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With a Wink and a Nod: How Politicians, Regulators, and Corrupt Coal Companies Exploited Appalachia

Patrick C. McGinley
West Virginia University College of Law

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Patrick C. McGinley *

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* Judge Charles H. Haden II Professor of Law, West Virginia University College of Law. The Author dedicates this Article to the honor and memory of the Hon. Charles H. Haden II and Mrs. Priscilla M. Haden who dedicated their lives to family, community, and public ser-vice. The Author also wishes to thank Carolyn P. "Carrie" Miller, (J.D. West Virginia University College of Law, 2023) and Colin J. Dunn (J.D. West Virginia University College of Law, 2024) for their superb research and editorial assistance and support. Preparation for this Article was supported by the Arthur B. Hodges College of Law Fund and the West Virginia University College of Law.

Agency warnings have no more effect than a wink and a nod, a deadline is just an arbitrary date on the calendar and, once passed, not to be mentioned again. Financial benefits accrue to the [coal] owners and operators who were not required to incur the statutory burden and costs attendant to surface mining; political benefits accrue to the state executive and legislators who escape accountability while the mining industry gets a free pass.

— Judge Charles H. Haden II[1]

INTRODUCTION

Environmental regulators treated America's leading coal companies like Wall Street's mismanaged banks leading to the "Great Recession"—big coal companies that produced millions of tons of coal were simply *too big to fail*. With a wink and a nod, federal and state regulators ignored a core provision of federal law that was intended to prevent coal companies from continuing their past practices of plundering Appalachia's mineral wealth while ravaging her environment.[2]

This Article examines how the coal industry successfully evaded compliance with that law. The consequences of this evasion include mass bankruptcies, thousands of acres of mined land laying unclaimed, the pollution of rivers, streams, and groundwater, and the degradation of the coalfield environment.[3] Taxpayers are left holding the bag.[4] How and why did this happen?

1. West Virginia Highlands Conservancy v. Norton, 161 F. Supp. 2d 676, 684 (S.D.W. Va. 2001) [hereinafter *Norton II*]. When he presided over *Norton II* in 2001, Judge Charles H. Haden II was the Chief Judge of the U.S. District Court for the Southern District of West Virginia. *See id.*

2. *See* Surface Mining and Control Restoration Act § 509, 30 U.S.C. § 1259; *see also* Bond and Insurance Requirements for Surface Coal Mining and Reclamation Operations, 48 Fed. Reg. 32,932, 32,959–64 (July 19, 1983) (codified at 30 C.F.R. pts. 800–01, 805–09), *amended by* Stream Protection Rule, 81 Fed. Reg. 93,065, 93,381–445 (Dec. 20, 2016) (codified at 30 C.F.R. pts. 700–01, 773–74, 777, 779–80, 783–85, 800, 816–17, 824, 827); Congressional Nullification of the Stream Protection Rule Under the Congressional Review Act, 82 Fed. Reg. 54,923, 54,972–55,023 (Nov. 17, 2017) (to be codified at 30 C.F.R. pts. 700–01, 773–74, 777, 779–80, 783–85, 800, 816–17, 824, 827).

3. *See* Gwynn Guilford, *The 100-Year Capitalist Experiment that Keeps Appalachia Poor, Sick, and Stuck on Coal*, QUARTZ (Dec. 30, 2017), https://qz.com/1167671/the-100-year-capitalist-experiment-that-keeps-appalachia-poor-sick-and-stuck-on-coal [https://perma.cc/9ZVR-5CP9].

4. *See id.*

To answer this question, this Article explores the role the coal industry has played for more than a century in shaping the economy, culture, and politics of Appalachia—as well as the poverty, environmental degradation, and hundreds of thousands of dead and injured coal miners left in its wake.[5]

I. COAL IN APPALACHIA

A. *Coal—The Early Years*

In the last decades of the nineteenth century—before coal mining—historian Ronald Eller described the virgin old-growth forested mountains of central Appalachia:

> Great forests of oak, ash, and poplar covered the hillsides with a rich blanket of deep hues, and clear, sparkling streams rushed along the valley floors. No railroad had yet penetrated the hollows. The mountain people lived in small settlements scattered here and there in the valleys and coves. Life on the whole was simple, quiet, and devoted chiefly to agricultural pursuits.[6]

Then coal mining came to this serene sylvan refuge. It would never be the same.

To prime the region for coal extraction, the magnificent wilderness was clear-cut for its timber.[7] The forests on steep mountainsides were denuded.[8] Railroads were driven deep into wilderness valleys and hollows to haul the timber, and then coal, to markets in the East and Midwest of the United States.[9] Hundreds of small company towns or "coal camps" sprang up around coal mine portals

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5. *See id.* Guilford concluded that:

> For much of the hundred-plus years of its existence, the industry has been on a kind of artificial life support, as state and federal governments have, directly and indirectly, subsidized coal companies to keep the industry afloat. The costs of this subsidy aren't tallied on corporate or government balance sheets. The destruction of central Appalachia's economy, environment, social fabric and, ultimately, its people's health is, in a sense, hidden. But they're plain enough to see on a map[:] . . . lung cancer deaths . . . diabetes mortality . . . opioid overdoses . . . [p]overty . . . [or] [w]elfare dependency. Chart virtually any measure of human struggle, and there it will be[] . . . a distinct blotch . . . [which] is consistently one of America's worst pockets of affliction.

Id.

6. RONALD D. ELLER, MINERS, MILLHANDS, AND MOUNTAINEERS: INDUSTRIALIZATION OF THE APPALACHIAN SOUTH, 1880–1930, at 161 (Dewey W. Grantham ed., 1982).

7. *Id.* at 163.

8. *Id.* at 163–64.

9. *Id.* at 161–62.

during the early decades of the twentieth century.[10] Coal companies built these villages to house families of men who worked in their underground mines.[11]

Professor Eller describes the societal metamorphosis over three decades from 1890:

> Coal-mining village after coal-mining village dotted the hollows along every creek and stream. The weathered houses of those who worked in the mines lined the creeks and steep slopes, and the black holes themselves gaped from the hillsides like great open wounds. Mine tipples, headhouses, and other buildings straddled the slopes of the mountains. Railroads sent their tracks in all directions, and long lines of coal cars sat on the sidings and disappeared around the curves of the hills.
>
> . . . .
>
> . . . [T]he once majestic earth was scarred and ugly, and the streams ran brown with garbage and acid runoff from the mines. A black dust covered everything. Huge mounds of coal and "gob" piles of discarded mine waste lay about. The peaceful quiet of [three] decades before had been replaced by a cacophony of voices and industrial sounds.[12]

By 1900 the industry employed almost 500,000 miners, and by 1923 coal jobs had peaked at over 860,000.[13]

The coal camp symbolized that the Industrial Revolution had come to central Appalachia.[14] "King Coal" presided over the coal camps in the early decades of the twentieth century—life there was violent, oppressive, and exploitive.[15] The company town lay at the

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10. Janet W. Greene, *Strategies for Survival: Women's Work in the Southern West Virginia Coal Camps*, 49 W. VA. HIST. J. 37, 54 (1990) ("When large-scale mining operations became common in southern West Virginia in the 1890s, there were few towns and a scattered population engaged in subsistence farming and lumbering. Much of the work force arrived between 1890 and 1920 from other parts of West Virginia, other mining areas of the nation, rural areas in southern and eastern Europe and the American South. Coal companies met the miners' need for housing by constructing their own towns, called 'camps.'"). There were at least 400 coal-company owned coal camps in West Virginia alone in the 1930s. Mark G. Gillenwater, *Company Towns*, W. VA. ENCYC. (Mar. 19, 2023), https://www.wvencyclopedia.org/articles/1491 [https://perma.cc/EXF8-6MZH].

11. ELLER, *supra* note 6, at 161. Professor Eller dedicates an entire book chapter to an examination of life in coal company towns. *See id.* at 161–98.

12. *Id.* at 161–62.

13. *Coal Fatalities for 1900 Through 2022,* U.S. DEPT. OF LABOR, https://arweb.msha.gov/stats/centurystats/coalstats.asp [https://perma.cc/4MWV-DM9U].

14. *See* ELLER, *supra* note 6, at 162–63.

15. *See id.* at 162. One source traces the origin of the term "King Coal" to an 1856 poem. Charles-François Mathis, *King Coal Rules: Accepting or Refusing Coal Dependency in Victorian Britain*, FRENCH J. OF BRIT. STUD., Nov. 19, 2018, at 18–19 (referencing Charles Mackay, *Old King Coal*, ILLUSTRATED LONDON NEWS, Jan. 1, 1959, at 12.).

Old King Coal Is a knowing old droll

heart of an authoritative system.[16] In the coal camps, "company rule included the company police in the form of mine guards, who would toss the miners into the company jail when they got disruptive or administer the company beating when they attempted to unionize."[17] Appalachian historian David Alan Corbin observed: "Ownership of the land and resources gave coal companies enormous social control over the miners. 'You didn't even own your own soul in those damnable places,' recalled one elderly miner. 'The company owned everything, the houses, the schools, churches, the stores—everything.'"[18] In addition to owning and governing all businesses and commerce in the town, coal company authority extended from cradle to grave—including the company doctor who delivered babies, the mines where children worked, and cemeteries where they were interred.[19]

Coal companies also ran these towns' sewer systems and other utilities—if the company deigned to provide them.[20] Only two percent of coal towns possessed a rudimentary sewer system.[21] Most coal camps simply dumped their waste into adjacent streams.[22] Raw sewage, often combined in streams with acid mine drainage in some areas of the coalfields, decimated stream life.[23] Scorching summers caused polluted streams to release intolerable odors.

A knowing old droll is he:
For he's paying no wages
and profits they roll
In fast, at the prices that be.
Fifty-four, fifty-five, fifty-six, go the prices
And he doesn't care
For the deep despair
Of the sons of penury.
'Old King Coal.'

Id. According to Mathis, "'Old King Coal' . . . was more widely used to describe a tyrannical sovereign." *Id.* The poem appeared in a British magazine accompanied by "a terrifying drawing" showing King Coal sitting "on a heap of coal sacks, watching children dying of cold and starvation." *Id.* at 19.

16. ELLER, *supra* note 6, at 162.

17. THE WEST VIRGINIA MINE WARS: AN ANTHOLOGY 1 (David Alan Corbin ed., Univ. Pittsburgh Press 1997) [hereinafter W. VA. MINE WARS].

18. *Id.*

19. *Id.*

20. WINTHROP D. LANE, THE DENIAL OF CIVIL LIBERTIES IN THE COAL FIELDS 2 (1924).

21. ELLER, *supra* note 6, at 184 (citing Jerry Bruce Thomas, Coal Country: The Rise of the Southern Smokeless Coal Industry and Its Effect on Area Development, 1872-1910 (1971) (unpublished Ph.D. dissertation, University of North Carolina at Chapel Hill)).

22. *Id.*

23. *Id.* at 186.

Waterborne diseases like typhoid passed unchecked among camp children.[24]

Coal company managers minimized the impact on residents—as has long been their custom practice—"arguing that coal could not be mined economically if they concerned themselves with ecology."[25]

The coal industry was firmly ensconced as a dominant economic and political force in Appalachia by the first decades of the twentieth century, as mining jobs and coal production grew exponentially at the start of the century.[26] The coal company "camps" proliferated throughout central Appalachia. As explained below, the coal industry's disrespect for the welfare and basic human rights of miners, their families, and communities was already deeply embedded in the relationships of employer and employees. For the next half-century, conflicts between company and miners added to the chaos and tumult accompanying the alternately boom and bust coal market.

B. *Coal Mine Health and Safety—A Century-Long Trail of Deaths and Injuries*

Early twentieth century coal miners used picks and shovels aided by hand placed explosives to clear the path through rock layers to the coal.[27] Coal was extracted from underground seams with the assistance of animals, including "mules, ponies, goats, oxen,

24. Janet W. Greene, *Strategies for Survival: Women's Work in the Southern West Virginia Coal Camps*, 49 W. VA. HIST. 37 (1990), https://archive.wvculture.org/history/journal_wvh/wvh49-4.html [https://perma.cc/T4MM-UH94]. Greene reports that:

> Some company towns had no garbage collection, and families either burned garbage or fed it to their livestock, if they owned any. The rest was tossed in the creek or ditches. Unsanitary conditions, even in the best camps, resulted from crowded living conditions and poor drainage; government investigators in 1923 and 1946 reported that on warm summer days the stench from privies and creek beds filled with garbage was indescribably offensive.

Id.

25. ELLER, *supra* note 6, at 186 (citing Jerry Bruce Thomas, Coal Country: The Rise of the Southern Smokeless Coal Industry and Its Effect on Area Development, 1872-1910 (1971) (unpublished Ph.D. dissertation, University of North Carolina at Chapel Hill)).

26. CHRISTOPHER DORSEY, SOUTHERN WEST VIRGINIA AND THE STRUGGLE FOR MODERNITY 295–332 (2011).

27. KEITH DIX, WHAT'S A COAL MINER TO DO? THE MECHANIZATION OF COAL MINING 1 (1988) ("For more than a hundred years . . . well into the 1930s, the production of coal depended on the simple act of taking a shovel in hand, scooping up a pile of material, and throwing it into an empty mine car. . . . [E]ach year human muscle lifted nearly half a billion tons of coal an average of [three] feet from ground to mine car.").

and even dogs," which hauled the black ore to the surface.[28] The work was grueling and dangerous.[29]

In 1906, the single worst industrial accident in United States history occurred in Monongah, West Virginia. An estimated 500 or more miners died.[30] Sadly, the Monongah disaster is not unique in the annals of American coal mining. It ranks as but one of more than 600 American mine disasters over the last century.[31] Joining Monongah is a long list of names synonymous with death, injury, shattered families, and devastated communities stretching back to the beginning of the twentieth century.[32] Indeed, since the late nineteenth century, tens of thousands of coal miners have died in U.S. coal mines.[33] An estimated additional two million suffered injuries from mine roof collapse and cave-ins, machinery failure,

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28. Douglas L. Crowell, *History of Coal Mining in Ohio*, GEOFACTS NO. 14 (DEP'T OF NAT. RES., OHIO), May 2005, https://www.ohiocoal.com/downloads/history-ohio-coal-mining.pdf [https://perma.cc/WT73-WKVQ].

29. A detailed description of miners' work prior to mechanization can be found at William Sisson & Curt Miner, *Chapter 2: Working Where the Sun Never Shines*, EXPLOREPAHISTORY: STORIES FROM PA. HIST., https://explorepahistory.com/story.php?storyId=1-9-18&chapter=2 [https://perma.cc/C6KG-5R5Y] ("Miners labored in coal seams that were [two to twenty] feet thick, and many spent the workday hunched over in narrow seams. Before mechanization they used crude hand tools and explosives to break coal from the vertical face. A skilled miner, usually lying on his side, used his pick and wedges to remove chunks of coal without shattering them. If he could not dislodge coal with his hand tools, a skilled miner drilled holes into the rock face with a hand-powered auger, placed explosives in the holes, and detonated the explosives.").

30. *See* J. DAVITT MCATEER, MONONGAH (2d ed. 2014), for a comprehensive and compelling historical account of the Monongah disaster. McAteer thoroughly examines various reports of Monongah fatalities, concluding that the disaster "certainly claimed an excess of 500 lives and probably more than 550 men." *Id.* at 241; *see also* MarkDCatlin, *Monongah 1907 Mine Disaster*, YOUTUBE (Jan. 9, 2008), http://www.youtube.com/watch?v=8Nq2ryRSdpk&feature=related [https://perma.cc/KRB8-7ASQ] (video discussing disaster and evolution of U.S. Mine Safety Laws).

31. Regulators and historians arbitrarily define a mine "disaster" as an incident involving at least five deaths. *See* U.S. Mine Safety and Health Administration, *Historical Data on Mine Disasters in the United States*, U.S. DEP'T. OF LABOR, https://arlweb.msha.gov/MSHAI NFO/FactSheets/MS HAFCT8.htm [https://perma.cc/Y5G8-XD38] (listing 625 coal mine disasters as of December 1, 2022).

32. *Id.* The parenthetical following the reference to mines where each mine disaster occurred reflects the number of fatalities attributed to each event:

> Monongah (500+), Farmington (78), Centralia (111), Wilberg (27), Willow Grove (72), Robena, Scotia (26), Mather, Finley Coal (38), Orient No. 2 (119), West Frankfort (119), Dutch Creek No. 1 (259), Grundy Mining No. 21 (13), Jim Walter Resources No. 5 (13), Pond Creek No. 1 (91), Stag Canyon No. 2 (263), Cherry Mine (155), Robena No. 3 (37), and Blacksville No. 1 (9).

Id.

33. *See* Trish Kahle, *Coal Mining and Labor Conflict*, YALE UNIV.: ENERGY HIST. (2022), https://energyhistory.yale.edu/units/coal-mining-and-labor-conflict [https://perma.cc/NX57-A6V7].

fires, and explosions—many of them serious and disabling.[34] The cycle continued through more than a century of coal mining between the 1906 Monongah disaster and the 2010 explosion in the Massey Energy Upper Big Branch mine that killed twenty-nine miners in Raleigh County, West Virginia.[35]

For a century, coal mine operators, government regulators, and union leaders have asserted that they have "learned from" these disasters. They also made commitments that similar events would "never happen again" and solemnly vowed that miners have not "died in vain." Time after time, these pledges rang hollow. Following the deaths of 111 miners at the Centralia, Illinois mine in 1947, legendary United Mine Workers President John L. Lewis captured the sense of *déjà vu* in coalfield communities that accompanied miners' deaths:

> There is public sorrow at the moment, but we know from harsh experience that it is only a momentary feeling of pity on the part of the public, and this sacrifice, like others before, will soon be forgotten. Shortly after the mine workers bury their dead, the feeling of sorrow will remain only in the breasts of the loved ones who survived: and the mine workers can look forward to the next catastrophe.[36]

This is not to say that efforts to protect coal miners' health and safety have stood still. Given the horrible safety record of the American coal industry for its first three quarters of a century, it is undeniable that much progress has been made—most since the

34. *See* Ken Ward Jr., *Beyond Sago: One by One*, CHARLESTON GAZETTE-MAIL (Nov. 5, 2006) https://www.wvgazettemail.com/news/special_reports/beyond-sago-one-by-one/article_8f6cc 496-0f13-5d11-8196-2e487cdec914.html [https://perma.cc/RC26-ENSH]; *see also* Michael Wallace, *Dying for Coal: The Struggle for Health and Safety Conditions in American Coal Mining, 1930-82*, 66 SOC. FORCES 336, 338 (1987) ("Since 1900, over 103,000 workers have perished in American coal mines; another 1,750,000 have suffered disabling injuries in accidents since 1930 (when tabulation of nonfatal injuries by federal agencies began; figures do not include black lung victims).").

