or for the financial condition or business affairs of any Loan Party or any other Person liable for the payment of any Secured Obligations, nor shall the Administrative Agent be required to ascertain or inquire as to the performance or observance of any of the terms, conditions, provisions, covenants or agreements contained in any of the Security Documents or as to the existence or possible existence of any Event of Default or Default or to make any disclosures with respect to the foregoing.

(b) Neither the Administrative Agent nor any of its officers, partners, directors, employees or agents shall be liable to the Secured Parties for any action taken or omitted by the Administrative Agent under or in connection with any of the Security Documents except to the extent caused solely and proximately by the Administrative Agent's gross negligence or willful misconduct, as determined by a final, non-appealable judgment of a court of competent jurisdiction. The Administrative Agent shall be entitled to refrain from any act or the taking of any action in connection herewith or any of the Security Documents or from the exercise of any power, discretion or authority vested in it hereunder or thereunder unless and until the Administrative Agent shall have been instructed in respect thereof by the Controlling Parties and, upon such instruction, the Administrative Agent shall be entitled to act or (where so instructed) refrain from acting, or to exercise such power, discretion or authority, in accordance with such written instructions. Without prejudice to the generality of the foregoing, (i) the Administrative Agent shall be entitled to rely, and shall be fully protected in relying, upon any

communication, instrument or document believed by it to be genuine and correct and to have been signed or sent by the proper Person or Persons, and shall be entitled to rely and shall be protected in relying on opinions and judgments of attorneys (who may be attorneys for the Pledgor and their Subsidiaries), accountants, experts and other professional advisors selected by it; and (ii) no Secured Party shall have any right of action whatsoever against the Administrative Agent as a result of the Administrative Agent acting or refraining from acting hereunder or under any of the Security Documents in accordance with the Credit Agreement or, in the limited circumstances specified in Section 8.1(b) hereof, the instructions of the Majority Holders.

(c) Without limiting the indemnification provisions of the Credit Agreement, each of the Secured Parties not party to the Credit Agreement severally agrees to indemnify the Administrative Agent, to the extent that the Administrative Agent shall not have been reimbursed by any Loan Party, for and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses (including counsel fees and disbursements) or disbursements of any kind or nature whatsoever which may be imposed on, incurred by or asserted against the Administrative Agent in exercising its powers, rights and remedies or performing its duties hereunder or under the Security Documents or otherwise in its capacity as the Administrative Agent in any way relating to or arising out of this Agreement or the Security Documents; provided, no such Secured Party shall be liable for any portion of such liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements resulting solely and proximately from the Administrative Agent's gross negligence or willful misconduct, as determined by a final, non-appealable judgment of a court of competent jurisdiction. If any indemnity furnished to the Administrative Agent for any purpose shall, in the opinion of the Administrative Agent, be insufficient or become impaired, the Administrative Agent may call for additional indemnity and cease, or not commence, to do the acts insufficiently indemnified against until such additional indemnity is furnished.

(d) No direction given to the Administrative Agent by the Secured Parties which imposes, or purports to impose, upon the Administrative Agent any obligation not set forth in or arising under this Agreement or any Security Document accepted or entered into by the Administrative Agent shall be binding upon the Administrative Agent.

(e) Prior to Payment in Full, the Administrative Agent may resign at any time in accordance with Section 9.06 of the Credit Agreement. After the Administrative Agent's resignation in accordance with Section 9.06 of the Credit Agreement, the provisions of Section 8 hereof and of Section 9.06 of the Credit Agreement shall continue in effect for its benefit in respect of any actions taken or omitted to be taken by it while it was acting as the Administrative Agent. Upon the acceptance of any appointment as the Administrative Agent by a successor Administrative Agent in accordance with Section 9.06 of the Credit Agreement, the retiring Administrative Agent shall promptly transfer all Collateral within its possession or control to the possession or control of the successor Administrative Agent and shall execute and deliver such notices, instructions and assignments as may be necessary or desirable to transfer the rights of the Administrative Agent in respect of the Collateral to the successor Administrative Agent. From and after Payment in Full, the Majority Holders shall be entitled to appoint the successor agent upon the resignation of the Administrative Agent.

8.4 No Individual Foreclosure, Etc. No Secured Party shall have any right individually to realize upon any of the Collateral except to the extent expressly contemplated by this Agreement or the other Loan Documents, it being understood and agreed that all powers, rights and remedies under the Loan Documents may be exercised solely by the Administrative Agent on behalf of the Secured Parties in accordance with the terms thereof. Each Secured Party, whether or not a party hereto, will be deemed, by its acceptance of the benefits of the Collateral provided under the Pledge Agreements, to have agreed to the foregoing provisions and the other provisions of this Agreement. Without limiting the generality of the foregoing, each Secured Party authorizes the Administrative Agent to credit bid all or any part of the Secured Obligations held by it.

8.5 Qualified Counterparties. No Qualified Counterparty that obtains the benefits of the Security Documents or any Collateral by virtue of the provisions of the Credit Agreement or of the Security Documents (other than as a Majority Holder pursuant to the provisions of Section 8.1(b)), shall have any right to notice of any action or to consent to, direct or object to any action under any Loan Document or otherwise in respect of the Collateral (including the release or impairment of any Collateral) other than in its capacity as a Lender and, in such case, only to the extent expressly provided in the Loan Documents. Notwithstanding any other provision of this Agreement to the contrary, the Administrative Agent shall not be required to verify the payment of, or that other satisfactory arrangements have been made with respect to, Secured Obligations arising under Secured Hedge Agreements and Secured Cash Management Agreements unless the Administrative Agent has received written notice of such Secured Obligations, together with such supporting documentation as the Administrative Agent may request, from the applicable Qualified Counterparty.

SECTION 9. MISCELLANEOUS

9.1 Amendments in Writing. None of the terms or provisions of this Agreement may be waived, amended, supplemented or otherwise modified except in accordance with Section 10.01 of the Credit Agreement. After the Payment in Full, the provisions of this Agreement may be waived, amended, supplemented or otherwise modified by a written instrument executed by the Pledgor and the Majority Holders.

9.2 Notices. All notices, requests and demands to or upon the Administrative Agent or the Pledgor hereunder shall be effected in the manner provided for in

Section 10.02 of the Credit Agreement; provided that any such notice, request or demand to or upon the Pledgor shall be addressed to the Pledgor at its notice address set forth on Schedule 4.

9.3 No Waiver by Course of Conduct; Cumulative Remedies. No Secured Party shall by any act (except by a written instrument pursuant to Section 9.1), delay, indulgence, omission or otherwise be deemed to have waived any right or remedy hereunder or to have acquiesced to any Default or Event of Default. No failure to exercise, nor any delay in exercising, on the part of any Secured Party, any right, power or privilege hereunder shall operate as a waiver thereof. No single or partial exercise of any right, power or privilege hereunder shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. A waiver by any Secured Party of any right or remedy hereunder on any one occasion shall not be construed as a bar to any right or remedy which such Secured Party would otherwise have on any future occasion. The rights and remedies herein provided are cumulative, may be exercised singly or concurrently and are not exclusive of any other rights or remedies provided by law.

9.4 Enforcement Expenses; Indemnification. (a) The Pledgor agrees to pay or reimburse each Credit Party for all its reasonable and documented out-of-pocket costs and expenses incurred in collecting against the Pledgor under this Agreement or otherwise enforcing or preserving any rights under this Agreement and the other Loan Documents to which the Pledgor is a party, including, without limitation, the reasonable and documented fees and disbursements of counsel to each Credit Party and of counsel to the Administrative Agent to the extent the Borrower would be required to do so pursuant to Section 10.04 of the Credit Agreement.

(b) The Pledgor agrees to pay, and to save the Credit Parties, harmless from, any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever with respect to the execution, delivery, enforcement, performance and administration of this Agreement to the extent the Borrower would be required to do so pursuant to Section 10.04(b) of the Credit Agreement.

(c) The agreements in this Section 9.4 shall survive Payment in Full.

9.5 Successors and Assigns. This Agreement shall be binding upon the successors and assigns of each Pledgor and shall inure to the benefit of the Secured Parties and their successors and assigns; provided that the Pledgor may not assign, transfer or delegate any of its rights or obligations under this Agreement, except as expressly contemplated by the Credit Agreement, without the prior written consent of the Administrative Agent and any such assignment, transfer or delegation without such consent shall be null and void.

9.6 Set-Off. The Pledgor hereby irrevocably authorizes each Credit Party at any time and from time to time pursuant to, and to the extent set forth in, Section 10.08 of the Credit Agreement, upon any amount becoming due and payable hereunder, without notice to the Pledgor, any such notice being expressly waived by the Pledgor, to set-off and appropriate and apply any and all deposits (general or special, time or demand, provisional or final), in any currency, and any other credits, indebtedness or claims, in any currency, in each case whether direct or indirect, absolute or contingent, matured or unmatured, at any time held or owing by

such party to or for the credit or the account of the Pledgor, or any part thereof in such amounts as such Credit Party may elect, against and on account of the obligations and liabilities of the Pledgor to such Credit Party hereunder and claims of every nature and description of such Credit Party against the Pledgor, in any currency, arising hereunder, under the Credit Agreement or any other Loan Document, as such Credit Party may elect, whether or not such Credit Party has made any demand for payment and although such obligations, liabilities and claims may be contingent or unmatured. Each Credit Party exercising any right of set-off shall notify the Pledgor promptly of any such set-off and the application made by such Credit Party of the proceeds thereof, provided that the failure to give such notice shall not affect the validity of such set-off and application. The rights of each Credit Party under this Section 9.6 are in addition to other rights and remedies (including, without limitation, other rights of set-off) which such Credit Party may have.

9.7 Counterparts. This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts, and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of a signature of this Agreement by facsimile or other electronic transmission shall be effective as delivery of a manually executed counterpart of this Agreement.

9.8 Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction with respect to the Pledgor shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof with respect to the Pledgor, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction with respect to such Pledgor. The parties hereto shall endeavor in good-faith negotiations to replace any invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

9.9 Section Headings. The Section headings used in this Agreement are for convenience of reference only and are not to affect the construction hereof or be taken into consideration in the interpretation hereof.

9.10 Integration. This Agreement and the other Loan Documents represent the agreement of the Pledgor, the Administrative Agent and the Secured Parties with respect to the subject matter hereof and thereof, and supersedes any and all previous agreements and understandings, oral or written, relating to the subject matter hereof and thereof. There are no promises, undertakings, representations or warranties by any Secured Party relative to the subject matter hereof and thereof not expressly set forth or referred to herein or therein.

9.11 GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

9.12 Submission to Jurisdiction; Waivers. Each party hereto hereby irrevocably and unconditionally:

(a) submits for itself in any legal action or proceeding relating to this Agreement and the other Loan Documents to which it is a party, or for recognition and enforcement of any judgment in respect thereof, to the exclusive general jurisdiction of the courts of the State of New York sitting in New York County, the courts of the United States of America for the Southern District of New York, and appellate courts from any thereof;

(b) consents that any such action or proceeding may be brought in such courts and waives any objection that it may now or hereafter have to the venue of any such action or proceeding in any such court or that such action or proceeding was brought in an inconvenient court and agrees not to plead or claim the same;

(c) agrees that service of process in any such action or proceeding may be effected by mailing a copy thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, to the Pledgor at its address referred to in Section 9.2 or at such other address of which the Administrative Agent shall have been notified pursuant thereto;

(d) agrees that nothing herein shall affect the right to effect service of process in any other manner permitted by law or shall limit the right to sue in any other jurisdiction; and

(e) waives, to the maximum extent not prohibited by law, any right it may have to claim or recover in any legal action or proceeding referred to in this Section any special, exemplary, punitive or consequential damages; provided that this waiver shall not limit the reimbursement and indemnification obligations of the Pledgor under Section 9.4(b).

9.13 Acknowledgments. The Pledgor hereby acknowledges that:

(a) it has been advised by counsel in the negotiation, execution and delivery of this Agreement and the other Loan Documents to which it is a party;

(b) no Credit Party has any fiduciary relationship with or duty to the Pledgor arising out of or in connection with this Agreement or any of the other Loan Documents, and the relationship between the Pledgor, on the one hand, and the Secured Parties, on the other hand, in connection herewith or therewith is solely that of debtor and creditor; and

(c) no joint venture is created hereby or by the other Loan Documents or otherwise exists by virtue of the transactions contemplated hereby among the Secured Parties or among the Pledgor and the Secured Parties.

9.14 WAIVER OF JURY TRIAL. THE PLEDGOR AND, BY ACCEPTANCE OF THE BENEFITS HEREOF, EACH OF THE SECURED PARTIES HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AND FOR ANY COUNTERCLAIM THEREIN.

9.15 Release. (a) Upon a Discharge of the Secured Obligations, the Collateral shall be automatically released from the Liens created hereby, and this Agreement and all obligations (other than those expressly stated to survive such termination) of the Administrative Agent and the Pledgor hereunder shall terminate, all without delivery of any instrument or performance of any act by any party, and all rights to the Collateral shall revert to the Pledgor. At the request and sole expense of the Pledgor following any such termination, the Administrative Agent shall deliver to the Pledgor any Collateral held by the Administrative Agent hereunder, and execute and deliver to the Pledgor such documents as the Pledgor shall reasonably request to evidence such termination.

(b) If any of the Collateral shall be Disposed of by the Pledgor in a transaction expressly permitted by the Credit Agreement, then, the Administrative Agent, at the request and sole expense of the Pledgor, shall execute and deliver to the Pledgor all releases or other documents reasonably necessary or desirable for the release of the Liens created hereby on such Collateral provided that the Pledgor shall have delivered to the Administrative Agent, at least ten (10) Business Days prior to the date of the proposed release, a written request for release identifying the Pledgor and Collateral to be released, together with a certification by the Borrower stating that such transaction is in compliance with the Credit Agreement and the other Loan Documents and that the Proceeds of such Disposition will be applied in accordance therewith.

(c) Until Discharge of the Secured Obligations, the Pledgor acknowledges that it is not authorized to file any financing statement amendment or termination statement with respect to any financing statement originally filed in connection herewith without the prior written consent of the Administrative Agent, subject to the Pledgor's rights under Section 9-509(d) of the UCC.

IN WITNESS WHEREOF, each of the undersigned has caused this Pledge Agreement to be duly executed and delivered as of the date first above written.

PLEDGOR:

PEABODY INVESTMENTS CORP.

By: ____
Name:
Title:

ADMINISTRATIVE AGENT:

CITIBANK, N.A.
as Administrative Agent

By: ____
Name:
Title:

Schedule 1

DESCRIPTION OF PLEDGED STOCK

Pledgor	Issuer	Issuer's Jurisdiction Under New York UCC Section 9-305(a)(2)	Class of Stock	Stock Certificate No.	Percentage of Shares	No. of Shares
Peabody Investments Corp.	Peabody IC Funding Corp.	Delaware	N/A	No.1	100%	100

FILINGS AND OTHER ACTIONS REQUIRED TO PERFECT SECURITY INTERESTS

Uniform Commercial Code Filings

Secretary of State of the State of Delaware

Actions with respect to Pledged Stock

Delivery of all share certificates of Pledged Stock to the Administrative Agent

Other Actions

Delivery of undated stock power

Schedule 3

PLEDGOR'S EXACT LEGAL NAME, LOCATION OF JURISDICTION OF ORGANIZATION AND CHIEF EXECUTIVE OFFICE

Exact Legal Name	Jurisdiction of Organization	Chief Executive Office
Peabody Investments Corp.	Delaware	701 Market Street St. Louis, MO 63101

NOTICE ADDRESS OF THE PLEDGOR

Peabody Investments Corporation
701 Market St.
St. Louis, MO 63101
Attn:

Kenneth L. Wagner
Fax: (314) 342-3419
E-Mail: kwagner@peabodyenergy.com

James A. Tichenor
Fax: (314) 342-3419
E-Mail: jtichenor@peabodyenergy.com

Exhibit A to
Pledge Agreement

FORM OF UNCERTIFICATED SECURITIES CONTROL AGREEMENT

This CONTROL AGREEMENT (as amended, supplemented or otherwise modified from time to time, the "Control Agreement") dated as of _______ ___, ____, is made by and among _______________, a __________ corporation (the "Pledgor"), [NAME OF AGENT], as agent (in such capacity, the "Agent") for the Secured Parties (as defined in the Pledge Agreement referred to below), and ____________, a ____________ corporation (the "Issuer").

WHEREAS, the Pledgor has granted to the Agent for the benefit of the Secured Parties a security interest in the uncertificated securities of the Issuer owned by the Pledgor from time to time (collectively, the "Pledged Securities"), and all additions thereto and substitutions and proceeds thereof (collectively, with the Pledged Securities, the "Collateral") pursuant to a Pledge Agreement, dated as of ___________ __, ____ (as amended, restated, supplemented, or otherwise modified from time to time, the "Pledge Agreement"), among the Pledgor and the other persons party thereto as grantors in favor of the Agent.

WHEREAS, the following terms which are defined in Articles 8 and 9 of the Uniform Commercial Code in effect in the State of New York on the date hereof (the "UCC") are used herein as so defined: Adverse Claim, Control, Instruction, Proceeds and Uncertificated Security.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1. Notice of Security Interest. The Pledgor, the Agent and the Issuer are entering into this Control Agreement to perfect the Agent's security interest in the Collateral. The Issuer acknowledges that this Control Agreement constitutes written notification to the Issuer of the Agent's security interest in the Collateral. The Issuer agrees to promptly make all necessary entries or notations in its books and records to reflect the Agent's security interest in the Collateral and, upon request by the Agent if an Event of Default has occurred and is continuing, to register the Agent as the registered owner of any or all of the Pledged Securities. The Issuer acknowledges that the Agent has control over the Collateral.

SECTION 2. Collateral. The Issuer hereby represents and warrants to, and agrees with the Pledgor and the Agent that (i) the terms of any limited liability company interests or partnership interests included in the Collateral from time to time shall expressly provide that they are securities governed by Article 8 of the Uniform Commercial Code in effect from time to time in the State of [__________], (ii) the Pledged Securities are uncertificated securities, (iii) the issuer's jurisdiction is the State of [____________] or such other state of which the Issuer has notified the Agent and (iv) Schedule 1 contains a true and complete description of the Pledged Securities as of the date hereof.

SECTION 3. Control. If an Event of Default has occurred and is continuing, the Issuer hereby agrees, upon written direction from the Agent and without further consent from the Pledgor, (a) to comply with all instructions and directions of any kind originated by the Agent concerning the Collateral, to liquidate or otherwise dispose of the Collateral as and to the extent

directed by the Agent and to pay over to the Agent all proceeds without any set-off or deduction, and (b) except as otherwise directed by the Agent, not to comply with the instructions or directions of any kind originated by the Pledgor or any other person.

SECTION 4. Other Agreements. In the event of any conflict between the provisions of this Control Agreement and any other agreement governing the Pledged Securities or the Collateral, the provisions of this Control Agreement shall control.

SECTION 5. Protection of Issuer. The Issuer may rely and shall be protected in acting upon any notice, instruction or other communication that it reasonably believes to be genuine and authorized.

SECTION 6. Termination. This Control Agreement shall terminate automatically upon receipt by the Issuer of written notice executed by the Agent that (i) the Discharge of the Secured Obligations has occurred, (ii) all of the Collateral has been released or (iii) the Pledged Securities cease to be Uncertificated Securities, whichever is sooner, and the Issuer shall thereafter be relieved of all duties and obligations hereunder.

SECTION 7. Notices. All notices, requests and demands to or upon the respective parties hereto to be effective shall be in writing (including by telecopy), and, unless otherwise expressly provided herein, shall be deemed to have been duly given or made when delivered, or three (3) days after being deposited in the mail, postage prepaid, or, in the case of telecopy notice, when received, to the Pledgor's and the Agent's addresses as set forth in the Pledge Agreement, and to the Issuer's address as set forth below, or to such other address as any party may give to the others in writing for such purpose:

[Name of Issuer]
[Address of Issuer]
Attention: ________________________
Telephone: (___) ___- _______________
Telecopy: (___) ___- _______________

SECTION 8. Amendments in Writing. None of the terms or provisions of this Control Agreement may be waived, amended, supplemented or otherwise modified except by a written instrument executed by the parties hereto.

SECTION 9. Entire Agreement. This Control Agreement and the Pledge Agreement constitute the entire agreement and supersede all other prior agreements and understandings, both written and oral, among the parties with respect to the subject matter hereof.

SECTION 10. Execution in Counterparts. This Control Agreement may be executed in any number of counterparts by one or more parties to this Control Agreement and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed signature page of this Control Agreement by facsimile or other electronic transmission shall be effective as delivery of a manually executed counterpart hereof.

SECTION 11. Successors and Assigns. This Control Agreement shall be binding upon the successors and assigns of each of the parties hereto and shall inure to the benefit of the parties hereto and their respective successors and assigns, provided that neither the Pledgor nor the Issuer may assign, transfer or delegate any of its rights or obligations under this Control Agreement, except as expressly contemplated by the Credit Agreement, without the prior written consent of the Agent and any such assignment, transfer or delegation without such consent shall be null and void.

SECTION 12. Severability. Any provision of this Control Agreement which is prohibited or unenforceable in any jurisdiction with respect to the Pledgor and Issuer shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof with respect to the Pledgor and Issuer, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. The parties hereto shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

SECTION 13. Section Headings. The Section headings used in this Control Agreement are for convenience of reference only and are not to affect the construction hereof or be taken into consideration in the interpretation hereof.

SECTION 14. Submission to Jurisdiction; Waivers. Each party hereto hereby irrevocably and unconditionally:

(a) submits for itself in any legal action or proceeding relating to this Control Agreement, or for recognition and enforcement of any judgment in respect thereof, to the exclusive general jurisdiction of the courts of the State of New York sitting in New York County the Courts of the United States for the Southern District of New York, and appellate courts from any thereof;

(b) consents that any such action or proceeding may be brought in such courts and waives any objection that it may now or hereafter have to the venue of any such action or proceeding in any such court or that such action or proceeding was brought in an inconvenient court and agrees not to plead or claim the same;

(c) agrees that service of process in any such action or proceeding may be effected by mailing a copy thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, to the Pledgor at its address referred to in Section 9.2 of the Pledge Agreement or the Issuer at the address referred to in Section 7 or at such other address of which the Agent shall have been notified pursuant thereto;

(d) agrees that nothing herein shall affect the right to effect service of process in any other manner permitted by law or shall limit the right to sue in any other jurisdiction; and

(e) waives, to the maximum extent not prohibited by law, any right it may have to claim or recover in any legal action or proceeding referred to in this Section any special,

exemplary, punitive or consequential damages; provided that this waiver shall not limit the reimbursement and indemnification obligations of the Pledgor under Section 9.4(b) of the Pledge Agreement.

SECTION 15. SECTION 15. GOVERNING LAW AND JURISDICTION. **THIS CONTROL AGREEMENT HAS BEEN DELIVERED TO AND ACCEPTED BY THE AGENT AND WILL BE DEEMED TO BE MADE IN THE STATE OF NEW YORK. THIS CONTROL AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.**

SECTION 16. WAIVER OF JURY TRIAL. **EACH PARTY HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES TRIAL BY JURY IN ANY LEGAL ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AND FOR ANY COUNTERCLAIM THEREIN.**

IN WITNESS WHEREOF, each of the undersigned has caused this Control Agreement to be duly executed and delivered as of the date first above written.

[NAME OF PLEDGOR]

By: ________________________________
Name:
Title:

[NAME OF AGENT], as Agent

By: ________________________________
Name:
Title:

[NAME OF ISSUER]

By: ________________________________
Name:
Title:

Exhibit 4

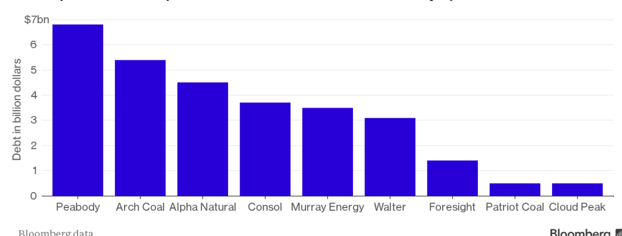
The Coal Miner `On Everybody's List' as Next Bankruptcy Victim

Jodi Xu Klein Tim Loh
jodixu TimLoh
January 20, 2016 — 6:51 PM MST
Updated on January 21, 2016 — 10:29 AM MST

- `People are wondering: What's the next shoe to drop?': Cutter
- Peabody's board needs to consider restructuring: Levin

Plummeting coal prices have pushed almost half the debt issued by U.S. coal companies into default, and for miners and their investors there's no end in sight.

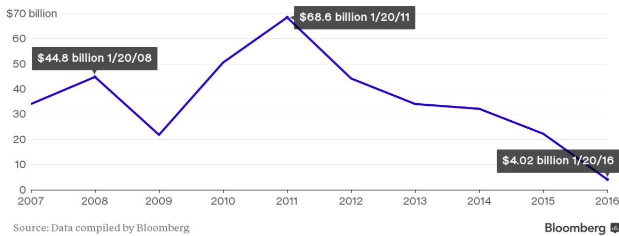
Patriot Coal Corp., Walter Energy Inc. and Alpha Natural Resources Inc. have all filed for bankruptcy in the past year. Now that Arch Coal Inc., the second largest coal miner in the U.S., has joined their ranks, investors are wondering if the biggest, Peabody Energy Corp., could be next.



Peabody's shares have been sliced roughly in half since Arch filed for Chapter 11 on Jan. 11, closing at $3.38 Wednesday. The company's 6.5 percent unsecured bonds have lost 27 percent, or 3.1 cents on the dollar, over the same period, most recently trading on Jan. 14 at 8.6 cents and yielding 99 percent, according to Trace, the bond-price reporting system of the Financial Industry Regulatory Authority.

"Lots of people are wondering: What's the next shoe to drop? Who might be the next company? Peabody's on everybody's list," said Spencer Cutter, a Bloomberg Intelligence analyst in Skillman, New Jersey, in a webcast presentation about the global coal industry on Jan. 14.

Coal producers are suffering through a historic rout. Over the past five years, the industry has lost 94 percent of its market value, from $68.6 billion to $4.02 billion.



In addition, Fitch Ratings said in a Jan. 11 report that Arch's bankruptcy pushed the sector's default rate to "an unprecedented peak" of 43 percent. So investors are now raising questions about the viability of other miners, such as Consol Energy Inc., Foresight Energy LP, Cloud Peak Energy Inc. and Murray Energy Corp.

"This once mighty industry is destined to gradually shrink in importance, and virtually disappear as an investable sector," said Margie Patel, a portfolio manager with Wells Fargo Asset Management in Boston, which manages $351 billion.

Big Debt

Peabody and Arch were among the miners that raised a total of $6.4 billion of debt in 2010 and 2011, betting that prices for metallurgical coal, which is sometimes used to produce steel, would continue to rise thanks to China's growing demand to build its cities. After reaching $330 per metric ton in 2011, prices have since tanked to a quarter of that level. Goldman Sachs Group Inc. forecasts benchmark metallurgical coal prices to fall to $75 this year.

Peabody has been working on a debt exchange with its lenders since last year, but has yet to agree to a deal -- Arch tried a similar tact before it went under and failed, accelerating its demise.

"Could Peabody do a debt exchange? Possibly, but does that really solve the big picture problem?" Mark Levin, an analyst at BB&T Capital Markets in Richmond, Virginia, wrote in a note to clients Wednesday. "The board has to ask itself if it's better off restructuring."

Capital Cushion

In terms of capital, Peabody had $1.4 billion in liquidity including cash and availability under its revolving loans as of Nov. 5, according to a company filing. Its cash dropped to $167.4 million on that day from

$334.3 million at the end of September. At that rate, the company is going to run out of cash in nine months, Bloomberg data show.

Peabody's cushion will be pressured with coal prices so low. Its interest expenses are more than its cash on hand, according to Bloomberg data. For the 12 months ended Sept. 30, it burned through $445 million.

"In a challenging market backdrop, Peabody continues its aggressive efforts to improve the business with a major focus on operational, portfolio and financial initiatives," Peabody spokeswoman Beth Sutton said via e-mail. "Our dual financial objectives are to optimize liquidity and deleverage, and we continue to pursue multiple actions on this front."

Going Bankrupt

If Peabody does file for Chapter 11, it will have plenty of company among its competitors. In less than two years, as many as five coal miners have filed for bankruptcy to restructure a total of $22 billion in debt, according to data compiled by Bloomberg.

James River Coal Co. filed for bankruptcy in April 2014 to restructure its $819 million in debt. Patriot Coal, which emerged from Chapter 11 at the end of 2013, filed again in May. Walter Energy and Alpha Natural, two of the biggest metallurgical coal producers in the U.S., filed in July and August with a combined total of $12.1 billion in debt.

In addition, Cliffs Natural Resources Inc. sold its coal business to Seneca Coal Resources for $268 million in December. Lourenco Goncalves, Cliffs' chief executive officer, explained in a statement that the sale was made "in light of the many headwinds the industry has faced over this past year."

'Many Headwinds'

Consol spokesman Brian Aiello and Cloud Peak spokesman Rick Curtsinger didn't respond to requests for comment. Gary Broadbent, spokesman for both Murray and Foresight, declined to comment.

While there's plenty of uncertainty surrounding the coal business, there is one thing that traders and industry insiders agree on: There won't be a rebound anytime soon.

"The world of coal will be very ugly in 2016," said Ted O'Brien, chief executive officer at Doyle Trading Consultants, an independent consulting firm specializing in metals and mining. "All the bankruptcy filings that took place only helped on paper. It didn't take away supply in the markets."

Before it's here, it's on the Bloomberg Terminal.

• Coal • Peabody Energy Corp • Arch Coal Inc • Debt

Exhibit 5

Seeking Alpha α

Peabody Energy Is The Next Coal Company To Go Bankrupt

Jan. 28, 2016 1:05 AM ET48 comments
by: David Desjardins

Summary

- The unsecured bonds are trading at around 8.6 cents on the dollar.
- The gross profit figure is barely sufficient to cover the interest expenses.
- The firm is burning cash quarter over quarter.

Peabody Energy (NYSE:BTU) is the world's largest private coal company. The coal miner has majority interests in 26 coal operations located throughout all major coal producing regions in the United States and Australia. Moreover, it owns the North Antelope Rochelle mine located Wyoming. It is the largest coal mine. This one single mine produces approximately 12% of the America's coal. On a daily basis, 21 trains composed of 132 cars each are filled with the coal produced from the North Antelope Rochelle mine.