35. *See WV Mine Disasters 1884 to Present*, W. VA. OFF. OF MINER'S HEALTH & TRAINING, https://minesafety.wv.gov/historical-statistical-data/wv-mine-disasters-1884-to-present/ [https://perma.cc/8XRT-SFWD] (Mar. 28, 2016, 2:05 PM).

36. *Text of Lewis Order Calling Stoppage*, N.Y. TIMES, Mar. 30, 1947, at 3, https://timesmachine.nytimes.com/timesmachine/1947/03/30/99268617.html?pageNumber=3 [https://perma.cc/67CP-SFEK]. Lewis's letter to all United Mine Workers members calling for a week's holiday in memorial to the victims of the Centralia mine disaster was printed in full in the *New York Times*. He added:

> This killing must stop. This debauched administration of mine safety must stop. It must be stopped now. The American people must be aroused to the stark realities of the situation and the casualties of the coal industry. Coal is already saturated with the blood of too many brave men and drenched with the tears of too many surviving widows and orphans.

Id.

mine disaster-induced enactment of the Federal Coal Mine Health and Safety Act of 1969 and subsequent amendments.[37] Notwithstanding this progress, it is fair to say that every significant advance in coal mine safety has been written in the blood of coal miners.[38] The documented causal connection between mine disasters involving multiple fatalities and enactment of mine safety laws should not lead one to ignore the far greater number of injuries and loss of lives suffered in isolated accidents involving only one or two individuals.[39]

C. *Unionization and the Mine Wars*

Mining companies faced strong opposition to their strategy of exerting arbitrary power and authority over the coal camps and other coalfield communities. Coal camp residents turned to unionization to resist the oppression of the mine managers. From the end of the nineteenth century until the beginning of President Franklin Roosevelt's administration in 1933, many coal operators forcefully resisted all efforts by miners to persuade or coerce them to bargain collectively.[40] For example, Appalachian historian Harry Caudill relates that "[s]uspected [union] organizers and miners who were believed to have joined the union were secretly slain and their bodies cast out, gangster-fashion, on creek banks or in alleys."[41] "[W]hen miners did go on strike for their union, they did so not for simple wage increases, but for their dignity and freedom."[42]

Indeed, at one point in time, literal warfare broke out between coal company forces and miners during the nine years from 1912

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37. *See generally* Federal Coal Mine Health and Safety Act of 1969, 20 C.F.R. § 718.1 (2011), *reprinted in* COMM. ON EDUC. & LAB., 91ST CONG., LEGISLATIVE HISTORY OF THE FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969, at 8–14 (1970) (discussing the 1968 Farmington and Buffalo Creek disasters cited in the statute's legislative history.

38. J. Davitt McAteer, *The Federal Mine Safety and Health Act of 1977: Preserving A Law That Works*, 98 W. VA. L. REV. 1105, 1113 (1996). (McAteer connects mine safety law amendments to immediately preceding mine disasters).

39. *See* Ward Jr., *supra* note 34; *see also Fatality Reports*, U.S. MINE SAFETY & HEALTH ADMIN., https://www.msha.gov/data-and-reports/fatality-reports/search [https://perma.cc/Y8BE-QECZ].

40. *See Historic Convention Held*, UMW J. (Aug. 1, 1922), *reprinted in* W. VA. MINE WARS, *supra* note 17, at 163.

41. HARRY M. CAUDILL, NIGHT COMES TO THE CUMBERLANDS: A BIOGRAPHY OF A DEPRESSED AREA 195 (1962).

42. DAVID ALAN CORBIN, LIFE, WORK, AND REBELLION IN THE COALFIELDS: THE SOUTHERN WEST VIRGINIA MINERS, 1880-1922 (1981).

to 1921.[43] In August 1921, the final chapter of the West Virginia mine wars began when thousands of armed miners supporting unionization gathered at Lens Creek, near Marmet, and marched more than sixty miles to Mingo County in the southern coalfields.[44] Their route passed over Blair Mountain where they clashed with anti-union forces and coal companies' "hired guns."[45] This confrontation "constituted the largest pitched battle in the history of the labor movement in the United States and became the largest insurrection on U.S. soil since the American Civil War."[46]

The battle only ended when President Warren Harding issued a proclamation calling for an end of the "insurrection" and for the army to suppress the uprising.[47] Once the military intervened, the miners laid down their weapons and the armed fighting ended. For the next decade, unarmed miners and their wounded union continued their decades-long struggle for unionization, justice, and respect.

The 1932 election brought a new, pro-union administration to Washington. Franklin Roosevelt signaled support for workers' right to bargain collectively—a position that pumped new life into the mine union movement. Within months of Roosevelt's inauguration, the United Mine Workers established 728 union local offices in four southern states "with members in virtually every non-union

43. Coal companies hired so-called "detectives" as mine guards, spies, and bullies whose assignment was to physically repress union organizing activities. These men assaulted and beat anyone revealing pro-union sentiment. They also summarily evicted miners and their families from company housing, dumping their belongings on the street, and served as paramilitary troops who engaged in armed battles against protesting/striking miners. LON SAVAGE, THUNDER IN THE MOUNTAINS, THE WEST VIRGINIA MINE WAR, 1920-1921 (1990). Opposing company forces were pro-union miners. On several occasions, West Virginia Governors, whose sympathies lay with coal companies, declared martial law and ordered state police or militia to suppress organized miner activities. Miners were arrested and tried by military tribunals. *See generally* W. VA. MINE WARS, *supra* note 17.

44. SAVAGE, *supra* note 43, at 3.

45. *See generally* ROBERT SHOGAN, THE BATTLE OF BLAIR MOUNTAIN: THE STORY OF AMERICA'S LARGEST LABOR UPRISING (2004).

46. Rachel Donaldson, *Introduction to the West Virginia Mine Wars,* NAT'L PARK SERV. (2021), https://www.nps.gov/articles/000/introduction-to-the-west-virginia-mine-wars.htm [https://perma.cc/T4JJ-TFY6].

47. Harding issued an official proclamation commanding "all persons engaged in said insurrection to disperse and retire peaceably to their respective abodes on or before 12 o'clock, noon, of the first day of September 1921, and hereafter abandon said combinations and submit themselves to the laws and constituted authorities of said State." SAVAGE, *supra* note 43, at 112–13. In addition, two regiments of the United States Army in Ohio and New Jersey were ordered to be prepared to move to West Virginia if the miners refused to comply. *Id.*

coal camp in this territory."[48] Union organizers assured miners that "[t]he President wants you to join the union."[49]

The enactment of the National Labor Relations Act in 1935 greatly facilitated unionization of Appalachian coal companies.[50] In signing the legislation, Roosevelt explained that "this Act defines, as a part of our substantive law, the right of self-organization of employees in industry for the purpose of collective bargaining, and provides methods by which the Government can safeguard that legal right."[51] Seeming to speak directly to the virulently anti-union coal operators who had long opposed unionization of Appalachian mines, the President emphasized that "[b]y preventing practices which tend to destroy the independence of labor, it seeks, for every worker within its scope, that freedom of choice and action which is justly his."[52]

Beyond mine wars, mine disasters, serious workplace injuries, and fatal accidents is a more insidious and deadly impact of coal. But the industry refused to accept the obvious—its coal mines were the cause of a century long epidemic of miners' lung disease—coal worker's pneumoconiosis, or "black lung" as it is commonly known.

D. *Black Lung*

In the first half of the twentieth century, black lung disease was often called "miners' asthma" or "anthracosis."[53] The disease is little known or understood beyond regions where coal mining is common. The medical name of the insidious lung disease is "coal workers' pneumoconiosis."[54] It is arguably the most devastating of coal mining's harmful externalities. Coal workers' inhalation of air-

48. W. VA. MINE WARS, *supra* note 17, at 163.

49. JOHN ALEXANDER WILLIAMS, APPALACHIA: A HISTORY 279 (2002).

50. National Labor Relations Act, 29 U.S.C. §§ 151–169. The National Labor Relations Act was enacted in 1935; it granted employees the right to organize an employer's workforce and facilitated the unionization of Appalachian coal companies. *See generally id.*

51. Franklin D. Roosevelt, 32nd President of the United States, Statement on Signing The National Labor Relations Act (July 5, 1935), *in* AM. PRESIDENCY PROJECT, https://www.presidency.ucsb.edu/documents/statement-signing-the-national-labor-relations-act [https://perma.cc/5E48-U2NY].

52. *Id.*

53. *See* ALAN DERICKSON, BLACK LUNG: ANATOMY OF A PUBLIC HEALTH DISASTER 21 (1998).

54. *See generally Coal Worker's Pneumoconiosis (Black Lung Disease)*, AM. LUNG ASSOC., https://www.lung.org/lung-health-diseases/lung-disease-lookup/black-lung [https://perma.cc/ZPU8-VDLT].

borne coal dust often leads to lung impairment.[55] Symptoms of the disease include "progressive dyspnea, chest discomfort, and cough, sometimes dramatically accompanied by the expectoration of copious quantities of black, inky sputum."[56] The occupational disease in its advanced stage is debilitating and often fatal.[57] Dr. Edward Petsonk, a nationally recognized physician and occupational health expert, described the horror of the disease: "No human being should have to go through the misery that dying of [black lung] entails. It is like a screw being slowly tightened across your throat. . . . It is really almost a diabolical torture."[58] Clinical autopsies and pathological investigations supported the conclusion that inhaled coal dust caused miners' lung disease.[59]

Like so many other coal externalities, coal companies sought to avoid responsibility and liability for the disabling disease their workers contracted on the job.[60] Seeking to counter the claims of miners' unions, coal companies touted the healthful nature of coal mining.[61] Coal companies boasted of the alleged longevity of the coal miners and scorned black lung as an inconsequential discoloration of the lungs.[62] Bizarrely, coal bosses asserted that "there are no healthier men anywhere, than in the mining industry."[63] As difficult as it may be to believe in the twenty-first century, the coal industry was successful in persuading the public that miners' lung disease was unrelated to their employment.[64]

55. *See* Angela Nelson, *Black Lung Disease*, WEBMD, https://www.webmd.com/lung/black-lung-disease#1 [https://perma.cc/T738-K6WY] (Dec. 3, 2022).

56. Gregory R. Wagner, *Black Lung: Anatomy of a Public Health Disaster*, 340 NEW ENG. J. MED. 1770 (1999) (book review).

57. *See id.*

58. Chris Hamby, *Black Lung Surges Back in Coal Country*, CTR. FOR PUB. INTEGRITY (May 19, 2014), https://publicintegrity.org/workers-rights/black-lung-surges-back-in-coal-country/ [https://perma.cc/2Q9L-3R8X] (quoting "Dr. Edward Petsonk, who treats patients with black lung and works with NIOSH"). "[Black lung] leaves miners' lungs scarred, shriveled and black. They struggle to do routine tasks and are eventually forced to choose between eating and breathing." *Id.*

59. DERICKSON, *supra* note 53, at 6 (1998).

60. *Id.* at 10.

61. *Id.* at 58.

62. *Id.* at 44.

63. *Id.* at 53.

64. Of course, men who had worked underground and doctors who treated miners gasping for breath or who participated in a post-mortem knew the truth.

Perhaps even more astonishing was the fact many in the medical profession supported the industry-propagated myth.[65] Professor Murchison provided examples of their fallacious reasoning:

> [C]ompany physicians [asserted] that inhaling coal mine dusts was harmless because the body was naturally equipped to expectorate "deposits of carbon" and thus purify itself. Another claim was that inhaling carbonaceous dusts was in fact *beneficial* to miners' health because it caused fibrotic formations which supposedly prevented tubercular bacilli "from getting a foothold" in the lungs. A third industry position was that the only real danger posed by either anthracite or bituminous mining was inhalation of "silicious dusts associated with sandstone, slate, and other minerals that occurred with coal deposits."[66]

Through the 1960s, "[t]he medical profession as a whole did not accept even the narrow definition of black lung as coal workers' pneumoconiosis."[67] For decades, the coal industry promoted fictions that coal dust was benign and harmless—effectively fueling its resistance to extending state workers' compensation law coverage to coal miners. Before 1968 only two states—Alabama and Pennsylvania—provided compensation for black lung disease.[68]

In the 1960s, thousands of black lung-disabled miners strained to support their families. Many miners died from the disease, leaving their families destitute. As one author noted, "The recognition that black lung was rampant among U.S. coal miners did not evolve of its own accord within the boundaries of medical science. It was forced on the medical community by the decidedly political intervention of miners themselves."[69]

"[C]onfrontational collective action accomplished what careful scientific investigation and subtle private negotiation could not."[70] Professor Derickson observed that, "mystifying scientific jargon lifted to reveal masses of breathless, displaced old men, destroyed

65. DERICKSON, *supra* note 53, at 49. Even a 1923 publication of the American Medical Association joined in, asserting that "exact and particular observation has shown that the inhalation of coal dust unmixed with sand does not lead to diseases of the lungs." *Id.*

66. Brian C. Murchison, *Due Process, Black Lung, and the Shaping of Administrative Justice*, 54 ADMIN. L. REV. 1025, 1040–41 (2002).

67. BARBARA ELLEN SMITH, DIGGING OUR OWN GRAVES: COAL MINERS & THE STRUGGLE OVER BLACK LUNG DISEASE 39 (Haymarket Books, 2020 ed. 2020).

68. PETER. S. BARTH, THE DEVELOPMENT OF THE BLACK LUNG ACT 8 (1987).

69. Barbara Ellen Smith, *Black Lung: The Social Production of Disease*, 1 INT'L J. HEALTH SERVS. 343, 348 (1981).

70. DERICKSON, *supra* note 53, at xii.

by their work."[71] It took an Appalachian grassroots uprising of tens of thousands of people to finally force Congress to enact a federal Black Lung benefits act.[72] By March 1969, more than 40,000 miners were on strike blocking coal production throughout West Virginia.[73]

Finally, after decades of dispute and denial, Congress recognized that miners' respiration of coal dust is the cause of black lung disease. The 1969 Federal Coal Mine Health and Safety Act created a regulatory agency to administer and enforce the law's protective safety and health requirements.[74] It also required coal companies to limit miners' exposure to respirable dust in their underground workplace. The goal of the statute was to:

> [P]rovide, to the greatest extent possible, that the working conditions in each underground coal mine are sufficiently free of respirable dust concentrations in the mine atmosphere to permit each miner the opportunity to work underground during the period of his entire adult working life without incurring any disability from pneumoconiosis or any other occupation-related disease during or at the end of such period.[75]

The law provided very modest compensation to miners afflicted with the disease, their widows, and children.[76]

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71. *Id.*

72. Not surprisingly, supporters of the Black Lung Movement were passionate and committed in their quest for coalfield justice. Barbara Smith quotes one miner among a throng that brought their grievances to the West Virginia Capitol:

> We marched up there and there was State Police at the doors. But with that many of them the State Police just stepped aside. They had the doors locked at the House of Delegates. The men just walked up there and asked the guards, they said, "this is a public place. Are you going to let us in, or do you want us to kick it down?" They let us in.

SMITH, *supra* note 67, at 120.

73. Brian L. Hager, *Is There Light at the End of the Tunnel? Balancing Finality and Accuracy for Federal Black Lung Benefits Awards*, 60 WASH. & LEE L. REV. 1561, 1570 n.48 (2003).

74. Federal Coal Mine Health and Safety Act of 1969, Pub. L. No. 91-173, § 2, tit. II, §§ 201–202, 83 Stat. 742–743, 760, *amended by* Federal Mine Safety and Health Act of 1977, Pub. L. No. 95-164, 91 Stat. 1290.

75. 30 U.S.C. § 841(b); *see also* Usery v. Turner Elkhorn Mining Co., 428 U.S. 1, 8–12 (1976) (highlighting the origins of the black lung program and the system it creates); *see generally* Donald T. DeCarlo, *The Federal Black Lung Experience*, 26 HOW. L.J. 1335 (1983).

76. Richard Fry, *Making Amends: Coal Miners, the Black Lung Association, and Federal Compensation Reform, 1969–1972*, 5 FED. HIST. 35, 40 (2013), www.shfg.org/resources/Documents/FH%205%20(2013)%20Fry.pdf [https://perma.cc/D7XV-QAD6].

Not unlike the aftermath of the 1977 enactment of the Surface Mining Control and Reclamation Act (SMCRA),[77] enactment of long sought remedial statutes was the beginning and not the end of a half-century struggle for fair statutory administration and enforcement. Like its opposition to SMCRA regulation, the litigious coal industry vigorously opposed stringent regulation of respirable dust as well as challenged miners' applications for black lung benefits in tens of thousands of cases.[78]

Also, like SMCRA, these statutes that were intended to substantially curtail damaging coal mining externalities failed to live up to their promise. From 1969 through 2004, black lung benefits, paid to almost one million miners, totaled more than $41 billion.[79] The dust mitigation measures required by the 1969 Act significantly reduced, but did not eliminate, the curse of black lung disease afflicting the nation's coal miners.[80]

A law professor leading a pro bono black lung clinic that represented coal miners in benefits cases within the black lung claims system told a congressional committee:

> I have argued cases before the United States Supreme Court as well as before the Supreme Courts of several states. I have also represented people before Justices of the Peace and in Small Claims Court. And I can say without hesitation that the most unfair process I have ever run into is that which is found in the Federal black lung system. It defies due process of law, it defies reason and it is just simply unreasonable.[81]

77. *See* infra Part III.

78. *See* Murchison, *supra* note 66; *see also* Patrick McGinley, *Collateral Damage: Turning a Blind Eye to Environmental and Social Injustice in the Coalfields*, 19 J. ENV'T & SUSTAINABILITY L. 305, 317–30 (2013).

79. U.S. GOV'T ACCOUNTABILITY OFF., GAO 08-628T, FEDERAL COMPENSATION PROGRAMS: PERSPECTIVE ON FOUR PROGRAMS FOR INDIVIDUALS INJURED BY EXPOSURE TO HARMFUL SUBSTANCES (2008), https://www.gao.gov/assets/gao-08-628t.pdf [https://perma.cc/F9V7-JFBR].

80. M.D. Attfield, J.M. Wood, V.C. Antao, G.A. Pinheiro & EIS Officers, *Changing Patterns of Pneumoconiosis Mortality—United States, 1968–2000*, 53 MORBIDITY & MORTALITY WKLY. REP. 627, 628 (2004).

81. Murchison, *supra* note 66, at 1032 (quoting *Field Hearings on Black Lung: Hearings Before the Subcomm. on Lab. Standards of the Comm. on Educ. & Lab.*, 101st Cong. 300 (1990) (statement of Howard Eisenberg); *see also* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-7, BLACK LUNG BENEFITS PROGRAM: ADMINISTRATIVE AND STRUCTURAL CHANGES COULD IMPROVE MINERS' ABILITY TO PURSUE CLAIMS 31 (2009), http://www.gao.gov/new.items/d107.pdf [https://perma.cc/3MUE-T436] (detailing the structural and administrative barriers that prevent miners from receiving black lung benefits).

Dreadfully, by 2004, thirty-five years after the 1969 Act was passed, another 123,000 miners were estimated to have died as a result of inhalation of coal dust.[82] If that fact isn't sufficiently horrendous, consider that 10,000 miners died from black lung disease from 1998 to 2008.[83]

And now, the incidence of black lung disease is growing, notwithstanding that far fewer miners are working as the demand for coal has plummeted. A National Institute for Occupational Safety and Health epidemiologist interviewed by National Public Radio ("NPR") described black lung in the mid-2010s as an "epidemic" that constitutes "one of the worst industrial medicine disasters that's ever been described . . . . [W]e're counting thousands of cases."[84]

II. SMCRA GUARANTEED ALL COAL MINES WOULD BE FULLY RECLAIMED

As described above, for a century unregulated underground and strip mining of coal devastated nearby Appalachian communities and the environment. Unreclaimed mined lands and polluted mine drainage were the coal industry's gifts that kept on giving. Finally, under intense decade-long grassroots pressure, Congressional sentiment moved to consideration of nationalizing coal mining regulation by legislation that would create minimum federal mining and reclamation standards and preempt weaker state laws.[85]

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82. Caitlyn Greene & Patrick C. McGinley, *Yielding to the Necessities of a Great Public Industry: Denial and Concealment of the Harmful Health Effects of Coal Mining*, 43 WM. & MARY ENV'T L. & POL'Y REV. 689, 723 (2019). Prior to the 1969 enactment of the Coal Mine Health and Safety Act at least 365,000 miners died of the disease. David C. Vladeck, *The Failed Promise of Workplace Health Regulation*, 111 W. VA. L. REV. 15, 16 n.4 (2008).

83. *Faces of Black Lung*, CTRS. FOR DISEASE CONTROL & PREVENTION: NIOSH SCI. BLOG (Aug. 18, 2008), https://blogs.cdc.gov/niosh-science-blog/2008/08/18/mining/ [https://perma. cc/XU2L-WG3Q].

84. Howard Berkes, Huo Jingnan & Robert Benincasa, *An Epidemic Is Killing Thousands Of Coal Miners. Regulators Could Have Stopped It*, NPR (Dec. 18, 2018, 5:00 AM), https://www.npr.org/2018/12/18/675253856/an-epidemic-is-killing-thousands-of-coal-miners-regulators-could-have-stopped-it/ [https://perma.cc/3P6H-CQY7]; *see generally* CHRIS HAM-BY, SOUL FULL OF COAL DUST – A FIGHT FOR BREATH AND JUSTICE IN APPALACHIA 51 (Little, Brown & Co. 2020).

85. STEPHEN L. FISHER, FIGHTING BACK IN APPALACHIA: TRADITIONS OF RESISTANCE AND CHANGE 6 (1993) ("The grassroots anti-strip-mining movement was at the heart of the initial outburst of community organizing in Appalachia in the latter half of the 1960s and the early 1970s.").

Coal-producing states, closely aligned with their coal companies, fought doggedly to maintain the status quo. One commentator observed that "[p]erhaps the most significant source of opposition to the forces advocating effective surface mining regulation was the political power wielded by industry in the state legislatures."[86] The administration of President Ford parroted the coal industry's arguments in opposition to federal regulation of the environmental effects of coal mining. It asserted that the proposed legislation "would decimate the surface mining industry by imposing huge costs on marginal mining operators, thereby pushing America toward dependence on imported fuel."[87]

Most coal-producing states had long opposed such a law, joining the industry in arguing that "another layer of regulation was unnecessary in light of the evidence that by 1975, thirty-eight states had passed laws to regulate surface mining."[88] Professor Desay explained that:

> [o]pponents of federal regulation were largely coal companies and coal mining industry trade groups. They contended that most of the horrors of surface mining had occurred in the past, that affected states were currently doing an adequate job of regulation, and that the states should be given more time. The opponents argued that conditions such as topology, hydrology, and climate were so diverse throughout the nation that a uniform federal law applicable to all states would be inappropriate and nearly impossible to implement. They also argued that such sweeping legislation would probably be unconstitutional and would result in a considerable amount of costly litigation.[89]

Congressional investigators countered industry and state opposition to a federal coal mining and reclamation law by accumulating massive evidence of coal mining's devastating environmental and attendant socio-economic damage to Appalachian lands, waters, and communities:

86. John D. Edgcomb, Comment, *Cooperative Federalism and Environmental Protection: The Surface Mining Control and Reclamation Act of 1977*, 58 TUL. L. REV. 299, 306 (1983).

87. EDWARD M. GREEN & LISA. A. PRICE, THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977: NEW ERA OF FEDERAL-STATE COOPERATION OR PROLOGUE TO FUTURE CONTROVERSY?, 16 ENERGY & MIN. L. FOUND. at § 11.02 (1997).

88. *Id.*

89. Uday Desai, *The Politics of Federal-State Relations: The Case of Surface Mining Regulation*, 31 NAT. RES. J. 785, 788 (1991). The Ford administration also asserted that strict federal mining control would constrain the domestic supply of energy and thus was inconsistent with the long-range goals of a national energy policy. *Id.*

> The social and environmental impacts of surface and underground coal mining have been enormous. The most serious effects are to be seen in the Appalachian region, where the entire socioeconomic infrastructure of parts of Pennsylvania, West Virginia, Ohio, Kentucky, Virginia and Tennessee and Alabama has been profoundly affected by decades of extracting coal from the rich bituminous deposits. As a consequence of the hazardous environment associated with both underground and surface mining of coal, the health and safety of people living and working near the coal mines of the region are in more or less constant peril. One example of exposure of the general public to dangerous conditions is the disastrous collapse of a mine waste impoundment on Buffalo Creek, West Virginia, in which 124 people were killed and 4,000 rendered homeless in 1972.[90]

Irrefutable evidence supported Congress' findings. Coal company owners and investors had padded their bank accounts by externalizing these economic, human health, societal and environmental damages on coalfield communities. After digging out all the minable mineral, companies and their local managers simply shut down and moved out, most often leaving coal camps to deteriorate and decay as jobs and the tax base vanished.[91] No thought was given for the future of land and the people left behind.

Finally, enough was enough.[92] After almost a decade of debate and emboldened by a rising tide of grassroots agitation and pressure, Congress brushed aside state and coal lobbyists' claims that federal regulation would literally destroy the industry.[93] After years of wrangling, hearings, debate and two presidential vetoes,[94]

90. H.R. REP. NO. 94-1445, at 19 (1976). A Department of Interior report revealed that coal operators had strip mined and abandoned 1,301,430 acres. *See* U.S. DEP'T. OF INTERIOR, SURFACE MINING AND OUR ENVIRONMENT 110 (1967).

91. Patrick C. McGinley, *From Pick and Shovel to Mountaintop Removal: Environmental Injustice in the Appalachian Coalfields*, 34 ENV'T. L. 21, 35 n.71 (2004) (quoting Jules Loh, *The Longstanding Paradox of Eureka Hollow*, CHARLESTOWN GAZETTE-MAIL (Jan. 4, 1987), at A4.

92. The House Report's additional findings that "for a variety of reasons, including the reluctance of the State to impose stringent controls on its own industry, serious abuses continue. . . . The hearing record also contains testimony concerning serious incidents of landslides, erosion, siltation, and other environmental problems associated with the modern surface mining industry." H.R. REP. NO. 95-218, at 58–59 (1977).

93. *See* Edgcomb, *supra* note 86, at 299 ("The long and tortuous history of SMCRA reflects the traditionally strident opposition to both mining reclamation laws specifically and federal usurpation of state regulatory powers in general.").

94. Three unsuccessful bills proposing federal strip-mining regulation were considered in the Senate in 1968. President Richard M. Nixon similarly called for federal regulation in 1972. The legislation passed in the House but was not acted on by the Senate. In 1973, the 93rd Congress held numerous hearings and a bill passed both houses by significant margins. President Ford pocket-vetoed S. 425 in December 1974. The 94th Congress again passed a federal strip-mining bill only for President Ford to veto that bill as well. S. 425, 93rd Cong.,

the newly elected 95th Congress enacted the Surface Mining Control and Reclamation Act in August 1977.[95]

On its face, SMCRA constituted a flat rejection of the coal industry's deeply ingrained business model that normalized the externalization of huge costs of mining onto Appalachian citizens, their communities, and the environment. An overarching consequence of unregulated coal mining was that the coal companies' failure to reclaim mined lands created long-lasting externalized costs.[96]

Thus, Congress included specific provisions in SMCRA to ensure that in the future no coal mines would be abandoned by bankrupt coal companies without setting aside adequate funds to treat polluted mine discharges and fully reclaim mined lands. As a condition precedent to issuance of a mining permit, SMCRA mandated coal companies provide adequate financial guarantees in the form of performance bonds, sureties, or other assurances "sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture."[97]

III. POST-ENACTMENT COAL INDUSTRY RESISTANCE AND OPPOSITION TO SMCRA

SMCRA mandated that every strip and underground coal mine in the United States would be fully reclaimed. No longer would coalfield communities be saddled with coal mining externalities while coal company owners walked away with the profits.

Enactment of SMCRA, including the reclamation bonding mandate, did not reduce the coal industry and captured state officials' resistance to environmental regulation—it fueled it. The deeply engrained culture of the industry from the first days of coal mining was to seemingly take externalization of environmental, labor, health, and attendant costs as a God-given right. Internalizing the enormous, externalized costs of mining and reclamation had never

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2d Sess., 120 CONG. REC. 40,054 (1974); H.R. 25, 94th Cong., 1st Sess., 121 CONG. REC. 13,385–86 (1975); *see also* GREEN, *supra* note 87. For a look at SMCRA's complex legislative history, *see* Lawrence B. Dale, Comment, *The Surface Mining Control and Reclamation Act of 1977*, 9 ST. MARY'S L.J. 863, 863 (1978); Robert Allen Walters, Book Note, *A Summary of the Legislative History of the Surface Mining Control and Reclamation Act of 1977 and the Relevant Legal Periodical Literature*, 81 W. VA. L. REV. 775, 775–81 (1979).

95. Surface Mining Control and Reclamation Act of 1977, Pub. L. No. 95-87, 91 Stat. 445 (codified as amended at 30 U.S.C. § 1201 et seq.).

96. U.S. DEP'T OF INTERIOR, *supra* note 90, at 1, 3, 73–74.

97. Surface Mining Control and Reclamation Act § 509(a), 30 U.S.C. § 1259(a).

been a priority to corporate managers: if mine operators were required to incorporate protection of neighboring communities and the environment, company profits and competitiveness would decrease and the required protections would add into their costs of doing business.

The extensive externalized harm caused by active mining and unreclaimed abandoned mines was viewed as a necessary price to attract development and preserve mining jobs, and a small proportion of company profits found its way into local businesses and government and state tax coffers.[98] In short, prior to enactment of SMCRA, the coal industry was subsidized by its ability to shift basic costs to the public, mining families, and the environment. Looking back over Appalachian coalfield history, one commentator has observed:

> For much of the hundred-plus years of its existence, the industry has been on a kind of life support, as state and federal governments have, directly and indirectly, subsidized coal companies to keep the industry afloat. The costs of this subsidy aren't tallied on corporate or government balance sheets. The destruction of central Appalachia's economy, environment, social fabric and, ultimately, its people's health is, in a sense, hidden. But they're plain enough to see on a map. It could be lung cancer deaths you're looking at, or diabetes mortality. Or try opioid overdoses. Poverty. Welfare dependency. Chart virtually any measure of human struggle, and there it will be, . . . consistently one of America's worst pockets of affliction.[99]

Undaunted by their failure to derail enactment of SMCRA, the coal industry and its coterie of allied states doubled down on their efforts to derail implementation and enforcement of the law. They challenged SMCRA's administration at every opportunity since the first days of the law's implementation by the newly created Office of Surface Mining Reclamation and Enforcement ("OSM"), a subagency of the U.S. Department of the Interior.[100]

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98. Gwynn Guilford rejects the prevailing argument supporting the importance of preserving coal mining jobs over rights of citizens and environmental protection: "The experiment underway in central Appalachia began with subsidizing coal by suppressing household wealth. To the local politicians who sponsored this strategy, the idea was that making conditions favorable to outside corporations would develop the local economy, creating jobs and enriching residents." Guilford, *supra* note 3. Guilford asks, "How has that played out?" *Id.*

99. *Id.* ("The many ways in which politicians and coal barons have kept coal artificially cheap has, over the course of generations, devoured the potential of the area's residents, and that of their economy.").

100. The OSM was mandated by Congress and located in the Department of the Interior. Surface Mining Control and Reclamation Act § 201, 30 U.S.C. § 1211.

When industry interests realized that OSM intended for the SMCRA regulatory program to have very sharp teeth, and left little room for state regulators to wink and nod at mine operators' violations, the resistance to OSM's timetable for implementing SMCRA blossomed into an all-out litigation assault on the Act and upon the agency's regulations. State and industry court challenges were directed at numerous provisions of both OSM's interim and final program regulations as well as the scope of OSM's regulatory authority.[101]

A. *Industry Litigation Delaying Implementation and Enforcement of SMCRA*

The Carter administration's Department of Interior had crafted the regulatory programs that were intended to bring SMCRA's broad environmental and community protection mandates to life. With Reagan rather than Carter appointees assuming responsibility for making the promise of SMCRA a reality, the industry saw an opportunity. It backed litigation that relied on an obscure provision in SMCRA to successfully block the implementation of the Carter OSM-approved permanent state programs for one year.[102]

Suits were filed in a variety of venues within weeks of the

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101. Twenty-two court actions challenged OSM's interim regulations and nine separate lawsuits were filed challenging OSM's permanent program regulations. All were eventually successful. *See* GREEN & PRICE, *supra* note 87, at § 11.06 nn.67–74 and accompanying text.

102. *Id.*; see also 30 U.S.C. § 1253, providing in relevant part:

> For the purposes of this section . . . the inability of a State to take any action the purpose of which is to prepare, submit or enforce a State program, or any portion thereof, because the action is enjoined by the issuance of an injunction by any court of competent jurisdiction shall not result in . . . the imposition of a Federal program. Regulation of the surface coal mining and reclamation operations covered or to be covered by the State program subject to the injunction shall be con-ducted by the State pursuant to [the interim program requirements of § 1252], until such time as the injunction terminates or for one year, whichever is shorter . . . .
>
> The origin and underlying intent of this SMCRA provision is obscure. What is clear is that the coal industry quickly made it the core of judicial complaints seeking to bring to an abrupt halt OSM and state actions to implement SMCRA. In retrospect, it is obvious that the industry was counting on the new Reagan Administration to use its administrative discretion to completely undo the regulatory program carefully crafted by its predecessor following the passage of SMCRA in 1977.

30 U.S.C. § 1253(d).

presidential election of 1980.[103] The plaintiffs alleged, in essence, that they would be immediately and irreparably harmed should the new Reagan administration change the permanent program requirements after the state had begun enforcing a permanent program approved by the Carter administration OSM.[104] The injunctive relief granted in these cases provided breathing room for the Reagan administration to totally revise the OSM permanent program requirements and delayed permanent implementation of state SMCRA regulatory programs.

As a direct result of the litigation-won-delay, the Reagan administration was able to deliver—as the industry assumed it would. Louise Dunlap, who was a major force working on behalf of national conservation groups to secure passage of SMCRA, observed that the Carter administration's efforts to get SMCRA up and running came to "a grinding halt with the election of President Reagan."[105] Dunlap explained that Reagan's newly appointed Interior Secretary James Watt adopted the coal industry's anti-regulation mantra when he "immediately singled out OSM as an example of regulatory zealotry."[106] He commanded OSM to engage in "regulatory reform" by modifying more than ninety percent of SMCRA regulations that had just been tested in court and upheld.[107] Watt's "regulatory reform" rewrote the OSM regulations to substantially weaken many environmental protection requirements while reducing opportunities for public participation required by the law.[108]

103. *See generally* Patrick C. McGinley & Joshua Barrett, Pennsylvania Coal Company v. Mahon *Revisited: Is the Federal Surface Mining Act a Valid Exercise of the Police Power or an Unconstitutional Taking?*, 16 TULSA L. J. 418 (1981) ("In the relatively short time since its enactment, the SMCRA has been besieged by coal industry challenges.").