(Source)

In my opinion, Peabody Energy owns the best coal mines in the world. Moreover, it is probably the most diversified player in the U.S with its operations in Australia. The problem does not reside in these aspects. The problem is its overleveraged balance sheet. The decent operating margin is dilapidated by the expenses associated with the debt load. In my opinion, the

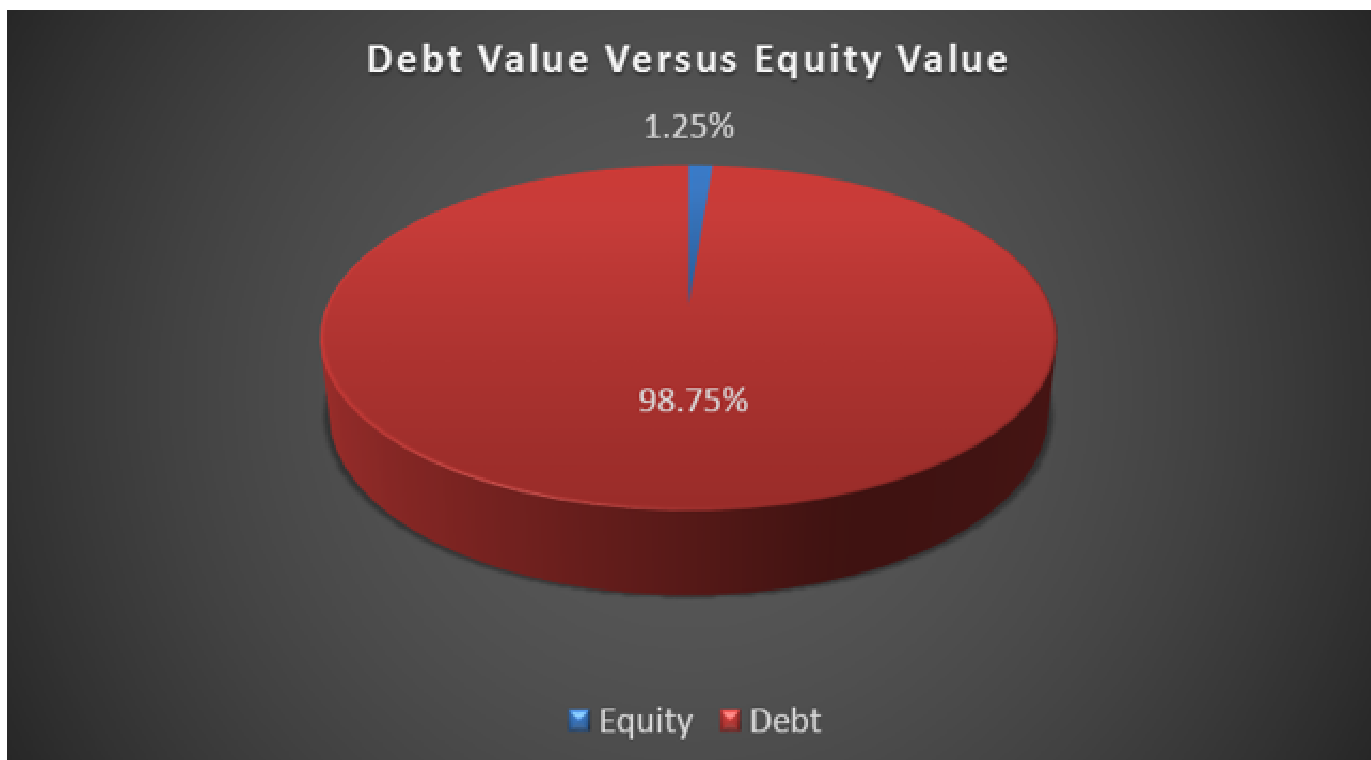
bankruptcy seems extremely probable.

This affirmation is corroborated by the credit analyst. As of January 14, the unsecured bonds are trading at 8.6 cents on the dollar for an impressive yield of 99%. The bankruptcy looks already priced-in. With the recent bankruptcy of Arch Coal, the sector's default rate stand at an unprecedented peak of 43%.

Over the last few years, 26 coal companies have gone bankrupt. Walter Energy, Alpha Natural Resources, Patriot Coal and Arch Coal are probably the best-known victims of the prolonged downturn. Consequently, 264 mines have closed according to the magazine OnEarth.

As Rick Rule said, you must be a contrarian or you will be a victim in the natural resources space. The numerous acquisition made at the top of the cycle back in 2011 were clearly not contrarian. Now, the coal companies are feeling the pain and they are victims. On the supply side, it is important to mention that many mines continue to operate during the restructuring progress under the Chapter 11. It significantly delays the production cuts.

With a market capitalization of $80 million and $6.3 billion in debt, the game is almost over for Peabody Energy. The following table illustrates this situation.



(Source)

Over the last four quarters, the firm generated $5.98 billion in revenue and the cost of the revenue was equal to $5.18 billion. Indeed, it is possible to calculate a gross profit of $805 million. It is important to remember that the gross profit only considers the variable costs associated with the operations. Indeed, it does not include variables like rent, insurance or salaries for employees not involved directly in the production chain for example.

On the other side, the interest expense generated by the debt load is extremely high. On a trailing twelve month basis, the interest expense metric is equal to $452 million. In other words, the interest expense represents 56.14% of the gross profit. Furthermore, the operating income is negative by $1.2 billion over the last four quarters. How is it possible for Peabody Energy to pay $6.3 billion in principal if the gross profit is barely sufficient to cover the interest expense? The debt exchange might be the solution. However, this avenue failed for Arch Coal.

Fiscal Year ends in September USD in Millions except per share data	2015-09	2015-06	2015-03	2014-12	2014-09
Total Revenue	1,419	1,339	1,538	1,685	1,723
Operating Revenue	1,419	1,339	1,538	1,685	1,723
Gross Profit	165	141	216	283	270
Total Expenses	1,434	2,311	1,533	1,828	1,671
Cost Of Revenue	1,254	1,199	1,322	1,401	1,453
Operating Expense	185	1,116	214	490	233
Selling General And Administration	38	42	49	56	53
Research And Development	--	--	--	--	--
Depreciation Amortization Depletion	136	147	148	172	164
Special Income Charges	6	(910)	0	(206)	14
Net Operating Interest Income Expense	--	--	--	--	--
Operating Income	(20)	(976)	2	(207)	36
Net Non Operating Interest Income Expense	(117)	(116)	(104)	(103)	(111)
Interest Income Non Operating	1	3	3	4	4
Interest Expense Non Operating	119	119	107	107	115
Other Income Expense	0	(8)	(60)	2	0
Pretax Income	(138)	(1,100)	(161)	(309)	(75)
Tax Provision	7	(93)	3	170	79
Net Income Common Stockholders	(305)	(1,045)	(177)	(515)	(151)
Net Income	(305)	(1,045)	(177)	(515)	(151)
Preferred Stock Dividends	--	--	--	--	--
Interest Income	1	3	3	4	4
Interest Expense	119	119	107	107	115
Net Interest Income	(117)	(116)	(104)	(103)	(111)
Net Income From Continuing And Discontinued O...	(305)	(1,045)	(177)	(515)	(151)
Normalized Income	(153)	(187)	(168)	(350)	(166)
Basic EPS	(16.74)	(57.60)	(9.75)	(28.89)	(8.44)
EBIT	(19)	(981)	(55)	(202)	40
EBITDA	117	(834)	93	(30)	204
Basic Continuous Operations	(8.08)	(55.65)	(9.30)	(26.97)	(8.72)
Basic Discontinuous Operations	(8.65)	(2.00)	(0.45)	(1.92)	0.28
Diluted EPS	(16.74)	(57.60)	(9.75)	(28.89)	(8.44)
Diluted Continuous Operations	(8.08)	(55.65)	(9.30)	(26.97)	(8.72)
Diluted Discontinuous Operations	(8.65)	(2.00)	(0.45)	(1.92)	0.28
Basic Average Shares	18	18	18	18	18
Diluted Average Shares	18	18	18	18	18

(Source)

Finally, the time variable becomes increasingly important. In fact, the coal miner is burning cash quarter after quarter. The

bomb is ticking and the time horizon to find a solution becomes shorter and shorter. Over the last four quarters, the operating cash flow figure is positive by only $32 million and the investing cash flow metric is negative by $371 million. So, the corporation is burning $339 million per year based on the current market conditions.

Currently, it has $334 million in cash and cash equivalent. If we add $57 million for the Prairie State Energy Campus sale and $358 million for the New Mexico and Colorado sale, it is possible to conclude that Peabody has $750 million in its bank account. Nevertheless, Arch Coal went bankrupt even with almost $700 million in cash. The situation was similar for Alpha Natural Resources.

There are two possible scenarios the avoid this terrible outcome. The first scenario is to finalize the debt exchange agreement. This scenario did not work for the other coal producers. The second scenario is to continue to sell a meaningful amount of assets at a distressed price. Based on the atmosphere in the coal industry, the totality of its assets is probably not worth the principal of $6.3 billion in my opinion.

In conclusion, the bankruptcy looks inevitable in my opinion. I believe the asset sales are only buying time and not solving the real problem. I would not touch the stock with a ten-feet pole. In few years, the coal sector will become interesting for a bargain hunter like me. In a previous article, I briefly explained why I am bullish on Alliance Resources Partner (NASDAQ:ARLP). I would not buy any coal stock at the moment. Because of the substantial short interest, I would not short Peabody Energy due to the short squeeze risk.

I am an undergraduate student, not a professional. Please take this factor into consideration. Please do your due diligence and consult your financial advisor before taking any action. I am not a financial advisor. This article expresses my opinion only.

The opinions in this document are for informational and educational purposes only and should not be construed as a recommendation to buy or sell the stocks mentioned. The information in this document is believed to be accurate, but under no circumstances should a person act upon the information contained within. We do not recommend that anyone acts upon any investment information without first consulting an investment advisor as to the suitability of such investments for his specific situation.

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Comments (48)

silence82
David

To conclude that the previous debt exchanges failed and therefore Peabody will fail in theirs seem like a sweeping statement. Did you know that the intercreditor provisions of the 1/2 lien debt allows the company to issue additional notes? This is different from Arch where they didnt have that option to restructure.

There are quite a few things u also didnt touch upon. The Veba payments saved, the AUD hedges coming off, the potential for more debt buybacks, the additional 400m of secured financinig they are obtaining from their Aussie asset and the fact 80% of their 2016 production is already fixed. These were all announced in Q4 alone and was after the fact that everyone knew Arch was going to file. If the company was going down this route, i would think that they wouldnt have wasted their time with such

substantial efforts.

28 Jan 2016, 01:25 AM

mikeskeik
Nice reply. I really like that. Thank you

28 Jan 2016, 01:41 AM

palsg
"To conclude that the previous debt exchanges failed and therefore Peabody will fail in theirs seem like a sweeping statement. Did you know that the intercreditor provisions of the 1/2 lien debt allows the company to issue additional notes?....."

Silence - in case you missed it:

"I am an undergraduate student, not a professional. Please take this factor into consideration."

28 Jan 2016, 01:47 AM

mirkomwfritz
He forgot to mention besides the cash building up in Q1 that they have a 1.4 billion guaranteed secured revolver and in the Q3 conf call clearly said this gives them long runway and they will use it strategically. If they bought a billion facevalue debt in Q4 for no more than a couple hundred thousand dollars and if they do the same in Q1 the debt can be brought down by half. Saving huge interest payments and getting debt/equity ratio in balance.

28 Jan 2016, 02:34 AM

Opti7
Silence and Mirkomwfritz, love your comments and want to add - not TOO seriously:

Definition 'revolver': A revolver is a repeating firearm that has a revolving cylinder containing multiple chambers and at least one barrel for firing...

So, what's the point of having and empathising a 'large revolver' when it cannot be used repeatedly to protect shareholders and retiree pensions in an emergency?

Are companies nowadays only allowed using the revolver for funeral salutes? I don't want to believe this...

28 Jan 2016, 04:23 AM

Random Logic
Well done piece. You have a future in the coal industry! ;)

Long ARLP from $24/share ago. ARLP should be the last firm standing. Not sure what that's going to be worth but I can't see them taking advantage of BTU's plight. As long as they can keep cranking out the distributions, I'll be OK with that.

28 Jan 2016, 01:26 AM

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mikeskeik
Warren Buffet won't allow it since he owns of the company stake

28 Jan 2016, 01:40 AM

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mikeskeik
Warren Buffet won't allow it since he owns the majority of the company's stake

28 Jan 2016, 01:42 AM

> **GsRe**
> Believe you meant George Soros who bought a million shares last year.
>
> 28 Jan 2016, 02:16 AM

> **Janis Smits**
> He sold it already. You better sell too becouse I think I won't be able to get my $2.9 before feb 11. :)
>
> 28 Jan 2016, 04:31 AM

Armino
So in summary since the rest of the coal companies filed AND the bonds are trading at 99% YTM, Peabody will file too?

28 Jan 2016, 03:06 AM

Andrew D. Crockett
trying to stay under 4. This one is a fighter.

28 Jan 2016, 03:43 AM

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investor 987
George Soros has sold out again

28 Jan 2016, 03:44 AM

Nasir Khan
This article revolves around past quarters and assumes things will remain the same and prices won't improve. After peabody energy restructues 2018 debt, two factors would be important for an increased EBIDTA and free cashflows 1) Increase in coal prices 2) roll off of charges and hedges next year which will add more than $650k to EBIDTA and free cashflows.

28 Jan 2016, 04:29 AM

Nasir Khan
i keep saying $650k. it is $650M

28 Jan 2016, 04:32 AM

T12432
I am sorry David, but after falling off my chair with hysterics, I have mustered the stamina to write you this note;
1. Peabody the biggest something...who cares
2. Peabody has the best coal mines. By volume maybe, but quality, revenue or margin....your kidding.
3. Most diversified..dam, I fell off my stool again. Peabody is probably the least diversified of the major global miners. Look at BHP, RIO & Anglo. Oh, sorry you meant US miners, Sorry on my part for thinking globally.

28 Jan 2016, 04:57 AM

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fliper2058
T12432,
What kind of post is that?

28 Jan 2016, 07:59 AM

Nasir Khan
T12432 - BTU is a pure play coal miner, however diversified between geographies as well as met coal and thermal coal. Not sure if too much diversification is a good thing. BHP recently wrote off $5B for shale oil assets. Also the struggling other commodities including copper, iron ore etc.

28 Jan 2016, 08:39 AM

T12432
Fliper,
I just get blown away by some of things people say sometimes. Some statements are so narrow minded and US centric, I just feel embarrassed for them.
I am in no way anti-US, but when you consider the global economy and a global commodity,

some of the commentary is a social back water.

28 Jan 2016, 11:10 AM

T12432
Nasir,
Back in 2010 when Peabody was buying MacArthur, there where many in the organization suggesting they should spend the money outside of coal and way less than $5b. Iron Ore was the alternative, as it utilized the same marketing and customer base as Met coal. But Greg was very much ego driven and felt being the biggest something was more important than being commodity diversified.
Well, he is now the biggest alright...the biggest looser (of shareholder equity). Having that said, Peabody would most likely still be in poor shape today if they had purchased an Iron Ore Operation. Buying high and selling low is rarely a good strategy.

28 Jan 2016, 11:23 AM

Nasir Khan
T12432 - What I liked about Boyce was that he divested all Appalachian coal through Patriot, which later became bankrupt. The idea of buying McArthur was also right as that out BTU close to the customers in Asia compared to Arch, Walters and Alpha natural.

What I did not like about Boyce was his conviction on coal supercycle and hence debt financing of McArthur. At that time Peabody's market cap was $16B and he could raise about $4B with only 25% dilution.

28 Jan 2016, 11:45 AM

T12432
Nasir,
The bundling up of poor assets into Patriot was a bit of a crappy act on the workforce and environmentally. They were floating it off for failure in an effort to ovoid closure costs and pensions. He lost a lot of respect over that.

28 Jan 2016, 12:00 PM

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fliper2058
David,
I think you pretty much spell it out. The bonds are telling the story and although there is remote stories of firms recovering from these levels they are very rare. The float of 20m shares and small market cap make the stock not a proper reflection of the situation.
BTU needs far greater steps in order to get out of this tail spin. Tendering for all unsecureds would reduce

debt further, this needs to be done anyway anyhow. Make a third lien class at $25. Make a 4th lien whatever. It can not hurt. They should constantly be tendering for debt.

28 Jan 2016, 07:58 AM

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goodquest
Constant tendering seems feasible and may work well in BTU case. BTU is unique because of its significant asset base in Australia that secure debt holders may not want to lose pushing for bankruptcy - they should be more willing to cooperate for its survival instead.

28 Jan 2016, 09:46 AM

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briian65
flip - what are they going to use to tender for these bonds?

28 Jan 2016, 10:22 AM

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fliper2058
Briian,

Does it matter? The issue is why not? Allow bondholders to make the choice. I think they would be surprised at what might be taken.
Even if 1/3 take the tender, so what? The interest savings is huge.
Throw a pile of OTM warrants in them....

I guess I am saying when you bonds are sub $10, you need to be aggressive as hell. There is no real sense of urgency here. "Just buy time". Repairing the balance sheet ASAP also allows you faster access back IN to the credit markets on any recovery. I don't get the ho-hum moves here...it's a start but this should be a no bars held attack on the debt.

Is a 4th lien at $20 worth more than a $6 debenture? Sure it is to some. Make them open to all not just 144A. That game is a scam.

28 Jan 2016, 11:19 AM

LuvMyBonds
Hi Fliper, I don't understand why they aren't using the revolver to repurchase debt. Even if the strategy is to employ the revolver as a bridge loan until other assets are sold and then the revolver repaid when the asset sale settles. At the current debt price an investment of $50MM could retire hundreds of millions of dollars of debt (but likely not more than $500MM). The impact on the equity would be staggering.

28 Jan 2016, 01:43 PM

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wilibear
"Is a 4th lien at $20 worth more than a $6 debenture? Sure it is to some. Make them open to all not just 144A. That game is a scam."

Couldn't this be what they are doing, though? First, they take out the 2018 maturity using their 1L. Then, they take out as much of the rest as they can using their 2L. Once the 2018 has vaulted ahead of everyone, remaining holders of debt should be desperate not to be left out in the cold. So, they should jump at a 50% haircut to get to 2L (and vault ahead of those left behind). Then buy up the sad remnants on the market.

So far, the lack of urgency has helped them. Bondholders have got to be more motivated now than they were six months ago.

28 Jan 2016, 01:53 PM

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briian865
flip - fair points. I guess I disagree only in the sense of the order. I think BTU should do both - exchange and then tender afterward for some of the other securities. They need to do both. But critical is the execution on the asset sales. No success there and then nothing else matters.

28 Jan 2016, 08:28 PM

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bach127
I think you should own a position in a stock if you are going to do a write up...there are people that keep writing articles on BTU ..if your that interested in a company then take a position either long or short...

28 Jan 2016, 10:14 AM

The Long Tail of Finance
Agreed. put your money where your article (mouth) is.

28 Jan 2016, 10:19 AM

T12432
Is staying out until you understand the financial restructuring...a position?

28 Jan 2016, 11:25 AM

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pjeastwood
A company is only as good as its customers and BTU customer base is declining....NAT gas and LNG are the future....King coal is slipping away

P

28 Jan 2016, 11:06 AM

DrippingEther
After so much misguided professional analysis, I welcome your "amateur" approach from a different angle.

28 Jan 2016, 11:25 AM

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bach127
nice drawdown in NG maby that will get gas prices moving in the right direction

28 Jan 2016, 12:51 PM

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johnnyb59
Flipper - you actually answered what BTU needs to do and don't even realize it. Buy time. That's exactly 100% what will make them one of the "remote" survivors. BTU will be here for years to come. If they were truly desperate they would sell more of their more valuable assets (example - some or all Australian operations). Their not there yet, and won't be. The beginning of the end of cheap & and unheard of inventory NG and oil started two weeks ago and we're a year away from a new admin in the US. I think they'll lean towards Jones Day and Lazard's advice for now instead of undergrads and Dolphins!

28 Jan 2016, 01:31 PM

Big al the irishman
Common Guys. Boyce wasn't wrong, he just ran out of time. Oh! and money.

28 Jan 2016, 04:25 PM

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briian865
David- not a bad attempt for a young fella but when you have an explosive headline like that then you better expect incoming. In order to back up such a headline you need a lot more detail from a financial perspective - analyze cash flows, liquidity, financial covenants etc.

28 Jan 2016, 08:31 PM

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bach127
yea not a bad article...just hope BTU doesn't have to declare BK....

28 Jan 2016, 10:40 PM

Andrew D. Crockett
anyone notice ACi, something weird going on in their

29 Jan 2016, 04:22 AM

etsosie
I am glad they are in trouble... get them off the Navajo reservation. all the damage to the land, environment, relocation of dine families, cancer, contaminated water, poisoning of live stock.... Peabody bomb-fire.

30 Jan 2016, 01:35 PM

1coalmo
How is your people going to make a living?

31 Jan 2016, 03:36 PM

PlasticDoll
Hope BTU would climb to 5 so I can short it again.

02 Feb 2016, 06:25 AM

MobilePreacher, Contributor
at this price, the nov 2018 bonds are a good bet. The odds are there will be a restructuring that occurs before the end of spring. These bonds are trading for 10 cents on the dollar. One payment pays for nearly a third of the money you have to put up. If they restructure for say .25 cents on the dollar you make out like a bandit.

02 Feb 2016, 07:34 AM

LuvMyBonds
The stock has bee showing resilience. The bonds have been weak. You may see that $5 print before the end of the week. Be careful, it may not be wise to short BTU in the next several weeks....

02 Feb 2016, 12:33 PM

Andrew D. Crockett
looks ready for the next cliff dive. it's absurd how far i have to zoom in to even see this stock on my charts

03 Feb 2016, 03:42 AM

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fritz1023
If you think BTU will not make it through 2016 without filing. I would say stay away from the stock and the bonds. If you think BTU has a reasonable chance of meeting their 2016 obligations and achieving a 2018 bond restructure, then it would make sense to consider the bonds. At these prices, 2016 bond payments will return you investment and essentially leave you with a free option on the company. By this I mean,

the 2026 7.875% bonds, which are selling at around $6 or $60 per $1000 face value. This issue will pay out $5.90 in the two coupons payable May1 and October 1, 2016 (adjusted for accrued interest you will pay when you buy). After that your total investment will be $10.00 per $1000 bond. Where could you get a better option with leverage like this. If the asset sale goes through, there is high probability they will make bond interest payments for 2016. If the restructure of the 2018 6% bonds goes through, there will be a reduction in interest payments and maturity relief and extended life well into 2017, where cash flow improves immensely.

I suggest you read Slide 9 from this Cloud Peak investor presentation where they show the share of coal production in the US rising for only PRB and ILB, the rest of the coal industry will be taking the production cuts on the chin.

http://bit.ly/1PX7Qau

For the less adventurous the Cloud Peak 2019 8.5% bonds can be bought with 38% yield to maturity. Cloud Peak only has $500 million in bonds outstanding, with $300 million due in 2019 and they have over $500 million in liquidity. FBR upgraded Cloud Peak to market perform today.

04 Feb 2016, 02:59 PM

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fritz1023

There is one pending report which could affect bonds and the stock. The 4.75% 2066 bonds have a build in interest suspension mechanism. It is based on asset/liability ratios and debt coverage. these ratios had to fail 3 quarters in a row in order to trigger the suspension. The Quarter ending 12-31-15, appears to be the third quarter of in a row in which the ratios have failed. I believe the management is mandated to suspend and accrue the interest payments until such time as the company meets the ratios again.

I expect it to be reported at the quarterly earnings meeting. It is good news and bad news. The bad news is, any suspension will scare the bond market. The good news is the suspension will increase cash flow by $30 million for 2016.

If you hold the 2066's, thinking you will get enough interest from the 6-15-2016 payment to double the current $2 sell price, you might want to consider taking the current bid and the accrued interest. If you are happy to own the bond and see the accrued interest build up, forget my suggestion.

04 Feb 2016, 03:20 PM

Exhibit 6

THE WALL STREET JOURNAL.

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http://www.wsj.com/articles/peabody-energy-to-draw-down-rest-of-1-65-billion-revolving-loan-1455147340

BUSINESS

Peabody Energy to Draw Down Rest of $1.65 Billion Revolving Loan

St. Louis company may max out credit facility as soon as this week

Coal company Peabody Energy Corp. hasn't abandoned efforts to avoid bankruptcy and is still trying to reach a deal with creditors out of court, according to people familiar with the matter. *PHOTO: DAVID GOLDMAN/ASSOCIATED PRESS*

By **MATT JARZEMSKY**

Feb. 10, 2016 6:35 p.m. ET

Peabody Energy Corp. is planning to draw down the remaining available balance of its $1.65 billion revolving credit facility, a move that would give the company much-needed cash to weather the coal industry's deep downturn.

The St. Louis company, which has been in talks with bondholders to reduce its $6.3 billion debt load, may max out the loan as soon as this week, according to people familiar with the matter.

As of Nov. 5, Peabody had $1.2 billion available under its revolving loan, which was provided by lenders led by Citigroup Inc., according to a regulatory filing.

RELATED COVERAGE

- Arch Coal's Bankruptcy Drags Down Mining Stocks (http://blogs.wsj.com/moneybeat/2016/01/11/arch-coals-bankruptcy-drags-down-mining-stocks/) (Jan. 11)
- Miners Bury Dividends Amid Commodity Price Slump (http://www.wsj.com/articles/miners-bury-dividends-amid-commodity-price-fall-1449608331) (Dec. 8, 2015)
- Coal Miners Feel the Burn (http://www.wsj.com/articles/coal-miners-feel-the-burn-1448582905) (Nov. 26, 2015)
- Peabody Energy to Sell New Mexico, Colorado Assets for $358 Million (http://www.wsj.com/articles/peabody-energy-to-sell-new-mexico-colorado-assets-for-358-million-1448066961) (Nov. 20, 2015)

Companies typically use revolving loans to fund small or infrequent expenses they expect to repay with cash or long-term debt like bonds. Fully drawing down on a revolving loan can signal a company is building up its cash reserves ahead of a bankruptcy filing or that it is worried lenders may at some point cut off access to credit.

Last summer, Peabody rival Alpha Natural Resources Inc. drew the balance of its revolver a little more than a month before filing for chapter 11 bankruptcy protection. A handful of heavily indebted oil-and-gas producers also have tapped their credit lines in recent weeks.

Peabody hasn't abandoned efforts to avoid bankruptcy and is still trying to reach a deal with creditors out of court, according to people familiar with the matter. The company has been working with restructuring advisers from Lazard Ltd. and Jones Day since last year, some of the people said.

Peabody and other coal companies are struggling as power plants opt for less expensive natural gas and demand falls for the type of coal used in steelmaking. The industry slide has driven several coal companies, including Alpha, Arch Coal Inc. and Patriot Coal Corp., into bankruptcy over the past year.

Peabody's shares have fallen 97% over the past year, closing Wednesday at $3.36. The company's market value currently stands at around $63 million, according to FactSet, and much of its debt trades at distressed levels. Some $1 billion of bonds Peabody sold in March 2015 recently traded at less than 10 cents on the dollar, according to MarketAxess.

The company, which is scheduled to release fourth-quarter financial results Thursday, had $334.3 million in cash as of Sept. 30.

Write to Matt Jarzemsky at matthew.jarzemsky@wsj.com

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Peabody Mine Sale Said to Hit Snag as Bowie Stalls on Financing

Michelle Davis Sridhar Natarajan Tim Loh
MichelleF_Davis TimLoh
February 19, 2016 — 5:23 PM MST
Updated on February 20, 2016 — 9:17 AM MST

- Slump in coal prices, sour credit markets said to be at issue
- Parties are said to try to renegotiate terms of transaction

Peabody Energy Corp.'s plan to sell three mines to Bowie Resource Partners has hit a snag amid the persistent slump in coal prices and souring sentiment in credit markets, according to people familiar with the matter.

Bowie Resource, which began a $650 million loan sale last month to help fund the acquisition, has put the debt-financing deal on hold as the parties try to renegotiate the terms, said the people, who asked not to be identified because they aren't authorized to speak publicly about the discussions.

Asset sales are critical to Peabody as the largest U.S. coal miner struggles to outlast the industry's worst downturn in decades. The company is looking to reduce costs and negotiate with creditors to cut debt, Chief Executive Officer Glenn Kellow said on a Feb.11 earnings call. With cheap natural gas and tougher environmental standards crimping coal sales to utilities, rivals such as Alpha Natural Resources Inc. and Arch Coal Inc. have already filed for bankruptcy.

Waning coal demand saps miner's stock.

Peabody looks forward "to a successful completion of the planned sale of assets to Bowie," said Vic Svec, a spokesman for the St. Louis-based company. Brian Settles, a representative for Bowie Resource, didn't respond to requests for comment.

Blackstone Funding

Peabody needs "as much cash as possible at this point," Kristoffer Inton, a Chicago-based analyst at Morningstar Investment Services Inc., said in a phone interview. The company's shares have lost almost all of their value in the past year, dropping from $118.95 to $2.04 on Friday.

A Bowie Resource subsidiary agreed to use its "reasonable best efforts" to arrange and obtain a sufficient amount of debt and equity financing to close the transaction announced on Nov. 20, according to a Peabody filing. Jittery debt-market investors have shunned risky deals in recent months as commodities prices continued to plunge and concerns intensified about slowing global growth.

Under the terms of the acquisition, Louisville, Kentucky-based Bowie Resource will have to pay Peabody a $20 million fee if the deal can't be done because of the buyer's failure to obtain sufficient funding, according to a company filing.

When the deal was announced in November, Bowie Resource disclosed that it had already secured equity funding commitments for the transaction, without saying who was providing it. According to the people familiar with the deal, that was to be Blackstone Group.

Blackstone's Paula Chirhart declined to comment.

In the Nov 20 statement, Peabody said it anticipated the deal would close before the end of this quarter.

Peabody had $902.6 million of liquidity as of Feb. 9. The company has tapped the remaining capacity under its $1.65 billion revolving credit facility, it said. It also had $823.7 million in letters of credit.

Before it's here, it's on the Bloomberg Terminal.

• Peabody Energy Corp • Coal • Debt

Exhibit 8

Self-Bonding Survey

Interstate Mining Compact Commission

The Interstate Mining Compact Commission (IMCC) is conducting a survey on outstanding obligations related to self-bonding in the states. At the 2014 IMCC Annual Meeting, it was determined that the states would benefit from a better sense of the self-bonded obligations held by companies across state lines. The results of the survey will yield valuable information on total outstanding self-bonded obligations, companies that are heavily self-bonded across state lines, and as a result, will also hopefully identify companies whose outstanding cross-state obligations pose extraordinary risk.