104. *See, e.g.,* Va. Surface Mining & Reclamation Ass'n v. Andrus, 483 F. Supp. 425 (W.D. Va. 1980), *vacated by* Va. Citizens for Better Reclamation, Inc. v. Va. Surface Mining & Reclamation Ass'n, 453 U.S. 901 (1981); Indiana v. Andrus, 501 F. Supp. 452 (S.D. Ind. 1980).

105. Louise C. Dunlap & James S. Lyon, *Effectiveness of the Surface Mining Control and Reclamation Act: Reclamation or Regulatory Subversion?*, 88 W. VA. L. REV. 547, 550 (1986).

106. *Id.* ("Mr. Watt sought to undermine the Act by revising the federal regulations and reorganizing the agency to drive out its career staff and weaken OSM's ability to meet its responsibilities.").

107. *Id.*

108. *Id.* ("As a result of this reckless effort by Secretary Watt, OSM's regulatory program has no more stability or finality than it did immediately after OSM's creation in 1978.").

B. *Industry Challenges to SMCRA Rules*

Contemporaneous to the Reagan administration's efforts to dismantle the Carter OSM's SMCRA program regulations, coal industry plaintiffs filed a total of twenty-two court actions challenging OSM's interim regulations and nine subsequent suits targeting the agency's permanent program regulations.[109] On appeal, all the cases were consolidated in the United States District Court for the District of Columbia.[110] Most of the arguments against the rules were rejected by the District Court.[111] "At bottom, these challenges were based upon the coal state and industry view that the states had primary governmental responsibility for developing regulations under SMCRA."[112] Attacks on the permanent program regulations in district courts and appellate courts were largely rejected.[113]

C. *Industry Challenges to the Constitutionality of SMCRA*

Industry and states also attacked the constitutionality of SMCRA in five lawsuits,[114] alleging numerous constitutional defects including challenges based on the Commerce Clause, the Due Process Clause, the Contract Clause, the Equal Protection Clause, the Tenth Amendment, and the Just Compensation Clause.[115] Several federal courts embraced these constitutional challenges by state and coal industry plaintiffs and granted broad injunctive and

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109. *In re* Surface Mining Regul. Litig., 627 F.2d 1346, 1350 (D.C. Cir. 1980) (reviewing OSM Interim Program Regulations); *In re* Permanent Surface Mining Regul. Litig., 653 F.2d 514, 516, 529 (D.C. Cir. 1981) (en banc) (reviewing OSM Permanent Program Regulations).

110. GREEN & PRICE, *supra* note 87, § 11.04. The challenges to the interim and the later permanent program regulation cases were each also consolidated for judicial review in the United States District Court for the District of Columbia. *Id.*

111. *Id.* Corporate parties challenging OSM's regulatory program included major national coal producers Consolidation Coal Company, Peabody Coal Company, R & F Coal Company, Texas Utilities Generating Company, North American Coal Corporation, Utah International, Inc., Amherst Coal Company, and Sunoco Energy Development Company. They were joined as plaintiffs by the National Coal Association, the American Mining Congress and Pennsylvania Coal Mining Association—industry trade associations. *In re* Surface Mining Regul. Litig., 456 F. Supp. 1301 (D.C. Cir. 1978). These challenges were ultimately rejected in *In re* Permanent Surface Mining Regul. Litig., 653 F.2d at 527.

112. GREEN & PRICE, *supra* note 87, at § 11.04.

113. *Id.* Environmental and conservation organizations challenged some aspects of the permanent program regulations and defended others.

114. Anthony Pye, *The Supreme Court Rejects Constitutional Challenges to the Surface Mining Control and Reclamation Act of 1977*, 48 BROOK. L. REV. 137, 139–144 (1981) [hereinafter *Constitutional Challenges*].

115. GREEN & PRICE, *supra* note 87, at § 11.04 n.78.

declaratory relief.[116] The Supreme Court of the United States put an end to this coal industry attack on SMCRA when it upheld the constitutionality of each targeted provision, though litigation challenging SMCRA administration and enforcement continues to this day.[117]

While its tactic of undermining SMCRA in the courts failed, the industry and industry-friendly states successfully delayed SMCRA implementation and enforcement and "engender[ed] confusion and uncertainty between and among regulated entities, the States, OSM, and citizens of the coalfields with regard to SMCRA requirements."[118] Moreover, elements of the coal industry continued a drumbeat of criticism of the OSM as colluding with "environmentalists."[119] Coal trade associations' and their members' anti-SMCRA strategy also included lobbying for amendments to SMCRA—to pressure OSM to back off from its broad construction of federal power under SMCRA and its insistence that before state SMCRA regulatory programs were approved, they met the strict requirements of the statute.[120]

IV. HOW WINKS AND NODS ALLOWED COAL COMPANIES TO EXTERNALIZE BILLIONS OF DOLLARS OF ENVIRONMENTAL LIABILITIES

As explained in the introduction to this Article, federal and state regulators ignored a core provision of SMCRA that was intended to prevent coal companies from continuing their historic practice of externalizing the cost of mining to the environment and coalfield communities. Mass bankruptcies, thousands of acres of unreclaimed mined lands, and polluted rivers, streams and ground-

116. *Constitutional Challenges*, *supra* note 114, at 140–44 nn.20–24 and accompanying text ("The decisions of the lower courts were inconsistent and reflected a fundamental tension between the demands of national environmental policies and those of states and individuals unwilling to cede to the national government rights and powers that they claim have always been reserved either to the states or to the people.").

117. *See generally* Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264 (1981); Hodel v. Indiana, 452 U.S. 314 (1981).

118. GREEN & PRICE, *supra* note 87, at § 11.04; *see supra* note 89 and accompanying text.

119. *See, e.g.,* GREEN & PRICE, *supra* note 87, at § 11.04 (quoting coal trade association Mining & Reclamation Council of America's publication).

120. *See* Richard H.K. Vietor, "*Strip Mining in Washington: A Tougher Fight*," *in* ENVIRONMENTAL POLITICS AND THE COAL COALITION (1980) (observing that coal producers, mining equipment, manufacturers, electric utilities, railroads, commercial banks, and others formed a coalition, that applies pressures to advance coal interests through lobbyists, public relations, campaigns, and government-industry "advisory councils").

water would have been prevented had SMCRA's reclamation bonding mandate been enforced. It wasn't, and taxpayers were left with billions of dollars of reclamation costs while coal companies discharged their responsibilities through bankruptcy procedure—as they had done a century ago. The media, politicians and the industry erroneously place the blame on market conditions and lenient bankruptcy laws. The discussion below explores how and why the promise of SMCRA was defeated by coal industry design, regulatory misfeasance, and malfeasance.

A. *Section 509 of SMCRA—Performance Bonds*

Congress inserted provisions in SMCRA that, if fairly enforced by regulators, would end the coal industry's century-long practice of mining coal, pocketing profits, and abandoning the mines.[121] From the industry's early years, a majority of coal companies were managed irresponsibly. A 1921 report of the National Associations of Accountants found that:

> Up until a few years ago the accounting systems of the majority of the coal operators of this country were extremely crude, and in many cases practically worthless. Very few of the smaller operators knew what it cost them to produce coal. They did not know whether they were making money or losing money until the end of the year, and then only by the increase or decrease in assets over liabilities. Unfortunately, in a great number of instances, the liabilities were greater than the assets, and as a result *a large proportion of the coal companies of this country have gone through some form of financial reorganization. Up to about 1916 the majority of them were practically in the hands of their bankers.*[122]

The fact that a "large proportion of the coal companies" in the country had "gone through some form of financial reorganization" has long been a hallmark of the coal industry.[123]

SMCRA was intended to put an end to an unscrupulous and unprincipled business model. The discussion below focuses on the

121. *See* Surface Mining Control and Reclamation Act §§ 508–509; 30 U.S.C. §§ 1258–1259.

122. 2 R.W. GARDINER, NAT'L ASS'N OF COST ACCOUNTANTS, COAL PRODUCTION COSTS 3 (1921) (emphasis added), https://egrove.olemiss.edu/acct_inst/111 [https://perma.cc/WK49-DNYA]. The report identified expenses referenced in coal firms' annual balance sheets. Unsurprisingly, the records contained no mention of reclamation costs. *Id.*

123. *Id.*

failure of SMCRA's mandate that all future coal mines be fully and completely reclaimed after coal was extracted.

SMCRA § 509 provides in relevant part:

> (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, as appropriate, to the United States or to the State, and conditional upon faithful performance of all the requirements of this Act and the permit. . . . The amount of the bond required for each bonded area shall depend upon the reclamation requirements of the approved permit; shall reflect the probable difficulty of reclamation giving consideration to such factors as topography, geology of the site, hydro-logy, and revegetation potential, and shall be determined by the regulatory authority. The amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture . . . .
>
> . . . .
>
> (c) Bond of applicant without separate surety; alternative system
>
> The regulatory authority may accept the bond of the applicant itself without separate surety when the applicant demonstrates to the satisfaction of the regulatory authority . . . a history of financial solvency and continuous operation sufficient for authorization to self-insure or bond such amount or in lieu of the establishment of a bonding program, as set forth in this section, the Secretary may approve as part of a State or Federal program *an alternative system that will achieve the objectives and purposes of the bonding program pursuant to this section.*[124]

Drafters of SMCRA envisioned two quite different methods of "bonding" to assure that, going forward, all mines would be reclaimed: a conventional site-specific bonding system ("CBS") and an alternative bond system ("ABS"), authorized by 30 U.S.C. § 1259(c). The parameters of both are succinctly summarized by the Third Circuit in a citizen-suit case involving challenges to Pennsylvania's bonding program. A CBS is:

> [a] conventional bond system ("CBS"), authorized by 30 U.S.C. § 1259(a) is sometimes referred to as a "full cost" system because the cost of the bond is not discounted or supplemented by any other source. Rather, the operator must pay the entire cost of the bond needed to complete reclamation in the event of forfeiture. A CBS bond is site specific, covering the permit area upon which the operator conducts surface coal mining . . . . As mining and reclamation operations

124. Surface Mining Control and Reclamation Act §§ 509(a),(c), 30 U.S.C. §§ 1259(a), (c) (emphasis added).

> within the permit area are expanded, the permit holder must file additional bonds to cover the additional operations.[125]

The CBS was considered "conventional" because, if a state attempted to impose some form of mining reclamation regulation, it frequently included a site-specific bonding mandate.

An ABS was the creation of SMCRA's Congressional drafters who were influenced by the coal lobby to include an alternative to a CBS. Industry supporters envisioned that, whatever form an ABS took, it could greatly reduce a coal company's financial burden of having to provide a significant monetary guarantee "up front" before mining could begin. Major coal producers would likely be able to shoulder the encumbrance of conventional bonding.[126] The primary benefactor of an ABS would be small- to medium-sized coal companies of the type that had operated on the cusp of bankruptcy for generations.[127]

The concept of an "alternative system" was amorphous. If a state sought federal approval for its SMCRA regulatory program, it needed to show that its ABS "will achieve the objectives and purposes of the bonding program pursuant to" SMCRA § 509 (c).[128] The court in *Kempthorne* explained the basic concept of a SMCRA authorized ABS as

> a collective risk-spreading system that draws in part on a bond pool to cover the reclamation liabilities of each individual mining site. An ABS allows a State to discount the amount of the required site-specific bond to an amount that is less than the full cost needed to complete reclamation of the site in the event of forfeiture. Individual mine

125. Pennsylvania Fed'n of Sportsmen's Clubs, Inc. v. Kempthorne, 497 F.3d 337, 341 (3d Cir. 2007) (citation omitted).

126. *See* John C. Dernbach, *Pennsylvania's Implementation of the Surface Mining Control and Reclamation Act: An Assessment of How "Cooperative Federalism" Can Make State Regulatory Programs More Effective*, 19 U. MICH. J. L. REFORM 903, 917–18 n.47 (1986) ("Many of these companies are affiliated with steel companies, oil companies, or electric utilities, and use modern production methods and sophisticated management to extract millions of tons annually from newly opened mines. The larger surface and underground operators rely on long-term contracts, while the smaller companies, which cannot obtain such contracts, tend to rely on the spot market for sale of their coal.").

127. For example, "[a]bout [three-fourths] of Pennsylvania's licensed surface mining operators are considered small operators under SMCRA because they produce less than 100,000 tons per year." *Id.* at 917 n.47. In Appalachia's major coal producing states—Kentucky, West Virginia, Virginia, and Ohio—similar percentages of undercapitalized small operators were mining on the edge of insolvency as historically fluctuating and erratic coal markets moved from boom to bust and back. For a brief discussion of the history of the boom and bust of the coal markets in the twentieth century, see JOHN ALEXANDER WILLIAMS, APPALACHIA: A HIS-TORY 225 (2001) [hereinafter APPALACHIA HISTORY].

128. 30 U.S.C. §1259(c).

> operators contribute to the bond pool, thereby sharing the liability of reclamation and compensating for the discounted site-specific bonds.[129]

Through these provisions, SMCRA thus imposed a practical commonsense requirement on companies seeking permission from regulatory agencies to mine coal. To ensure all these mines would be fully reclaimed after ceasing, the statute required every entity seeking a mining permit to calculate the full cost of reclamation.[130] The amount of the bond is determined by the regulatory authority; the company would be required to post a performance bond or other surety in that amount to insure full reclamation if the permittee failed to reclaim land and/or eliminate water pollution flowing from the mine site.[131]

The new law did no more than what best practices in any business demand. Typically, coal company managers would first identify potentially minable coal reserves.[132] The fundamental goal of a coal company is to extract coal from the earth at profit. To determine whether mining a particular coal tract will be profitable, company engineers and managers analyze the amount (in tons) of mineable coal it owns or controls.[133] They then calculate the amount of mineral that can be removed by underground or surface (strip) mining methods.[134]

Importantly, the determination of whether a coal reserve may be mined at a profit also requires the company to determine the costs of mining, processing, and transporting the mineral to market by truck, rail, or barge. While calculating whether a particular proposed mine will produce a profit requires facts and expertise,

129. 497 F.3d at 341.

130. 30 U.S.C. §1257(a)(5) ("Each reclamation plan submitted as part of a permit application . . . shall include . . . an estimate of the cost per acre of the reclamation.").

131. 30 U.S.C. § 1259(a) ("The amount of the bond required for each bonded area shall depend upon the reclamation requirements of the approved permit; shall reflect the probable difficulty of reclamation giving consideration to such factors as topography, geology of the site, hydrology, and revegetation potential, and shall be determined by the regulatory authority. The amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture . . . . ").

132. For an example of the detailed professional analysis attendant to decision to mine a tract of coal, see U.S. DEP'T. OF INTERIOR, BUREAU OF LAND MGMT., BLM HANDBOOK H-3073, COAL EVALUATION HANDBOOK (2014), https://www.nma.org/attachments/article/1923/BLM%20Coal%20Evaluation%20Handbook%20H-3073-1.pdf [https://perma.cc/8KUB-RBBR].

133. *Id.*

134. *Id.*

an honest objective evaluation of mining costs makes for an uncomplicated decision whether to seek a permit and open a mine. No profit—no mining.

B. *Example One: Reclamation Bonding in Pennsylvania*

Enactment of SMCRA did not weaken "King Coal's" historic power and influence over state and federal politicians and regulators. But, as discussed above, the coal industry went on the offensive against regulation when it became clear that the Carter administration was serious about enforcement of the new law. Coal companies feared that the law would be enforced in a manner that would force them to internalize long externalized environmental costs of mining.

The first public evidence that SMCRA's reclamation bonding mandate would not be enforced as intended came in 1981 when the Pennsylvania Department of Environmental Resources ("PADER") sought a compromise with the Commonwealth's influential coal trade associations. The private deal was to create an "alternative" to a bonding system, or "ABS." SMCRA's primary approach to bonding, as explained above, would have the bonds be based on the actual cost of reclamation if a coal company went bankrupt. The amount of the bonds posted by a permit applicant would be specific to the area to be mined and would be sufficient to cover land reclamation, and if necessary, treatment of polluted water discharged from the site.[135]

The PADER deal, however, allowed a coal company and its state regulators to avoid the duty to calculate the site-specific cost of reclamation. Rather, the permit applicant would only need to provide a $1,000 bond per permitted acre[136]—an amount that had no connection to the actual cost of reclamation of the newly permitted mine. The company would also be required to pay a non-refundable $100 fee per permitted acre.[137] The per-acre fee would be deposited

135. 30 U.S.C. § 1259(a). The Pennsylvania Department of Environmental Resources was modified by the Commonwealth's legislature in 1995 and renamed the Department of Environmental Protection ("PADEP"). 1995 Pa. Laws 18, ch. 5.

136. PA. DEP'T OF ENV'T PROT., OFF. OF MIN. RES. MGMT., DRAFT FULL COST BONDING FOR LAND RECLAMATION ON PENNSYLVANIA'S COAL MINE SITES (1999), https://www.dep.state.pa.us/dep/deputate/minres/FCBReport.htm [https://perma.cc/46MJ-2Y2M].

137. *Id.*

in a PADER managed fund.[138] Unlike a site-specific bond, the agency could use money deposited in the fund to reclaim any abandoned mine in the state.[139]

Basic mathematical computation made it clear that funds generated by the "alternative" to a site-specific bonding program would be wholly insufficient to reclaim abandoned mines and/or treat acid mine drainage. The existence of a secret agreement between coal lobbyists and PADER regulators was disclosed to conservation organizations in the Commonwealth by an internal whistle-blower.[140] The one-million-member-strong Pennsylvania Federation of Sportsmen's Clubs and the state chapter of the Sierra Club filed suit in state court seeking to block the deal.[141] Together, they alleged the deal was a gross intentional violation of SMCRA, as it required all state permanent regulatory programs be as stringent as SMCRA and its implementing regulations.[142]

Specifically, SMCRA first mandated that all state mining regulatory programs provide public notice and an opportunity to comment on substantive rules and regulations[143]—a core component of administrative agency rulemaking enshrined for decades in the Federal Administrative Procedure Act and the Commonwealth.[144] Of course, PADER had not informed the public that its rulemaking "process" involved private negotiations with the entities it was bound to regulate.

Second, the agency concealed from the public—and later the Commonwealth Court—that its alternative to a bonding program

138. *See id.*

139. *See id.*

140. These observations were taken in part from the Author's personal experience while serving as co-counsel for the plaintiffs in *Pennsylvania Fed'n of Sportsmen's Clubs v. Pennsylvania Dep't of Env't Resources*, No. 1868 C.D. 1981 (Pa. Commw. filed July 30, 1981), and from having previously served as an enforcement lawyer for PADER from 1972–1975.

141. Pennsylvania Fed'n of Sportsmen's Clubs, No. 1868 C.D. 1981 (Pa. Commw. filed July 30, 1981) (seeking declaratory and injunctive relief and an increase in PADER's bond rate for surface mines).

142. *Id.*

143. 30 C.F.R. 731.14(a), (g) ("The program shall demonstrate that the State has the capability of carrying out the provisions of the Act and this chapter and achieving their purposes by providing a complete description of the system for implementing, administering and enforcing a State program including, at a minimum . . . [p]roviding for public participation in the development, revision, and enforcement of State regulations, the State program, and permits under the State program.").

144. 5 U.S.C. § 553(c) ("After notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation.

was crafted under intense pressure of coal lobbyists. In a July 1981 evidentiary hearing before the chief judge of the Commonwealth Court, the Secretary of PADER offered testimony that "discussions" with coal lobbyists had occurred but asserted that the decision to adopt the "alternative" system was based on the agency's own calculations, which showed that the alternative system would generate sufficient funds.[145] The agency secretary also touted the flexibility of the alternative system that would, he assured, allow his agency to efficiently use money from the new fund to pay for reclamation at any site in the Commonwealth.[146] The court denied the plaintiffs' request for injunctive relief, holding that it was required to defer to the agency's expertise on technical matters.[147] The Pennsylvania SMCRA regulatory program was later approved by the Department of the Interior as required by the Act.[148]

Reduced to their essence, an approved SMCRA bonding program would make forfeit bond/surety funds available immediately to allow the state to reclaim every abandoned mine—without regard to a company's bankruptcy status. In the words of § 1259 (c): "*an alternative system that will achieve the objectives and purposes of the bonding program pursuant to this section*."[149]

PADER's public assurances that it's coal mining regulatory program complied with SMCRA belied the truth. The underlying facts were subsequently revealed in detail in a 1986 law review article authored by an Assistant Counsel of the agency, who advised PADER's surface coal mining regulatory program from January 1981 until December 1984.[150] The article also confirmed what was obvious to any knowledgeable observer of the coal industry:

145. Assoc. Press, *DER Denies Bowing to Pressure*, IND. EVENING GAZETTE (Aug. 7, 1981).

146. Dernbach, *supra* note 126, at 954–55 ("The primary advantage of the fee is that it provides a flexible income source that can be used on any bond forfeiture site, while bond forfeiture proceeds can only be expended for the reclamation of the site for which they were posted.").

147. Pennsylvania Fed'n of Sportsmen's Clubs v. Pennsylvania Dep't of Env't Resources, No. 1868 C.D. 1981 (Pa. Commw. Filed July 30, 1981).

148. In the 1982 approval of the Pennsylvania program, the Secretary of Interior explicitly found that the program met SMCRA's minimum criteria for regulating performance bonds. Conditional Approval of the Permanent Program Submission From the Commonwealth of Pennsylvania Under the Surface Mining Control and Reclamation Act of 1977, 47 Fed. Reg. 33,050, 33,056 (July 30, 1982) (to be codified at 30 C.F.R. pt. 938).

149. 30 U.S.C. § 1259(c) (emphasis added).

150. *See* Dernbach, *supra* note 126.

PADER reclamation bonds had "historically been inadequate to reclaim the sites for which they were posted."[151]

The article further reported that, just six months after the court hearing on the legitimacy of the state's alternative bonding program, "[PADER] concluded that a higher [per acre permit] fee was necessary to provide funds to reclaim sites."[152] When PADER proposed to triple the fee from fifty to one-hundred-fifty dollars per acre, the coal industry opposed the increase.[153] "Neither the bond rate nor the permit fee have been increased since 1981 because . . . the coal industry . . . persuaded many people in and out of PADER that further increases would harm it."[154] Knowing that the alternative bonding program was failing, the PADER kowtowed to the coal lobby and withdrew the proposed fee increase—again ignoring SMCRA's mandate.

The alternative bonding program was a failure from day one. Because the prior bonding system was a sham, PADER knew that thousands of acres of mines had been abandoned years before and had not been reclaimed.[155] In 1984, for example, bonds covering 5,570 acres were forfeit by the agency.[156] By mid-1985, the agency had declared forfeit bonds for 28,000 acres.[157] "Under the old enforcement program, sites often lay abandoned for years."[158] The new alternative bonding program forced bond forfeiture on those sites, even though most were abandoned before SMCRA was enacted and were carried on PADER's books as bonded "inactive" mines.[159]

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151. *Id.* at 954. Dernbach explained:

> PADER began to address that issue in the late 1970's. In a series of actions from 1977 to 1981, PADER increased the bond rate from about $500 per acre to a minimum of $3000 per acre. These bond increases applied to new permits; existing permits remained at their previous bond level. In 1981, the regulations were amended to require each permit applicant to pay a $50 per acre reclamation fee as a supplement to bond forfeiture proceeds.

Id.

152. *Id.* at 955.

153. *Id.* at 955 n.186.

154. *Id.* at 955.

155. *Id.* at 956.

156. *Id.*

157. *Id.* at 955–56 ("The high number of forfeitures can be traced largely to undercapitalized coal operators that received permits during the coal boom of the mid-1970's and went out of business when the coal boom collapsed.").

158. *Id.* at 956.

159. *Id.*

Professor Dernbach's 1986 article shone light on the reclamation bonding "programs" before and after enactment of SMCRA:

> Reclamation of the sites that have already been forfeited will be a difficult problem. Some of these sites have been or will be reclaimed . . . [PADER] nonetheless estimates the State's reclamation obligation for pre-primacy bond forfeitures to be 14,765 acres. If these sites cost $7,500 per acre to reclaim, the cost to reclaim them is approximately $110 million.[160]

The article claimed that PADER did not anticipate the huge bond forfeiture rate for old (pre-SMCRA) bonding program permits.[161] Industry representatives in 1985 argued that solvent coal operators should not be held responsible for the huge deficit created by defunct companies whose inadequate bonds had been forfeit. Industry lobbyists argued that Pennsylvania's taxpayers should foot the bill for more than $100 million dollars needed to reclaim pre-SMCRA abandoned mines.[162]

The Dernbach article explained that the agency "hopes that the current bonding system will enable reclamation of all primacy permits for which bonds are forfeited, given the requirements of the new [alternative] program."[163] Sadly, neither commitment nor action followed agency aspirations. The Third Circuit was eventually forced to review PADER's decades-long claim that its ABS was

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160. *Id.* at 956–57.

161. *Id.* at 955.

162. *Id.* at 956–57 ("Many in the coal industry argue that active operators should not be responsible for those that forfeited bonds and are out of the business. They have thus suggested that a bond issue or an appropriation from the general fund would be appropriate"). The $100 million figure did not include the huge perpetual cost of treating acid mine drainage ("AMD"). SMCRA contemplated avoidance of creation of new sources of AMD because "[p]reventing acid mine drainage in the permit application process is particularly important because a site that generates acid is likely to keep doing so for hundreds or thousands of years, and because the only solution in most cases is permanent treatment of the acidic water running off the site." *Id.* at 921. Perhaps unsurprisingly, despite SMCRA, most state regulatory agencies continued to issue mining permits for operations that had the potential and often did result in perpetual AMD flowing into Appalachian streams.

163. *Id.* at 956. Pennsylvania coal interests were successful in opposing site-specific bonding in favor of an ABS. Building on that "success" they then pressured DEP to withdraw a sorely needed increase in the per-acre bonding fee. *See id.* at 955 n.186 (citing PENNSYLVANIA DEP'T OF ENVTL. RESOURCES, PENNSYLVANIA'S SURFACE MINING BOND FORFEITURE PROGRAM: THE PROBLEM AND RECLAMATION OPTIONS 1 (1985)). Allowing undercapitalized coal companies to continue in the mining business helped conceal the precarious economic situation of a long-dysfunctional industry. *See id.* Moreover, cultivation by industry, regulators, and politicians of a myth of the existence of an operational SMCRA bonding system allowed defunct companies to conceal the fact that they had abandoned thousands of acres of Pennsylvania mined lands covered by meager bonds that were incapable of funding reclamation.

solvent. The court did not mince words, holding that "within the first ten years of its operation, it became clear that the ABS left the Commonwealth with now unreclaimed land, unabated mine discharges, and a reclamation fund insufficient to meet the new obligations."[164]

This judicial rejection of the fatally flawed alternative bonding program came almost a quarter century after the backroom deal between the PADER Secretary and state's coal industry trade associations was unsuccessfully challenged in court. OSM's SMCRA-mandated federal oversight duty was limited to winking and nodding, while in 1989 and 1990 federal oversight reports identified serious deficits in the Pennsylvania ABS.[165] In January 1991, the Director of OSM ordered that Pennsylvania's "alternative bonding system must be modified to provide the resources needed to reclaim existing permanent forfeiture sites within a reasonable timeframe and to ensure that future forfeiture sites will be reclaimed in a timely manner,"[166] adding that "[t]hese resources must be sufficient to complete the reclamation plan approved in the permit."[167]

On May 31, 1991, OSM codified a "required regulatory program amendment," instructing Pennsylvania to submit information within seven months supporting the Commonwealth's long-running assertion that the ABS was solvent.[168] The rule was explicit. It required the Pennsylvania agency to either "submit information, sufficient to demonstrate that the [ABS] can be operated in a manner that will meet the requirements of [SMCRA], or to amend its rules or otherwise amend its program by November 1, 1991, to be compliant with federal standards."[169]

164. Pennsylvania Fed'n of Sportsmen's Clubs, Inc. v. Kempthorne, 497 F.3d 337, 354 (2007).

165. Pennsylvania Regulatory Program; Regulatory Reform, 56 Fed. Reg. 24,687, 24,690 (May 31, 1991) (codified at 30 C.F.R. pt. 938) ("Concerns regarding the alternative bonding system have been cited in the last two OSM annual reports on the Pennsylvania program.").

166. *Kempthorne*, 497 F.3d at 342.

167. *Id.*

168. 30 C.F.R. § 938.16(h) (1992).

169. *See* 30 C.F.R. § 800.11(e) (1992); *see also Kempthorne*, 497 F.3d at 342 (quoting Letter from Dep't of the Interior Off. of Surface Mining to Arthur Davis, Sec'y Dep't of Env't Res. (Oct. 1, 1991)) OSM explained that:

> The specific event leading to this determination is an OSM Field Office evaluation of the adequacy of the Commonwealth's alternative bonding system (ABS). This evaluation identified unfunded reclamation liabilities (for backfilling, grading, and revegetation) in excess of eight million dollars for current

For the next ten years OSM frequently reminded PADEP/PADER that it had failed to comply with the 1991 directive to bring its insolvent ABS into compliance with SMCRA's bonding requirements. The PADEP made and then broke promises to OSM that it would do so.[170] OSM took no action. Finally, toward the end of the Clinton Administration, OSM seemed to lose patience. Rather than comply with the federal agency's ten-year-old directive to fix the dysfunctional ABS program, PADEP regulators expressed their dismay to the chief lobbyist for the Pennsylvania Mining Association in a letter dated September 28, 1998:

> [PA]DEP is currently holding about $89 million in reclamation bonds, involving 178 coal operators and 102 financial institutions on 331 permits that have long been reclaimed, but have one or more discharges. Pennsylvania law prohibits the release of these bonds unless other financial assurances for the long-term treatment of water are provided. In addition, *the bonds do not represent anywhere near the amount of money required to provide for the long-term treatment of discharges in case of default by an operator*.[171]

Evidencing the long-term cozy relationship between the state regulator and the industry it was supposed to be policing, the message warned of "[t]he risk, and I believe certain consequence, of not dealing with this problem now and in earnest is the real possibility that some court will eventually decide the issues for us. *The dog is no longer sleeping*."[172]

The very next year, Pennsylvania conservation groups hauled the agency into federal courts alleging "inter alia, that Pennsylvania's bonding system had been insolvent for over a decade, and that '[t]he amount of bond money posted for those sites [] is grossly insufficient for providing long term treatment.'"[173] Although the "dog" had awakened, PADEP contrived a new scheme to evade SMCRA's bonding mandate. PADEP decided to ditch its ABS,

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> bond forfeiture sites alone. The review also found that the ABS is financially incapable of abating or permanently treating pollutional discharges from bond forfeitures. Even if no such discharges are created in the future, annual treatment costs for existing discharges are currently estimated at 1.3 million dollars.

Id. at 342 n.1. It concluded with the finding that SMCRA's requirements for an ABS "no longer exist in Pennsylvania." *Id.*

170. The trail of OSM commands and PADEP broken promises is chronicled by the *Kempthorne* court. 497 F.3d at 342–46, 348–56.

171. Quoted by the court in *Kempthorne*. *Id.* at 343 (emphasis added).

172. *Id.*

173. *Id.* at 343–44 (quoting Pennsylvania Fed'n of Sportsmen's Clubs, Inc. v. Kathleen A. McGinty, No. 99–CV–1791) (alterations in original).

which was insolvent from the get-go, and institute a site-specific full cost CBS.[174]

Contrary to the goal of SMCRA, Pennsylvania's version of a CBS plan would leave taxpayers and coalfield communities—not coal companies—saddled with the externalized costs of coal mining. In 2000, shortly prior to the Gore-Bush election, the Clinton administration's OSM objected, explaining to the Commonwealth that "[f]ederal regulations do not authorize partial or full 'write off' of liability through ABS modification, and Pennsylvania must administer the program so that all liabilities accrued against the ABS are accounted for."[175] However, when George W. Bush appointees took control of OSM in 2001, they changed the agency position and approved the PADEP plan to move to a CBS program and jettison the insolvent ABS.[176]

The Pennsylvania Federation of Sportsmen's Clubs ("Federation") and other local non-governmental organizations sought judicial review of the OSM decision in federal district court.[177] The Federation branded the OSM's action a "Retreat from Responsibility," and a "flip-flop."[178] The Federation accused PADEP of "writing off" its ABS liability by shifting the costs of reclamation and polluted water treatment to questionable sources and programs without enforceable funding promises and deadlines for implementation.[179]

The district court rebuffed the Federation, holding that OSM had properly exercised its discretion under SMCRA. The court deferred to the OSM's decision that Pennsylvania's shift from an ABS

174. *Id.* at 343.

175. *Id.* at 344. In a message to the Secretary of PADEP dated October 2000, "OSM's Regional Director restated the position that '[a]ddressing forfeiture sites remains a critical aspect of OSM's 1991 notice on ABS insolvency and requires corrective action.'" *Id.* OSM's Regional Director emphasized that the organization had regularly construed the SMCRA bonding rules at 30 C.F.R. § 800.11(e)(1) as:

> requiring that (1) a state is responsible to administer its ABS in a manner that provides sufficient funds, including funds for treatment of AMD emanating from forfeiture primacy permits; and (2) an ABS can only be terminated when all sites bonded under the system are successfully reclaimed or adequate replacement bonds are provided.

Id.

176. 68 Fed. Reg. 57,805, 57,805 (Oct. 7, 2003) (codified at 30 C.F.R. § 938.16(h)).

177. Pennsylvania Fed'n of Sportsmen's Clubs v. Norton, 413 F. Supp. 2d 358, 361 (M.D. Pa. 2006).

178. *Kempthorne*, 497 F.3d at 346 (including an additional assertion by the Federation "that Pennsylvania's new program failed to cover the costs of mine drainage treatment, and thus the full cost of reclamation, at many sites with post-mining discharges").

179. *Id.*

to a CBS bonding program had removed the federal agency's concerns about bonding program insolvency.[180] On appeal, however, the court of appeals reversed, holding that the state's program converted an ABS to a CBS "without firm financial guarantees of complete reclamation in place."[181]

Essentially calling out both OSM and Pennsylvania's regulatory authority, the court emphasized that "Congress['s] . . . message to America in the form of SMCRA is clear enough—the environmental damage resulting from unreclaimed mining sites must be mitigated."[182] "To this end" the court concluded that "the only reasonable conclusion in this case is that OSM supervision is required until full guarantees of reclamation are in place."[183] As the passage of time would reveal, the result in *Kempthorne* was a pyrrhic victory.

C. *Example Two: Reclamation Bonding in West Virginia*

For more than a century West Virginia, like Pennsylvania, has been a major Appalachian coal producer. Like Pennsylvania, West Virginia coal mining companies have externalized huge costs to their miners, coalfield communities, and the environment. As in Pennsylvania, West Virginia's regulators, legislators, and coal trade associations conjured an alternative to a conventional bonding system. They spuriously claimed their ABS complied with SMCRA's reclamation bonding mandate.[184] Again mirroring Pennsylvania, the West Virginia ABS was cobbled together in backroom discussions with coal lobbyists and lawyers. OSM approved the plan in 1983.[185]

The result of those backroom discussions was an alternative system that also created a pool of money funded by a "special reclamation fee" rather than a "permit fee" as in the Pennsylvania ABS. West Virginia coal operators were assessed one cent per ton of coal mined that was deposited in a "Special Reclamation Fund" which

180. *Id.*

181. *Id.* at 355.