Question 1:	
How do your state's regulations treat self-bonds? (i.e. Are self-bonds allowed by your regulations? Do state regulators have discretion in accepting self-bonds or are they required to be accepted if the company meets financial health standards?)	
Alabama	Alabama regulations allow self-bonding. The permittee must meet certain financial standards as found in Alabama regulation 880X-X-9C.03(7)
Arkansas	The Arkansas self-bonding regulations are basically the same as those found in the federal regulations. We feel that the wording of the self-bonding provisions do allow the regulatory authority discretion in accepting self-bonds.
Colorado	Approval is allowed, but discretionary pending legal/regulatory/financial review.
Illinois	We allow for them, but have discretion to accept.
Indiana	Self-bonds are allowed by statute. The Director may accept self bonds if all criteria are met.
Kansas	We have never promulgated any regulations that would allow Self-bonding at coal mines.
Kentucky	The approved Kentucky Title V SMCRA program does not provide self-bonding.
Louisiana	Self-bonding is allowed by state regulations at the discretion of the Office of Conservation.
Maryland	Not provided for in law or regulation.
Mississippi	Self-bonds are allowed by State regulations. State regulators **may** accept self-bonds **if** the applicant or parent company meets **all** of the listed conditions.
Montana	Self-bonds are not allowed by Montana's regulations
New Mexico	Self-bonds are allowed. The rules state that the Director "may" accept self-bonds/ We interpret that to mean that the Director could potentially

	deny a self-bond application that met all of the required tests outlined in the rules, but the Director would need to have a very good reason for doing so.
North Dakota	Self-bonds are allowed and North Dakota's rules state that the Commission "may accept a self-bond". The Commission also has a longstanding informal policy to allow self-bonds up to 90% of the total bond required. The other 10% of bond must be in the form of a surety and/or collateral bond. The rationale for this is to have some of the required bond amount in a form that should be more readily available to address some immediate needs in the unlikely event of the bonds being forfeited at one of North Dakota's large coal mines. The financial health requirements for permittees and third-party guarantors are the same.
Ohio	Ohio's regulations currently allow for self-bonding. Ohio Administrative Code 1501:13-7-04 details the criteria for the Chief to accept a self-bond from an applicant. The Chief has discretion to refuse to accept self-bond.
Pennsylvania	Self-bonding is authorized under Pennsylvania's statute and regulations. While there is some discretion, the regulations include criteria that if met by the applicant, would qualify them for self-bonding. Note: no company has ever used self-bonding in Pennsylvania. The regulations are available at this link: http://www.pacode.com/secure/data/025/chapter86/s86.159.html
Texas	Self bonds and self bonds with third-party guarantee are allowed by the Texas Coal Mining Regulations (TCMR). The Commission has discretion in accepting a self bond or self bond with third-party guarantee, but has accepted them as long as they meet the financial criteria of the TCMR.
Utah	Self bonds are allowed if a company meets certain financial health standards.
Virginia	Self-bonds were allowed by Virginia regulations until June 30, 2014. The regulations allowed for self bonds if the financial health standard was met and evidence indicating a history of satisfactory continuous operation. The company also had to be a participant in the Virginia reclamation fund pool. The committee appointed as an advisory committee recommended no additional self bonds be accepted and no additional self bonds have been accepted since that time.
West Virginia	Yes self-bonding is allowed by West Virginia Surface Mining Rules at 38CSR2-11.3.d. Yes, the West Virginia Surface Mining Rules at 38CSR2-11.3.d.2 state the Secretary may accept. Self-Bond is defined in the WV rules as "an indemnity agreement in a sum certain payable to the Secretary, executed by the permittee and by each individual and business organization capable of influencing or controlling the investment or financial practices of the permittee by virtue of his authority as an officer or ownership of all or a significant part of the permittee, and

	supported by agreements granting the Secretary a security interest in real or personal property pledged to secure performance by the permittee.”
Wyoming	Our statutes and regulations allow self-bonding. Land Quality Division (LQD) is required to accept a self-bond if the permittee meets our requirements. [W.S. 35-11-418(d), Regulations Coal Chapter 11, Noncoal Chapter 6]. However, LQD cannot accept self-bonds for locatable minerals (bentonite, uranium, for example) if the Bureau of Land Management (BLM) is the surface owner. A BLM owned by the BLM.

Question 2:	
Does your state plan to continue allowing the use of self-bonds?	
Alabama	No entities are currently utilizing self-bonds, but we would accept if a permittee meets the criteria.
Arkansas	Our state law requires that the state regulations can be no more stringent than the federal regulations. As long as self-bonding appears in the federal regulations, we will have to have it as an option as well.
Colorado	Yes as long as companies remain compliant with legal/regulatory/financial criteria.
Illinois	Yes.
Indiana	At this time, Indiana does not have plans to disallow use of self bonds.
Kansas	We have no plans to allow self-bonding at coal mines in the future.
Kentucky	N/A
Louisiana	The Louisiana Office of Conservation has never accepted a self-bond nor does it plan to.
Maryland	N/A
Mississippi	We do not have any self-bonded permits; but do not have any plans to remove that option from the regulations.
Montana	N/A
New Mexico	Yes, we have no plans to amend the regulations regarding self-bonds.
North Dakota	Yes.
Ohio	Ohio is proposing to remove the existing regulations governing accepting self-bonding for coal mining permits.
Pennsylvania	Yes. Note: no company has ever used self-bonding in Pennsylvania

Texas	Yes.
Utah	Yes.
Virginia	No, Self Bonding was removed from Virignia regulations effective July 1, 2014.
West Virginia	Currently there are no plans to remove self-bonding from the West Virginia Surface Mining Rules.
Wyoming	Yes.

Question 3:	
What mechanism is used to determine if a company is financially health enough to qualify for self-bonding?	
Alabama	The permittee must meet certain financial standards as found in Alabama regulation 880X-X-9C.03(7)
Arkansas	Our mechanism is exactly the same as the federal mechanism.
Colorado	Company financials reviewed pursuant to Statutes/Regulations/appropriate financial practices.
Illinois	Our regulations are the same as OSM's and use the same criteria.
Indiana	See Appendix A.1
Kansas	N/A
Kentucky	N/A
Louisiana	The requirements for a self-bonded company are listed in LAC 43.XV:4305
Maryland	N/A
Mississippi	See Appendix A.2
Montana	N/A
New Mexico	See Appendix A.3
North Dakota	North Dakota uses the same financial tests that are contained in OSM regulations. The most important factor is having a bond rating of "A" or higher from Moody's, Standard and Poor's, or an equivalent rating by any National Recognized Statistical Rating Service (such as Fitch). The requirements for permittees and third-party guarantors are the same.
Ohio	See Appendix A.4
Pennsylvania	Generally, the company must pass a financial test. There are three options

	on how to do this, which are spelled out in the regulations. See Appendix A.5
Texas	See Appendix A.6
Utah	See Appendix A.7
Virginia	A financial statement audited by an independent certified public accountant. The CPA must issue their statement in the form of an unqualified opinion.
West Virginia	The Secretary may accept a self-bond from an applicant for a permit if all of the following conditions are met by the applicant or its parent corporation guarantor: See Appendix A.8
Wyoming	See Appendix A.9

Question 4:	
Does your state have plans to replace any of these bonds?	
Alabama	None are currently in use.
Arkansas	We currently do not have any self-bonds in place.
Colorado	Not at this time, pending ongoing legal, regulatory and financial reviews.
Illinois	No plans to replace them, although one of the three self-bonds (Alcoa) was recently replaced by the company as it no longer qualified.
Indiana	Not at this time.
Kansas	N/A
Kentucky	N/A
Louisiana	N/A
Maryland	N/A
Mississippi	N/A
Montana	N/A
New Mexico	Not as long as the self-bond tests continue to be met by the operators.

North Dakota	No.
Ohio	Ohio does not currently hold any self-bonds.
Pennsylvania	No company has ever used self-bonding in Pennsylvania.
Texas	Not at this time. I would note that the largest company in Texas formerly self-bonded (with third party guarantee) is no longer self-bonded due to a parent of the permittee declaring Chapter 11.
Utah	No.
Virginia	Yes, at a minimum self bond will be replaced as bond reductions are approved. Any existing self bond will be released first with the conventional bonding instrument (surety or collateral bond) remaining for bond coverage.
West Virginia	Not at this time unless they cannot meet self-bonding requirements.
Wyoming	The state requires replacement of a self-bond when the permittee no longer meets the regulatory requirements. The permittee may provide a combination of acceptable bonding instruments to comprise their required bond amount. The original bonding instrument must be submitted. Wyoming accepts: A. Cash/checks B. Certificates of Deposit 1. Must be payable solely to DEQ/Land Quality Division or DEQ/Land Quality Division and the federal government 2. Must be automatically renewable 3. All 1099's and interest are payable to the purchaser 4. The banking institution must be registered with the FDIC. C. CDARS 1. Same as B. above. D. Letters of Credit 1. Our forms are required 2. The banking institution must be authorized to transact business and located in the United States. E. Money Markets 1. Same as B. above. F. Self-Bonds 1. Our forms are required. 2. Must meet the federal and state requirements. Wyoming's requirements are stricter than the federal government. G. Surety Bonds

	1. Our forms are required. H. Treasury Bonds/Bills 1. Same as B. above.

Question 5:	
What percentage of your state's outstanding reclamation bonding is represented by self-bonds?	
Alabama	NONE.
Arkansas	0%
Colorado	Coal: $117 million self bond (57%), out of $206 million total bonds. Non Coal: $30 million self-bond (7%), out of $460 million total bonds.
Illinois	26%
Indiana	56%
Kansas	0%
Kentucky	N/A
Louisiana	0%
Maryland	None.
Mississippi	0%
Montana	N/A
New Mexico	70%
North Dakota	Self-bonds represent about 69% of the total amount of bonds and these self-bonds cover most of the bond liabilities at the State's two largest mines. Both self-bonds are guaranteed by third-party guarantors and the two companies guaranteeing the bonds have long-term contracts to purchase the coal produced at these mines.
Ohio	Zero percent.
Pennsylvania	0%
Texas	Total current self bonds or self bonds with third-party guarantee are $304,500,000 which is 19.6% of the total bonds held for coal mines in Texas.
Utah	0% in the Coal Program 1.59% in the Minerals Program

Virginia	9% Self-Bond
West Virginia	25%
Wyoming	Sixty-Three Percent (63%)

Question 6:	
What is the aggregate total of all outstanding obligations related to self-bonding in your state?	
Alabama	NONE.
Arkansas	$0.00
Colorado	Coal self bond ($117 million) + Non Coal self bond ($30 million) + $147 million self-bond.
Illinois	$104 Million
Indiana	$168,345,205
Kansas	N/A
Kentucky	N/A
Louisiana	$0
Maryland	None.
Mississippi	$0
Montana	N/A
New Mexico	$338,439,944
North Dakota	The total self-bonded amount in North Dakota is currently $175,950,000.
Ohio	Zero dollars.
Pennsylvania	$0.00
Texas	Total current self bonds or self bonds with third-party guarantee are $304,500,000 which is 19.6% of the total bonds held for coal mines in Texas.
Utah	0$ Coal $6,811,214 in the Minerals Program
Virginia	$24,964,425

West Virginia	Only one company Alpha Natural Resources Inc. with at maximum limit of $375,000,000.00, used $250,611,631.00
Wyoming	$2,138,201,079

Question 7:	
To the extent possible, please provide the total self-bonded obligation held by each obligor, respectively.	
Alabama	N/A
Arkansas	N/A
Colorado	Coal – Tri-State affiliates = $91 million (3 mines) Peabody affiliates = $26 million (5 mines) Non-Coal – Exxon Mobile + $30 million (1 mine – oil shale)
Illinois	Exxon Mobil - $17 million Peabody - $87 million
Indiana	Peabody Midwest Mining, LLC - $163,513,595 United Minerals Company, LLC - $4,831,610
Kansas	N/A
Kentucky	N/A
Louisiana	N/A
Maryland	None.
Mississippi	N/A
Montana	N/A
New Mexico	Chevron Corporation, corporate guarantor for Chevron Mining, Inc. - $48,000, 511 Peabody Investments Corporation, corporate guarantor for Peabody Natural Resources Company - $290,439,433
North Dakota	Coteau Properties Company has a self-bond on the amount of $107,100,000 by Basin Electric Power Cooperative. The Falkirk Mining Company currently has a self-bond in the amount of $68,850,000 that is guaranteed by Great River Energy. (However, we should be soon receiving bond documents to increase this to approximately $75,000,000.)
Ohio	No self-bonds are held as collateral in Ohio.
Pennsylvania	Not Applicable

Texas	See Appendix B.1
Utah	M0030004 $286,584.00 M0370001 $126,172.00 M0350002 $50,000.00 M0570006 $1,150,000.00 M0410009 $122,000.00 M0450017 $4,766,352.00 M0470010 $189,306.00 M0470022 $115,900.00 M0490002 $4,900.00
Virginia	All Self Bonds in Virginia are held by A & G Coal Corporation, a subsidiary of Southern Coal Corporation.
West Virginia	Only one company Alpha Natural Resources Inc. with at maximum limit of $375,000,000.00, used $250,611,631.00. For Dissagregation, See Appendix B.2
Wyoming	See Appendix B.3

-end survey-

Contact Information		
State	Name/ Title of person completing survey	Phone #
Alabama	Carla D. Lightsey	(205) 221-4130
Arkansas	James F. Stephens	(501) 682-0807
Colorado	David Berry	(303) 866-3567 x 8106
Illinois	Dean Spindler, Bond Release Manager	(217) 785-5195
Indiana	Steve Weinzapfel, Director	(812) 665-2207
Kansas	Murray J. Balk, Chief	(620) 231-8350
Kentucky	Steve Hohmann, Commissioner	(502) 564-6940
Louisiana	Judi Stoute, Geologist	(225) 342-5515
Maryland	Ed Larrimore, Mining Program Manager	(410) 537-3557
Mississippi	Stan Thieling	(601) 961-5519
Montana	Ed Coleman	(406) 444-4973
New Mexico	Dave Clark	(505) 476-3416
North Dakota	Jim Deutsch – Director, Reclamation Division	(701) 328-2251
Ohio	Susan Grant, Administrator Office 2	(614) 265-6773
Pennsylvania	Bill Allen, Chief, Division of Compliance, Bureau of Mining Programs	(717)-783-9580
Texas	John Caudle	(512) 463-6901
Utah	Dana Dean, Associate Director	(801) 538-5320
Virginia	Greg Baker	(276) 523-8160

West Virginia	Lewis Halstead, Deputy Director Charles Sturey, Assistant Director	(304) 926-0499 ext 1525 (304) 926-0499 ext 1526
Wyoming	Deanna Hill, Bonding Analyst DEQ, Land Quality Division	(307) 777-6910

Appendix A- State Regulations on Acceptance of Self-Bond (survey question 3)

A.1 – Indiana:

The mechanism includes:

- The applicant has a current rating for their most recent bond issuance of "A" or higher; or
- The applicant has a tangible net worth of $10,000,000, a ratio of total liabilities to net worth of not more than 2.5:1, and a ratio of current assets to current liabilities of at least 1.2:1. The ratio requirements must be met for the year immediately preceding application and must be documented for the four years preceding the application; or
- The applicant has fixed assets in the US that total $20,000,000, a ratio of total liabilities to net worth of 2.5:1, and a ratio of current assets to current liabilities of 1.2:1. The ratio requirements must be met for the year immediately preceding application and must be documented for the four years preceding the application.
- The applicant must submit financial statements for the most recently completed fiscal year with a report by an independent CPA;
- The applicant must submit unaudited financial statements for completed quarters in the current fiscal year and comparative financial data from a five year period;
- The applicant must submit a statement listing:
    - liens against assets in the US for amounts more than 2% of net worth;
    - Every action pending against the applicant;
    - Every judgment rendered against the applicant within the last seven years that remains unsatisfied and is for more than 2% of the applicants net worth;

A.2 – Mississippi

§ 4305. Self-bonding

(a) The Permit Board may accept a self-bond from an applicant for a permit if all of the following conditions are met by the applicant or its parent corporation guarantor:

(1) The applicant designates with the Mississippi Secretary of State a suitable agent to receive service of process in the state of Mississippi.

(2) The applicant has been in continuous operation as a business entity for a period of not less than five years. Continuous operation shall mean that business was conducted over a period of five years immediately preceding the time of application.

(A) The Permit Board may allow a joint venture or syndicate with less than five years of continuous operation to qualify under this requirement, if each member of the joint venture or syndicate has been in continuous operation for at least five years immediately preceding the time of application.

(B) When calculating the period of continuous operation, the Permit Board may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed surface coal mining and reclamation operations.

(3) The applicant submits financial information in sufficient detail to show that the applicant meets one of the following criteria:

(A) the applicant has a current rating for its most recent bond issuance of "A" or higher as

issued by either Moody's Investor Service or Standard and Poor's Corporation;

(B) the applicant has a tangible net worth of at least $10 million, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

(C) the applicant's fixed assets in the United States total at least $20 million, and the applicant has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater.

(4) The applicant submits:

(A) financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;

(B) unaudited financial statements for completed quarters in the current fiscal year; and

(C) additional unaudited information as requested by the Department.

(b) The Permit Board may accept a written guarantee for an applicant's self-bond from a parent corporation guarantor, if the guarantor meets the conditions of § 4305(a)(1)-(4) as if it were the applicant. Such a written guarantee shall be referred to as a "corporate guarantee". The terms of the corporate guarantee shall provide for the following:

(1) if the applicants fails to complete the reclamation plan, the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the Commission sufficient to complete the reclamation plan, but not to exceed the bond amount;

(2) the corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the applicant and to the Department at least 90 days in advance of the cancellation date, and the Permit Board accepts the cancellation;

(3) the cancellation may be accepted by the Permit Board if the applicant obtains suitable replacement bond before the cancellation date or if the lands for which the self-bond, or portion thereof, was accepted have not been disturbed;

(4) the Permit Board may accept a written guarantee for an applicant's self-bond from any corporate guarantor, whenever the applicant meets the conditions of § 4305(a)(1)-(2) and (4), and the guarantor meets the conditions of § 4305(a)(1)-(4). Such a written guarantee shall be referred to as a "non-parent corporate guarantee." The terms of this guarantee shall provide for compliance with the conditions of § 4305(b)(1)-(4). The Department or Permit Board may require the applicant to submit any information specified in § 4305(a)(3) in order to determine the financial capabilities of the applicant.

(c) For the Permit Board to accept an applicant's self-bond, the total amount of the outstanding and proposed self-bonds of the applicant for surface coal mining and reclamation operations shall not exceed 25 percent of the applicant's tangible net worth in the United States. For the Permit Board to accept a corporate guarantee, the total amount of the parent corporation guarantor's present and proposed self-bonds and guaranteed self-bonds for surface coal mining and reclamation operations shall not exceed 25 percent of the guarantor's tangible net worth in the United States. For the Permit Board to accept a non-parent corporate guarantee, the total amount of the non-parent corporate guarantor's present and proposed self-bonds and guaranteed self-bonds shall not exceed 25 percent of the guarantor's tangible net worth in the United States.

(d) If the Permit Board accepts an applicant's self-bond, an indemnity agreement shall be submitted subject to the following requirements.

(1) The indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the parent corporation guarantor, and shall bind each jointly and severally.

(2) Corporations applying for a self-bond, and parent and non-parent corporations guaranteeing an applicant's self-bond, shall submit an indemnity agreement signed by two corporate officers who are authorized to bind their corporations. A copy of such authorization shall be provided to the of Department along with an affidavit certifying that such an agreement is valid under all applicable federal and state laws. In addition, the guarantor shall provide a copy of the corporate authorization demonstrating that the corporation may guarantee the self-bond and execute the indemnity agreement.

(3) If the applicant is a partnership, joint venture or syndicate, the agreement shall bind each partner or party who has a beneficial interest, directly or indirectly, in the applicant.

(4) Pursuant to Rule 47, the applicant, parent or non-parent corporate guarantor shall be required to complete the approved reclamation plan for the lands in default or to pay to the Commission an amount necessary to complete the approved reclamation plan, not to exceed the bond amount. If permitted under state law, the indemnity agreement when under forfeiture shall operate as a judgment against those parties liable under the indemnity agreement.

(e) The Department may require self-bonded applicants, parent and non-parent corporate guarantors to submit an update of the information required under § 4305(a)(3) and (4) within 90 days after the close of each fiscal year following the issuance of the self-bond or corporate guarantee.

(f) If at any time during the period when a self-bond is posted, the financial conditions of the applicant, parent or non-parent corporate guarantor change so that the criteria of § 4305(a)(3) and (c) are not satisfied, the permittee shall notify the Department immediately and shall within 90 days post an alternate form of bond in the same amount as the self-bond. Should the permittee fail to post an adequate substitute bond, the provisions of § 4303(e)(6) shall apply.

A.3 – New Mexico

19.8.14.1410 SELF-BONDING:

A. The director may accept a self-bond from an applicant for a permit if all of the following conditions are met by the applicant, or its parent corporation guarantor:

(1) the applicant designates a suitable agent to receive service of process in the state.

(2) the applicant has been in continuous operation as a business entity for a period of not less than 5 years. Continuous operation shall mean that business was conducted over a period of 5 years immediately preceding the time of application.

(a) The director may allow a joint venture or syndicate with less than 5 years of continuous operation to qualify under this requirement, if each member of the joint venture or syndicate has been in continuous operation for at least 5 years immediately preceding the time of application.

(b) When calculating the period of continuous operation, the director may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed surface coal mining and reclamation operations.

(3) The applicant submits financial information in sufficient detail to show that the applicant meets one of the following criteria:

(a) the applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either Moody's investor service or Standard and Poor's corporation;

(b) the applicant has a tangible net worth of at least $10 million, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

(c) the applicant's fixed assets in the United States total at least $20 million, and the applicant has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater.

(4) The applicant submits:

(a) financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;

(b) unaudited financial statements for completed quarters in the current fiscal year; and

(c) additional unaudited information as requested by the director.

B. The director may accept a written guarantee for an applicant's self-bond from a parent corporation guarantor, if the guarantor meets the conditions of Paragraphs (1) through (4) of Subsection A of 19.8.14.1410 NMAC as if it were the applicant. Such a written guarantee shall be referred to as a "corporate guarantee." The terms of the corporate guarantee shall provide for the following:

(1) if the applicant fails to complete the reclamation plan, the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the state of New Mexico sufficient to complete the reclamation plan, but not to exceed the bond amount;

(2) the corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the applicant and to the director at least 90 days in advance of the cancellation date, and the director accepts the cancellation;

(3) the cancellation may be accepted by the director if the applicant obtains suitable replacement bond before the cancellation date or if the lands for which the self-bond, or portion thereof, was accepted have not been disturbed.

C. For the director to accept an applicant's self-bond, the total amount of the outstanding and proposed self-bonds of the applicant for surface coal mining and reclamation operations shall not exceed 25 percent of the applicant's tangible net worth in the United States. For the director to accept a corporate guarantee, the total amount of the corporate guarantor's present and proposed self-bonds and guaranteed self-bonds for surface coal mining and reclamation operations shall not exceed 25 percent of the guarantor's tangible net worth in the United States.

D. If the director accepts an applicant's self-bond, an indemnity agreement shall be submitted subject to the following requirements:

(1) the indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the corporate guarantor, and shall bind each jointly and severally;

(2) corporations applying for a self-bond, and parent and non-parent corporations guaranteeing an applicant's self-bond shall submit an indemnity agreement signed by two corporate officers who are authorized to bind their corporations; a copy of such authorization shall be provided to the director along with an affidavit certifying that such an agreement is valid under all applicable federal and state laws; in addition, the guarantor shall provide a copy of the corporate authorization demonstrating that the corporation may guarantee the self-bond and execute the indemnity agreement;

(3) if the applicant is a partnership, joint venture or syndicate, the agreement shall bind each partner or party who has a beneficial interest, directly or indirectly, in the applicant;

(4) pursuant to 19.8.14.1413 NMAC, the applicant or corporate guarantor shall be required to complete the approved reclamation plan for the lands in default or to pay to the state of New Mexico an amount necessary to complete the approved reclamation plan, not to exceed the bond amount.

E. The director may require self-bonded applicants and corporate guarantors to submit an update of the information required under Paragraphs (3) and (4) of Subsection A of 19.8.14.1410 NMAC within 90 days after the close of each fiscal year following the issuance of the self-bond or corporate guarantee.

F. If at any time during the period when a self-bond is posted, the financial conditions of the applicant or the corporate guarantor change so that the criteria of Paragraph (3) of Subsection A of 19.8.14.1410 NMAC and Subsection C of 19.8.14.1410 NMAC are not satisfied, the permittee shall notify the director immediately and shall within 90 days post an alternate form of bond in the same amount as the self-bond. Should the permittee fail to post an adequate substitute bond, the provisions of Subsection E of 19.8.14.1406 NMAC shall apply.

A.4 – Ohio

OAC 1501:13-7-04 Self-bonding.

(A) Definitions for the purposes of this rule only:

(1) "Current assets" means cash or other assets or resources which are reasonably expected to be converted to cash or sold or consumed within one year or within the normal operating cycle of the business. (2) "Current liabilities" means obligations which are reasonably expected to be paid or liquidated within one year or within the normal operating cycle of the business.

(3) "Fixed assets" means plants and equipment, but does not include land or coal in place.

(4) "Liabilities" means obligations to transfer assets or provide services to other entities in the future as a result of past transactions.

(5) "Net worth" means total assets minus total liabilities and is equivalent to owners' equity.

(6) "Parent corporation" means a corporation which owns or controls the applicant.

(7) "Tangible net worth" means net worth minus intangibles such as goodwill and rights to patents or royalties.

(B) If the performance security is a bond, the chief may accept a self-bond from an applicant for a permit if all of the following conditions are met by the applicant or its parent corporation guarantor:

(1) The applicant designates a suitable agent to receive service of process in the state where the proposed coal mining operation is to be conducted.

(2) The applicant has been in continuous operation as a business entity for a period of not less than five years. "Continuous operation" shall mean that business was conducted over a period of five years immediately preceding the time of application.

(a) The chief may allow a joint venture or syndicate with less than five years of continuous operation to qualify under this requirement, if each member of the joint venture or syndicate has been in continuous operation for at least five years immediately preceding the time of application.

(b) When calculating the period of continuous operation, the chief may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed coal mining and reclamation operations.

(3) The applicant submits financial information in sufficient detail to show that the applicant meets one of the following criteria:

(a) The applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either "Moody's Investor Service" or "Standard and Poor's Corporation";

(b) The applicant has a tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of two and one-half times or less, and a ratio of current assets to current liabilities of one and one-fifth times or greater; or

(c) The applicant's fixed assets in the United States total at least twenty million dollars, and the applicant has a ratio of total liabilities to net worth of two and one-half times or less, and a ratio of current assets to current liabilities of one and one-fifth times or greater.

(4) The applicant submits:

(a) Financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;

(b) Unaudited financial statements for completed quarters in the current fiscal year; and

(c) Additional unaudited information as requested by the chief.

(C) The chief may accept a written guarantee for an applicant's self-bond from a parent corporation guarantor, if the guarantor meets the conditions of paragraph (B) of this rule as if it were the applicant. Such a written guarantee shall be referred to as a "corporate guarantee." The terms of the corporate guarantee shall provide for the following:

(1) If the applicant fails to complete the reclamation plan, the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the chief sufficient to complete the reclamation plan, but not to exceed the performance security amount required under rule 1501:13-7-02 of the Administrative Code.

(2) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the applicant and to the chief at least ninety days in advance of the cancellation date, and the chief accepts the cancellation.

(3) The cancellation may be accepted by the chief if the applicant obtains suitable replacement performance security before the cancellation date or if the lands for which the self-bond, or portion thereof, was accepted have not been disturbed.

(D) The chief may accept a written guarantee for an applicant's self-bond from any corporate guarantor, whenever the applicant meets the conditions of paragraphs (B)(1), (B)(2) and (B)(4) of this rule, and the guarantor meets the conditions of paragraphs (B)(1) to (B)(4) of this rule. Such a written guarantee shall be referred to as a "non-parent corporate guarantee." The terms of this guarantee shall provide for compliance with the conditions of paragraph (C) of this rule. The chief may require the applicant to submit any information specified in paragraph (B)(3) of this rule in order to determine the financial capabilities of the applicant.

(E) For the chief to accept an applicant's self-bond, the total amount of the outstanding and proposed self-bonds of the applicant for coal mining and reclamation operations shall not exceed twenty-five per cent of the applicant's tangible net worth in the United States. For the chief to accept a corporate guarantee, the total amount of the parent corporation guarantor's present and proposed self-bonds and guaranteed self-bonds for coal mining and reclamation operations shall not exceed twenty-five per cent of the guarantor's tangible net worth in the United States. For the chief to accept a non-parent corporate guarantee, the total amount of the non-parent corporate guarantor's present and proposed self-bonds and guaranteed self-bonds shall not exceed twenty-five per cent of the guarantor's tangible net worth in the United States.

(F) If the chief accepts an applicant's self-bond, an indemnity agreement shall be submitted subject to the following requirements:

(1) The indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the parent corporation guarantor, and shall bind each jointly and severally.

(2) A corporation applying for a self-bond, and a parent or non-parent corporation guaranteeing an applicant's self-bond shall submit an indemnity agreement signed by two corporate officers who are authorized to bind their corporation. A copy of such authorization shall be provided to the chief along with an affidavit certifying that such an agreement is valid under all applicable federal and state laws. In addition, the guarantor shall provide a copy of the corporate authorization demonstrating that the corporation may guarantee the self-bond and execute the indemnity agreement.

(3) A limited liability company shall submit an indemnity agreement signed by at least one member who is authorized to bind the company. A copy of such authorization shall be provided to the chief along with an affidavit certifying that such an agreement is valid under all applicable federal and state laws.

(4) A partnership, joint venture or syndicate shall submit an indemnity agreement that binds each partner or party who has a beneficial interest, directly or indirectly, in the applicant.

(5) Pursuant to rule 1501:13-7-06 of the Administrative Code, the applicant or parent or non-parent corporate guarantor shall be required to complete the approved reclamation plan for the lands in default or to pay to the chief an amount necessary to complete the approved reclamation plan, not to exceed the performance security amount required under rule 1501:13-7-02 of the Administrative Code. The indemnity agreement shall be confessed to judgment to the amount of the bond as provided in section 2323.13 of the Revised Code.

(G) The chief may require self-bonded applicants and parent and non-parent corporate guarantors to submit an update of the information required under paragraphs (B)(3) and (B)(4) of this rule within ninety days after the close of each fiscal year following the issuance of the self-bond or corporate guarantee.

(H) If at any time during the period when a self-bond is provided, the financial conditions of the applicant or parent or non-parent corporate guarantor change so that the criteria of paragraphs (B)(3) and (D) of this rule are not satisfied, the permittee shall notify the chief immediately and shall within ninety days provide an alternate form of performance security in the same amount as the self-bond. Should the permittee fail to provide an adequate substitute performance security pursuant to rule 1501:13-7-03 of the Administrative Code, then the permittee or operator shall cease coal extraction and shall immediately begin to conduct reclamation operations in accordance to the reclamation plan. Mining operations shall not resume until the chief has determined that an acceptable performance security has been provided.