182. *Id.*

183. *Id.*

184. Surface Mining and Control Reclamation Act of 1977 § 509 (a), (c), 30 U.S.C. §1259(a), (c). West Virginia submitted its SMCRA state program, which included an ABS, and was conditionally approved by OSM on January 21, 1981. 30 C.F.R. § 948.10 (1981).

185. 48 Fed. Reg. 8447 (Mar. 1, 1983) (codified at 30 C.F.R. pt. 948).

was to be used at the discretion of state regulators to reclaim mined lands anywhere in the state. Performance bonds were totally unrelated to the cost to reclaim agency-permitted mine sites.[186] Hundreds of West Virginia mine operators were bankrupt or "went belly-up."[187] Unbeknownst to the public, the West Virginia ABS was a Potemkin program created to give the illusion of realizing SMCRA's goal of full reclamation of all mines.

As it did in Pennsylvania, OSM federal oversight meant winking and nodding while the West Virginia ABS slipped deeper and deeper into insolvency. Within five years, the sham ABS began to crumble under the weight of uncollectable bonds and a woefully underfunded SRF pool. OSM regulators finally signaled all was not well with SMCRA-mandated reclamation in the state.

Based on the 1989 and 1990 OSM annual oversight reports of the West Virginia program, the federal agency found that the State's alternative bonding system no longer met SMCRA requirements because "as of June 30, 1990, liabilities exceeded assets by $6.2 million dollars."[188] Yet, it took four more years for OSM to

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186. OSM approved the West Virginia ABS based on agency promises and an incomplete "actuarial study":

> The sole remaining concern of the Secretary is whether or not the State fund will always contain enough money to cover the demands made upon it. The materials submitted . . . are not sufficient for a final determination by the Secretary that projected fund balances will be either more or less than may be required under reasonably projectable conditions. . . . [S]uch a determination, based on standard statistical and actuarial techniques, is required before the size of the fund is finally approved. Thus, approval of the State alternative bonding system is conditioned on the State providing the Secretary within a reasonable period of time with the results of an analysis by a professionally qualified party using standard statistical and actuarial techniques, sufficient to demonstrate that the amount of money going into the fund will cover the demands likely to be placed upon it.

46 Fed. Reg. 5,926, 5,927 (January 21, 1981). OSM ignored the fact that scores of bankrupt coal companies in the early 1980s were walking away from mines without reclaiming them. This occurred both in Pennsylvania as well as other coal states. Professor Dernbach, then a Pennsylvania regulatory agency lawyer, reported that when the Commonwealth assumed responsibility for enforcing SMCRA, it inventoried all permits and found the following: "As of June 30, 1985, PADER declared forfeit bonds for about 28,000 acres . . . Under the [pre-SMCRA] enforcement program, sites often lay abandoned for years . . . . The new program has forced those sites into forfeiture, even though they may have been abandoned long before." Dernbach, *supra* note 126, at 955–56.

187. *See e.g.*, John M. Berry, *Area Coal Country Faces Long Day's Journey Into Light*, WASH. POST (Mar. 12, 1984), https://www.washingtonpost.com/archive/business/1984/03/12/area-coal-country-faces-long-days-journey-into-light/de5464fe-0cb3-4733-87eb-86b1db10eac8/ [https://perma.cc/VD4P-EPR5].

188. West Virginia Regulatory Program, 60 Fed. Reg. 51,900, 51,900–01 (Oct. 4, 1995) (codified at 30 C.F.R. pt. 948).

order West Virginia to modify its ABS to ensure it would provide sufficient funds to abate or treat polluted water flowing from bond forfeiture sites.[189] When OSM's oversight of West Virginia's mining regulatory program was ultimately subject to judicial review, the court explained that:

> In 1995, the OSM Director determined a program amendment was required and provided notice in the Federal Register. At that time OSM required, inter alia, the State propose an amendment "to eliminate the deficit in the State's alternative bonding system and to ensure that sufficient money will be available to complete reclamation, including the treatment of polluted water, at all existing and future bond forfeiture sites."[190]

SMCRA regulations mandated that if a state regulatory authority failed to take affirmative action to bring its bonding program into compliance with SMCRA within sixty days from receipt of notice of noncompliance, the OSM Director "shall begin proceedings under 30 C.F.R. part 733" to either enforce that part of the state program affected or withdraw approval, in whole or in part of the State program and implement a federal program.[191] In granting partial summary judgment to the citizen suit plaintiffs in *Norton I*, Judge Haden wrote:

> *OSM did nothing, nothing in 1991 and nothing in 1995*. . . . The regulations allow sixty days for a state to propose a remedy and thirty days for OSM to respond to a state's failure. Almost a decade has elapsed since OSM came under a duty to begin 733 proceedings, an extraordinary delay.[192]

The extent of the federal and state agency cover-up of the West Virginia bonding program's noncompliance with SMCRA was revealed in open court through the testimony of the West Virginia

189. *Id.*

190. *Norton II*, 161 F. Supp. 2d 676, 684 (S.D. W. Va. 2001) (emphasis added) (citations omitted).

191. 30 C.F.R. § 732.17(f)(2) (2005); 30 C.F.R. § 733.13 (2020).

192. *Norton II*, 161 F. Supp. 2d at 682–83 (emphasis added). The court also noted OSM's extreme reluctance to comply with its statutory mandate, waiting until the day a response was due to the Highland Conservancy's citizen suit to act:

> This mandatory duty to begin Section 733 proceedings was triggered first by the State's inaction in December 1991, and again in December 1995. Only on June 29, 2001, the date the Federal Defendants' brief was due in response to Plaintiff's motion for a permanent injunction ordering them to initiate these proceedings, did OSM Director Owens commence the 733 process with a letter to the State. Thus, almost [10] years had passed before the impetus of this litigation finally led the Director to initiate the necessary corrective process.

Id. at 682.

Department of Environmental Protection ("WVDEP") Secretary, Michael Callaghan. Callaghan had recently been appointed head of the agency by a new Governor; he had played no role in perpetuating the two-decades-long myth of bonding program compliance.

Called to testify as the citizen suit plaintiffs' first (adverse) witness, Secretary Callaghan testified that coal operators' site specific bonds were insufficient to reclaim their mine sites "if the owner or operator walks away," and that the state's bond pool was "absolutely insufficient," "woefully underfunded," and "woefully inadequate."[193] WVDEP estimates of then-current costs for reclaiming abandoned mine sites were $50 million—the Secretary testified that the state bond pool was "basically insolvent."[194]

Pressed for more detail, the Secretary revealed how the agency had consistently ignored SMCRA's bonding mandate:

> Callaghan testified the agency's current land reclamation efforts consisted only of "eliminating hazards," that is, knocking down high walls and planting ground cover. [WVDEP] has never reclaimed a mine site to meet the reclamation plan and never determines the bond amount that would be necessary to do so. He testified the average cost for the current minimal land reclamation was [$5,400] an acre, more than the [$5,000] per acre statutory cap on site specific bonds. Callaghan characterized the current bond requirements as a "system set up to fail."[195]

In his testimony, "Secretary Callaghan acknowledged the alternative bonding system does not meet the requirements of federal law because the funding is totally inadequate . . . [and that he] agreed the State surface mine bond reclamation program is less stringent than and inconsistent with SMCRA."[196]

193. West Virginia Highlands Conservancy v. Norton, 147 F. Supp. 2d 474, 476 (S.D. W. Va. 2001) [hereinafter *Norton I*].

194. *Id.* Providing additional detail, the Secretary revealed that:

> [WVDEP] figures show [245] past bond forfeitures in the state. Eight-eight of those forfeiture sites require water treatment, forty are "urgent." Currently [WVDEP] is able to treat five of them. Due to inadequate funding, the remaining eighty-three mine sites are in continuous violation of effluent water pollution limits.

Id.

195. *Id.*

196. *Id.* at 476–77. The secretary explained that:

> While adequate bonds would not solve the agency's fifty-million-dollar ($50,000,000) deficit, they would avoid increasing future liability. During his brief tenure Callaghan has advocated a twenty-cent per ton tax on coal as the solution to the reclamation fund deficit. He acknowledged, however, that the

Judge Charles Haden II, the presiding judge in *Norton I*, was a conservative jurist appointed to the federal bench by a Republican president. He had no patience with the government misfeasance and malfeasance he observed in the case. The disclosures made by Secretary Callaghan, OSM's enforcement failure, and West Virginia's decade-long flouting of federal compliance orders called for sharp condemnation[197] Based on the record and testimony before him, the judge realized that for almost a quarter century, West Virginia coal companies and their trade associations, governors, legislators, and regulators all knew that the state ABS program was a mere sham disguised by empty promises and erroneous data—or no data at all.

Consequently, based on the record and Secretary Callaghan's honest, candid testimony, the court granted partial summary judgment on the plaintiffs' claims that the OSM Director had unreasonably delayed performing her mandatory duty to enforce federal reclamation bonding standards and failed to take action within a reasonable time after the state's noncompliance was officially noticed and documented.[198]

As discussed below, the district court's grant of partial summary judgment and the court's severe admonishment triggered a long

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> West Virginia Legislature in its 2001 session declined to lift the artificial $5000 cap on site specific bonds.

Id. at 477. Following the Secretary's testimony, West Virginia Coal Association executives testified as adverse witnesses; they "conceded that figures presented at the hearing demonstrated the [ABS] was inadequate[.]" But one lobbyist "questioned the agency's water treatment projections as 'Ouija board science.'" *Id.* The plaintiff then rested its case. Of the WVDEP, the federal defendants, and the Coal Association, none called witnesses or presented evidence.

197. As referenced *supra* note 1, Judge Haden strongly admonished those responsible for the bonding debacle:

> The agency's decade-long delay: . . . thousands of acres of unreclaimed strip-mined land, untreated polluted water, and millions (potentially billions) of dollars of State liabilities. The indirect results, however, may be more damaging: a climate of lawlessness, which creates a pervasive impression that continued disregard for federal law and statutory requirements goes unpunished, or possibly unnoticed. Agency warnings have no more effect than a wink and a nod, a deadline is just an arbitrary date on the calendar and, once passed, not to be mentioned again. Financial benefits accrue to the owners and operators who were not required to incur the statutory burden and costs attendant to surface mining; political benefits accrue to the state executive and legislators who escape accountability while the mining industry gets a free pass. Why should the state actors do otherwise when the federal regulatory enforcers' findings, requirements, and warnings remain toothless and without effect?

Norton II, 161 F. Supp. 2d 676, 683–84 (S.D. W.Va. 2001).

198. *Id.* at 677, 681.

overdue response by West Virginia mining regulators, the state legislature, and its governor–but not compliance with SMCRA.

D. *Other Non-Compliant Bonding Programs in Appalachia*

The non-compliant Pennsylvania and West Virginia bonding programs were not unique among Appalachian coal-producing states. For more than a century, the environment, communities, and people of the region had suffered from the externalized costs of abandoned, unreclaimed, underground, and strip coal mining. SMCRA was enacted by Congress to put an end to the harm caused by abandoned mines and other coal mining regions of the country. While it is important to recognize that SMCRA has been beneficial in reducing many of coal's environmental externalities, it is also essential to acknowledge that the failure of OSM and Appalachian state regulatory programs to enforce SMCRA's reclamation bonding mandate has led to enormous environmental and socio-economic harm, and billions of dollars of unfunded land reclamation and water pollution abatement.

But, creating and maintaining an effective, solvent reclamation bonding system would have forced coal companies to internalize the huge costs that they had long passed on to local communities and the environment. Prior to SMCRA, coal companies faced no legal consequences for externalizing those costs. For the first quarter century after SMCRA was enacted, coal companies continued to abandon mines after performing little or no reclamation. In Pennsylvania, West Virginia, and other coalfield states, SMCRA's bonding mandate had been ignored, as Judge Haden aptly described, with a wink and a nod.

Indeed, the truth was far worse than simply ignoring SMCRA. Regulators, the regulated industry, and politicians alike embraced a false narrative that assured the public that every state's bonding program was solvent and could, as SMCRA commanded, reclaim all mines abandoned by a bankrupt coal company. Citizen-initiated litigation revealed the depth of the deception. As WVDEP Secretary Michael Callaghan's had testified in the *Norton I* hearing: state bonding programs were "set up to fail."[199]

199. *Norton I*, 147 F. Supp. 2d at 476.

V. DÉJÀ VU ALL OVER AGAIN

A. *A New Bonding Plan—Another System Designed to Fail*

While it took a quarter century before citizen-initiated litigation and federal court decisions forced OSM to finally acknowledge that Pennsylvania and West Virginia's alternative bonding systems failed to comply with SMCRA's bonding mandate, the agency did nothing to compel compliance. In fact, going forward nothing changed.

For example, immediately after the district court issued a partial summary judgement order in *Norton II*, WVDEP officials met with West Virginia coal industry lobbyists and their lawyers.[200] WVDEP's first pass at drafting legislation proposed a huge increase in site-specific bonding rates to fix the bonding program. The proposal would raise the maximum per acre bonds from $5,000 to $20,000/acre. The proposal also would have increased the ABS "Special Reclamation Fund" tax from three to twenty cents per ton.[201] Unsurprisingly, given its historic pro-coal, anti-regulatory culture, the agency quickly discarded that serious approach to insuring solvency of the state's ABS.[202]

The final product of the closeted consultations with industry representatives was a WVDEP-backed bill intended to marginally satisfy OSM while minimizing, as much as possible, financial burdens on coal companies imposed by the proposal. The bill that was submitted to the legislature was referred to by its advocates as the "7-Up Plan." It raised the per ton ABS tax by four cents to seven cents. In addition to the seven-cent tax, the bill also required coal operators to pay an additional seven cents per ton for not more than thirty-nine months after enactment.[203] Finally, the 7-Up Plan required that the four cent per ton increase to seven cents could not

200. From the beginning of the state's environmental regulation of coal mining, WVDEP and its predecessors have exhibited characteristics of "captured" agencies whose regulators have worked both for the government and for regulated entities—a relationship administration scholars refer to as "the revolving door." *See generally*, Michael P. Vandenbergh, Jonathan M. Gilligan & Haley Feuerman, *The New Revolving Door*, 70 CASE W. RES. L. REV. 1121 (2020) ("A captured agency is disproportionately influenced by the entities that it regulates, creating policies that serve the interests of corporations rather than the general public.").

201. West Virginia Highlands Conservancy v. Norton, 238 F. Supp. 2d 761, 763 (2003) (hereinafter *Norton III*).

202. *Id.*

203. W. VA. CODE § 22-3-11(h)(2) (2002).

be reduced "until the special reclamation fund has sufficient moneys to meet the reclamation responsibilities of the state."[204]

B. *A New Bonding Plan: Questionable Assumptions, Incorrect Analysis, Missing and Incomplete Data*

Serious obstacles remained before West Virginia's coal-industry friendly 7-Up plan could obtain OSM's imprimatur. To satisfy SMCRA, any substantive changes in a state mining regulatory program is required to provide public notice, an opportunity for comment and the possibility of a public hearing before the OSM Director exercises independent judgment regarding whether to approve or deny a state program amendment.[205] Assuming OSM approved the proposed amendment, it would be subject to judicial review.

West Virginia's hastily assembled bonding program replacement would be reviewed by the federal agency after Judge Haden had called out the coal industry, federal and state mining regulators, West Virginia legislators, and the State's Governor for having created a "climate of lawlessness" while intentionally ignoring an explicit mandate of SMCRA. The judge had been serious. If the state bonding system was not amended to achieve compliance with SMCRA quickly, the court would force compliance with SMCRA's mandate, including OSM assuming control of the West Virginia bonding program.[206]

Revealing that the West Virginia legislature could act expeditiously when facing a serious threat that SMCRA's bonding requirement might actually be enforced, an extraordinary session of the legislature was summoned, the 7-Up Plan was passed and became law upon the Governor's signature only fifteen days after the court's grant of partial summary judgment to the *Norton II* plaintiffs.[207]

204. *Id.* at 763–64; W. VA. CODE § 22-3-11(h)(2) (2002).

205. 30 C.F.R. § 732.17 (2022).

206. In its August 31, 2001, opinion and order the court emphasized it intended to ensure statutory and regulatory deadlines would be honored and that OSM would act immediately if the State failed to act. The judge added that "any potential solution to the problems identified with the State alternative reclamation bonding system will be measured against the failures documented in the record so the Court may assure itself appropriate relief is available when legislative and administrative processes are exhausted or found futile." *Norton II*, 161 F. Supp. 2d at 685 (2001).

207. *See* 2001 W. Va. Acts, (5th Extraordinary Sess.), 2968.

The amended state statute also added an "advisory aouncil" responsible for periodically reporting to the legislature on the solvency status of the new bonding program.[208] If the council was aided by actuarial studies and determined that the ABS was insolvent, only the legislature could amend the program to address the shortfall.[209]

Not surprisingly, the new West Virginia bonding program was based on questionable assumptions, missing and incomplete supporting data, and WVDEP aspirations similar to those erroneous claims that accompanied the first ABS plan that had been approved by OSM almost two decades earlier.[210] The West Virginia Highlands Conservancy ("WVHC"), plaintiff in the *Norton III* litigation, challenged OSM's approval of West Virginia's amended ABS program. WVHC argued in a motion for summary judgment that the federal agency had "abdicated its responsibility" by relying on the newly created and "virtually powerless" advisory council, the state legislature, and the Governor to assure compliance with SMCRA's bonding mandate.[211]

The district court summarized the WVHC's objections to the modified state law and OSM's approval of it:

> OSM has approved the West Virginia ABS based on inadequate and incomplete data, insufficient and incorrect analysis, and without considering recent changes to state reclamation standards, potential bankruptcies of major coal producers, or costs of reclaiming large mountaintop removal mining sites, WVHC contends OSM's decision cannot be deemed rational and must be disapproved. . . . According to WVHC, this "speculative, unsupported and incomplete methodology" contrasts with the requirement of site-specific bonding for a "careful

208. W. VA. CODE § 22-1-17. The eight-member council includes the WVDEP Secretary, State Treasurer, director of the National Mine Land Reclamation Center at West Virginia University. Five additional members are appointed by the Governor with recommendations from: (1) industry; (2) environmentalists; (3) the United Mine Workers union; (4) an economist or actuary; and (5) a member representing the general public. *Id.*

209. The amended law required the advisory council to study the "effectiveness, efficiency and financial stability of the SRF," and retain an actuary to determine the fiscal soundness of the program every four years. W. VA. CODE § 22-1-17. The council was given the duty to study and recommend possible alternative approaches to the ABS' funding mechanism. *Id.* The council was mandated to submit an annual report to the legislature commenting on the program's adequacy and financial condition; the council was authorized to recommend adjustments to the per ton tax when needed. *Id.*

210. *See generally Norton III*, 238 F. Supp. 2d 761 (2003).

211. *Id.* at 776.

> pre-mining calculation of reclamation costs," which provides "certainty of funding."[212]

The federal agency's response essentially conceded that the polluted water treatment and land reclamation cost data it relied on was extremely problematic.

OSM recognized "inaccuracies and gaps in the data currently available" on which its projected cost of acid mine drainage treatment were based.[213] For example, the agency projected AMD costs were just "gross estimates" and current estimates of the West Virginia ABS fund's deficit might be in error.[214] OSM also conceded that the advisory council recommendations did not ensure implementation because the legislature and Governor must approve them before they take effect.[215] Not to worry, the agency assured the court, "[i]f errors are found, 'the Advisory Council must recommend changes to the Legislature and the Governor to assure that the deficit is eliminated in a timely manner.'"[216]

Apparently, OSM was unconcerned that West Virginia regulators and legislators had winked and nodded at the State's sham bonding program, ignored multiple warnings over many years, and violated federal law with impunity. OSM knew that for twenty years the WVDEP had falsely asserted that it had been administering a regulatory program aimed at enforcing SMCRA reclamation requirements, identifying mines that had been abandoned by coal companies, forfeiting bonds, and reclaiming the abandoned sites. In approving West Virginia's amended bonding program, OSM seemed remarkably unphased by the absence of reliable data regarding mine abandonments, past land reclamation and acid mine drainage costs. The federal agency, which had also been winking and nodding at West Virginia's violations of SMCRA for years, seemed eager to rely on an advisory council to collect huge

212. *Id.* at 767–68 (citing 30 C.F.R. § 800.14).

213. 67 Fed. Reg. 37,613, 37,613 (2002).

214. *Id.* at 37,613–14. ("[W]e recognize that there are inaccuracies and gaps in the data currently available. We are continually revising our acid mine drainage inventories . . . . Projected treatment costs at this time are gross estimates based on water treatment models, rather than individual site-specific designs of treatment systems . . . . To the extent that resources allow, we intend to work with WVDEP to assist the Advisory Council in obtaining the data it will need to do its job.").

215. *Id.* at 37, 613.

216. *Id.* ("We agree that there is a need for more data and a rigorous data analysis. The State program amendment that we approved . . . provides for such actions through the tasks assigned to the Advisory Council.").

amounts of reliable data that supposedly would allow it to recognize future ABS insolvency and persuade an historically pro-coal industry legislature and Governor to make a bankrupt system work.

Without an appreciation for the irony, OSM explained its strategy if the new bonding regime failed: "In the event that the Legislature and the Governor do not approve the council's recommendations, we will reevaluate the adequacy of the State's ABS and, if appropriate, provide notification to West Virginia . . . that it must amend its program to restore consistency with Federal requirements."[217] Thus, OSM embraced the same failed "oversight" approach that it had used since it approved the West Virginia regulatory program twenty years before.

C. *Judicial Deference—Presuming Public Officials Will Carry Out Official Duties Lawfully with Appropriate Dispatch and Expertise*

Judge Haden saw merit in the conservation group's concerns and was cognizant of the weak basis for OSM's approval of the WVDEP ABS.[218] "But where it is not apparent the agency has been unreasonable, and its current approach is plausible, the Court must defer to the agency and . . . must accept the presumption that public officials will carry out their official duties lawfully, with appropriate dispatch and expertise, despite the previous noncompliance."[219] Based in substantial measure on the presumptions that OSM, WVDEP, the advisory council, and the state legislature would carry out their lawful duties under SMCRA, Judge Haden found the federal agency's explanation "not unreasonable or

217. *Id.* at 37,614. OSM offered two justifications for its approval of the West Virginia bonding program amendments. OSM confidently predicted that:

> WVDEP will continue to improve its data on current costs and estimates of future bond forfeiture land and water reclamation costs and (2) the Advisory Council is required by law to contract for an actuarial analysis on a regular basis. Either the deficit will be eliminated or the Advisory Council can propose further remedial action.

Norton III, 238 F. Supp. 2d 761, 769, (2003).

218. Acknowledging the difficulty of the decision he faced, the judge observed:

> WVHC offers one account; OSM responds with a different, but reasonable, determination. OSM acknowledges the need for more data and continued adjustment of the liability projections. The Court, too, would wish more certainty as to whether the current tax increase will solve the Fund's fiscal problems.

Id. at 769.

219. *Id.* at 769–70 (citing *Norton II*, 161 F. Supp. 2d at 681–83).

implausible."[220] That long-accepted presumption reflects a bedrock foundational principle of law: courts should assume government officials "have properly discharged their official duties."[221] Ultimately in *Norton III*, Judge Haden asked what he called "[t]he ultimate question":

> [W]hether the ABS as now constituted will work. Will it "eliminate the deficit in the ABS and ensure that sufficient money will be available to complete reclamation, including the treatment of polluted water, at all existing and future bond forfeiture sites" as the amendment OSM is approving requires?[222]

With WVDEP and OSM having been severely chastised for facilitating a *climate of lawlessness* over the previous two decades, the court's ultimate question was reasonable. One might expect that federal and state regulators would, in the future, administer and enforce SMCRA's bonding mandate with utmost fidelity.

Sadly, for the next two decades, the bonding programs of most major Appalachian coal producing states failed to "achieve the objectives and purposes" of SMCRA.[223] As it had for twenty years prior to *Norton II*, OSM continued to wink and nod as financial

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220. *Id.* at 773.

221. United States v. Chem. Found., Inc., 272 U.S. 1, 15 (1926) ("The presumption of regularity supports the official acts of public officers and, in the absence of clear evidence to the contrary, courts presume that they have properly discharged their official duties"). *See also*, Nat'l Archives & Records Admin. v. Favish, 541 U.S. 157, 174 (2004).

222. *Norton III*, 238 F. Supp. 2d at 773 (quoting 30 C.F.R. § 948.16).

223. Surface Mining and Control Reclamation Act of 1977 § 509 (c), 30 U.S.C. § 1259(c); *see also* ALL. FOR APPALACHIA FED. STRATEGY TEAM, COAL MINING RECLAMATION BONDING POLICY RECOMMENDATIONS 3 (2018), https://theallianceforappalachia.org/wp-content/uploads/2018/04/Bonding-policy-recommendations-in-appalachia.pdf [https://perma.cc/WR75-P5VC]; ("[H]ighlight[ing] what is and is not working in current bonding programs across Central Appalachia"); Gregory E. Conrad, Executive Director, Interstate Mining Compact Comm'n, Presentation before the Energy and Mineral Law Foundation Winter Workshop on Energy Law (Apr. 11, 2014), https://imcc.isa.us/uploads/1/1/9/1/119191866/emlf_bonding_presentation_final.pdf [https://perma.cc/6QQB-LRVN] (listing many strategies state regulators were pursuing in efforts—after almost four decades—to comply with SMCRA's bonding mandate in a presentation entitled "Mining Reclamation Bonding – from Dilemma to Crisis to Reinvention: What's a State Regulator to Do?"). As the title of the piece indicates, in the second decade of the new century regulators were looking for a way out of the bonding crisis they had long ignored:

> [The quest for bonding] "reinvention" [led states to] "focus[] on bond forfeitures, especially those associated with bankruptcies and the potential for alternative enforcement; tracking letters of credit as a result of bank mergers and closures; difficulties associated with updating and increasing bond amounts; the expense associated with full cost bonding; insufficient funds following bond forfeitures; and the increasing complexity of administering a bonding program, especially with regard to risk analysis.

Conrad, *supra* at 17.

benefits accrued to the coal industry, while coal companies "were not required to incur the statutory burden and costs attendant to surface mining."[224]

In Pennsylvania, West Virginia, and other coalfield states, SMCRA's bonding mandate continued to be ignored with ultimately disastrous consequences.

VI. CONSEQUENCES OF REGULATORY FAILURE WHEN THE BIG COAL BOOM TURNED TO BUST

The citizen suit litigation of the first decade of the twenty-first century had challenged Pennsylvania's and West Virginia's bonding programs, but the lessons of those cases were receding in the rear window. Hardly breaking stride, state regulators and politicians continued their long enduring, slavish obedience to coal industry interests.

One example of regulatory "business as usual" at the time was Ohio's coal mining regulatory program including its bonding program; it had been "out of compliance [with SMCRA] since its inception in 1982."[225] In May 2005, OSM initiated SMCRA proceedings under 30 C.F.R. § 733—ostensibly to force Ohio to conform its bonding program to SMCRA or lose its authority to regulate coal mining in the state.[226] Like its prior failures to compel

224. *Norton II*, 161 F. Supp. 2d at 679. For example, in May of 2005, OSM initiated SMCRA regulatory process proceedings to force Ohio regulators to either conform the state's bonding program to SMCRA or face a federal takeover of the state's authority to administer the program. *See* 30 C.F.R. §§ 733.12 (a), 733.13.

225. Will Reisinger, Trent A. Dougherty & Nolan Moser, *Environmental Enforcement And The Limits Of Cooperative Federalism: Will Courts Allow Citizen Suits To Pick Up The Slack?*, 20 DUKE ENV'T. L. & POL'Y F. 1, 25 (2010) (citing OFFICE OF SURFACE MINING, ANNUAL SUMMARY OF REGULATORY AND AML PROGRAMS 29 (2009)).

226. 30 C.F.R. § 733.12(a) (2022) provides:

> When the Director identifies a State regulatory program issue, he or she should take action to make sure the identified State regulatory program issue is corrected as soon as possible in order to ensure that it does not escalate into an issue that would give the Director reason to believe that the State regulatory authority is not effectively implementing, administering, enforcing, or maintaining all or a portion of its State regulatory program.

§ 733.12 mandates the Secretary of Interior take corrective action to resolve state regulatory program inconsistencies with SMCRA including, where appropriate, withdrawal or implementation of a federal program for the affected state, in accordance with 30 CFR part 736. 30 C.F.R. § 733.12 (2020); 30 C.F.R § 736 (2022). The citizen suit plaintiffs in *Norton I* sought a court order requiring OSM's to initiate a § 733 procedure to address the state's decade long violation of SMCRA's bonding mandate. OSM capitulated and began the procedure on

Pennsylvania and West Virginia to comply with SMCRA's bonding mandate, OSM's threat was an empty one.[227] As one commentary observed, "the § 733 process took over twenty years to initiate and [did] not [fix] Ohio's program."[228]

Judicial reliance on the presumption that public officials would carry out their law enforcement responsibilities was misplaced given the previous decades of condoning non-compliance. When public servants wink and nod at unlawful conduct, they reveal a consciousness of shared culpability with the violators. Why, one might ask, shouldn't the burden have shifted from citizen plaintiffs to the OSM and state regulators, given their long history of complicity in undermining the core SMCRA bonding mandate? In any event, the climate of lawlessness in the Appalachian coalfields called out by Judge Haden in *Norton I* continued much as it had in the preceding decades.

A. *The Big Coal Boom: 2007–2011*

In 2007, the United States was on the precipice of the most severe economic crisis since the catastrophic Great Depression of the 1930s. Beginning in May 2007, the economy began to rapidly shed jobs as venerable banks and investment houses collapsed seemingly overnight accompanying the devastating burst of a "housing mortgage bubble."[229] Similarly, a financial implosion at the start of

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the day that it's reply to the plaintiff's motion for summary judgement was due. *Norton I*, 147 F. Supp. 2d at 475.

227. *See supra* notes 133–216 and accompanying text. In 2012, OSM sent another § 733 notice to Kentucky regulators again finding the State's bonding program continued to violate SMCRA:

> The [OSM] 2008 Evaluation Year (EY) study found that 4 out of 5 permanent program bond forfeitures studied did not have adequate bond. A similar study conducted during EY 2009 found that 2 out of 5 permanent program bond forfeitures studied did not have adequate bond. The EY 2010 study found that 10 out of 12 permanent program bond forfeitures studied did not have adequate bond to complete reclamation.

Letter from Joseph G. Pizarchik, Dir., Off. Of Surface Mining Reclamation & Enf't, to Dr. Leonard K. Peters, Sec'y, Energy and Env't Cabinet (May 1, 2012) https://www.eenews.net/assets/2012/05/07/document_gw_01.pdf [https://perma.cc/GY6C-VWHU].

228. Reisinger et al., *supra* note 225, at 26 (third and fourth alteration in original).

229. John Weinberg, *The Great Recession and Its Aftermath*, FED. RSRV. HIST. (Nov. 22, 2013), https://www.federalreservehistory.org/essays/great-recession-and-its-aftermath [https://perma.cc/MY5D-48QA] ("In 2007, losses on mortgage-related financial assets began to cause strains in global financial markets, and in December 2007 the US economy entered a recession . . . . [I]n the fall of 2008, the economic contraction worsened, ultimately becoming deep enough and protracted enough to acquire the label 'the Great Recession.'").

the 1930's Great Depression had wiped out "more than half the capitalization of the stock market," triggering fear of a comparable disaster.[230] From 2007 to 2009,

> French bank BNP Paribas froze U.S. mortgage-related funds. Defaults on subprime mortgage loans mounted. The market panicked. There was a run on British bank Northern Rock. Over the next year, many banks fell. Investment bank Bear Stearns collapsed. Lehman Brothers toppled. Many other financial firms including AIG, Fannie Mae, and Freddie Mac needed bail outs.[231]

In 2008, former Clinton administration Labor Secretary, Robert Reich, opined that there was a twenty-percent chance of a depression.[232]

Just as the Great Recession was shaking Wall Street, the coal industry reached its historic production peak in 2008.[233] Given the economic climate of the time, one might expect that the industry would gird itself for yet another round of bankruptcies and severe market contraction. But counterintuitively, the executives and investors of leading coal producers exhibited "irrational exuberance."[234] When per-ton price of coal had reached almost historic

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230. DAVID B. FRISKY, BRUCE WESTERN, & CHRISTOPHER WIMER, THE GREAT RECESSION, at 4 (Russell Sage Found., 2011) [hereinafter GREAT RECESSION] ("As occurred at the outset of the Great Depression, the crisis began with a financial collapse . . . .").

231. Christian Edelmann & Patrick Hunt, *How the Great Recession Changed Banking*, HARV. BUS. REV. (Oct. 31, 2017), https://hbr.org/2017/10/how-the-great-recession-changed-banking [https://perma.cc/S2ZJ-RXS3].

232. GREAT RECESSION, *supra* note 230 at 4. In only nineteen months, the Dow Jones industrial average plummeted from 14,165 in October 2007 to a nadir of 6,547 in early 2009. In 2.5 years over 7.5 million jobs vanished and the nation's unemployment rate soared from 4.4% to 10.1%. Contemporaneously, long-term unemployment rose swiftly, and by 2010, 40% of the unemployed had been searching for work for more than six months. Almost fourteen million workers were still unemployed in May 2010 as the recession continued. *Id.*

233. FRED FREME, U.S. ENERGY INFO. ADMIN., U.S. COAL SUPPLY AND DEMAND: 2008 REVIEW, https://www.eia.gov/coal/review/pdf/feature08.pdf [https://perma.cc/2CYE-UYXU] ("Coal production in the United States in 2008 reached a record level of 1,171.5 million short tons").

234. The term was coined by Federal Reserve Chairman Alan Greenspan. *See* Alan Greenspan, Chairman, Fed. Rsrv., Remarks at the Annual Dinner and Francis Boyer Lecture of the American Enterprise Institute for Public Policy Research (Dec. 5, 1996), https://www.federalreserve.gov/boarddocs/speeches/1996/19961205.htm [https://perma.cc/ 24CZ-FY33]. In his book of the same name, Professor Robert Shiller wrote:

> Irrational exuberance is the psychological basis of a speculative bubble. I define a speculative bubble as a situation in which news of price increases spurs investor enthusiasm, which spreads by psychological contagion from person to person, and, in the process, amplifies stories that might justify the price increase and brings in a larger and larger class of investors, who, despite doubts about the real value of the investment, are drawn to it partly through envy of others' successes and partly through a gambler's excitement.

heights, they ignored "the oldest rule in the investing book": buy low and sell high.[235] Coal companies went on a billion-dollar buying spree for the next four years, assuming enormous debt.[236]

With only one exception, every major American coal producer joined the coal rush.[237] Patriot Coal (a spin-off from top coal producers Peabody and Arch Coal) bought Magnum Coal Co. for $709 million in April 2008. Alpha Natural Resources ("ANR") bought Foundation Coal Company for $1.5 billion in the Spring of 2009. Arch Coal acquired the Jacobs Ranch Coal Mine from Rio Tinto for $761 million in the Fall of 2009. Top producer Massey Energy paid $960 million for Cumberland Resources Corp. in March 2010, and in the same year, ANR acquired Massey Energy for $7.1 billion at a twenty-one-percent premium over Massey's stock price. In mid-2011, Arch Coal obtained International Coal Corporation for $3.4 Billion.[238]

ROBERT J. SHILLER, IRRATIONAL EXUBERANCE 2 (3rd ed., 2015).