Effective: 04/30/2009
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Rule Amplifies: 1513.08
Prior Effective Dates: 5/18/81, 10/27/82, 10/1/88, 12/27/90

A.5 – Pennsylvania

from section 86.159 (f))

(f) The applicant shall satisfy one of the following financial tests in paragraph (1), (2) or (3):

(1) The applicant satisfies the following requirements:

(i) A current rating for its most recent bond issuance of either: AAA, AA or A as issued by Standard and Poor's Corporation; or Aaa, Aa or A as issued by Moody's Investor Services. The ratings may not have been assigned as a result of the bond issue being independently insured.

(ii) Tangible net worth at least six times the total amount of outstanding and proposed self-bonds for coal mining activities in this Commonwealth.

(iii) Assets in the United States amounting to at least 90% of total assets.

(2) The applicant satisfies the following requirements:

(i) Tangible net worth of at least $10 million.

(ii) A ratio of total liabilities to net worth of 2.5 times or less and a ratio of current assets to current liabilities of 1.2 times or greater.

(iii) Tangible net worth at least six times the total amount of outstanding and proposed self-bonds for coal mining activities in this Commonwealth.

(iv) Assets in the United States amounting to at least 90% of total assets.

(3) The applicant satisfies the following requirements:

(i) Possesses fixed assets in the United States of at least $20 million.

(ii) Has a ratio of total liabilities to net worth of 2.5 times or less and a ratio of current assets to current liabilities of 1.2 times or greater.

(iii) Has tangible net worth at least six times the total amount of outstanding and proposed self-bonds for coal mining activities in this Commonwealth.

(iv) Has assets in the United States amounting to at least 90% of total assets.

A.6 – Texas

16 Texas Administrative Code §12.309(j)

(j) **Self-bonding**.

(1) **Definitions**. For the purposes of this subsection only:

(A) **Current assets-** Cash or other assets or resources which are reasonably expected to be converted to cash or sold or consumed within one year or within the normal operating cycle of the business.

(B) **Current liabilities-** Obligations which are reasonably expected to be paid or liquidated within one year or within the normal operating cycle of the business.

(C) **Fixed assets-** Plants and equipment, but does not include land or coal in place.

(D) **Governmental entity-** Municipal corporation, political subdivision, or public agency of the State of Texas.

(E) **Liabilities-** Obligations to transfer assets or provide services to other entities in the future as a result of past transactions.

(F) **Net worth-** Total assets minus total liabilities and is equivalent to owner's equity.

(G) **Self-bond-** An indemnity agreement in a sum certain executed by a qualified applicant, or by an applicant and its qualified third-party guarantor, and made payable to the Commission, with or without separate surety.

(H) **SIC code-** The standard industrial classification used by Dun and Bradstreet Corporation to identify various industry groups such as electric utility companies. Data identified by SIC code are to be the current data for the last annual period compiled and reported by Dun and Bradstreet Corporation.

(I) **Tangible net worth-** Net worth minus intangibles such as goodwill and rights to patents or royalties.

(2) **Requirements for a business and governmental entities**. The Commission may accept a self bond from an applicant that is a business or governmental entity if all of the following conditions are met by the applicant:

(A) the applicant designates a suitable agent to receive service of process in this state;

(B) the applicant has been in continuous operation for a period of not less than 5 years immediately preceding the date of application and has not been subject to bankruptcy proceedings during that time.

(i) The Commission may allow a joint venture or syndicate with less than 5 years of continuous operation to qualify under this requirement, if each member of the joint venture or syndicate has been in continuous operation for at least 5 years immediately preceding the date of application.

(ii) When calculating the period of continuous operation, the Commission may exclude past periods of interruption of the operation of the entity that were beyond the applicant's control and do not affect the applicant's likelihood of remaining in business during the proposed surface coal mining and reclamation operations;

(C) the applicant submits financial information in sufficient detail to show that the applicant meets one or more of the following criteria:

(i) the applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation;

(ii) the application has a tangible net worth of at least $10 million, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

(iii) the applicant's fixed assets in the United States total at least $20 million, and the applicant has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

(iv) the applicant has an investment-grade rating for its most recent bond issuance of "Baa3" or higher from Moody's Investor Service and "BBB-" or higher from Standard and Poor's Corporation, and meets the requirements of either subclause (I) or subclause (II) of this clause. If the applicant or the guarantor of a self-bond receives an investment rating or notification of an investment rating by Moody's Investor Service or Standard and Poor's Corporation of any of its bonds lower than the rating included in the application as a bond approval criterion existing at time of Commission approval of its application for self-bonding, the guarantor and permittee receiving such rating shall promptly notify the Commission, which shall immediately hold a hearing to consider and determine the adequacy of the guarantor's self-bond. The limitation contained in

subclause (II)(-c-) of this clause applies only to applicants or guarantors qualifying pursuant to subclause (II) of this clause, and does not affect the limitation set out in paragraph (4)(A) of this subsection for applicants or guarantors seeking acceptance of a self-bond pursuant to clauses (i)-(iii) or (iv)(I) of this subparagraph.

(I) The applicant:

(-a-) has a tangible net worth of at least $10 million and fixed assets in the United States totaling at least $20 million; and

(-b-) has a ratio of total liabilities to net worth of 2.5 or less; or a ratio of total liabilities to net worth that is equal to or less than the industry median reported by Dun and Bradstreet Corporation for the applicant's primary SIC code; and

(-c-) has a ratio of current assets to current liabilities that is equal to or greater than the industry median reported by Dun and Bradstreet Corporation for the applicant's primary SIC code; or the applicant has a current credit rating of "4A2" or higher from Dun and Bradstreet Corporation; or

(II) The applicant:

(-a-) has a net worth of at least $100 million and fixed assets in the United States totaling at least $200 million; and

(-b-) has issued and currently has outstanding securities pursuant to the provisions of the Securities Act of 1933 and is subject to the periodic financial reporting requirements established by the Securities and Exchange Act of 1934; and

(-c-) has a total amount of outstanding and proposed self-bonds for surface coal mining and reclamation operations not exceeding 16 2/3 percent of the applicant's net worth in the United States; and

(D) the applicant submits:

(i) financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;

(ii) unaudited financial statements for completed quarters in the current fiscal year; and

(iii) additional information as may be requested by the Commission.

(3) **Requirements for a third-party guarantee**. The Commission may accept a self-bond from an applicant and the applicant's qualified third-party guarantor if the guarantor meets the conditions of paragraph (2)(A), (B), (C) and (D) of this subsection as if it were the applicant and the applicant meets the conditions of paragraph (2)(A), (B) and (D) of this subsection. Such a written guarantee shall be referred to as a "third-party guarantee." The terms of the third-party guarantee shall provide for the following:

(A) if the applicant fails to complete the reclamation plan, the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the Commission sufficient to complete the reclamation plan, but not to exceed the bond amount;

(B) the third-party guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the applicant and to the Commission at least 90 days in advance of the cancellation date, and the Commission accepts the cancellation; and

(C) the cancellation may be accepted by the Commission if the applicant obtains suitable replacement bonding in accordance with §12.310 of this title (relating to Replacement of Bonds) before the cancellation date or if the lands for which the self-bond, or portion thereof, was accepted have not been disturbed.

(4) **Limitations**.

(A) For the Commission to accept an applicant's self-bond, the total amount of the outstanding and proposed self-bonds of the applicant for surface coal mining and reclamation operations shall not exceed 25 percent of the applicant's tangible net worth in the United States.

(B) For the Commission to accept a third-party guarantee, the total amount of the guarantor's present and proposed self-bonds and guaranteed self-bonds for surface coal mining and reclamation operations shall not exceed 25 percent of the guarantor's tangible net worth in the United States.

(5) **Indemnity agreement**. If the Commission accepts an applicant's self-bond, an indemnity agreement shall be submitted subject to the following requirements:

(A) the indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the third-party guarantor, and shall bind each jointly and severally;

(B) applicants applying for a self-bond and third-parties guaranteeing an applicant's self-bond shall submit an indemnity agreement signed by two officers who are authorized to bind the applicant and third-party guarantor. A copy of such authorization shall be provided to the Commission with an affidavit certifying that such an agreement is valid under all applicable State and Federal laws. Whenever the applicant or third-party guarantor is a corporation, each respective corporation shall provide a copy of the corporate authorization demonstrating that the corporation may guarantee the self-bond and execute the indemnity agreement;

(C) if the applicant is a partnership, joint venture or syndicate, the agreement shall bind each partner or party who has a beneficial interest, directly or indirectly, in the applicant;

(D) pursuant to §12.314 of this title (relating to Forfeiture of Bonds), the applicant or third-party guarantor shall be required to complete the approved reclamation plan for the lands in default or to pay to the Commission an amount necessary to complete the approved reclamation plan, not to exceed the bond amount; and

(E) when under forfeiture and when necessary to enforce the provisions of the Act and these Regulations, the indemnity agreement shall be referred by the Commission to the Attorney General to obtain a judgment as provided by law.

(6) **Current financial information**. An applicant that is self-bonded under this section shall submit to the Commission an update of the information required under paragraph (2)(C) and (D) of this subsection within 90 days after the close of each fiscal year following the issuance of the self-bond or corporate guarantee. When a self-bond is guaranteed by a third-party guarantor, both the applicant and its third-party guarantor shall comply with this paragraph.

(7) **Substitute bonding**. If at any time during the period when a self-bond is in effect, the financial conditions of the applicant or the third-party guarantor change so that the criteria of paragraph (2)(C) and (D) of this subsection are not satisfied, the permittee shall notify the Commission immediately and shall submit an alternate form of bond in the same amount as the self-bond. It is the intent of the Commission that substitute bonds under this paragraph be timely filed in order that they may be reviewed and acted upon by the

Commission within a reasonable time, not to exceed 90 days, from the date of notification. Should the permittee fail to post an adequate substitute bond as required by this paragraph, the permittee shall cease coal extraction and shall immediately begin to conduct reclamation operations in accordance with the reclamation plan. Mining operations shall not resume until the Commission has determined that an acceptable bond has been posted.

A.7 – Utah

860.322. The applicant has been in continuous operation as a business entity for a period of not less than five years. Continuous operation will mean that business was conducted over a period of five years immediately preceding the time of application:

860.322.1. The Division may allow a joint venture or syndicate with less than five years of continuous operation to qualify under this requirement if each member of the joint venture or syndicate has been in continuous operation for at least five years immediately preceding the time of application;

860.322.2. When calculating the period of continuous operation, the Division may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed coal mining and reclamation operations;

860.323. The applicant submits financial information in sufficient detail to show that the applicant meets one of the following criteria:

860.323.1. The applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation;

860.323.2. The applicant has a tangible net worth of at least $10 million, a ratio of total liabilities to net worth of 2.5 times or less and a ratio of current assets to current liabilities of 1.2 times or greater; or

860.323.3. The applicant's fixed assets in the United States total at least $20 million and the applicant has a ratio of total liabilities to net worth of 2.5 times or less and a ratio of current assets to current liabilities of 1.2 times or greater; and

860.324. The applicant submits:

860.324.1. Financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;

860.324.2. Unaudited financial statements for completed quarters in the current fiscal year;

860.324.3. Additional unaudited information as requested by the Division; and

860.324.4. Annual reports for the five years immediately preceding the time of application.

860.330. The Division may accept a written guarantee for an applicant's self bond from a parent corporation guarantor, if the guarantor meets the conditions of R645-301-860.321 through R645-301-860.324 as if it were the applicant. Such a written guarantee will be referred to as a "corporate guarantee." The terms of the corporate guarantee will provide for the following:

860.331. If the applicant fails to complete the reclamation plan, the guarantor will do so or the guarantor will be liable under the indemnity agreement to provide funds to the Division sufficient to complete the reclamation plan, but not to exceed the bond amount;

860.332. The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the applicant and to the Division at least 90 days in advance of the cancellation date, and the Division accepts the cancellation; and

860.333. The cancellation may be accepted by the Division if the applicant obtains a suitable replacement bond before the cancellation date or if the lands for which the self bond, or portion thereof, was accepted have not been disturbed.

860.340. The Division may accept a written guarantee for an applicant's self bond from any corporate guarantor, whenever the applicant meets the conditions of R645-301-860.321, R645-301-860.322, and R645-301-860.324 and the guarantor meets the conditions of R645-301-860.321 through R645-301-860.324 as if it were the applicant.

Such a written guarantee will be referred to as a "nonparent corporate guarantee." The terms of this guarantee will provide for compliance with the conditions of R645-301-860.331 through R645-301-860.333. The Division may require the applicant to submit any information specified in R645-301-860-323 in order to determine the financial capabilities of the applicant.

860.350. For the Division to accept an applicant's self bond, the total amount of the outstanding and proposed self bonds of the applicant for coal mining and reclamation operations will not exceed 25 percent of the applicant's tangible net worth in the United States. For the Division to accept a corporate guarantee, the total amount of the parent corporation guarantor's present and proposed self bonds and guaranteed self bonds for surface coal mining and reclamation operations will not exceed 25 percent of the guarantor's tangible net worth in the United States. For the Division to accept a nonparent corporate guarantee, the total amount of the nonparent corporate guarantor's present and proposed self bonds and guaranteed self bonds will not exceed 25 percent of the guarantor's tangible net worth in the United States.

860.360. If the Division accepts an applicant's self bond, an indemnity agreement will be submitted subject to the following requirements:

860.361. The indemnity agreement will be executed by all persons and parties who are to be bound by it, including the parent corporation guarantor, and will bind each jointly and severally;

860.362. Corporations applying for a self bond, and parent and nonparent corporations guaranteeing an applicant's self bond shall submit an indemnity agreement signed by two corporate officers who are authorized to bind their corporations. A copy of such authorization shall be provided to the Division along with an affidavit certifying that such an agreement is valid under all applicable federal and Utah laws. In addition, the guarantor shall provide a copy of the corporate authorization demonstrating that the corporation may guarantee the self bond and execute the indemnity agreement.

860.363. If the applicant is a partnership, joint venture or syndicate, the agreement will bind each partner or party who has a beneficial interest, directly or indirectly, in the applicant;

860.364. Pursuant to R645-301-880.900, the applicant, parent or nonparent corporate guarantor shall be required to complete the approved reclamation plan for the lands in default or to pay to the Division an amount necessary to complete the approved reclamation plan, not to exceed the bond amount.

860.365. The indemnity agreement when under forfeiture will operate as a judgment against those parties liable under the indemnity agreement.

860.370. The Division may require self-bonded applicants, parent and nonparent corporate guarantors to submit an update of the information required under R645-301-860.323 and R645-301-860-324 within 90 days after the close of each fiscal year following the issuance of the self bond or corporate guarantee.

860.380. If at any time during the period when a self bond is posted, the financial conditions of the applicant, parent, or nonparent corporate guarantor change so that the criteria of R645-301-860.323 and R645-301-860.340 are not satisfied, the permittee will notify the Division immediately and will within 90 days post an alternate form of bond in the same amount as the self bond. Should the permittee fail to post an adequate substitute bond, the provisions of R645- 301-840.500 will apply.

A.8- West Virginia

-The applicant designates a suitable agent to receive service of process in
the state where the proposed surface coal mining operation is to be conducted.
-The applicant has been in continuous operation as a business entity for a
period of not less than five (5) years.
-The applicant submits financial information in sufficient detail to show
that the applicant meets one of the following criteria:

1. The applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation;

2. The applicant has a tangible net worth of at least ten (10) million dollars, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

3. The applicant's fixed assets in the United State total at least twenty (20) million dollars, and the applicant has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater.

The applicant submits:

1. Financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;
2. Unaudited financial statements for completed quarters in the current fiscal year; and
3. Additional unaudited information as requested by the Secretary.

See this link for the remainder of the rules on self bonding:

http://www.dep.wv.gov/dmr/codes/Documents/1.%2038%20CSR%202%20Revised%2006-05-2012.pdf

A.9 - Wyoming

The applicant must meet the regulatory requirements of W.S. 35-11-418(d) and Regulations Coal Chapter 11 and Noncoal Chapter 6. In brief these are:

A. Five years of financial statements audited by an independent Certified Public Accountant.
B. Financial information in sufficient detail to show the applicant meets one of the following criteria:
    1. Bond rating for the past five years of “A” or higher as issued by Moody’s Investor Service or Standard and Poor’s Corporation.
    2. Tangible net worth of at least $10 million, and a ratio of total liabilities to net worth of 2.5 times or less and a ratio of current assets to current liabilities of 1.2 times or greater. Proposed self-bonds must be added to the current or total liabilities.
    3. Fixed assets in the United States of least $20 million, and a ratio of total liabilities to net worth of 2.5 times or less and a ratio of current assets to current liabilities of 1.2 times or greater. Proposed self-bonds must be added to the current or total liabilities.
C. A listing of any notices issued by the Securities and Exchange commission or proceedings initiated by any party alleging a failure to comply with any public disclosure or reporting requirements under the securities laws of the United States.
D. A Wyoming registered agent for service of process.

Appendix B – Self Bonded Amounts by Company (survey question 7)

B.1 – Texas

TWCC	**32F**	Jewett	03/22/2011 (self w/ 3rd party)	$57,500,000
	47A	Jewett E/F	3/22/2011 (self w/3rd party)	$18,500,000
The Sabine Mining Co.	**33H**	S. Hallsville	8/14/2007 (self w/3rd party) 05/08/12 (self w/3rd party)	$65,000,000 $10,000,000
	55	Rusk	7/26/2011 (self w/3rd party) 05/08/12 (self w/3rd party)	$35,000,000 $5,000,000
San Miguel Electric Coop., Inc.	**11G**	San Miguel	3/22/11 (self)	$70,000,000
	52A	San Miguel C Area	3/22/11 (self)	$30,000,000
TMPA	**26D**		05/22/2014 (self)	$13,500,000
			Total	$304,500,000

B.2 – West Virginia

ALPHA NATURAL RESOURCES

Name	Bond Amount	Under Agreement	Balance
Alex	$38,000,000.00	$37,724,304.00	$275,696.00
Aracoma	$9,000,000.00	$6,031,880.00	$2,968,120.00
Bandmill	$5,000,000.00	$3,173,040.00	$1,826,960.00
Big Bear	$500,000.00	$485,360.00	$14,640.00
Brooks Run Mining Company	$15,000,000.00	$10,905,845.00	$4,094,155.00
Clear Fork	$2,000,000.00	$978,720.00	$1,021,280.00
Cobra Natural Resources	$9,000,000.00	$6,095,464.00	$2,904,536.00
Delbarton	$5,000,000.00	$865,180.00	$4,134,820.00
Eagle Energy	$2,000,000.00	$1,183,560.00	$816,440.00
Elk Run	$30,000,000.00	$25,080,363.00	$4,919,637.00
Goals Coal	$2,000,000.00	$701,320.00	$1,298,680.00
Green Valley	$3,000,000.00	$2,980,380.00	$19,620.00
Grey Energy	$9,000,000.00	$7,146,162.00	$1,853,838.00
Herndon Processing	$1,500,000.00	$710,080.00	$789,920.00
Highland	$7,000,000.00	$6,289,740.00	$710,260.00
Independence	$39,000,000.00	$38,471,280.00	$528,720.00
Jacks Branch	$17,000,000.00	$10,739,992.00	$6,260,008.00
Kanawha	$20,000,000.00	$13,848,367.00	$6,151,633.00
Kepler Processing	$3,000,000.00	$1,268,240.00	$1,731,760.00
Kingston Resources	$3,500,000.00	$1,960,944.00	$1,539,056.00
Kingwood Mining Company	$5,500,000.00	$4,216,800.00	$1,283,200.00
Litwar Processing	$3,000,000.00	$704,760.00	$2,295,240.00
Marfork	$9,000,000.00	$5,197,500.00	$3,802,500.00
Neweagle Mining	$1,000,000.00	$-	$1,000,000.00
Omar	$1,500,000.00	$507,600.00	$992,400.00
Paynter Branch Mining	$13,000,000.00	$7,581,680.00	$5,418,320.00
Peerless	$10,000,000.00	$7,110,520.00	$2,889,480.00
Performance	$3,000,000.00	$1,342,620.00	$1,657,380.00
Pioneer Fuel Corp.	$22,000,000.00	$16,668,240.00	$5,331,760.00
Pioneer Mining	$4,000,000.00	$1,622,414.00	$2,377,586.00
Power Mountain	$2,500,000.00	$499,120.00	$2,000,880.00
Premium Energy	$16,000,000.00	$12,654,000.00	$3,346,000.00
Rawl	$2,000,000.00	$1,380,466.00	$619,534.00
Riverside Energy	$3,500,000.00	$1,730,132.00	$1,769,868.00
Road Fork Dev.	$4,000,000.00	$1,089,640.00	$2,910,360.00
Rockspring Development	$5,000,000.00	$2,970,020.00	$2,029,980.00
Rum Creek	$1,000,000.00	$64,168.00	$935,832.00
Spartan	$1,000,000.00	$803,530.00	$196,470.00
Stirratt	$1,000,000.00	$540,800.00	$459,200.00
Twin Star Mining	$3,000,000.00	$763,040.00	$2,236,960.00
White Flame Energy	$17,000,000.00	$6,574,360.00	$10,425,640.00
	$348,500,000.00	$250,661,631.00	$97,838,369.00
Future Use	$26,500,000.00		$26,500,000.00
Grand Total	$375,000,000.00		$124,338,369.00

B.3 Wyoming

Permit Number	Company Name	Bond Type	Bond Number	Approval Date	Bonder	Bond Amount	
PT0214	ALPHA COAL WEST INC	Self Bond	SBC128	3/31/2010	ALPHA NATURAL RESOURCES INC	174,286,000.00	
PT0428	ALPHA COAL WEST INC	Self Bond	SBC131	3/31/2010	ALPHA NATURAL RESOURCES INC	208,079,000.00	
PT0233	THUNDER BASIN COAL CO LLC	Self Bond	SBC148	8/20/2012	ARCH WESTERN RESOURCES LLC	329,317,000.00	
PT0331	ARCH OF WY LLC	Self Bond	SBC143	9/19/2012	ARCH WESTERN RESOURCES LLC	16,185,500.00	
PT0334	ENERGY DEVELOPMENT CO	Self Bond	SBC146	9/19/2012	ARCH WESTERN RESOURCES LLC	2,800,000.00	
PT0377	ARCH OF WY LLC	Self Bond	SBC144	9/19/2012	ARCH WESTERN RESOURCES LLC	8,940,000.00	
PT0483	THUNDER BASIN COAL CO LLC	Self Bond	SBC149	9/19/2012	ARCH WESTERN RESOURCES LLC	56,732,000.00	
PT0676	THUNDER BASIN COAL CO LLC	Self Bond	SBC150	9/19/2012	ARCH WESTERN RESOURCES LLC	88,000.00	
PT0730	ARCH OF WY LLC	Self Bond	SBC145	9/19/2012	ARCH WESTERN RESOURCES LLC	3,285,000.00	799,712,500.00
PT0599	WESTERN FUELS WY INC	Self Bond	SBC116	11/7/2006	BASIN ELECTRIC POWER COOP	18,300,000.00	18,300,000.00
PT0248	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC065	5/12/1995	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	5,697,000.00	

PT0268	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC066	5/9/1995	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	120,000.00	
PT0281	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC067	6/10/1994	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	3,836,600.00	
PT0339	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC068	5/9/1995	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	735,356.00	
PT0585	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC070	5/24/1994	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	622,400.00	
PT0621	AMERICAN COLLOID CO	Self Bond	SBNC086	6/25/1998	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	278,000.00	
PT0685	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC090	5/2/2001	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	246,000.00	
PT0745	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	Self Bond	SBNC118	3/26/2007	BLACK HILLS BENTONITE A LIMITED LIABILITY COMPANY	1,742,000.00	13,277,356.00
PT0497	CHEVRON MINING INC	Self Bond	SBC088	7/21/1999	CHEVRON CORP	10,000.00	10,000.00
PT0237	CORDERO MINING LLC	Self Bond	SBC154	6/4/2014	CLOUD PEAK ENERGY INC	100,000,000.00	100,000,000.00
PT0218	EXXON MOBIL CORP	Self Bond	SBNC055	9/18/1991	EXXON MOBIL CORP	2,000,000.00	2,000,000.00
PT0335	F M C WY CORP	Self Bond	SBNC151	4/26/2013	F M C CORP	44,886,000.00	
PT0454	F M C WY CORP	Self Bond	SBNC152	4/26/2013	F M C CORP	26,880,000.00	
PT0554	F M C WY CORP	Self Bond	SBNC153	4/26/2013	F M C CORP	878,400.00	72,644,400.00
PT0464	TATA CHEMICALS (SODA ASH)	Self Bond	SBNC091	4/4/2002	GENERAL CHEMICAL (SODA ASH)	21,000,000.00	21,000,000.00

	PARTNERS				PARTNERS		
PT0246	BENTONITE PERFORMANCE MINERALS LLC	Self Bond	SBNC126	11/30/2009	HALLIBURTON CO	10,500,000.00	
PT0267	BENTONITE PERFORMANCE MINERALS LLC	Self Bond	SBNC132	4/13/2010	HALLIBURTON CO	10,500,000.00	
PT0278	M-I LLC	Self Bond	SBNC127	11/30/2009	HALLIBURTON CO	500,000.00	
PT0321	WYO-BEN INC	Self Bond	SBNC136	4/13/2010	HALLIBURTON CO	300,000.00	
PT0322	AMERICAN COLLOID CO	Self Bond	SBNC133	4/13/2010	HALLIBURTON CO	50,000.00	
PT0620	AMERICAN COLLOID CO	Self Bond	SBNC134	4/13/2010	HALLIBURTON CO	50,000.00	
PT0622	AMERICAN COLLOID CO	Self Bond	SBNC135	4/13/2010	HALLIBURTON CO	300,000.00	22,200,000.00
PT0338	BRIDGER COAL CO	Self Bond	SBC064	6/15/1993	ID POWER CO	73,675,166.67	73,675,166.67
PT0257	O C I WY LP	Self Bond	SBNC107	11/24/2003	OCI WY LP	33,875,000.00	33,875,000.00
PT0338	BRIDGER COAL CO	Self Bond	SBC063	6/15/1993	PACIFICORP	147,350,333.33	
PT0291	GLENROCK COAL CO	Self Bond	SBC042	12/23/1988	PACIFICORP	1,646,000.00	148,996,333.33
PT0240	PEABODY CABALLO MINING LLC	Self Bond	SBC141	8/5/2011	PEABODY INVESTMENTS CORP	100,596,000.00	
PT0433	PEABODY CABALLO MINING LLC	Self Bond	SBC142	8/4/2011	PEABODY INVESTMENTS CORP	238,594,000.00	
PT0477	SHOSHONE COAL CORP	Self Bond	SBC129	3/26/2010	PEABODY INVESTMENTS CORP	2,676,323.00	
PT0569	PEABODY POWDER RIVER MINING LLC	Self Bond	SBC140	8/4/2011	PEABODY INVESTMENTS CORP	392,477,000.00	
PT0764	PEABODY SCHOOL CREEK MINING LLC	Self Bond	SBC143	8/4/2011	PEABODY INVESTMENTS CORP	55,936,000.00	790,279,323.00
PT0264	ROCKY MOUNTAIN COAL CO LLC	Self Bond	SBC125	9/12/2008	SOLVAY AMERICA INC	2,410,000.00	
PT0495	SOLVAY SODA ASH JOINT VENTURE	Self Bond	SBNC119	3/23/2007	SOLVAY AMERICA INC	21,521,000.00	23,931,000.00

PT0599	WESTERN FUELS WY INC	Self Bond	SBC117	11/7/2006	TRI STATE GENERATION & TRANSMISSION ASSOC INC	18,300,000.00	18,300,000.00
					TOTAL	$2,138,201,079	

Exhibit 9

Undermined Promise II

Undermined Promise II

Undermined Promise II is a joint publication of the National Wildlife Federation, the Natural Resources Defense Council, and the Western Organization of Resource Councils.

NWF is a voice for wildlife, dedicated to protecting wildlife and habitat and inspiring the future generation of conservationists.

NRDC is one of the nation's most effective environmental action groups. It uses law, science and the support of its 1.4 million members and online activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things.

WORC is a regional network of eight grassroots community organizations with 12,000 members and 41 local chapters. WORC is committed to building sustainable environmental and economic growth with the health of people and stewardship of their land, water, and air resources.

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Appendix C: OSM Inspection and Enforcement Data and Charts, prepared by Hilary Yu, NRDC, July 2014

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Introduction

Ecoflight

Undermined Promise II updates ***Undermined Promise: Reclamation and Enforcement of the Surface Mining Control and Reclamation Act 1977-2007,*** which analyzed the status of coal surface mine reclamation in five western states thirty years after passage of the federal Surface Mining Control and Reclamation Act (SMCRA). The 2007 report was produced by the Natural Resources Defense Council and the Western Organization of Resource Councils.

Undermined Promise II updates and amplifies the scope of the earlier work:

- It adds an overview of the impacts of coal mining and reclamation practices on wildlife and the plants on which they depend, prepared by Alexis Bonogofsky with the National Wildlife Federation. It includes a case study of issues around sage grouse habitat restoration on mined lands.

- It addresses the issue of mining and hydrology, of critical importance in an arid ecoregion. The hydrologic overview and recommendations are grounded in a paper written by geo-hydrologist Charles H. Norris, "Hydrologic Protections within the Federal Surface Mine Control and Reclamation Act" (September, 2014), published on-line as Appendix A with this report.

- It updates the original report's overview and analysis of reclamation, as measured by successful bond release. It calls special attention to the emerging public exposure to significant financial risk where regulators allow mine operators to self-bond.

- It updates key data on mine inspections and enforcement and regulatory oversight of surface mining in five western states.

- It updates and expands on recommendations made in 2007 with additional recommendations addressing hydrology, self bonding, and wildlife habitat.

In the 1960s and 1970s, the devastating impacts of strip-mining in the East and the potential creation of "barren wastelands susceptible to continual erosion and disrupted groundwater systems" in the West led to congressional passage of the Surface Mining Control and Reclamation Act (SMCRA),[1] which was signed into law by President Jimmy Carter on August 3, 1977. In enacting SMCRA, Congress sought, among other purposes, to assure that "surface mining operations are not conducted where reclamation [...] is not feasible," "that surface coal mining operations are so conducted as to protect the environment," and "that adequate procedures are undertaken to reclaim surface areas as contemporaneously as possible with the surface coal mining operations."[2]

Today, eight years since our previous assessment of the implementation of SMCRA as reported in *Undermined Promise,* it is appropriate to again consider whether the on-the-ground implementation of the statute matches up to its text and the intentions of its authors. When SMCRA was enacted, lawmakers were concerned about the legacy of environmental harm that coal mining had already left in the East and the extensive damage that could result from the planned "expansion of coal surface mining [in the West] on a very large scale," given the demand at that time for coal. Today, coal demand is much higher than it was 38 years ago.

Since our last report eight years ago, however, major changes have occurred in the domestic coal mining industry. Monthly coal production has been trending downward since peak production in August, 2008.[3] There have been a string of bankruptcies, while other struggling companies are closing mines and shedding employees as they scale back production. Mining companies are pushing projects to export coal to South and East Asian economies in the face of declining domestic demand.

These factors signal the end of the line for some in coal industry. Now, more than ever, we need a strong, vigorously enforced SMCRA to minimize the impacts of coal mining on the environment and the health and safety of local communities, and the avoidance of significant legacy costs that SMCRA was intended to prevent.

Since our last report eight years ago, however, major changes have occurred in the domestic coal mining industry. Monthly coal production has been trending downward since peak production in August, 2008.

Findings

Bond Release

- The review of reclamation progress in the years since 2007 confirms that bond release remains the only meaningful objective standard by which to assess whether reclamation is successful. The continued failure to achieve significant increases in Phase III (and Phase IV in Montana) bond release, eight years after WORC and NRDC's report, raises broad concerns about the long term prospects of reclamation in the harsh, brittle, and semi-arid ecosystems of Western states.

- Of 450 square miles of disturbed land in Montana, North Dakota and Wyoming, only 46 square miles have achieved Phase III bond release, demonstrating successful establishment of vegetation and soils to satisfy permit requirements for post mining land uses.

Ecoflight

Self-Bonding

- As the gap between acres disturbed by mining and the acres released from reclamation bond continues to grow, the outstanding bond liabilities of companies also continue to grow, which is especially troubling in light of the practice in some states of allowing coal operators to "self-bond" – that is, guarantee reclamation obligations without collateralized financial assurance.

- With substantial bonds riding on the financial health of coal operators or their corporate parent guarantors, regulators are placed in a challenging position when self-bonded operators face financial difficulties. In this situation, self-bonding can become a disincentive to regulators taking the initiative to protect the public's interest in full mine site reclamation due to concerns about coal operator solvency and fears that the agency might be saddled with the daunting, expensive task of reclaiming mined land if a coal operator becomes bankrupt.

- Peabody Energy and Arch Coal may be "double-pledging" their assets, which appear to be obligated to their creditors in addition to state regulatory authorities; these assets may also be overvalued.

- Neither Peabody Energy Corporation, Arch Coal, Inc., nor Alpha Natural Resources, Inc. appears to qualify as a self-bond guarantor under regulatory financial tests, though their subsidiaries may still qualify.

- Peabody Energy does not appear to be in compliance with regulatory limits on self-bonding.

- If no changes are made, regulators must rely on the future financial health of heavily indebted, loss-making coal operators to guarantee extensive mine site reclamation. This challenges

Bill Dvorak

the fundamental promise of SMCRA: that any lands mined for coal would be reclaimed for future land users.

Hydrology

- Characterization of the hydrologic balance in the permitting process is, too frequently, grossly inadequate. Baseline data collection is generally too limited geographically, geologically, in duration and in frequency. As a result, only a ghost of the hydrologic balance is drawn, without enough detail to protect it.

Wildlife

- SMCRA performance standards do not lead to sites that are equal to pre-mining sites in terms of habitat quality for native wildlife.

- Reclaimed lands may appear aesthetically pleasing, but plant communities essential to wildlife must undergo a long period of natural succession before they resemble the pre-mined communities of plants on the land.

- Reclaiming mined lands to sagebrush habitat critical to sage grouse survival may take decades (anywhere from 15 to 60 years) of natural succession to develop the characteristics of native shrub communities comparable to pre-mining conditions.

Inspection and Enforcement

- Since 2011 when annual state oversight reports started listing the number of complete and partial inspections required under SMCRA, of the state agencies analyzed in this report, only New Mexico's (in 2011) failed to complete the minimum required.

- Although the total number of inspectable units has declined since 2005, the total number of acres permitted and disturbed acres continues to increase, while the number of state regulatory employees has decreased. Between 2006 and 2013, the regulatory staff for the five states decreased by 13.8% while the permitted acreage expanded by 15%.

Part 1: Reclamation and Bonding

Ecoflight

Problems persist with low bond release numbers, lack of contemporaneous reclamation, and bond transfers without public hearing.

Eight years ago, *Undermined Promise* found that coal mining companies in five western states were not making the effort to apply for bond release, and regulatory authorities were not compelling them to do so. While the Office of Surface Mining Reclamation and Enforcement (OSM) field offices agreed that coal companies were not releasing enough acreage from bond obligations, OSM staff disagreed that this was a violation of the law given site specific circumstances of the companies. The report noted that OSM field offices were substituting acres that *could* be eligible for Phase III bond release for its measure of reclamation, rather than ensuring that the mines met OSM's national performance standards for acres reclaimed, to paint a rosier picture of performance under SMCRA. The 2007 report concluded that:

> *"Since final bond release is an objective and transparent measure of success, it should remain OSM's performance measure. Rather than adopt a new definition, the agency should move to prevent mine companies from indefinitely delaying application for release of their reclamation bonds."*

Assuring reclamation of mined lands to pre-mining conditions or to an approved post-mining beneficial use has always been one of SMCRA's most important objectives.[4] Successful reclamation of Western range and farmland requires both re-establishing vegetation on the surface and replacement and restoration of pre-mining water resources.[5] Western ranchers who have worked with OSM and state regulatory authorities report

what might be characterized as a policy of benign neglect towards enforcing the water protection, replacement and restoration requirements of SMCRA at Western mines.[6]

Performance bonds for permit areas are the principal means by which OSM enforces the statute's reclamation mandate.[7] The number of acres that meet bond release standards and for which bonds have finally been released is the agency's national measure of reclamation success.[8] While the bonds can be forfeited to the regulatory authorities to cover reclamation costs if the mining companies fail to reclaim properly, they are intended to encourage companies to do the reclamation work necessary to achieve Congress' reclamation goals themselves and thus get their bond monies back.

The performance of Western State programs and mines as measured by bond release remains dismal. For example: Wyoming, with 173,914 acres disturbed by mining at the end of EY2014, showed 10,607 acres released from Phase III (just over 6%); 24,806 acres released from Phase II (14%); and 63,320 acres released from Phase I (just over 36%).

For perspective, of almost 450 square miles of disturbed lands in Wyoming, Montana and North Dakota, only 46 square miles have achieved Phase III bond release.

Review of reclamation progress in the years since 2007 confirms that bond release remains the only meaningful, objective standard by which to assess whether reclamation is successful. The continued failure to achieve significant increases in Phase III bond release, eight years after WORC and NRDC's report, raises broad concerns about the long term prospects of reclamation in the harsh, brittle, and semi-arid ecosystem of Western states. *Undermined Promise* provided recommendations to address deficiencies in SMCRA oversight and enforcement at western mines. Here is an overview of those recommendations from 2007, and a brief update on the progress made by OSM since the publication of *Undermined Promise:*

Reclamation Phases:

Phases of reclamation success are unique to each state program. Wyoming's is typical:

Phase I – When the permittee completes the backfilling, regrading, topsoil replacement, recontouring and drainage control of a bonded area.

Phase II – When the permittee has established vegetation whose species composition is commensurate with that of the seed mix(es) of the approved reclamation plan.

Phase III – The remaining portion of the bond may be released after the permittee has successfully completed all surface coal mining and reclamation activities (vegetation success, hydrology supports post mining land use, etc.[11]

Phase IV – (only in Montana) – The remaining portion of the bond may be released after the permittee has successfully completed all surface coal mining and reclamation activities and all disturbed lands within any drainage basin have been reclaimed in accordance with the Phase I,II, and III requirements.

Table 1. Reclamation status as measured by bond release in three western states 2014.[9]

	Disturbed Acres	Phase I	Phase II	Phase III
Wyoming	173,914	63,320	24,806	10,607
Montana	39,953	19,497	13,377	3,870[10]
North Dakota	73,575	18,343	15,209	15,196
Total 3 States	287,442	102,143	53,382	29,673

- **Correct data problems by providing accurate, consistent and comprehensive information about implementation of SMCRA by federal and state agencies each year.** The report noted significant inconsistencies between OSM's national annual reports and the state reports from which they are supposed to be drawn. While some progress has been made in this vein, there remain significant differences among data provided in state annual evaluation reports.

- **Improve reclamation success by setting clear standards for reclamation benchmarks and penalizing mine operators who fail to reclaim mined land, in order to fulfill Congress's reclamation goal embodied in SMCRA.** Wyoming Department of Environmental Quality (DEQ) has initiated a working group to address bond release with OSM and industry, but progress is slow. No penalties or incentives to move forward on bond release have been established.

- **Adopt a regulatory definition of "contemporaneous reclamation." Agency staff, the states, and the industry need a statutory or regulatory definition of this key term to provide a standard for evaluating and approving mine permit applications, for evaluating the effectiveness of the Act and its enforcement and to fulfill the premier goal of SMCRA – prompt and effective reclamation of mined land.** No definition has been adopted and, as a result, prompt, effective reclamation has not occurred. OSM updated its oversight guidance, REG-8, in January, 2011. REG-8 states that the information provided on Table 6 "Surface Coal Mining and Reclamation Activity" in state program Annual Evaluation Reports should be considered a source of information on contemporaneous reclamation. However, in the most recent Wyoming program oversight evaluation, OSM appears to substitute a different metric that ignores the Phase II standard for re-vegetation bond release.

- **Stop issuing permits for new mines or mine expansions in areas where strip-mined land remains unreclaimed after more than 10 years.** OSM continues to permit new mines and mine expansions where strip-mined land remains unreclaimed after more than 10 years. The agency has also not completed interim steps, such as compiling an inventory of such lands that may be eligible for bond release after the 10 year waiting period required by SMCRA for arid western lands.

Contemporaneous Reclamation

Undermined Promise put the spotlight on the low acreage meeting the standards established for Phase III bond release. By failing to craft a regulatory definition of "contemporaneous reclamation," OSM and state agencies are focusing instead on intermediate benchmarks that provide only a partial and deceptive picture of reclamation on the ground. For example, in the 2013 Evaluation Year report for the Wyoming State Program OSM suggests that "contemporaneous reclamation specifically refers to the timeliness that reclamation is occurring."[12] The agency then uses the acres that have been backfilled, graded, re-soiled and re-seeded as the "general measurement" for contemporaneous reclamation.[13] It also appears to count the same acre twice when measuring contemporaneous reclamation, once for backfilling and grading, and a second time for reseeding.

Over the last eight years, OSM field offices have devised alternative and hard to verify measures to determine contemporaneous reclamation and reduce the growing discrepancy between acres mined or disturbed and acres "reclaimed." By calculating a ratio to determine contemporaneous reclamation based on Phase II activities, but not

Colin Ruggiero

actual Phase II bond release, this measurement masks the fact that vast quantities of disturbed lands are decades past the waiting period for Phase III bond review. These measures conceal the growing problem of meeting the promise and standard set by Congress in the Surface Mining Control and Reclamation Act.

OSM updated its oversight guidance, REG-8, in January, 2011. REG-8 states that bond release information provided on Table 6, "Surface Coal Mining and Reclamation Activity," in state program Annual Evaluation Reports should be considered a source of information on contemporaneous reclamation. However, in the most recent Wyoming program oversight evaluation, OSM appears to substitute a different metric that ignores the Phase II standard for re-vegetation bond release.

In an April, 2012, letter to OSM Western Regional Office and the Casper Field Office, the Western Organization of Resource Councils objected to OSM's assertion that "[l]ands [...] are considered permanently reclaimed when they are seeded with permanent vegetation consisting of species as prescribed in the reclamation plan of the approved permit." The letter pointed out that seeding hard-to-establish plant communities does not equate to a sustainable ecosystem in a harsh climate. At that time over 90% of disturbed lands in Montana and Wyoming had yet to be submitted for Phase III bond release, 30 years after passage of the law. In North Dakota the number was over 80%. In the three states, over 392 square miles had yet to be submitted for Phase III bond release. Numbers for earlier stages of bond release were "equally appalling," the letter asserted.[14]

Bond Release Progress Remains Slow

OSM will evaluate and report on the effectiveness of state programs in ensuring successful reclamation on lands affected by surface coal mining operations. Success will be determined based on the numbers of acres that meet the bond release standards and have been released by the state.

Once the data collection system and verification procedures have been established, the acres released from bond will represent accomplishment of specific on-the-ground reclamation.

-OSM Directive REG-8 "Oversight of State Regulatory Programs"[15]

Performance bonds are typically released in three phases as reclamation proceeds.[16] Given the paramount role bonding plays in the Act's strategy for achieving reclamation, it is essential

that bond amounts for each phase be calculated so as to provide sufficient incentive for mining companies to reclaim, as well as to cover the cost of reclamation activities in the case of bond forfeiture.

The failure by most mining companies to request bond release highlighted in *Undermined Promise* has gotten the attention of regulators and industry, but eight years after the report pointed out the growing gap and failure to reclaim to the law's standards, progress remains slow. A working group was established by the Wyoming Department of Environmental Quality Land Quality Division (LQD), the mining industry, and other stakeholders, to meet regularly and address bond release issues. According to Wyoming's 2013 evaluation year report:

> *The main goal of the Coal Working Group is to clarify and streamline the guidelines for bond release, and develop transparent processes for reclamation evaluation and bond release in Wyoming. Monthly meetings and discussions are ongoing with the Coal Working Group, and significant progress has been made in revising and streamlining LQD [Land Quality Division] guidelines (guidelines 20, 21, 22, and 23) that address Phase I and Phase II bond release and the process and requirements for mine permittees to attain each of the phases.*
>
> *The Coal Working Group is also developing a new, yet to be named guideline that specifically addresses the Phase III bond release process and requirements.*[17]

The group, meeting monthly over the past two years, is only beginning to develop a Phase III guideline. And while state and federal regulators and coal industry representatives try to streamline the process and motivate companies to apply for bond release, OSM and state programs have largely failed to exercise their authority to compel mining companies to apply for bond release and demonstrate whether they have met the standards of SMCRA. OSM and DEQ could withhold approval

The failure by most mining companies to request bond release highlighted in Undermined Promise has gotten the attention of regulators and industry…

of new permits and expansions where mines are sitting on large acreages of land that should be reviewed following the ten-year post-revegetation waiting period.

Public Role in Bond Release or Transfer

Federal law allows any interested party to submit written objections to an application for any phase of bond release and entitles them to a timely public hearing conducted by the regulatory authority before a decision on the application for bond release is reached.[18] In North Dakota, however, release and transfer of bonds is allowed without hearings or public comment, causing citizens and landowners frustration in their efforts to meaningfully participate in the decision. When a hearing was held by the North Dakota Public Service Commission (PSC) in January, 2012, on final—and first—bond release for 217.5 acres of the Falkirk mine in McLean County, residents and landowners were surprised to learn that the application from the operator did not entail any reduction in bond amount. As this was the only application for bond release ever submitted, it should have requested the release of the original amount of the bond in full. Evidently, there were no longer any financial guarantees bonding the tract in question because the remaining bonds had been transferred to another area. This suggests that the bonds had been effectively released without public notice, hearings or comment. Either way, the bond release process in North Dakota appears to be a paper exercise, rather than a

component of robust public oversight as required by SMCRA. If the undertaken reclamation activities prove insufficient, the PSC will be without any financial recourse to complete the work properly and the fundamental purpose of SMCRA will have been defeated.

Self-bonding

As the gap between acres disturbed by mining and the acres released from bond continues to grow, the outstanding bond liabilities of mining companies also continue to grow. This trend is especially troubling in light of the agency practice of allowing coal operators to "self-bond" because hundreds of millions of dollars in bond obligations are left without a surety. The current market conditions of the coal industry and the generally imperiled financial position of coal mining companies exacerbate these concerns and provide strong reasons to take a deeper look at self-bond programs to ensure the public is sufficiently protected in case a company defaults on its bond obligations.[19]

A. Background

The main advantage of self-bonds for operators is that they do not tie up property, cash, or credit capacity with regulatory authorities and financial institutions, or require the payment of surety bond premiums. As the expansive mine lands of the western region require reclamation bonds worth as much as hundreds of millions of dollars for the largest mines, self-bonding can free up large amounts of capital relative to collateral bonds;[24] the savings from replacing surety bonds with self-bonds were enticing enough for Cloud Peak Energy to initiate self-bonding in 2014, reportedly to save $2 million per year in surety premiums.[25]

According to results from a 2014 survey conducted by the Interstate Mining Compact Commission, the following states allow self-bonding or guarantees by a parent or non-parent corporation: Alabama, Arkansas, Colorado, Illinois, Indiana, Louisiana, Mississippi, New Mexico, North Dakota, Pennsylvania, Texas, Utah, Virginia, West Virginia, and Wyoming. The following states hold at least 50% of total reclamation bonds through any form of self-bonding: Colorado (57%), Indiana (56%), New Mexico (70%), North Dakota (69%), and Wyoming (63%).[26]

To qualify for self-bonding, guarantors must demonstrate that they meet the financial solvency requirements of one of three tests provided by SMCRA regulations:[27]

A. The applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation;

B. The applicant has a tangible net worth of at least $10 million, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

C. The applicant's fixed assets[28] in the United States total at least $20 million, and the applicant has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater.[29]

While the term "self-bond" is sometimes used to encompass all reclamation guarantees without separate surety, it is important to distinguish between the three entities who may qualify to guarantee a self-bond, and the terms used in each case:

This trend is especially troubling in light of the agency practice of allowing coal operators to "self-bond" because hundreds of millions of dollars in bond obligations are left without a surety.

Major Findings of this Report:

1. Parent corporations Peabody Energy Corporation and Arch Coal, Inc. do not guarantee self-bonds for their mines. Instead, the bonds are guaranteed by subsidiaries Peabody Investment Corp. and Arch Western Resources, LLC.[20]

2. Neither Peabody Energy Corporation, Arch Coal, Inc., nor Alpha Natural Resources, Inc. appears to meet the qualifying criteria to guarantee self-bonds, likely due to substantial long-term debt on their balance sheets. Peabody Investment Corp. (PIC) and Arch Western Resources, LLC (AWR) each qualify, likely because they do not report their parents' respective debts on their balance sheets. Financial information for these subsidiaries is not publicly disclosed through Securities and Exchange Commission (SEC) filings or state regulatory authorities, however.[21]

3. Assets of Peabody Energy Corporation and Arch Coal, Inc. that back reclamation self-bonds appear to be "double-pledged" to both state regulatory authorities and creditors of the parent corporations. While PIC and AWR likely do not report their parent corporations' long-term debt on their balance sheets, they appear to be pledged as collateral to that debt. Because AWR and PIC directly or indirectly control each company's respective operating subsidiaries, whose assets back self-bonds, these assets appear to be "double-pledged" to both state regulatory authorities and the creditors of the parent corporations.[22]

4. Peabody Energy Corporation appears to report aggregate self-bonding in excess of the regulatory threshold of 25% of tangible net worth. Self-bond guarantors may not guarantee reclamation obligations in excess of 25% of their tangible net worth. Regular financial disclosures via SEC filings reveal that Peabody Energy Corporation's affiliates appear to have done so frequently since data became available in 2003.[23]

- A "self-bond" is guaranteed by the mine operator, usually a subsidiary of a larger parent corporation.

- A "parent corporate guarantee" is guaranteed by the parent corporation of the mine operator, which is sometimes also a subsidiary of a larger parent corporation. For example, Peabody Investments Corp. guarantees the reclamation bond of the North Antelope Rochelle mine, which is operated by its subsidiary Peabody Powder River Mining, LLC.[30]

- A "non-parent corporate guarantee" is guaranteed by an entity that is neither the mine operator nor its direct parent. In this case, the guarantor may be within the same corporate family, or may be non-affiliated. For example, the self-bonds of mines associated with mine-mouth power plants are sometimes guaranteed by the associated electrical utility (e.g., Basin Electric Power Cooperative and Tri-State Generation and Transmission Association, Inc., jointly guarantee the self-bond of the Dry Fork mine in Wyoming;[31] Great Rivers Energy guarantees the reclamation bond of the Falkirk mine in North Dakota, which is operated by a subsidiary of NACCO Industries[32]).

In each case, the guarantor must meet the same financial solvency tests, whether self-bonded operator, parent guarantor, or non-parent guarantor.

As an example of which of the aforementioned tests have been used to qualify for self-bonding in Wyoming, a timeline has been reconstructed for the Black Thunder mine near Wright, Wyo., from documentation publicly available through the Wyoming Department of Environmental Quality (WDEQ).

August 26, 2004: Self-bond initiated at Black Thunder mine by Thunder Basin Coal Company, LLC (TBCC) as operator-guarantor (qualifying test unknown).

December 11, 2011: TBCC notified they continue to qualify for self-bonding under test B.[33] Black Thunder self-bond set at $168,187,911.

March, 2012: Arch Western Resources, LLC (AWR), parent of TBCC, applied to WDEQ as parent-guarantor for all Arch Coal mines in Wyoming, including Black Thunder. Applied to qualify under test C.[34]

July 19, 2012: North Rochelle mine and Jacobs Ranch mine self-bonds consolidated under Black Thunder self-bond. New total self-bond amount: $298,550,000.

August 20, 2012: AWR accepted as parent-guarantor of self-bond for consolidated Black Thunder mine.

May 28, 2013: Black Thunder parent guarantee increased to $329,317,000.

November 28, 2014: Black Thunder parent guarantee increased to $374,215,000.[35]

With such substantial bonds riding on the financial health of coal operators or their corporate guarantors, self-bonding programs impose important administrative challenges. For one, considerable regulatory oversight is required to interpret and track companies' finances.[36,37] More importantly, perhaps, regulators are placed in a challenging position when self-bonded coal operators face financial difficulties. On the one hand, regulators can insist on the replacement of self-bonds with alternative financial assurances to protect the public interest and meet their statutory obligation to ensure mine site reclamation, but thereby add further financial stress to the guarantor. On the other hand, regulators can choose not to pursue alternative financial assurance to avoid precipitating additional financial strain, but thereby tolerate inadequate bonds.[38] Thus, in situations of sustained financial difficulties, self-bonding presents regulatory authorities with a classic Catch-22.[39]

B. Financial Headwinds

The coal mining industry is currently facing some of the toughest market conditions it has seen in its recent history. Following large acquisitions financed heavily with debt leading up to 2011, cheap natural gas undercut domestic thermal coal markets. As coal production costs continue to rise due to economic and geologic factors[40] while global markets and domestic competition for electricity generation push coal prices down, the pressures on coal producers show no sign of relenting. Accordingly, major coal operators have earned low marks from credit ratings agencies:

Moody's Investor Service:

October 7, 2013: Arch Coal "Corporate Family Rating" downgraded to B3 from B2, outlook negative.[41]

May 13, 2014: Alpha Natural Resources "Corporate Family Rating" downgraded to B3 from B2, outlook stable.[42]

July 23, 2014: Peabody Energy "Corporate Family Rating" downgraded to Ba3 from Ba2, outlook negative.[43]

Fitch:

May 8, 2014: Arch Coal "Issuer Default Rating" downgraded to CCC from B-.[44]

October 28, 2014: Peabody Energy "Issuer Default Rating" downgraded to BB- from BB, outlook negative.[45]

Standard & Poors:

August, 2014: Arch Coal rating outlook downgraded to "negative" from "stable."[46]

January 23, 2015: Peabody Energy rating outlook downgraded to "negative" from "stable." BB- corporate credit rating affirmed.[47]

Professional financial analysts' opinions reveal serious concern over the financial health of U.S. mining companies. For example, UBS Securities LLC coal equities analyst Kuni Chen notes that major bankruptcies may only be a few years off:

> Since 2012, we have seen [Appalachian operators] Patriot Coal and James River file for bankruptcy protection. There continues to be signs of mounting financial distress in the coal sector [...] While there does not appear to be any imminent bankruptcy risk, we want to discuss the potential event path to a next potential liquidity crisis looking ahead 2-3 years.[48]

Other analysts see a nearer-term bankruptcy risk, especially for Arch Coal:

> Evan Mann, an analyst with bond research firm Gimme Credit LLC, told SNL Energy that because the company is so heavily leveraged, he predicted "Arch will be the first" to go under among the leading U.S. coal producers. By late 2015 or 2016, "the stockpile of money is going to run out," Mann said. The company had about $5.12 billion in long-term debt at June 30[, 2014].[49]

Concern around Arch Coal is underlined by its dismal market valuation: the company's share price crossed below the $1.00 mark for the first time in the company's history on January 28, 2015.

Trade press coverage sums up the coal mining industry's present condition well:

> Persistently weak coal markets have forced domestic producers to take drastic action from closing mines and hoarding cash to selling assets and lately cutting dividends to stay afloat. But with no relief in sight, the prospect of another major producer filing for bankruptcy is growing, and it might come as early as this year.[50]

Following large acquisitions financed heavily with debt leading up to 2011, cheap natural gas undercut domestic thermal coal markets.

Besides difficult market conditions, analysts consistently express concern over the heavy long-term debt load carried by major coal operators. This is particularly relevant to self-bonding due to the criteria under which guarantors qualify. As noted above, Arch Coal subsidiaries have used Wyoming's tests B and C to self-bond its biggest mine, Black Thunder. These tests differ little; importantly, both require the guarantor to maintain a ratio of total liabilities to net worth of 2.5 or less. Demonstrating a healthy ratio of total liabilities to net worth is a prudent criterion to qualify for self-bonding. Regulators must consider carefully before allowing a company to guarantee further financial obligations without separate surety or collateral when it is already carrying extensive liabilities relative to its present value.

C. Double-pledged Assets

Unfortunately, the qualifying tests for self-bonding laid out under SMCRA do not require deep due diligence with respect to self-bond applicants' potential liabilities. Take, for example, Arch Coal, Inc., whose subsidiaries Thunder Basin Coal Company and Arch Western Resources have met the required ratio. Unlike its subsidiaries, parent company Arch could not qualify as a self-bond guarantor based on recent financial filings.[51] This is because Arch Coal, Inc., whose net worth comprises the assets of its subsidiaries, also carries hefty liabilities, especially in the form of its long-term debt (bond issuances, loans, credit facilities, etc.). As demonstrated below in Table 2, neither Arch Coal, Inc., Peabody Energy Corporation, nor Alpha Natural Resources, Inc. meets the ratio of total liabilities to net worth of 2.5 or less.

While corporate family debt is usually held at the level of the ultimate parent, it is typically guaranteed by the parent's subsidiaries (that is, by the value of the subsidiaries' assets). For example, indentures between Arch Coal and creditors pledge nearly all of its subsidiaries as guarantors of that company's $5.12 billion in debt.[52,53] These subsidiaries' assets are the same as those implicitly backing reclamation self-bonds held by the state of Wyoming and others. This raises a fundamental question about self-bonding: how can assets under obligation as security to Arch Coal's debt also serve as security for mine site reclamation obligations to the state of Wyoming, including Black Thunder, the second largest mine in the country? Should self-bonded operators like Arch Coal enter bankruptcy, as some analysts predict, how does the state of Wyoming assure reclamation bonds coverage will not be interrupted, if, for example, encumbered assets implicitly backing self-bonds were reassigned to new owners in a bankruptcy proceeding?

D. Lessons from Texas

This situation is not an isolated instance. The case of Texas-based Luminant Mining strikingly illustrates the risks posed by insolvency and bankruptcy proceedings to self-bonds backed by encumbered assets.

Lignite miner Luminant Mining's self-bonds were guaranteed by sister-company Luminant Generation, an electrical utility. Luminant Generation's same assets, however, were also legally securing billions of dollars of debt taken on by a parent company that was teetering on the brink of bankruptcy. Despite already being fully encumbered, Luminant Generation's assets were double-pledged to the State of Texas without any portion carved-out to solely secure the self-bonds. In the event that Luminant Generation's assets were reassigned to new owners in bankruptcy proceedings, Texas taxpayers could have been on the hook for $1.01 billion of Luminant Mining's reclamation obligations, having an inferior legal claim to Luminant Generation's assets compared to the parent corporation's creditors.

As predictions of bankruptcy circulated in the business press,[54] the issue was repeatedly raised with the Railroad Commission of Texas (RCT).[55,56] Instead of waiting for a reclamation claim to settle the question of encumbrance, the RCT chose to be proactive. Upon bankruptcy of Luminant Mining's parent company, RCT required a replacement bond for Luminant Mining's self-bonds. As a condition on the collateral bond that was provided as replacement, RCT received legal priority to be paid before the bankruptcy lenders who facilitated the bond.[57] This agreement is a much more

Table 2. Liabilities to Net Worth Ratio Test Applied to Parent Corporations.

	Arch Coal, Inc.[70]	**Peabody Energy Corporation**[71]	**Alpha Natural Resources, Inc.**[72]	**Cloud Peak Energy Inc.**[73]
Long-term debt at Dec. 31, 2014	$ 5,123,485,000	$ 5,965,600,000	$ 3,719,519,000	$ 498,480,000
Total liabilities at Dec. 31, 2014	6,761,569,000	10,464,600,000	7,749,348,000	1,072,084,000
Net worth (Stockholders Equity) at Dec. 31, 2014	1,668,154,000	2,726,500,000	2,986,800,000	1,087,834,000
Ratio of total liabilities to net worth at Dec. 31, 2014	4.05	3.84	2.59	0.99
Qualifies? (Ratio ≤ 2.5)	DOES NOT QUALIFY	DOES NOT QUALIFY	DOES NOT QUALIFY	QUALIFIES

effective assurance of reclamation than the former uncollateralized self-bonds.

Neither SMCRA nor its regulations specifically require the deep due diligence necessary to ensure that a self-bond guarantor's assets will be legally available in the event of reclamation claims. Protection of the public interest requires that self-bonding due diligence go beyond simply verifying compliance with the designated financial solvency tests. Instead, an assessment of the encumbrance of self-bond guarantors' assets should be taken by the regulators in the face of the heavy debt loads carried by major coal operators. As demonstrated by the Railroad Commission of Texas, this deeper due diligence led to a more comprehensive understanding of the financial position of Luminant Mining and its affiliates, and led to a revocation of Luminant Mining's self-bonds.

E. Asset Valuations

A further issue that deserves attention is the valuation of the assets backing self-bonds. Assets only have as much value as buyers are willing to pay for them, and there may be a difference between how much the assets are said to be worth and how much they are actually worth in practice. In a period of anemic coal markets and bankruptcy risk, reflected in bargain-basement share prices (see Figure 1, below), assets may no longer be worth their book value. This was the case for James River Coal Company, which sold 3 mines for $52 million during bankruptcy proceedings in August 2014, but still posted a $503 million monthly loss associated with the sale.[58]

The buyer's market for coal assets is most pronounced in the Central Appalachian basin,[59] but affects western coal mining as well.[60] Recently, Australian firm Ambre Energy sold its two North American coal mines and two coal export terminal projects to Resource Capital Funds (RCF), a private equity firm and Ambre's main creditor, for a mere $18 million in cash. Ambre had claimed as recently as the preceding winter that its assets were worth a combined $200-400 million. Ambre's financial difficulties are severe even against the backdrop of an embattled industry,[61] but such steep discounts on both mine and export terminal assets – the latter representing the growth strategy of many domestic coal producers – strongly recommend a deeper dive into the valuation of all assets backing self-bonds.

Figure 1. Alpha Natural Resources (ANR), Arch Coal (ACI), and Peabody Energy (BTU) have lost 93-98% of their value since 2011 despite overall economic recovery. Source: Google Finance.

F. Regulatory Compliance Among Western Coal Operators

In recognition of self-bonding's inherent risk to the completion of reclamation, SMCRA regulations contain a limit to self-bonding: guarantors may not guarantee bonds worth more than 25% of their "tangible net worth."[62] The administrative rules in Wyoming,[63] North Dakota,[64] Colorado,[65] and New Mexico[66] contain the same prohibition.

Based on SEC filings of major publicly-traded coal operators in the United States, only Peabody Energy, Arch Coal, Alpha Natural Resources, Cloud Peak and CONSOL Energy disclose self-bonding. Of self-bonding operators in the west, Peabody Energy, Arch Coal, Cloud Peak and Alpha disclose figures for their aggregate levels of self-bonding. Both Peabody and Arch report self-bonding in excess of 25% of net worth during the period for which data is available, 2003 through 2014. These two companies appear to violate federal and state regulations.[67,68]

Figure 2 illustrates reported levels of aggregate self-bonding as a percentage of companies' net worth at year's end. Self-bonding reported by Peabody exceeded 25% of net worth in 2003 (37.9%), 2004 (37.9%), 2005 (30.8%), 2006 (26.4%), 2012 (25.8%), 2013 (34.6%), and 2014 (49.9%). Self-bonding reported by Arch exceeded 25% of net worth in 2014 (27.5%). Self-bond levels were not reported by Arch prior to 2005, by Peabody prior to 2003, or by Alpha prior to 2014. Cloud Peak initiated self-bonding in the second quarter of 2014.

Self-bonding data derived from annual financial disclosures represent total self-bonding across the country, and are therefore non-specific to western coal mining. Given that all state regulations concerning self-bonding must conform to federal standards, a parent corporation's aggregate self-bonding may not exceed the limit of 25% of tangible net worth. This suggests that Peabody Energy is in violation of the 25% threshold in one or more states. In light of the present financial situation of Peabody Energy and other domestic

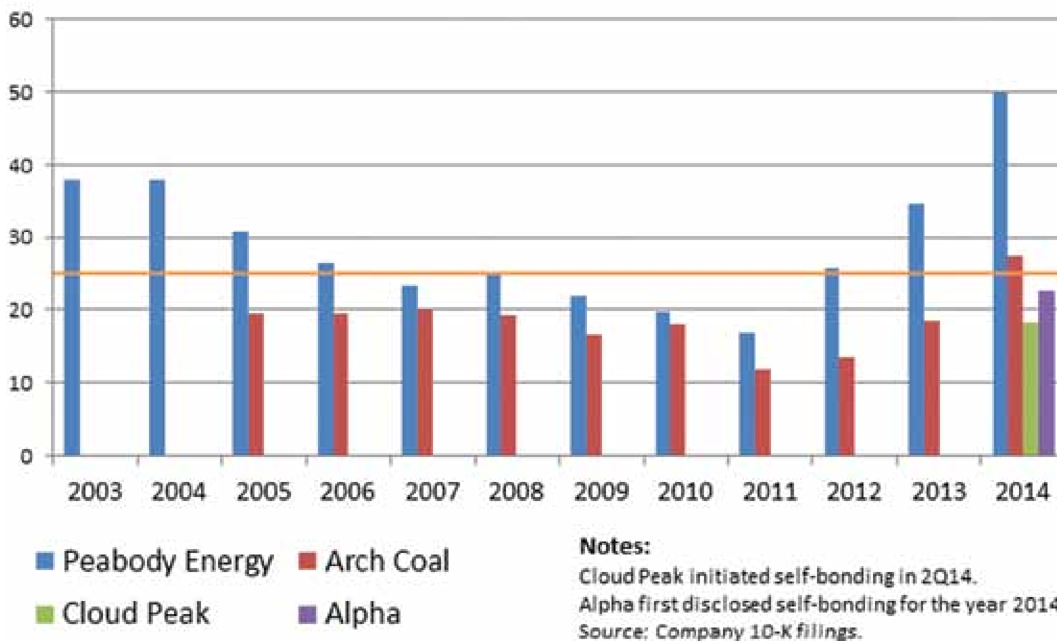

Figure 2. Aggregate reclamation self-bonding reported by Peabody Energy, Arch Coal, Cloud Peak, and Alpha Natural Resources, represented as a percentage of reported net worth. Data arrayed in Tables 3, 4, 5 and 6.

coal companies, we believe the administrators of reclamation self-bonding programs should verify the financial positions of self-bond guarantors.

The national conversation around reclamation bonding is vibrant, particularly with respect to self-bonding.[69] This report aims to raise the issues of double-pledged collateral and regulatory compliance in that conversation. Given the possibility of encumbered and overvalued assets that back self-bonds in the western region, reclamation of large swaths of mined land may be at stake. For all states that permit self-bonding, regulators rely on the future financial health of heavily indebted, loss-making coal companies to guarantee extensive mine site reclamation. This challenges the fundamental promise of SMCRA: that any lands mined for coal will be reclaimed for future land users.

Table 3. Peabody Energy Net Worth and Self-Bonding (millions USD).

Year	Net Worth	Aggregate Self-Bonding	Self-Bonding % of Net Worth
2003	1,132.1	428.8	37.88
2004	1,724.6	653.3	37.88
2005	2,178.5	671.8	30.84
2006	2,587.0	685.3	26.49
2007	2,735.3	640.6	23.42
2008	3,119.5	773.4	24.79
2009	3,755.9	821.9	21.88
2010	4,689.3	920.3	19.63
2011	5,515.8	929.6	16.85
2012	4,938.8	1,275.8	25.83
2013	3,947.9	1,365.1	34.58
2014	2,726.5	1,361.4	49.93

Table 4. Arch Coal Net Worth and Self-Bonding (millions USD).

Year	Net Worth	Aggregate Self-Bonding	Self-Bonding % of Net Worth
2005	1,184.2	229.9	19.41
2006	1,365.6	265.2	19.42
2007	1,531.7	306.4	20.00
2008	1,728.7	334.6	19.37
2009	2,115.1	352.0	16.64
2010	2,237.5	406.2	18.15
2011	3,578.0	420.5	11.75
2012	2,854.6	388.4	13.61
2013	2,253.2	417.6	18.53
2014	1,668.2	458.5	27.48

Table 5. Cloud Peak Net Worth and Self-Bonding (millions USD).

Year	Net Worth	Aggregate Self-Bonding	Self-Bonding % of Net Worth
2014	1,087.83	200.0	18.38

Table 6. Alpha Net Worth and Self-Bonding (millions USD).

Year	Net Worth	Aggregate Self-Bonding	Self-Bonding % of Net Worth
2014	2,986.8	676.1	22.63

Given the possibility of encumbered and overvalued assets that back self-bonds in the western region, reclamation of large swaths of mined land may be at stake.

Part 2: Water

Colin Ruggiero

Successful hydrologic reclamation depends on up-front analysis and characterization of pre-mining hydrology

Editor's Note: This section is based on a white paper prepared by Charles Norris, "Hydrologic Protections within the Federal Surface Mine Control and Reclamation Act," August, 2014, which is included with this report as Appendix A.

In the water-scarce western U.S., groundwater, intermittent surface water and sub-irrigation are vital to the people and communities, domestic livestock and wildlife, and the sustainable productivity and economic base of the region. The shallow coal seams fueling much of the nation's electric generators also contain the groundwater aquifers that nourish springs, wells, streams, natural systems, communities, and the economic well-being of the region. SMCRA acknowledges the distinctive semi-arid hydrology of the Western United States by specifically protecting alluvial valley floors west of the 100th Meridian.

SMCRA places special emphasis on hydrology. Specifically, if the regulating agency finds that the cumulative off-permit hydrologic impacts of all mining in the area are not within acceptable levels, the agency must deny the permit application.

"Environmental problems, at least hydrologic problems that persist with surface coal mining, are not problems with SMCRA or its regulations," according to Chuck Norris, geo-hydrologist, in his white paper analyzing issues with hydrology at Western strip mines.[74] "The problem lies with the actual implementation of the act and its enforcement." This presents an area ripe for regulatory reform and more stringent oversight.

With respect to hydrology, SMCRA was designed by Congress to implement two key mandates, in order to limit the levels of damage allowed inside and outside the immediate area of mining. First, damage to the prevailing hydrologic balance at each mine site and in associated offsite areas must

be minimized.[75] Second, material damage to the hydrologic balance outside each permit area must be prevented.[76]

The fundamental hydrologic protections under SMCRA are not simply extended to a stream, aquifer, water well, or a quantity or flow of ground or surface water. These protections extend to the exchanges between all of these systems over time. The authors of SMCRA understood that water is constantly moving and constantly changing and that damage anywhere along that path or cycle affects everything along that path or cycle; it's the pattern – the balance – that must be protected. It is a holistic understanding that reflects the science of hydrogeology.

Achieving the fundamental mandates of SMCRA is a doable task, and the law enumerates a logical set of steps to allow the law to work. The first four steps are performed by the operator, and the fifth responsibility rests with the regulatory authority:

Ecoflight

1. Characterize the hydrologic balance as it exists pre-mining.

2. Evaluate the mining plan to ascertain how mining would change the hydrologic balance and determine what would be the probable hydrologic consequences of mining.

3. Develop a hydrologic reclamation plan that ameliorates the impacts of mining to the point that damage to the hydrologic balance can be expected to comply with SMCRA limitations.

4. Devise a monitoring plan that will track the changes due to mining to verify the projections of the probable hydrologic consequences, to demonstrate the efficacy of the reclamation plan, and to allow for timely intervention if things are not going as planned.

5. Assess the cumulative hydrologic impacts from the mine and from other mines to determine that, even cumulatively, the mine will prevent material damage to the hydrologic balance outside the permit area. (The regulatory authority performs this step)

SMCRA acknowledges that surface mining inherently will do damage, Norris explains. "You just don't make an omelet without breaking eggs." The statute is designed to limit that damage, minimize it when possible, and remediate it when necessary. SMCRA appreciates that, with respect to hydrology, impacts extend beyond the mine.[77]

A regulatory authority cannot issue a permit for a mine until it has determined that the off-permit hydrologic impacts of the proposed mine, cumulatively with all other past, current and anticipated future mining, will not exceed acceptable levels. This determination is the cumulative hydrologic impact assessment, or CHIA, that is required prior to approval of every permit.

While hydrologic protections within SMCRA are well-thought-out, the process is hampered

by ineffective implementation at the start. Norris suggests that "the characterization of the hydrologic balance is too frequently grossly inadequate. Baseline data collection is generally too limited geographically, geologically, in duration and in frequency. As a result, only a ghost of the hydrologic balance is drawn, with not enough detail to protect it."

Youngs Creek Mine Permit Hydrology Characterization Found Lacking

The Youngs Creek Mine is a proposed new surface mine with a permit to disturb more than 7,000 acres in northeastern Wyoming, twelve miles north of Sheridan. The permit area had hosted a small historic surface mine, and is currently home to a network of coalbed methane wells, center pivot agricultural operations, and grazing. Surface ownership and mineral rights, for approximately 328 million tons of coal, are held privately. The mine area was purchased by Cloud Peak Energy in 2012.

While geologic and hydrologic data from previous mines and external studies were incorporated into the permit, omissions in several key areas leave much to be desired for a meaningful analysis of the permit area's pre-mining hydrologic balance. More thorough data collection would be needed to fully characterize the area's surface and groundwater quality and quantity to fulfill the promise of SMCRA. For example:

- An intermittent stream in the permit area was mistakenly characterized as an ephemeral stream. Intermittent streams are protected from mining under the stream buffer rule.

- Adequate data was not collected to characterize the upper layer of stream valley alluvial sediments, resulting in a major over-simplification of the groundwater model.

While geologic and hydrologic data from previous mines and external studies were incorporated into the permit, omissions in several key areas leave much to be desired for a meaningful analysis of the permit area's pre-mining hydrologic balance.

- The number and placement of groundwater wells is insufficient to characterize bedrock groundwater discharge to and from the alluvium. This resulted in an oversimplification of groundwater exchange between bedrock and alluvium in the groundwater model.

- Stream flow diversions into agricultural ditches were not fully quantified.

- Some of the surface water quality samples were collected following precipitation and before the return of normal stream flow, which may have skewed results.

- Water quality data from the former mine pit was not included in the permit materials, despite the insight into post-reclamation hydrology and spoil water quality the data offers.

- Ongoing groundwater withdrawal due to coalbed methane wells may have changed groundwater dynamics since the conclusion of baseline data collection.

For a more detailed analysis of the Youngs Creek Mine permit, see Appendix B online at www.underminedpromise.org.

Profile: Powder River Basin rancher LJ Turner

LJ Turner

For nearly a century, LJ Turner and his family have run cattle and sheep over the rolling grasslands of Campbell County, Wyoming. Born and raised on land homesteaded in 1918 by his grandfather and father, Turner manages herds of around 200 red Angus cattle and 1000 sheep. The expanses of grass, with just enough springs and streams, allowed his herds to thrive. The rise of extensive mineral extraction over the course of the past few decades has had significant consequences for his livelihood, however, including closures of his family's customary grazing land, extinguished springs, and early-drying creeks and rivers.

Turner currently grazes livestock on 10,000 acres of private and public land, though his family historically ranched nearly three times that area. With the advent of large strip mines just ten miles from his home, leases for 6,000 acres of public land assigned to Turner's family since the 1930s have been turned over to coal mining operations. Coal company acquisitions of adjacent private land have further reduced grazeable area.

Ancillary mine facilities also take their toll. For example, construction of a mine road across Turner's last remaining public pastureland during a recent summer grazing season required his displacement. Facing a paucity of local relocation options, he reasoned that contemporaneously reclaimed mine lands should be available. Turner recalls being told that no mine lands were grazeable when he offered to move his cattle there; the mining company instead offered him $10,000 to relocate for the summer. The only suitable area he could find was over 200 miles away in the Black Hills of South Dakota, and his compensation payment never materialized.

Besides losing thousands of acres of land he and his family historically ranched, Turner has watched scarce water resources dry up. As the coal bed aquifers have been depressurized from mining, springs that have fed streams and watered cattle no longer flow. As a child, Turner remembers that water would bubble up from just such a spring each winter when he would cut blocks of ice from it for home use. As springs have dried up, so have creeks and rivers that Turner and his neighbors depend on. A stream on Turner's ranch that would run until autumn has dried up during the summer for the past two years, as has a five-mile run of the Belle Fourche River on a neighboring ranch. On a pasture near Porcupine Creek, in close proximity to the mines, the drilling of exploratory borings eliminated the flow of minor springs that were useful for Turner's cattle, while railroad construction covered over others.

LJ Turner

With the loss of many sources of water, Turner operates a dozen or so wind-powered wells that reach as deep as 1,000 feet to obtain enough water for his animals. The infrastructure, including pipelines to transport the water, has cost him nearly a quarter million dollars. If the aquifers currently tapped by his wells are drawn down much further, he may not be able to afford to redrill.

Anchors of the regional economy, agricultural operations like Turner's are plagued by uncertainty over the long-term availability of adequate grass and water. Continued mine expansions and the meager reclamation of mine lands in the state of Wyoming magnify this uncertainty: less than 6% of disturbed acres have achieved Phase III bond release. One of the breakdowns in the implementation of SMCRA in the west is the failure to force mine companies to release mined lands and return them to agriculture and wildlife.

Part 3: Wildlife

Colin Ruggiero

The impacts of Coal Mining and Coal Mine Reclamation on Native Wildlife and Plants

Restoring mined land to meet the needs of native wildlife and plant species is a significant long term challenge. The goal is to reestablish a diverse and productive, functional, and sustainable ecosystem of native plants and wildlife that resembles the diversity and the health of the ecosystem before the land was mined. The habitat needs of wildlife on reclaimed mine lands, however, rarely match up directly with the needs of domestic livestock and therefore the ways that we measure successful reclamation for wildlife will be different than successful reclamation for agricultural purposes.

To restore the land to its original state with the diverse plant and wildlife communities that existed prior to sites being mined is a task that coal mine reclamation specialists have not accomplished. Unfortunately, the definition of successful reclamation of surface mine lands as defined by SMCRA is not designed to appraise total native ecosystem recovery. Rather, successful reclamation as defined by SMCRA involves meeting certain reclamation performance standards including, in most states, replacement of topsoil, restoration of hydrologic function, effective erosion prevention, and reestablishment of a diverse, effective and permanent vegetative cover of the same seasonal variety native to the area. Although important, these standards do not lead us to sites that are equal to pre-mined sites in terms of habitat quality for native wildlife.

This chapter is not meant to be a comprehensive literature review of all issues related to wildlife and coal mining and reclamation but an overview of the challenges that wildlife face during and

after mining operations in their habitat. Although the reclamation of mined land is a large field of study, there are very few independent studies that compare the quantitative and qualitative wildlife population characteristics (e.g. species richness, abundance, density, diversity) to reclaimed mined land plant community features (e.g., species richness, canopy cover, density, standing crop biomass, diversity).

Wildlife is affected by coal mining in a variety of ways. Construction and mining activities cause direct wildlife mortalities in addition to the disturbance and displacement of wildlife populations. Direct mortalities from mining activities occur primarily as the result of interactions between wildlife species and mining equipment, increased traffic and other development. Reptiles, amphibians and small mammals are generally not mobile enough to avoid mining equipment. Mortalities of birds are caused by collisions with electrical transmission lines and other mine support structures while fish mortalities result from the rerouting of streams or the activity from heavy construction near stream channels.[78]

Coal mining displaces and disturbs wildlife populations. In the most obvious way, it forces wildlife living on the lands to move. The survival likelihood of wildlife that are mobile enough to avoid development decreases since they must move to location already occupied by wildlife and will experience greater competition for resources they need to survive. Wildlife species have varying tolerance to noise and human activity but many wildlife species occupying habitat near mines like pronghorn and raptors are disturbed. Studies have shown that energy development taking place within 3 km or less of greater sage grouse

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leks – areas where male sage grouse perform in front of females as part of the birds' mating ritual – can cause an increase in the distance females travel to nesting sites and result in lower rates of nest initiation.[79,80]

Other impacts of coal mining include air pollution and water contamination, which directly affect wildlife. The exhaust from heavy equipment and transport vehicles contains harmful gases including sulfur dioxide and nitrous oxide and as trace metals such as lead. In areas near access roads and other locations with heavy traffic, "increased levels of lead in vegetation and wildlife have been observed."[81] Long term, increased exposure of wildlife to trace elements through dust from various mining activities can cause animals to "suffer from disorders of the mucous membranes and pulmonary complication."[82] Surface water contamination from increased sediment loads and the leaching of toxic elements from exposed ores and rocks can cause decreases in aquatic oxygen content and light penetration, reducing the growth of aquatic plants and resulting in the direct mortality of fish and other aquatic species dependent on the plants as a food source. Although in arid areas the likelihood of surface water contamination is not as high, the general lack of surface water means that any contamination that does occur has a greater impact on wildlife dependent on the water source.[83]

The potential for a site to be successfully reclaimed post-mining depends on numerous factors. The first is the geology and climate of the region. In the arid West, where a majority of coal strip mining occurs, restoring the original native plant communities, which is a precondition to attracting wildlife back, is complicated by low annual precipitation. As a result, the greatest challenges to reclaiming mine lands in the West are "revegetation and the maintenance of the hydrologic conditions in and around the mine site."[84] The second factor is the level of commitment of the mining company to restore the land to the condition it was in before it was mined.

Long term, increased exposure of wildlife to trace elements through dust from various mining activities can cause animals to "suffer from disorders of the mucous membranes and pulmonary complication.

Due to the challenges of restoring native habitat in arid regions, no mined area in the West has been able to reclaim to pre-mining habitat conditions. Mining always alters the ecosystem – topography is gentler, shrub density is lighter, water balance is altered. The long term and cumulative impacts of coal mining and reclamation are significant and permanent.

Reclamation Challenges for Native Plants in Arid and Semi-arid Climates

The 100th Meridian is often cited as the dividing line between the arid West and more humid East. Colorado, Montana, New Mexico, Wyoming, and half of North Dakota all fall to the west of the 100th Meridian. The arid to semiarid climates of these states present a unique challenge to reclamation efforts. Annual precipitation is low and often falls in the form of short, high-intensity storms or snowfall. Annual, seasonal and daily temperatures can fluctuate widely, which limits the effectiveness of precipitation to aid in reestablishing native vegetation. High temperatures during summer days can increase soil temperatures to levels that cause seedlings to dry out.[85] The lack of wind breaks on landscapes that have been mined cause winds to blow though unobstructed, drying out soil and inhibiting seed germination and viability of young plants.

The arid climate that characterizes much of the western coal mining regions results in a substantially slower process of vegetative succession – the process by which plant species in an area change and mature over time. When lands are disturbed, the process of succession begins again. According to a report by the National Academy of Sciences (NAS), "although natural revegetation of a disturbed site may develop in five to twenty years on a high rainfall eastern U.S. site, it may take decades or even centuries for natural revegetation to develop in a desert."[86]

Under SMCRA, mine operators are required to meet certain revegetation standards for bond release, but the characteristics of Western climate challenge the rapidity with which native vegetation is successfully re-established. The cost of successful reclamation increases if the operator uses irrigation, mulching, proper handling of top soil and proper seedbed preparation, all of which increase the chances of reestablishment of native vegetation and a diverse plant community.

Starting From the Bottom Up: The Importance of Soil to Restoring Native Ecosystems

Preparation for revegetation begins with the removal and stockpiling of topsoil. Topsoil, which can be of various depths, is the layer located on top of the subsoil, which the mining industry calls "overburden." Because the subsoil is substantially less productive for plant growth and overall health, an important process during the mining process is to accurately determine the extent of the topsoil and to separate it from the subsoils.

If topsoil is not carefully removed and stored separately from subsoils, the two types of soil are mixed during salvage and storage, resulting in top soil contamination, and reducing the nutrients and quality of the soil for revegetation. According to the Handbook of Western Reclamation Techniques

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from the University of Wyoming, “vegetation establishment and reclamation success are enhanced by proper salvage and replacement of topsoil,” as the topsoil not only stores living features such as microorganisms, seeds, and roots, but also important nutrients.[87]

Once topsoil is stripped, it is either carried to a site that has already been mined and regraded, or it is stored in stockpiles for later use. If the coal company does not handle the topsoil correctly, it quickly suffers from compaction, wind and water erosion, and loss of essential nutrients. When topsoil is stored out in the open, exposure to the elements causes essential nutrients to leach out. As a result, when the topsoil is brought back to cover regraded mine sites, essential nutrients for native plants are often depleted. Non-uniform depletion results in nutrient “hot spots” in the soil – areas where minerals have accumulated and concentrated – causing problems for revegetation and wildlife dependent on the vegetation for food.

Mining can also increase “the inventory of contaminants in the upper parts of the soils [over] the course of time,” when heavy metals and other potentially toxic substances leach from coal mine spoils into the environment.[88] The uptake and concentration of toxicants by plants can be detrimental not only to the plants, but also to the animals that feed on them. When toxic substances are taken in at a rate faster than the organism can excrete them, bioaccumulation of the substance within the organism occurs; when an herbivore feeds on a plant that has taken up a toxic substance, and a carnivore consumes that herbivore, the toxins are magnified with each level through the process of biomagnification.

In the highly alkaline overburden and soils of the West, most of the potentially toxic substances are “only marginally soluble”; in those situations, the toxicants are not “readily available for plant use.”[89]

The specific balance of soil nutrients and metals at individual sites result in conditions that increase the likelihood of plant uptake. For example, plants growing on spoils rich in sodium are more prone to the formation of toxic compounds by boron. In addition, “in the absence of significant copper under alkaline conditions,” legumes can take up molybdenum in excessive amounts.[90]

In Colorado, Steele and Grant (1982) found that mine spoils characterized by a more complex topography were able to support a larger number of small mammals and a greater diversity of vegetation than compacted soils.[91] The presence of small mammal communities on reclaimed lands can be important in several ways. In addition to serving as a source of prey for mammalian, avian, and reptilian predators, small mammals can affect the composition and distribution of plant species on a landscape level through their foraging and burrowing activities.[92]

Establishing Diverse Native Plant Communities in an Arid Climate

In the past, driven by efforts to find the cheapest reclamation methods, operators sought to establish plants that would be able to quickly colonize post-mined lands, stabilize the soil, and meet percent cover vegetation requirements. Traditional reclamation processes that mining companies used to restore vegetation on mined lands resulted in the dominance of non-native plants on many early reclamation sites. Using non-native species may stabilize the soil but does not contribute to the restoration of native plant communities important for wildlife habitat.[93]

Provided that exceptions have not been made for certain postmining land uses or for mines with thin or thick subsoils, SMCRA requires that reclamation

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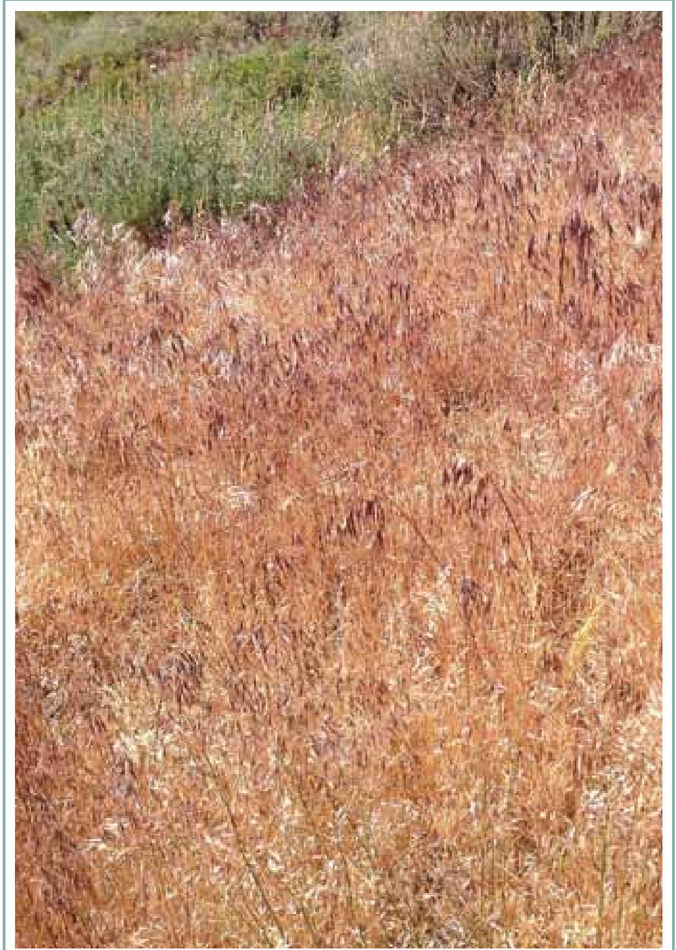
personnel "[establish] a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area and capable of plant succession and regeneration."[94]

A. Invasive and Non-native Plants

Although reclamation practices have advanced and it is more common for operators to use more native plant species in their efforts, the spread of non-native and invasive species on reclaimed mine land is a huge barrier to reestablishment of a native, healthy ecosystem.

Areas that have been mined are highly vulnerable to invasion by weeds. If left unmanaged, weeds will out-compete native species for nutrients and water resources, choking out new seedlings and further complicating the efforts to use native species for revegetation. Noxious weed infestations can cause "reduced productivity, loss of ecological diversity and wildlife habitat, and livestock health hazards."[95] The prolific presence of weeds on mined areas is caused by mining practices and occasionally the use of non-native species to stabilize the soils.

Common weeds on western coal mines include cheatgrass, Japanese brome, Canada thistle, and whitetop.[96] Cheatgrass – which covers around 50 to 53 million acres in the arid West – establishes


Credit

The prolific presence of weeds on mined areas is caused by mining practices and occasionally the use of non-native species to stabilize the soils.

itself easily on disturbed areas. The weed is unpalatable to domestic livestock and wildlife, reduces the value of habitat, and by establishing and expanding into sagebrush areas, encroaches into vital habitat for wildlife, particularly for pronghorn and sage grouse.[97]

B. Diversity of the Plant Community

A recent vegetation study done on a reclaimed coal mine site at the Belle Ayr Mine in Wyoming shows that the diversity of plant species on reclaimed land versus undisturbed land is significantly less and that the plant communities that are reestablished have more non-native and invasive species than undisturbed plant communities.[98] This is standard for reclaimed land, even though the use of seed mixes and seedlings by reclamation personnel is increasingly varied. In a study of intact sagebrush steppe lands, around 100 to 130 species were identified on 24, 50x10 meter-sized sample plots.[99] In contrast, the mining and reclamation plan for Cloud Peak's Antelope Mine in Wyoming covered only 30 species in its revegetation seed mixes.[100]

Careful and intentional reclamation work can help shorten the amount of time needed for succession in a plant community, "even under the best reclamation technology it is not possible to immediately establish communities that are as diverse or as stable as native communities."[101] Some vegetative species, such as cool season grasses, are quick to re-establish on land that has been mined while others, such as native sagebrush "[take] decades or longer to re-establish."[102]

In many parts of the arid West, sagebrush-steppe habitats consist of a mixture of grasses, forbs, and shrubs; among the shrubs, sagebrush specifically is a necessary and important food for pronghorns and sage grouse in the winter. Native sagebrush-grassland steppe plant communities may require 30 – 60 years to develop through natural successional processes.[103] Changing the composition of the vegetative community, the disturbance of wildlife habitat through mining and the return of such lands to an earlier successional state all combine to affect the wildlife occupying the disturbed area.

Reclaiming the Hydrologic Balance for Wildlife: How Mining Impacts Availability and Quality of Water for Wildlife

Wildlife in the west is under great pressure and must compete with humans for space, water and food. Many of the streams in areas that are under pressure from coal development are ephemeral – only flowing due to spring snowmelt or heavy rain during a summer thunderstorm – and thus contribute little to consistent water availability through the seasons. Therefore, the impacts to water as the result of coal mining are often severe and permanent. Surface coal mining disrupts aquifers and groundwater networks and the quality of water in general deteriorates. Other effects of mining on aquatic wildlife include changes in the volume of surface flow and channel changes due to increases in sediment load, which adversely affect wetlands, riparian areas and their inhabitants.

Groundwater contamination occurs through a variety of ways. For example, water filters down through the spoil (waste) from a mine or through exposure to residues from chemicals used during mining. Not only are effects such as these " difficult to prevent and almost impossible to reverse, [they] may not be detected for decades." Contamination of the groundwater at Colstrip, Montana due to mining operations was not detected until 50 years later.[104]

A. Impacts to Water Quantity and Location of Water Resources

Many areas in the West that are being mined for coal are characterized by the presence of coal seam aquifers. The cutting and draining of the aquifer affects wildlife by causing changes in flow patterns and alterations of surface water, including the depletion of springs and reduced water flow in creeks and streams. A Peabody strip mine in northeast Wyoming drained not just an aquifer but also caused the drying up of a perennial creek on a ranch near the mine. According to groundwater studies undertaken by the Wyoming Geological Survey, several aquifers in Wyoming's portion of the Powder River Basin have been depleted by coal mining in combination with coalbed methane production.[105] Wetland ecosystems and the ability of wildlife to access water in areas not immediately near the mine site can also be affected, as cutting off one aquifer can cause significant impacts on other aquifers nearby, and affect the recharge of alluvial aquifers located in valleys downstream. According to the Bureau of Land Management, the "restoration of aquifers may take 100 years after the pits are filled in."[106]

B. Impacts to Water Quality

Coal mining pollutes both surface and groundwater resources. Coal mining often increases the level of suspended solids and sediment load in streams and wetlands nearby. The presence of high levels of suspended solids in streams can increase ventilation rates, reducing oxygen levels for aquatic life. Suspended solids also decrease the amount of light that penetrates through the water, which limits aquatic primary plant production.

Surface waters are contaminated from the leaching of toxic substances from exposed ore, waste rock, and overburden, or from excess nutrients due to over-fertilization during reclamation. In Wyoming and Idaho, for example, dust from the surface mining of coal in areas with selenium-containing overburden was found to cause levels of the element to increase in the environment.[107] Selenium leaches from coal ash and coal mine waste into nearby water and soil and heavily impacts aquatic ecosystems, where the element can easily reach toxic concentrations and bio-accumulate through the food chain. In several lakes and reservoirs, selenium has been linked to reproductive impairment in fish and waterfowl.[108]

Contamination of groundwater usually occurs as the result of the leaching of ions from soils or the leakage of chemicals from waste-management facilities. Groundwater contamination is less likely to affect wildlife, however, unless the water is "discharged at springs, seeps, or wells, or is pumped to the surface for such uses as irrigation."[109] Contaminated groundwater can be dangerous where it is found in shallow areas; in these cases, plants that take up the contaminated water may wilt or be otherwise heavily damaged, and thus fail to serve as adequate forage for wildlife.

Conclusion

Even when reclaimed lands appear aesthetically pleasing, they are not comparable to the habitats that existed before the land was mined. Plant communities on reclaimed lands – especially in the arid West – must undergo a long period of natural succession before they resemble the pre-mined communities of plants on the land in terms of stability and diversity. Soil and water contamination on reclaimed lands are extremely detrimental to the healthy functioning and diversity of wildlife species.

Even when reclaimed lands appear aesthetically pleasing, they are not comparable to the habitats that existed before the land was mined.

Case Study: Reclamation and Sage Grouse

Bill Dvorak

Sage Grouse: Background

The largest species of grouse in North America, the greater sage grouse *(Centrocercus urophasianus)* once ranged widely across the western United States. Today, however, it is only sparsely distributed across 11 western states.[110] The greater sage grouse was recently listed as threatened under the Endangered Species Act. Either a proposal for listing or a finding that protection is not warranted is set to be announced by the U.S. Fish and Wildlife Service (FWS) in September 2015.[111]

The sage grouse's declining population can be attributed in large part to habitat loss. According to the BLM "the future of the sage grouse, which occurs throughout most of the sagebrush-covered lands of the West, depends largely upon man's ability and willingness to maintain habitat vital to its needs. No other bird is so habitat specific to one particular plant type in meeting its annual life requirements."[112] The sage grouse's obligate relationship with sagebrush stems from the species' use of the plant type for both nesting and dietary purposes – in the spring nesting season, "more than 90% of all sage grouse nests are located under or adjacent to sagebrush plants" and in the winter, sagebrush leaves constitute an almost exclusive source of food for the species.[113] Sage grouse also utilize a variety of sagebrush grassland habitat along their migration routes in the fall, when they move from their spring/summer to winter habitat.[114]

The loss of sagebrush habitat can be attributed to several factors, including fire, conversion of lands to facilitate livestock grazing, invasion of non-native plant species such as cheatgrass, encroachment of native conifers, and use of lands for energy and mineral development. Coal fields in Montana, Wyoming, and Colorado are coterminous with large portions of the greater sage grouse's range.[115]

Coal Mining & Sage Grouse

Mining for coal has destroyed much of the sagebrush habitat that sage grouse depend on. Some mines, such as the Jim Bridger mine in Wyoming, already operate in sage grouse priority habitat. Current mining proposals continue to threaten sage grouse priority habitat, including expansion plans for the Spring Creek and Colowyo mines in Montana and Colorado, respectively, as well as a proposal to mine coal in Wyoming's Carbon Basin.[116]

Although science has improved reclamation – illuminating best practices and fostering a shift from the use of non-native to native species for revegetation – efforts to reclaim lost sagebrush habitat post-mining, in accordance with SMCRA and individual state reclamation standards, continue to face several challenges.

Reclamation over Time

More stringent standards passed by state legislatures have also, over time, encouraged the reseeding of shrubs such as sagebrush, which has helped to increase vegetative diversity by reducing the dominance of grasses on reclaimed lands. Wyoming's Environmental Quality Act, for example, "requires coal mines to include shrubs in the reclamation revegetation species mix and further specifies planting patterns and density required to achieve full reclamation bond release" – at least 20% of the land must be covered by shrub patches, with at least 1 shrub per square meter.[117] Although the requirements, passed in 1996, do not specify sagebrush species as the shrub type to be used for reclamation, Kleinman and Richard note that "because of the requirements to replace or restore the vegetation existing prior to mining disturbance, the replacement of big sagebrush is specified by default."[118]

Case Study: Reclamation and Sage Grouse *(continued)*

A Closer Look

BLM reports that in Colorado's Colowyo and Trapper mines, monitoring data indicate that sage grouse are using reclaimed lands at certain times of the year.[119] However, the contribution of reclaimed sagebrush habitat to sage grouse survival is tempered by the nuances of both reclamation in the West and the needs of sage grouse. While some evidence exists that sage grouse will use reclaimed lands, the rate of reclamation in the West where sage grouse are found, is slow. Calculations based on data from the Office of Surface Mining (OSM), added cumulatively for five western states (Colorado, Montana, New Mexico, North Dakota, and Wyoming) and from 1996 to 2013, indicate that of total acres bonded for current or future disturbance by mining, only about 7.1% have been reclaimed.[120] On a smaller scale, of 150,000 acres managed by Colowyo Coal, only about 1% is in the process of being reclaimed.[121]

Compounding the problem of a slow rate of reclamation are other time lags. Data from Colorado's Trapper Mine indicate that in some cases, "when sage grouse do use reclaimed lands, it is land that has been in reclaimed status for 15 to 20 years."[122] In addition, reclamation personnel may face difficulties in successfully reestablishing sagebrush, where success depends largely on seed quality, seeding rate, winter and early spring precipitation, mulching, and topsoil management, among other factors.[123] When best practices are not used or when weather conditions are unfavorable, such as during years of low precipitation, sagebrush reestablishment is likely to be delayed. With availability often a problem in the arid west, water can thus be an important limiting factor.

Even when sagebrush is successfully reestablished and meets reclamation criteria, it may still lack characteristics of suitable wildlife habitat. In a study of pre-1985 reclaimed mine lands in Wyoming that were 10 to 17 years post-reclamation, Olson et al. found that "shrub canopy cover, density, plant community composition, and diversity on [the] study sites" were all less than optimal for sage grouse and pronghorn.[124] Although shrub density is now a requirement in post-1996 Wyoming, Olson et al. emphasize that such density standards by themselves will not be sufficient to meet the objective of restoring lands to pre-mining wildlife habitat conditions. Sage grouse, for example, prefer sagebrush habitat with a varied composition of grasses, forbs, and shrubs, particularly during nesting. Optimal sagebrush heights range from 17 to 22 cm. Olson et al. further note that although bonds require the shrub community on reclaimed lands to be comparable to pre-mining conditions within the 10-year bonding period that applies to the west, developing the characteristics of native shrub communities can take 30 to 60 years of natural succession.[125]

A focus on the use of reclaimed sagebrush habitat by sage grouse supports not only their conservation, but also helps to ensure adequate restoration of post-mined lands for other sagebrush-dependent species. The sage grouse is considered an umbrella species – a species whose protection indirectly protects other organisms that rely on the same habitat. According to Rowland et al., conservation efforts aimed towards sage grouse may help to conserve other sagebrush obligates and "near-obligates."[126] Among the many other species that rely on sagebrush, and thus also on the successful reclamation of their former habitat, are pronghorn, sage sparrow, pygmy rabbit, and Merriam's shrew.

Avoiding development in sage grouse habitat should be a priority. If, however, development such as coal mining does occur, a shift towards timely and responsible reclamation will be critical in promoting a future landscape that includes the continued presence of sage grouse and other wildlife.

Part 4 - Inspections and Enforcement

Ecoflight

2011 Directive results in improvements, but inspections still too low as disturbed acres mount

In 2007, *Undermined Promise* suggested that OSM's published data "should allow the public and others to determine whether state agencies are carrying out the requisite number of inspections."[127] The annual reports for the years prior to 2011 do not explicitly state the number of required inspections. However, according to 30 CFR §840.11, state regulatory authorities must conduct a minimum number of inspections equal to twelve times the number of active mines. At least four of the 12 must be complete inspections, and the remaining can be partial. For inactive mines, the minimum number of complete inspections is equal to four times the number of mines.[128] Based on these minimums, and the data on the number of actual inspections conducted, the five states together failed to conduct 46 complete inspections and 167 partial inspections in the years 2006 to 2010.[129] Over the same years, a notice of violation (NOV) was issued for approximately every 74.18 complete and partial inspections, suggesting that from 2006 to 2010, some violations may have passed uncited as the result of missed inspections.

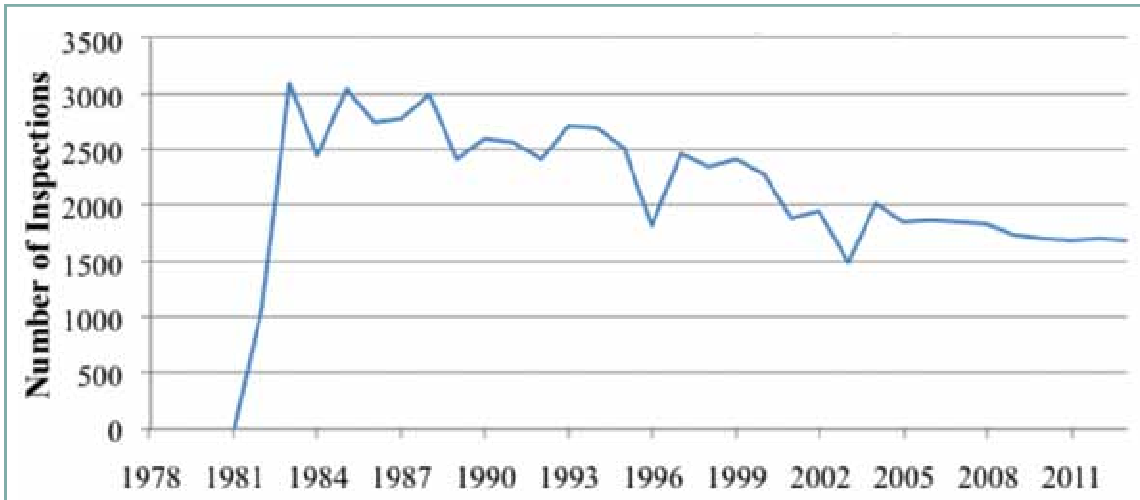


Figure 3. West Regional Inspections per Year. Sources: OSM 20th Anniversary Report (1978 to 1997); OSM Annual Reports (1998-2011); OSM State Oversight Reports (2012-2013). Data available from 1978 to 2013.
Note: Number of Inspections = State Complete Inspections + State Partial Inspections + Federal Oversight Inspections & Site Visits

Beginning in 2011, OSM's annual state oversight reports have listed the number of complete and partial inspections required under SMCRA, in addition to the actual number of conducted inspections. According to this data, available for the three years from 2011 to 2013, only New Mexico in 2011 failed to complete the minimum number of required complete and partial inspections.

Since *Undermined Promise* was published in 2007, the total number of inspections for the five states has experienced an overall decline. This is largely due to decreases in the number of inspectable units across the five states. At the same time, however, the annual total number of new acres permitted has continued to rise.

Individual State Performance

No state successfully conducted all the required complete and partial inspections for every year from 2006 to 2013. Colorado and North Dakota missed the fewest inspections. Colorado only failed to conduct 13 partial, active-mine inspections in 2009 and North Dakota was only short 14 complete, inactive-mine inspections in 2010.[130] North Dakota was the best performer overall completing the greatest number of complete and partial inspections above the required minimum numbers. From 2006 to 2013, approximately 9 full-time employees conducted 2,062 more complete and partial inspections of North Dakota's active mines than the minimum required. Montana inspectors completed the second highest number of additional inspections, with 80 more complete and partial active-mine inspections than required.

In 2007, *Undermined Promise* highlighted Wyoming as having the least adequate inspection program of the five states, based on the number of missed required inspections. From 2006 to 2013, Wyoming continued to have the largest number of missed inspections: 15 complete and 60 partial inspections. Montana was a close second at 13 missed complete and 56 missed partial inspections; and New Mexico had four missed complete and 38 missed partial inspections.

From 2006 to 2013, New Mexico also issued the most NOVs relative to the number of complete and partial state inspections conducted. Montana was second, followed by Wyoming, Colorado, and North Dakota.

Aggregated data for the five states indicate that the number of violations (Notices of Violation, or NOV's) issued per inspection has decreased over time. Because the total number of inspections has also decreased, the trend is not due to a smaller ratio of NOV's to inspections; rather, both the number of inspections and issued NOV's have declined since 1996. SMCRA requires an NOV if an inspector sees a violation – a unique feature, unlike other energy mineral inspection regimes. Part of the decrease may be attributed to a decline in the number of inspectable units over time. However, as noted in *Undermined Promise,* insufficiently thorough inspections are also likely contributors to the decline in issued violations. Furthermore, under SMCRA, "states 'have the right to amend their [regulatory] programs,' subject to OSM approval," and this right allows them to "change their rules to permit practices that previously were not allowed."[131]

Colin Ruggiero

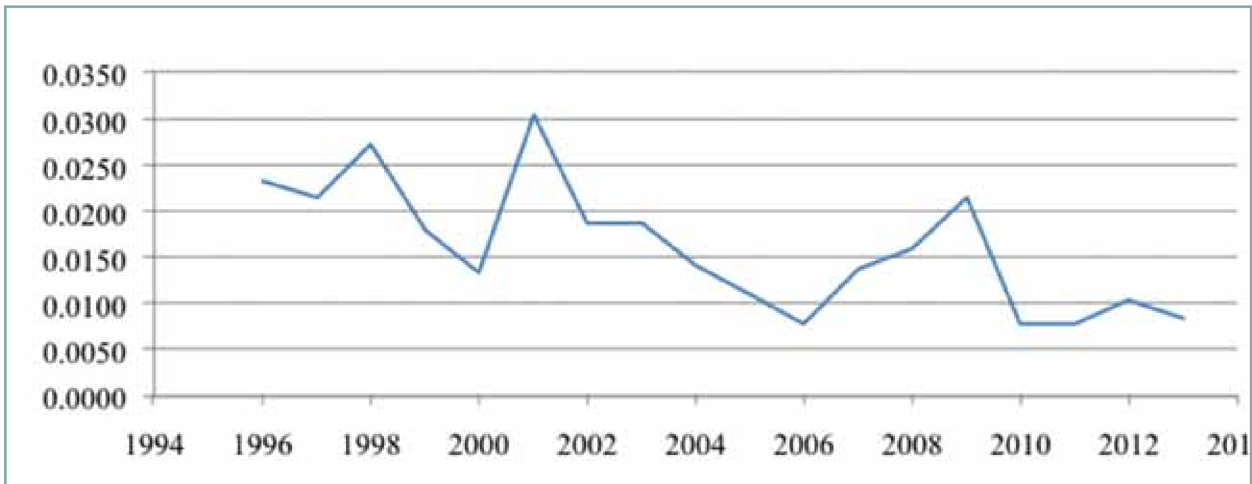


Figure 4. State Notices of Violation per Inspection. Sources: OSM Annual Reports (1996-2011); OSM State Oversight Reports (2012-2013). Data available from 1996 to 2013.
Note: State Notice of Violations (NOV) / Inspection = State Notice of Violations/(Complete + Partial State Inspections)

Not Enough State Regulatory Employees

From 2006 to 2013, the combined regulatory staff for the five states decreased by approximately 13.8%, while total permitted acreage expanded by 15.0%. Although the total number of inspectable units has declined since 2005, the total number of acres permitted for disturbance and the total number of actual, disturbed acres, increased every year. Over the same period, the number of employees in the state regulatory programs has decreased. Inadequate staffing contributes, in part, to a lack of thorough inspections, and in turn, missed violations. Wyoming and New Mexico, two of the primary offenders for missed inspections, experienced the largest drops in regulatory staff from 1996.

From 2006 to 2013, Wyoming's regulatory staff decreased by approximately 40%. Although the state's total number of inspectable units has declined, Wyoming produces more than three times the tonnage of coal produced by the other four states combined, suggesting that the need for regulatory staff has not declined by 40%.

Federal Oversight

Although OSM's environmental protection budget (adjusted for inflation), fell between 2005 and 2007, it started increasing again in 2008. The budget includes funding for the evaluation of state programs.

In 2007, *Undermined Promise* reported that "in all, [OSM] has done less than 3 percent of the number of inspections the states have done each year;" for 2006 to 2013, this percentage remains the same.[132] At 2.75% of the total number of state inspections, the number of federal site visits continues to be low despite increases in the total amount of acreage disturbed by mining in the five states.

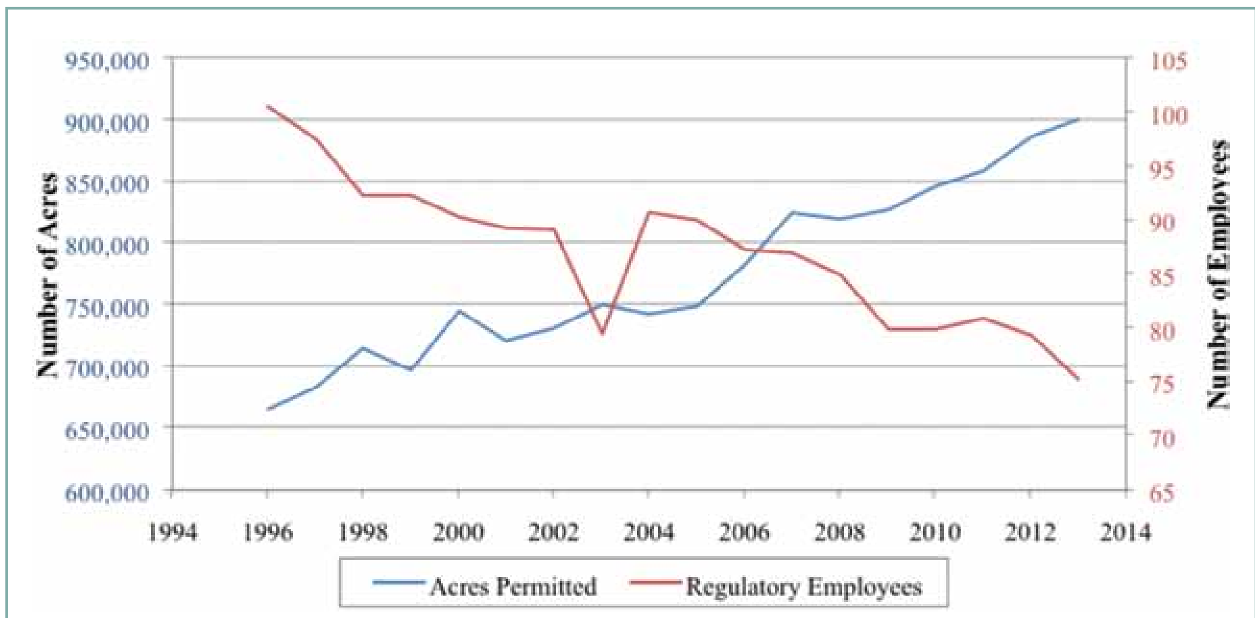


Figure 5. Acres Permitted vs. State Regulatory Employees, Western Region Total. Sources: OSM Annual Reports (1996-2011); OSM State Oversight Reports (2012-2013). Data available from 1996 to 2013.

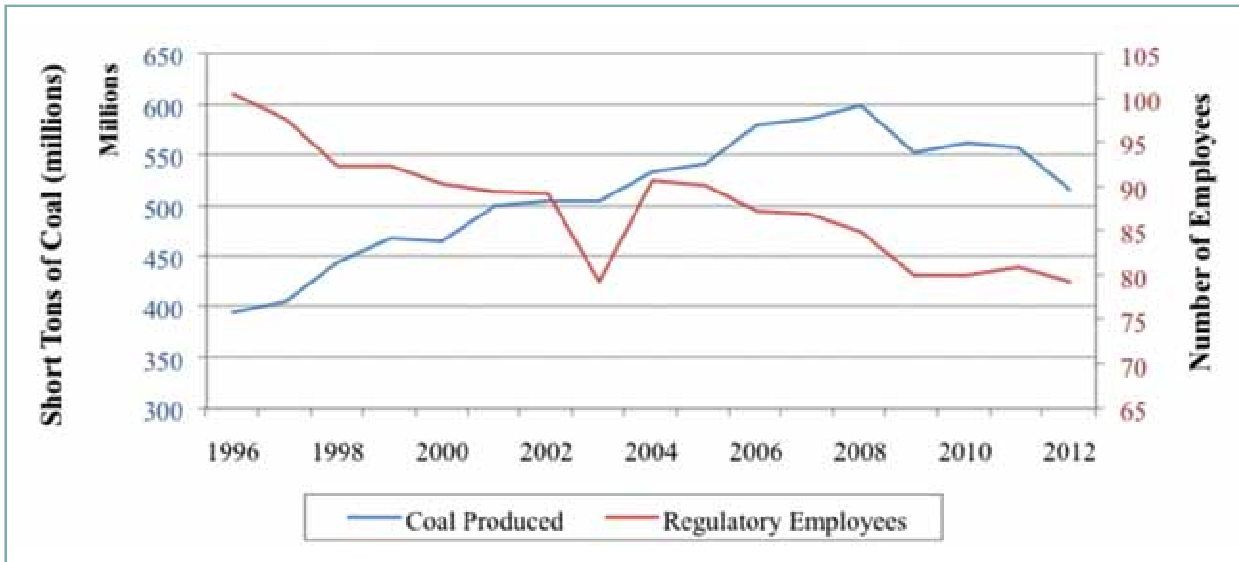


Figure 6. Coal Produced vs. Regulatory Employees, Western Region Total. Sources: *Coal Production* - U.S. EIA Historical detailed coal production data (1996-2012); *Regulatory Employees* - OSM Annual Reports (1996-2011); OSM State Oversight Reports (2012). Data available from 1996 to 2012.

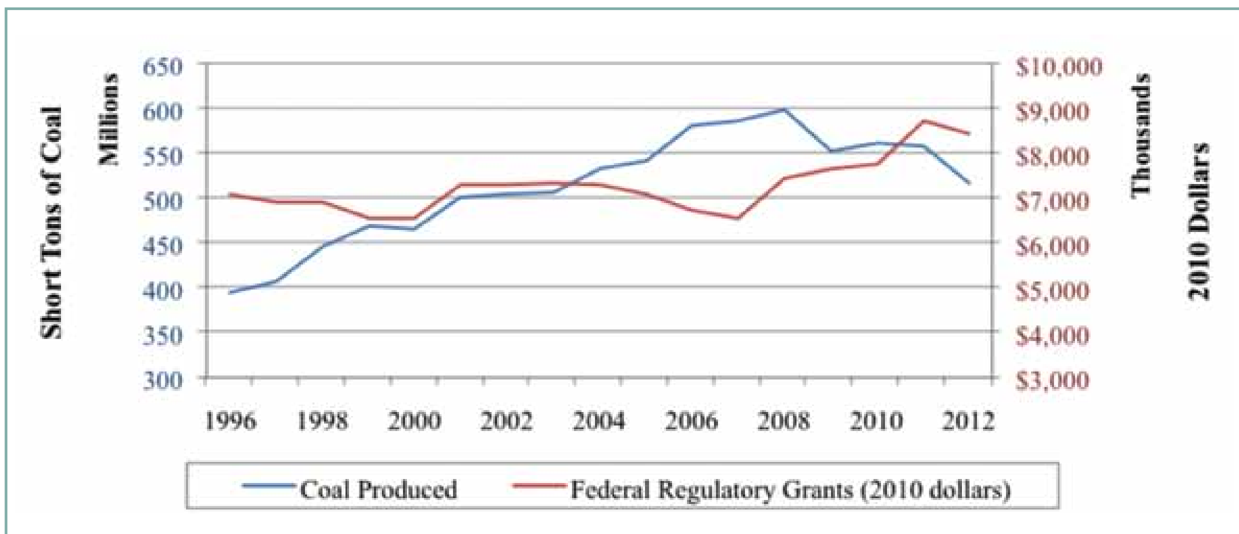


Figure 7. Coal Produced vs. Federal Regulatory Grants (2010 dollars), Western Region Total. Sources: *Coal Production* - U.S. EIA Historical detailed coal production data (1996-2012); *Federal Regulatory Grants* - OSM Annual Reports (1996-2011); OSM State Oversight Reports (2012). Data available from 1996 to 2012.

In considering federal oversight more broadly, *Undermined Promise* cited revisions made in 1999 to OSM's internal agency directive, REG-8, as the cause for the "[significant erosion of] the independence and oversight ability of the agency's field staff."[133] REG-8 was revised in 2011.[134] Although the revisions did not completely ameliorate all of the issues associated with the 1999 directive, they did provide several important, substantive changes.

For example, after the 2011 revisions, a three-tier method for determining the minimum number of annual, federal oversight inspections is now used. Under the method, OSM should inspect at least one inspectable unit annually, for states and tribes with less than 5 units. For states and tribes with anywhere from five to 1,000 inspectable units, OSM should inspect at least 25% of the total units. If a state has more than 1,000 units, the number of required units to be inspected is determined by a sampling formula. The ratio of complete to partial oversight inspections is determined by a percentage – at least 33% of the units inspected must undergo a complete inspection.

The revisions do not address the fact that the states are informed in advance as to which units will be inspected by OSM. According to the revised directive, a random sample of units for oversight inspections is only feasible for states with more than 1,000 units; "for states and tribes with less than 1,000 [inspectable units], the Performance Agreement/Evaluation Plan will specify focused inspections."[135]

The new 2011 revisions also add a "new hydrologic reclamation measurement to Reclamation Success to indicate how well streams are restored or replaced by mining and reclamation," and call for the state regulatory programs to assess contemporaneous reclamation.[136] The latter seeks to address SMCRA's purpose of "[assuring] that adequate procedures are undertaken to reclaim surface area as contemporaneously as possible with the surface coal mining operations."[137]

The revision cites the measurement of contemporaneous reclamation to be the timeliness of Phase I, II, and III bond release.[138] However, as discussed above, in practice, state regulatory programs have substituted the number of acres revegetated, but not necessarily released from bond, to report contemporaneous reclamation in their annual evaluation reports.

Although the 2011 revisions to REG-8 provide some improvements, they nonetheless continue to fall short of demanding effective OSM oversight and enforcing SMCRA's mandate for timely reclamation.

Table 6. Federal "Environmental Protection" Budget Data from OSM Annual Reports.

Year	Unadjusted (Actual) Dollars	2010 Dollars
1997	21,977,000	29,858,048.05
1998	18,983,000	25,394,828.52
1999	19,284,000	25,240,047.44
2000	19,792,404	25,063,022.34
2001	20,884,396	25,714,104.20
2002	21,168,965	25,658,809.52
2003	21,443,704	25,412,653,91
2004	22,028,299	25,428,283.57
2005	22,983,351	25,661,329.16
2006	22,250,046	24,066,250.15
2007	22,444,688	23,604,474.19
2008	24,511,720	24,825,142.32
2009	24,640,709	25,044,884.76
2010	27,098,820	27,098,820.00
2011	29,694,219	28,795,593.51
Total	**339,185,321**	**386,856,291.64**

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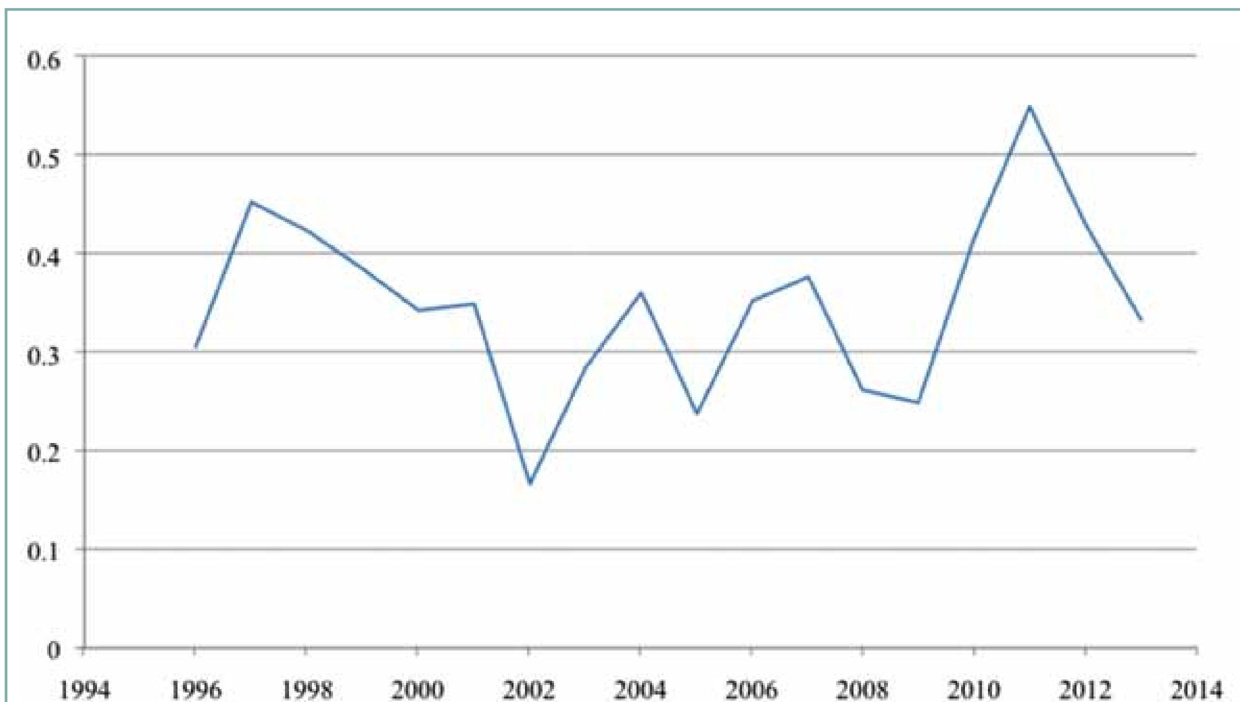

Figure 8. Federal Inspections per Mine, 1996-2013. Sources: OSM Annual Reports (1996-2011); OSM State Oversight Reports (2012-2013). Data available from 1996 to 2013.

Note: Federal Inspections per Mine = Federal Oversight Inspections & Site Visits / Inspectable Units.

Part 5 - Recommendations for Reform

Ecoflight

Bond Amounts and Release Process

- **OSM should raise bond amounts to a level that would be sufficient to motivate companies to reclaim mined land and apply for bond release.** The new levels should be sufficient to pay for restoration of the hydrologic balance, including groundwater, if that has not been achieved with initial reclamation efforts. OSM has acknowledged on a number of occasions that current bond levels are too low to provide incentive to mining companies to complete reclamation and apply for bond release. Increasing the bond levels for Phase III reclamation would incentivize bond release and improve reclamation at all phases and would prevent leaving the government with excessive liability if initial reclamation is not properly done.

- **Before a bond can be transferred, adequate public notice of the bond release should be posted, providing the public with an opportunity to review the documents, comment, and, if desired, request a public hearing.** In North Dakota, the bond release process, which allows transferring bonds from one tract to another without the robust public oversight required by SMCRA, could result in insufficient resources for

the Public Service Commission (PSC) to complete reclamation properly, which would defeat the fundamental purpose of SMCRA.

Contemporaneous Reclamation

- **OSM should adopt a regulatory definition of "contemporaneous."** A definition would provide a standard for evaluating and approving mine permit applications, for evaluating the effectiveness of the Act and its enforcement, and help fulfill the primary goal of SMCRA – prompt and effective reclamation of mined land. The definition should consider key benchmarks toward the final goal of successful reclamation. It must address and provide remedies for the wide gap that exists between acres disturbed and Phase III (or in the case of Montana, Phase IV) bond release.

- **Regulators should ensure that mine plans encourage timely, contemporaneous reclamation and bond release.** Mine plans determine the placement of life-of-mine fixtures (haul roads, rail spurs, conveyors, sedimentation ponds, other facilities, etc.) as well as the coal removal technique and sequence. Regulators should work with operators to locate mine facilities so that mined tracts can be reclaimed to full bond release status once mining is finished on a tract. Likewise, coal removal sequences and techniques should be designed to allow significant blocs to proceed to final bond release. This would require designing coal removal with respect to surface and groundwater hydrology. Especially when the post-mining land use is designated as agricultural, regulators should work with mine operators to design large, regular parcels that can be expeditiously returned to productive agricultural use.

- **State programs that allow final bond release upon completion of Phase III should adopt a rule to allow partial bond release for successful benchmarks while retaining sufficient bond funds to evaluate groundwater quantity and quality.** Post-mining, a new hydrologic balance will eventually exist that has seasonal and year-to-year variations, which will take years to establish, measure, and remediate. States and OSM should institute changes to ensure that adequate bond resources remain in place to address issues of groundwater quality and quantity on a timescale that is hydrologically appropriate, while moving forward on bond release for successful benchmarks related to revegetation, wildlife habitat and use, agricultural productivity, and surface water quality and quantity. Land should be returned back to public and productive uses.

Self-Bonding

- **Regulatory authorities must conduct thorough due diligence on the financial positions of present and future self-bond guarantors, particularly with respect to prior or duplicate encumbrance of their assets.** If surface mine reclamation self-bonds are found to be secured by assets that will not be available in the event of a reclamation claim, state regulatory authorities must require alternative, collateralized financial assurance. Most states already permit letters of credit, collateral bonds, etc. The danger of effectively unsecured reclamation bonds is especially acute in a time of significant debt loads and shrinking coal markets. Medium-sized operates have recently filed for bankruptcy protection to reorganize or liquidate, including Patriot Coal and James River Coal Company.

Even if lands have achieved some level of interim reclamation (i.e. regrading and seeding), those lands remain off limits to the public until they obtain final reclamation status and have achieved final bond release.

- **The Department of Interior's Inspector General or the Government Accountability Office should conduct investigations of all state SMCRA regulatory programs that allow self-bonding** and recommend whether the Department should institute rulemaking to ensure that sufficient security is required of coal mine permittees by these programs.

Federal Permits and Leases

- **Agencies should stop issuing permits for new mines or mine expansions in areas where strip-mined land remains unreclaimed after more than 10 years.** Coal mine regulators have the capacity to insist that reclamation proceed to final bond release, because they ultimately determine whether a company should be allowed to continue mining in new areas. This enforcement mechanism keeps the promise of SMCRA, and is necessary to ensure that Western mined lands do not become a wasteland in a harsh climate.

- **The Department of Interior (DOI) should not lease new public lands for mining operations until at least 50% of currently occupied lands are released from final bond obligations, and the Department should not approve any new federal mine plan for a mine to expand onto additional federal public lands until final bond obligations of the existing mining operations have been met.** Even if lands have achieved some level of interim reclamation (i.e. regrading and seeding), those lands remain off limits to the public until they obtain final reclamation status and have achieved final bond release. This problem is particularly prevalent for lands in the Thunder Basin National Grassland system in Wyoming's Southern Powder River Basin. For example:

    - Peabody's North Antelope Rochelle Mine covers an astounding 57,198 acres, including 22,631 acres of federal lands and 5,277 acres of state lands.

    - The mine started operating in 1984 but to date, no acreage has been released from final bond obligations.

This means that the almost thirty thousand acres of public surface within the mining permit area remains controlled by the mine and unavailable to the public or to agricultural leasing. Those public lands are typically fenced off and withheld from public use and are not available for the public land management agencies to manage for multiple uses, like grazing, hunting, and recreation. In essence, the National Grassland west of the coal burn line has turned into a single use area – exclusively leased and managed by coal companies. The Department and the U.S. Forest Service should actively engage in state permitting activities and carry out more effective oversight over the state program in Wyoming to ensure contemporaneous reclamation performance standards are being achieved, especially for public lands and minerals within their jurisdiction.

Hydrologic Balance

- **A defensible determination of the probable hydrologic consequences (PHC) requires a thorough and defensible**

characterization of the hydrologic balance as a first step. If the characterization of the hydrologic balance is incomplete or flawed, it is not possible to correctly predict the consequences of a mining plan on the hydrologic balance during and post-mining. If consequences of a mining plan are unknown, there can be no valid determination that the damage levels to the hydrologic balance comply with the requirements of SMCRA.

- **To accurately capture variations of hydrologic conditions under seasonal variation requires data collected each of the four seasons through at least the course of one full year.** Since SMCRA does not provide a regulatory definition for seasonal variation, common understandings of seasonal variation should apply. Virtually all areas mined for coal in the United States experience four seasons over the course of a year. These four seasons are each distinct in their climatologic patterns and their relationships to the preceding and following seasons. Thus, it is not possible to generate one season's characteristics from those of another season through some kind of symmetry of the annual cycle. All states in the Western Region should require data from all seasons as part of the characterization of hydrologic balance.

- **Daily measurement of perennial stream flow is necessary to distinguish seasonal from event-generated variations.** The need for higher frequency of observations of stream flows compared to that needed for groundwater elevations is almost universally ignored by state regulators. While groundwater conditions generally vary slowly, surface water flows and, to a lesser extent, discharge patterns from some springs, are subject to episodic flow variations that occur over a much shorter period than annually or seasonally. Such variations are primarily related to precipitation events or periods of snowmelt that occur either locally or upstream of the point of observation. Isolating the seasonal variations from a flow pattern that superimposes long- and short-term events requires that the observation interval be shorter than the duration of the short-term events in the record. Thus, whereas seasonal groundwater variations can reasonably be observed with monthly observations, identifying the seasonal variations in stream flow requires measuring at least daily, to distinguish seasonal from event-generated variations.

- **Flows within and between elements of the hydrologic balance are needed to characterize the baseline hydrologic balance, including seasonal variations of those flows.** Characterizing the flows between elements of the hydrologic balance is difficult, but possible if the data on flows within each element of the hydrologic balance are fully characterized. For instance, multiple measurements of flow along the course of a stream allow identification of gaining and losing reaches, which identify areas where groundwater is transferring to surface water and where surface water is transferring to groundwater, respectively. Identifying and locating these types of transfers is an integral part of characterizing the hydrologic balance. This essential step in characterization describes the conditions that set the ultimate performance requirements of SMCRA.

- **To be complete, the determination of the PHC should include a determination of the PHC at the time of mining, a determination at the transition period, and a determination of the final post-mining hydrologic balance.** Probable hydrologic consequences must include projections of changes to surface water quality and quantity, changes to groundwater quality and quantity, as well as the seasonal variations during mining.

Without this information, a determination cannot be made that the proposed mining will, at all stages, minimize damage in the permit and affected areas and prevent material damage outside the permit area. State regulators and OSM need to be more rigorous in reviewing and requiring this scope of analysis prior to completeness determinations for permit applications.

- **Monitoring must be capable of detecting or projecting harm, if it occurs, and must trigger remedial action when such detections are made. The monitoring plan must include a description of how the monitoring data will be evaluated and what criteria will be used to accomplish these objectives.** Since no permit can be approved if the expected result is unacceptable damage, the monitoring plan serves as a fundamental verification of the PHC determination. If the results confirm the accuracy, or conservatism, of the PHC determination, there will be no unacceptable damage that would trigger remediation. If the monitoring results indicate the PHC determination under-projected the impacts of mining, that insight allows intervention prior to unacceptable damage ever occurring. This is particularly relevant for consequences outside the permit area, where SMCRA mandates that material damage be prevented, not just detected. The proper design of a performance-monitoring program is partially dependent upon a valid determination of the PHC, which, in turn, is highly dependent upon a valid determination of the pre-mining hydrologic balance. Thus, the monitoring program is dependent upon the initial characterization of hydrologic balance.

- **Define what constitutes material damage.** SMCRA requires a definition of material damage for compliance with and enforcement of the law. The onus in developing that definition is upon the regulating authority. No individual regulatory authority has the latitude not to define material damage. No valid coal mining permits can be issued without a definition of material damage. The regulatory authority cannot make a meaningful finding of no material damage if it does not first define it. The operator cannot design an operations plan or a reclamation plan that will prevent material damage outside the permit area if the level that constitutes material damage is not defined. Nor would it be a good business decision to do so; regulatory authorities change priorities through time. An understood standard of "we'll know it when we see it" may change half way through a mining operation, leaving the operator highly exposed.

Wildlife

- **OSM should ensure that wildlife habitat is not converted to agricultural lands through careful specification of the post-mining use.** Restoration of the land to wildlife habitat features is often in conflict with the management objectives of surface owners who desire that land instead be reclaimed to grazing land. This conflict is most evident in the fact that reclamation standards for wildlife are more difficult to meet than those for grazing land. This is particularly true for low precipitation environments like the Powder River Basin

- **OSM should retain sufficient diversity on lands reclaimed to wildlife habitat to restore ecological niches.** Diversity in reclamation is often limited to plant varieties, not plant communities. With this approach, localized environments are lost. It is also important to ensure that "approximate original contour" is sufficiently varied to provide the kind of shelter from wind and predators that the original land did. Diverse topographical elements that catch and retain moisture and provide cover habitats often are not re-established when the land is reclaimed.

- **OSM should track invasive species on a regular basis and not wait until Phase III bond release is applied for.** The spread of non-native and invasive species on reclaimed mine land is a significant barrier to reestablishment of a native, healthy ecosystem. The postponement of Phase III bond release review long after the ten-year waiting period required by law, makes this all the more critical to ensuring restoration of habitat for diverse species of wildlife.

- **OSM should ensure that bonding amounts and terms are sufficient to ensure that wildlife habitat is restored.** Sagebrush and other woody forbs required by wildlife often take longer to establish than grasses.

General

- **Agricultural production data on mined lands should be collected and publicly available so citizens can assess the progress or failure of reclamation of agricultural land.** Where coal mining disturbs crop or grazing land, reestablishing soil quality and productivity is essential to successful reclamation. Where experimental trials are underway to ascertain agricultural productivity on mined lands, collected data should be made public. Under SMCRA, processes to evaluate reclamation and applications for bond release were designed to be transparent and available for public oversight. Accurate information is critical to determine the extent of successful reclamation before bonds are released. This information provides a benchmark for the public to ascertain whether mine reclamation is working, or remedial action needs to occur.

- **Regulators should establish rigorous standards to preserve topsoil health during mining operations.** One of the keys to successfully re-vegetating mine lands is the health of topsoil. Topsoil is supposed to be removed and conserved in stockpiles early in the mining process. Topsoil is spread over mined lands once backfilling and grading is complete. Topsoil is crucial to reestablishing vegetative communities because it is a key site for nutrient cycling and contains the most diverse biological community of any soil horizon. Biological indicators of conserved topsoil health are therefore very important to determining whether it will be agriculturally productive once spread. Storing topsoil in stockpiles promotes leaching of chemical nutrients and dramatically impairs the biological productivity of soil below contact with vegetative cover. An approach less destructive of soil health would be to spread the soil out over a much wider area, with sufficiently diverse plant cover; this would help maintain the soils' biological community and chemical nutrient cycling. Where soils have lost biological and chemical vitality, mitigation strategies such as soil teas and mycorrhizae inoculation should be employed. Maintaining topsoil health will improve the success of reestablishing vegetative communities during reclamation.

Accurate information is critical to determine the extent of successful reclamation before bonds are released. This information provides a benchmark for the public to ascertain whether mine reclamation is working, or remedial action needs to occur.

Endnotes

[1] H.R. Rep. 95-218, 1997 U.S.C.C.A.N. 593 at 1-2.

[2] SMCRA, 30 U.S.C. §1202, sub§§ (c)-(e).

[3] EIA Table 6.1, Coal Overview. Accessible at: http://www.eia.gov/coal/data.cfm#summary

[4] See 30 U.S.C. Section 1202 ("It is the purpose of this Act to … assure that adequate procedures are undertaken to reclaim surface areas as contemporaneously as possible with the surface coal mining operations.") See also H.R. Rep. 95-218, 1977 U.S.C.C.A.N. 593 at 4.

[5] See testimony of Ellen Pfister before the House Natural Resources Committee, July 25, 2007.

[6] Approved mine permits are described as taking an "opportunistic" approach to water replacement – that is, there is no plan to protect or replace wells or springs potentially or actually disrupted by mining, other than waiting for "time and fate" to do the job. See Ellen Pfister testimony, id.

[7] 30 U.S.C. Section 1259 (a): After a surface coal mining and reclamation permit application has been approved but before such a permit is issued, the applicant shall file with the regulatory authority … a bond for performance payable .. and conditional upon faithful performance of all the requirements of this Act and the permit.
See also 30 C.F.R. Section 800.11(b)(1: The bonds shall cover the entire permit area, or an identified increment of land within the permit area upon which the operator will initiate and conduct surface coal mining and reclamation operations during the initial term of the permit.

[8] See e.g. OSM, 1998 Annual Report at 12: OSM is also … assuring that the land currently being mined is properly reclaimed. This performance measure is the acreage of land that is released every year by active coal mine operators. This is done through a series of bond releases.

[9] Office of Surface Mining, 2014 Evaluation Year reports: Wyoming, Montana, North Dakota

[10] Montana has released only 67 acres from Phase IV (hydrology) bonds.

[11] Office of Surface Mining Reclamation and Enforcement Annual Evaluation Report for the Regulatory Program Administered by the Wyoming Department of Environmental Quality Land Quality Division of Wyoming, Evaluation Year 2014.

[12] Office of Surface Mining Reclamation and Enforcement Annual Evaluation Report for the Regulatory Program Administered by the Wyoming Department of Environmental Quality Land Quality Division of Wyoming, Evaluation Year 2013 (July 1,2012 to June 30, 2013) prepared by Denver Field Division October 2013, page 8.

[13] Id., page 8.

[14] April 3, 2012 letter to Jeffrey Fleischman, OSM Casper Field Office Director, and Al Klein, OSM Western Regional Office Director, from Gene Wirtz, Beth Kaeding, and Wilma Tope.

[15] OSM Directive REG-8, Transmittal 967. "Oversight of State and Tribal Regulatory Programs." Dated January 31, 2011. Accessible at: http://www.osmre.gov/LRG/docs/directive967.pdf

[16] The Montana program has a final Phase IV bond which is released after the permittee has successfully completed all surface coal mining and reclamation activities and all disturbed lands within any designated drainage basin have been reclaimed.

[17] *Id.*, page iv.

[18] 30 U.S.C. §1269.

[19] Though SMCRA does not specify all acceptable forms of performance bonds for reclamation, it does specifically provide for "bond[s] of applicant without separate surety" (30 U.S.C. §1259[c]), that is, self-bonds. Other acceptable forms of performance bonds are surety bonds and collateral bonds (30 C.F.R. §800.12).

[20] See "Background," below.

[21] See Table 2, "Liabilities to Net Worth Ratio Test Applied to Parent Corporations," below.

[22] See "Double-pledged assets," below.

[23] See "Regulatory compliance among western coal operators," below.

[24] For example, Arch Coal's Black Thunder mine's total bond was $432,492,000 from November 2014, according to documents available from Wyoming DEQ. Roughly 87%, or $374,215,000, was under a self-bond.

[25] Figure quoted by CEO Colin Marshall on 2014 second quarter earnings conference call, July 29, 2014. Transcript accessible at: http://seekingalpha.com/article/2356075-cloud-peak-energys-cld-ceo-colin-marshall-on-q2-2014-results-earnings-call-transcript?page=3

[26] Survey results are available on the website of the IMCC, at http://www.imcc.isa.us/Self%20Bonding%20Survey.pdf.

[27] 30 C.F.R. §800.23(b)(3)

[28] "Fixed assets means plants and equipment, but does not include land or coal in place." 30 C.F.R. §800.23(a).

[29] These tests are incorporated verbatim into the state rules of North Dakota, Colorado, and New Mexico. The tests have been slightly modified upon incorporation into the state rules of Wyoming. In Wyoming, the first test (referred to hereafter as test "A") only requires an "A" rating for bond issuances during the previous five years, rather than the most recent issuance regardless of its date. The second and third tests (hereafter tests "B" and "C", respectively) require guarantors to not only meet the ratios for the past year, but also to document the ratios for the four preceding years and offer explanations if the ratios are not met during any of those four years.

[30] Corporate Guarantee for North Antelope Rochelle Mine (permit 569), dated July 1, 2011. On file at Wyoming Department of Environmental Quality.

[31] Coal Application for Renewal of Self-Bonding, Dry Fork Mine (permit 599), dated Nov. 3, 2014. On file at Wyoming Department of Environmental Quality.

[32] Jim Deutsch, Director, Mine Reclamation and Abandoned Mine Lands, North Dakota Public Service Commission. Personal Communication. Dec. 12, 2014.

[33] Wyoming Department of Environmental Quality (WDEQ) Land Quality Division (LQD) Coal Rules and Regulations, Chapter 11, Sec. 2(a)(vii)(B): "The operator has a tangible net worth of at least 10 million dollars, and a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater. The two ratio requirements must be met for the past year, and documented for the four years preceding the past year. Explanations should be included for any year where the ratios fall below the stated limits."

[34] WDEQ Land Quality Division Coal Rules and Regulations, Chapter 11, Sec. 2(a)(vii)(C): "The operator's fixed assets in the United States total at least 20 million dollars, and the operator has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater. The two ratio requirements must be met for the past year and documented for the four years preceding the past year. Explanations should be included for any year where the ratios fall below the stated limits."

[35] Documents on file at Wyoming DEQ offices.

[36] Gorton III, William T. "State and Federal Reclamation Bonding Programs: Lessons learned and current challenges." Prepared for the Interstate Mining Compact Commission 2013 Bonding Workshop: 1-29. Web. http://www.imcc.isa.us/Bill%20Gorton%20Paper.pdf

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[38] Id., p. 15.

[39] Quoting Conrad, "Mine Reclamation Bonding – from Dilemma to Crisis to Reinvention: What's a State Regulator to Do?" Presentation before the Energy and Mineral Law Foundation Winter Workshop on Energy Law, February 11, 2014. Accessible at: http://www.imcc.isa.us/EMLF%20Bonding%20Presentation%20Final.pdf

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[49] "Demand for credit protection on coal producer debt soars amid industry slump." Dan Lowrey. SNL Energy. Oct. 13, 2014. Accessible at: https://www.snl.com/InteractiveX/Article.aspx?cdid=A-29465850-12073

[50] "Dividends fall for embattled coal miners clinging to every last bit of liquidity." Dan Lowrey. SNL Energy. Feb. 2, 2015. Accessible at: https://www.snl.com/InteractiveX/Article.aspx?cdid=A-30904620-11578

[51] Arch Coal Form 10-Q. Filed with the Securities and Exchange Commission on November 7, 2014. Accessible at: https://www.sec.gov/Archives/edgar/data/1037676/000110465914078394/0001104659-14-078394-index.htm

[52] Excluded subsidiaries include those outside the United States and Arch Receivables Company, LLC. See exhibits 4.21, 4.28, and 4.31 to Arch Coal's Form 10-K for the period ending December 31, 2013. Filed February 28, 2014. Accessible at: https://www.sec.gov/Archives/edgar/data/1037676/000104746914001604/0001047469-14-001604-index.htm

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[55] "Energy Future Holdings and Mining Reclamation Bonds in Texas." Tom Sanzillo, Institute for Energy Economics and Financial Analysis. 16 Oct. 2013. Accessible at: http://www.ieefa.org/report-energy-future-holdings-and-mining-reclamation-bonds-in-texas/

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[57] Energy Future Holdings, second quarter Form 10-Q filing with SEC, August 1, 2014.

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[63] Wyoming Coal Rules, Chapter 11, Section 2(a)(xii)(A). Accessible at: http://soswy.state.wy.us/Rules/RULES/8883.pdf

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[65] 2 CCR 407-2 3.02.4(2)(E). Accessible at: http://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=2044&fileName=2%20CCR%20407-2

[66] NMAC § 19.8.14.1410(C). Accessible at: http://www.nmcpr.state.nm.us/nmac/parts/title19/19.008.0014.htm

[67] CONSOL Energy also reports self-bonding in excess of the 25% limit, but no longer operates in the western states covered by this report.

[68] Figures for self-bonding and net worth (stockholder equity) were derived from audited financial statements included with 10-K forms filed with SEC. The 25% limit on self-bonding references "tangible net worth," defined as "net worth minus intangibles such as goodwill and rights to patents or royalties" (30 C.F.R. §800.23[a]). The figure for net worth, that is, Stockholders Equity, is used here. ("Net worth means total assets minus total liabilities and is *equivalent to owners' equity."* Emphasis added. 30 C.F.R. §800.23[a].) Aggregate self-bonding exceeding 25% total net worth must, by definition, exceed 25% tangible net worth.

[69] Much of this conversation has been facilitated through the Interstate Mining Compact Commission: http://www.imcc.isa.us/index.html

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[70] Peabody Energy Form 10-K, filed 2/25/15, accessible at: https://www.sec.gov/Archives/edgar/data/1064728/000106472815000021/btu-20141231x10k.htm

[70] Alpha Natural Resources Form 10-K, filed 2/26/15, accessible at: https://www.sec.gov/Archives/edgar/data/1301063/000130106315000015/anr-12312014x10k.htm

[70] Cloud Peak Form 10-K, filed 2/18/15, accessible at: https://www.sec.gov/Archives/edgar/data/1441849/000110465915011392/a15-1789_110k.htm

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[75] 30 U.S.C. S 1265(b)(10)

[76] 30 U.S.C. S1260(b)(3)

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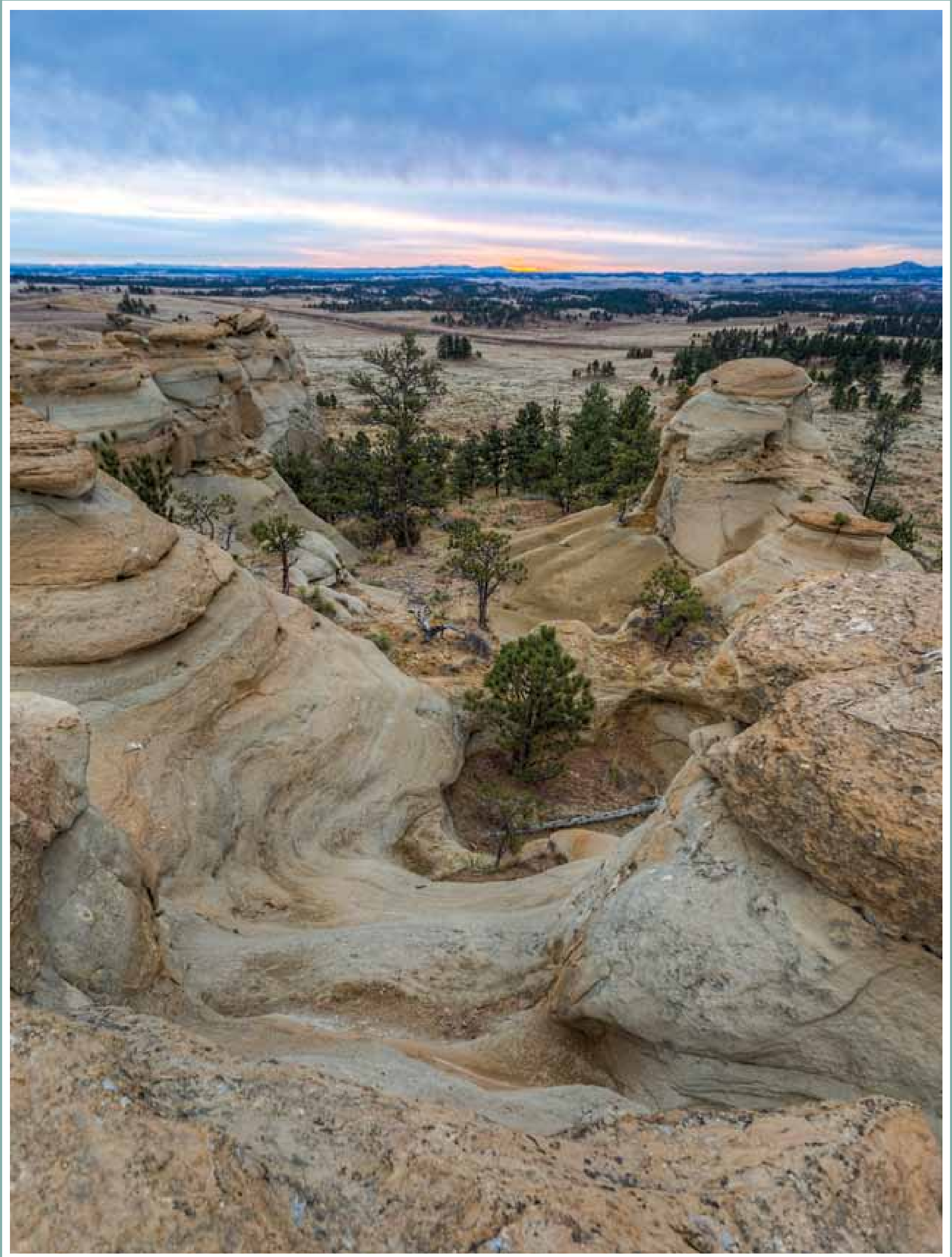

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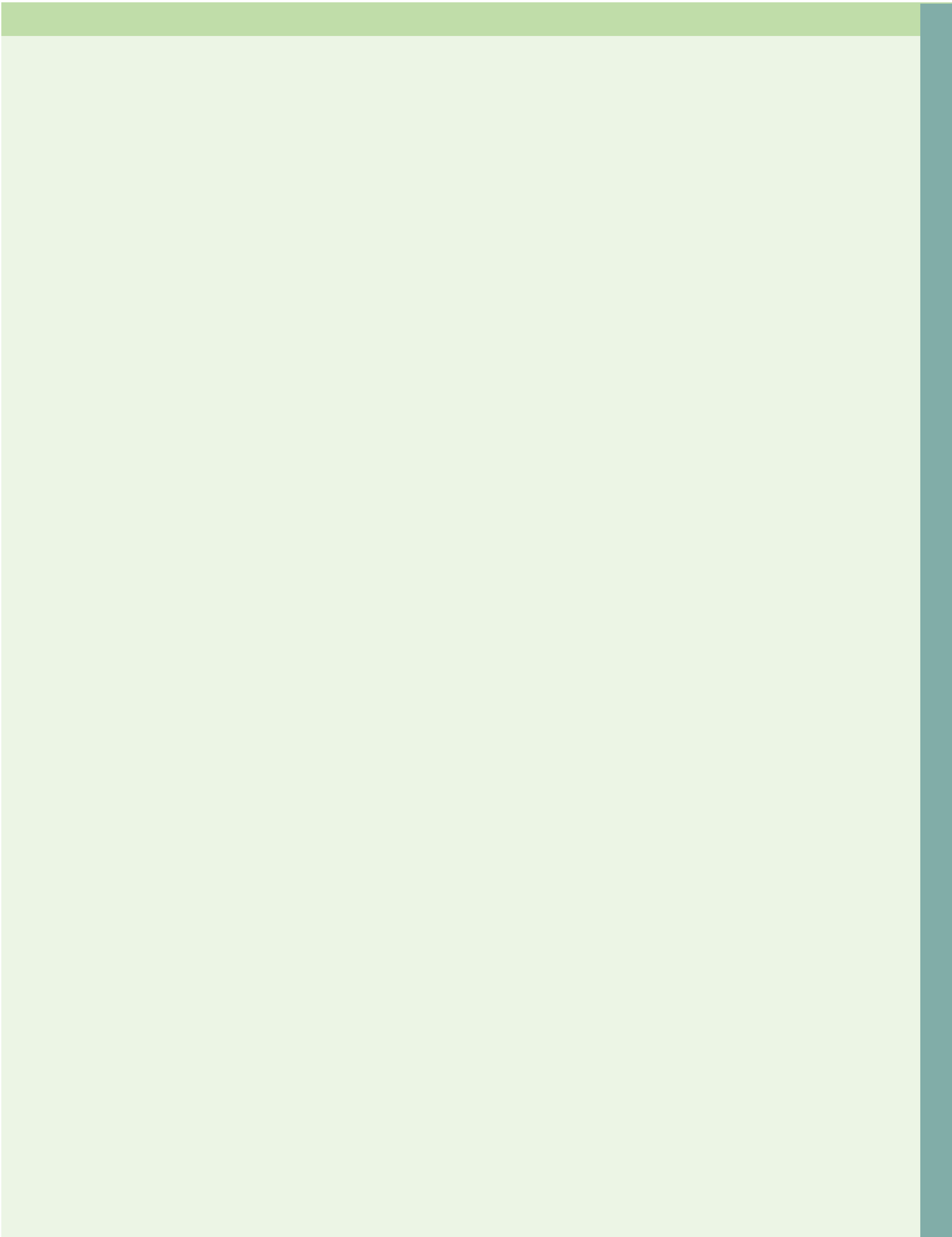

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