235. Riley Adams, *Buy Low, Sell High: The Oldest Rule in the Investing Book*, YOUNG AND THE INVESTED (July 5, 2022), https://youngandtheinvested.com/buy-low-sell-high/ [https://perma.cc/5E6B-J9JW] ("In general, many people end up investing when a stock is at or near its peak price. Then they hold it, hoping it will continue to rise. However, often it doesn't increase anymore and stabilizes at a price lower than where investors bought."). *See also* JAMES M. VAN NOSTRAND, COAL TRAP, HOW WEST VIRGINIA WAS LEFT BEHIND IN THE CLEAN ENERGY REVOLUTION 253 (2022) ("According to David Gagliano of BMO Capital Markets, these companies issued debt to buy other companies at 'absolutely the peak of the market.'").

236. VAN NOSTRAND, *supra* note 235, at 252.

237. Only Consol Energy eschewed the lemming-like rush to insolvency. Consol's board and top management shifted the company's focus from one hundred percent coal to include natural gas investment and production. In 2010, Consol acquired Dominion Resources, Inc.'s natural gas business for $3.48 billion. Consol also procured CNX Gas. At the time, Consol's CEO "told investors the potentially lucrative Marcellus Shale play was transformational and 'a baby' that would guarantee long term profits." DAVID A. WAPLES, HISTORY FROM THE FIRST DISCOVERY TO TAPPING OF THE MARCELLUS SHALE 239–48 (2d ed. 2012).

238. VAN NOSTRAND, *supra* note 235, at 252; *see also*, Chris V. Nicholson, *Arch Coal to Buy International Coal for $3.4 Billion,* N.Y. TIMES (May 2, 2011), https://archive.nytimes.com/dealbook.nytimes.com/2011/05/02/arch-coal-to-acquire-icg-in-3-4-billion-deal/ [https://perma.cc/KT75-48JL]. Among other peak-price acquisitions were Cloud Peak Energy's 2010 purchase of Rio Tinto's remaining shares for $573 million, and James River Coal Co. deal for International Resource Partners and Logan & Kanawha Coal at $475 million. *See* RIO TINTO, 2010 ANNUAL REPORT 54 (2010), https://www.annualreports.com/HostedData/AnnualReportArchive/r/LSE_RIOA_2010.pdf [https://perma.cc/JW3M-CXNZ]; Michael J. De La Merced, *James River to Buy 2 Coal Companies for $475 Million*, N.Y. TIMES, (MAR. 6, 2011, 8:54 PM) https://archive.nytimes.com/dealbook.nytimes.com/2011/03/06/james-river-to-buy-coal-companies-for-475-million/ [https://perma.cc/TFW5-ZBK2]. Although a deal was not finalized, Cleveland-Cliffs Coal offered to buy Alpha Natural Resources for $10 billion in July of 2008. Sarah Hollander, *Cliffs Calls off Alpha Natural Resources Deal,* Cleveland.com, https://www.cleveland.com/business/2008/11/cliffs_calls_off_deal_to_buy_a.html [https://perma.cc/6DRP-MLGQ] (Nov. 17, 2008, 9:05 PM).

At first, Murray Energy demurred entering the coal bull market. The company's CEO "watched it go on and shook [his] head . . . everyone was shoving liabilities to someone else."[239] However, Murray's restraint quickly dissolved. In 2013, it bought five Consol Energy longwall coal mines in West Virginia for $3.5 Billion. The privately held company also acquired mines in Illinois, loading the company with more than $2.5 billion in funded debt and nearly $8 billion in real or potential commitments to fund union pension and benefit plans.

Professor James Van Nostrand answered the intriguing question, "[w]hat drove the frenzy?":

> Back in 2009, everyone believed the world was running out of metallurgical coal, or "met coal," the type that goes into making steel. Prices spiked above $340 a ton as demand from fast-growing China was off the charts. The future also seemed secure for thermal or steam coal, which is used to generate electricity; although the shale gas revolution was getting under way, coal was still responsible for producing [44.5%] of the nation's electricity supply in 2009, compared to the [23.3%] share for natural gas.[240]

Essentially, the hot Chinese economy cooled quickly, Asian steel production followed suit, and the growing American coal export market nose-dived. The irrational exuberance evaporated.

B. *The Big Coal Bust: Bankruptcies 2012–Present*

It would not take long for the proverbial chickens to come home to roost. In five years, the metallurgical coal price plunged from the $360 per ton to below $100 a ton.[241] Simultaneously, the market for U.S. thermal coal declined precipitously as enormous quantities of cheaper shale gas became available for electric generation. Public utilities began to retreat from coal-fired electric power

239. Patrick McGinley, *The King is Dead*, 35 ENV'T L. INST. FORUM 26, 30 (2018).

240. VAN NOSTRAND, *supra* note 235, at 252; *see also*, Lee Buchsbaum, *After Record Sales and Production, International Met Markets Plummet*, COAL AGE (May 12, 2009), https://www.coalage.com/features/after-record-sales-and-production-international-met-markets-plummet/ [https://perma.cc/VL2E-XRCT] ("By the end of the second and third quarters of 2008, coal executives were nearly giddy. They had never experienced such profits, especially for metallurgical coal producers.").

241. *Id.* at 252–53. Metallurgical or "Met" coal is also referred to as "coking coal." It is primarily used in the production of coke for use in the steel industry. U.S. DEP'T. OF INTERIOR, OPEN-FILE REP. NO. 2020-1113, COKING COAL OF THE UNITED STATES—MODERN AND HISTORICAL COKING COAL MINING LOCATIONS AND CHEMICAL, RHEOLOGICAL, PETROGRAPHIC, AND OTHER DATA FROM MODERN SAMPLES (2021).

generation. In 2015, King Coal was dethroned as the dominant fuel used to generate electricity in the United States.[242] Between 2010 and 2019, more than 500 coal-fired power plants were shuttered.[243]

Mike Quillen, the founder and former chairman of now bankrupt Alpha Natural Resources, observed that "[d]ebt will kill you in the coal business . . . and it's cyclical. But everybody just got caught up in the idea that high coal prices would go on forever."[244] They did not. In 2015, Alpha's stock that had been valued at $104 per share in 2008 was worth less than four cents per share.[245] In early 2016, Peabody Energy Corp., the world's biggest private-sector coal producer, bore $8.4 billion in debt. Its capitalization fell from $20 billion in 2011 to $38 million.[246] In six short years (2009–2015), the shares of many companies plummeted more than ninety percent.[247]

Unsurprisingly, as coal prices plummeted from historic highs, the heavily debt-encumbered companies could not service their billions of dollars of debt. A 2015 analysis by McKinsey & Company revealed that the coal industry's long-term debt tripled from 2008 to 2014, and its liabilities rose to almost $100 billion by the end of

242. Erin Ailworth, *Power Shift: How Natural Gas and Renewables Dethroned King Coal*, WALL ST. J. (Nov. 30, 2017, 7:00 AM), https://www.wsj.com/articles/power-shift-how-natural-gas-and-renewables-dethroned-king-coal-1512043200 [https://perma.cc/BP4U-K7BQ]. In 2005 coal was the dominate fuel having captured fifty-percent of the energy market with natural gas lagging far behind with only nineteen-percent of the market. Glenn McGrath, *Electric Power Sector CO_2 Emissions Drop as Generation Mix Shifts from Coal to Natural Gas*, U.S. ENERGY INFO. ADMIN. (June 9, 2021), https://www.eia.gov/todayinenergy/detail.php?id=48296# [https://perma.cc/3BQG-R6EF].

243. James Murray, *Charting a Decade of US Coal Company Bankruptcies and Plant Retirements*, NS ENERGY (May 26, 2020), https://www.nsenergybusiness.com/news/us-coal-company-bankruptcies/ [https://perma.cc/DG6Z-CU7K] ("Between 2010 and 2019, more than 546 coal-fired power units were retired—representing about 102GW of generating capacity.").

244. Patrick Rucker, *How Big Coal Summoned Wall Street and Faced a Whirlwind*, REUTERS (Aug. 5, 2016), https://www.reuters.com/investigates/special-report/usa-coal-hobet/ [https://perma.cc/2VAB-BMUT].

245. *Alpha Joins the Lineup of Coal Miners in Bankruptcy*, CBS NEWS (Aug. 3, 2015), https://www.cbsnews.com/news/alpha-joins-the-lineup-of-coal-miners-in-bankruptcy/ [https://perma.cc/9QMC-PEZG] ("Alpha, like many of its peers, is also struggling with a large debt load. Many coal producers borrowed money to fuel growth on the expectation that demand would soar around the world, especially in China, as hundreds of millions of people gained access to electricity.").

246. John W. Miller & Matt Jarzemsky, *Peabody Energy Files for Chapter 11 Bankruptcy Protection*, WALL ST. J. (Apr. 14, 2016), https://www.wsj.com/articles/peabody-energy-files-for-chapter-11-protection-from-creditors-1460533760 [https://perma.cc/R3V3-VW7M].

247. Justin Worland, *Coal's Last Kick*, TIME (Apr. 8, 2017), https://time.com/coals-last-kick/ [https://perma.cc/6VMV-9FE4] ("Between 2011 and 2016, U.S. coal producers lost more than ninety-two-percent of their market value.").

2014.[248] The McKinsey report reviewed financial statements of every major American coal producer, concluding that debt service costs the industry $9–$10 billion annually.[249] Unsecured investors who bankrolled the acquisition scheme suffered massive losses. Of course, the lowest on the totem—suppliers, contractors, and common stockholders—would salvage next to nothing.[250]

A tsunami of coal company bankruptcies began in 2012 with the first of two Patriot Coal bankruptcies.[251] Over the next eight years, more than seventy U.S. coal producers headed to bankruptcy courts seeking to extinguish their liabilities.[252]

C. *How Coal Companies Gamed the Bankruptcy System to Shed Reclamation and Other Liabilities*

Bankruptcy law is complex and esoteric—far beyond the ability of most observers of the coal industry to analyze and understand. One might assume that that the Federal Bankruptcy Code is applied to vindicate the socially desirable goal of corporate bankruptcy to maximize the value of the bankrupt entity's assets that will be distributed to its creditors.[253] However, the reality of the last decade of coal company bankruptcies is quite different. In extremely persuasive scholarship, supported by detailed analysis, commentators Professor Joshua Macey and Jackson Salovaara explain how insolvent coal companies successfully manipulated the

248. STEFAN REHBACH & ROBERT SAMEK, MCKINSEY & CO., DOWNSIZING THE US COAL INDUSTRY: CAN A SLOW-MOTION TRAIN WRECK BE AVOIDED? 9 (2015), https://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/metals%20and%20mining/pdfs/downsizing-the-us-coal-industry.ashx [https://perma.cc/7FUY-XRES] (stating that, beyond long-term debt, other major liabilities included "contractual obligations, asset-retirement obligations, and pension-funding obligations.").

249. *Id.*

250. *Id.* ("Equity holders [were] more or less wiped out by the fall in coal-industry stock prices.").

251. Rucker, *supra* note 244.

252. Stephen Lee, *Modern Coal Mines' Cleanup Has Big Unbudgeted Costs, Group Says*, BLOOMBERG L. (July 8, 2021) https://news.bloomberglaw.com/environment-and-energy/modern-coal-mines-cleanup-has-big-unbudgeted-costs-group-says [https://perma.cc/VXC8-739E] ("[S]ome 70 coal companies have declared bankruptcy since 2012").

253. Thomas H. Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain*, 91 YALE L.J. 857, 864–67 (1982) (discussing how bankruptcies are essential to maximize value of the bankrupt entity's assets).

bankruptcy process to dump their SMCRA duty to reclaim land they mined and treat water pollution created in the process[254]:

> Time and again, coal companies have relied on a consistent strategy to evade their regulatory obligations. Coal companies either file for bankruptcy themselves, or they spin off or sell underfunded subsidiaries laden with environmental and retiree obligations. When a company files for bankruptcy, it will try to discharge its regulatory obligations. When a coal company spins off a subsidiary, which can happen in a reorganization or in the normal course of business, the new company typically declares bankruptcy after a short period of time.
>
> At that point, the short-lived spin-off abandons its regulatory obligations, making it very difficult to hold the original entity responsible for those obligations. The result is that individual coal companies continue to operate—and generate new reclamation and retiree obligations—despite their failure to honor their existing obligations.[255]

Of course, had coal companies complied with SMCRA's bonding mandate, reclamation of mines of insolvent entities would have been fully funded without involvement of the bankruptcy process.

Macey and Salovaara dug deep into records of coal company pre-bankruptcy machinations and the arcane intricacies of bankruptcy law to explain how corporate decisionmakers "adopted [three] mutually reinforcing strategies to evade their environmental liabilities . . . through bankruptcy."[256] These three overlapping tactics, explained in the authors' article, *Bankruptcy As Bailout: Coal Company Insolvency and the Erosion of Federal Law,* provide context for one seeking to understand how taxpayers and coalfield communities were left to pick up the multi-billion-dollar tab for remediation work that SMCRA had guaranteed would not be externalized.

254. *See generally*, Joshua Macey & Jackson Salovaara, *Bankruptcy as Bailout: Coal Company Insolvency and the Erosion of Federal Law*, 71 STAN. L. REV. 879 (2019).

255. *Id.* at 906–07.

256. *Id.* at 918–19. Macey and Salovaara identify billions of dollars of coal miner and retiree health care and pension funds that were dischargeable debts and lost to beneficiaries. For example: "[C]onsider Carlyn Rehbein, who spent twenty-seven years working at Peabody's Illinois mines, and now suffers from lung cancer. Peabody transferred the liabilities for his health care benefits to Patriot, which then went through its own bankruptcies. In Rehbein's own words, 'I ate coal dust and rock dust for twenty-seven years and was promised all these benefits, and now they're trying to back out.'" *Id.* at 905. While the impact of coal companies shedding these enormous liabilities was devastating for coal miners, miner retirees and their families, this element of recent coal company bankruptcies is beyond the scope of this Article.

First, for decades companies had been allowed to avoid fully internalizing mining costs by regulators who failed to compel compliance with SMCRA bonding requirements. Macey and Salovaara explain that in the case of environmental obligations, coal companies took advantage of the opportunity to self-bond.[257] Then, before filing for bankruptcy, "they convinced state regulators to allow them to continue mining in exchange for steeply discounted super priority claims."[258]

It wasn't until 2016, when numerous major coal companies were in bankruptcy, that the OSM's director recognized the danger and circulated an advisory to state regulators. Ten of the nineteen states that permitted self-bonding had accepted billions of dollars of self-bonds in lieu of surety bonds, cash or collateral bonds.[259] He belatedly warned of "the growing threat of coal company bankruptcies."[260] That warning came years too late: the three biggest coal companies—Peabody Energy, Arch Coal and Alpha Natural Resources—were already in bankruptcy, sticking ten states with a total of more than $3.6 billion in uncollectable self-bonds.[261]

257. *See* Surface Mining Control and Reclamation Act of 1977, § 509(c), 30 U.S.C. § 1259(c) ("[T]he regulatory authority may accept the bond of the applicant itself without separate surety when the applicant demonstrates to the satisfaction of the regulatory authority the existence of a suitable agent to receive service of process and a history of financial solvency and continuous operation sufficient for authorization to self-insure"); For a basic explanation of SMCRA self-bonding, see U.S. GOV'T ACCOUNTABILITY OFF., GAO-18-305, COAL MINE RECLAMATION: FEDERAL AND STATE AGENCIES FACE CHALLENGES IN MANAGING BILLIONS IN FINANCIAL ASSURANCES 9 (2018), https://www.gao.gov/assets/gao-18-305.pdf [https://perma.cc/47VA-EU WZ]. ("A self-bond is a bond in which the operator promises to pay reclamation costs itself. Self-bonds are available only to operators with a history of financial solvency and continuous operation. To remain qualified for self-bonding, operators must, among other requirements, do one of the following: have an 'A' or higher bond rating, maintain a net worth of at least $10 million, or possess fixed assets in the United States of at least $20 million. In addition, the total amount of self-bonds any single operator can provide shall not exceed twenty-five percent of its tangible net worth in the United States. Primacy states have the discretion on whether to accept self-bonds") The GAO explanation erroneously assumed that regulators carefully enforced SMCRA rules—they did not, as evidenced herein. *see also*, 30 C.F.R. § 800.23 (2022) ("Self Bonding").

258. Macey & Salovaara, supra note 254, at 934.

259. *See infra* note 285 and accompanying text.

260. News Release, Off. of Surface Mining Reclamation and Enf't., Policy Advisory Regarding Use of Self-bonding For Coal Mine Reclamation, (August 9, 2016). https://www.osmre.gov/sites/default/files/pdfs/080916.pdf [https://perma.cc/6UVE-XJZ6]. The advisory emphasized that states that had accepted self-bonds "should immediately assess whether companies that are currently self-bonded remain eligible by making a thorough inquiry into the company's financial health utilizing all the tools at their disposal and all pertinent information available." *Id.*

261. Rucker, *supra* note 244.

The second tactic saw parent companies "repeatedly spin off subsidiaries comprised of depleted mining assets and significant liabilities, either through divestiture or liquidation."[262] Major coal companies depleted the value of their assets by mining the easiest to get to coal, accumulating reclamation (pension) and expensive water pollution responsibilities, and then dumping the liability-laden assets by divesting or liquidating in bankruptcy.[263] "When a successor company inevitably liquidates," Macey and Salovaara report, "the company that originally incurred these liabilities is shielded from the obligations."[264] Using then bankrupt Peabody Coal Company as an example, they observed:

> *This pattern occurs with sufficient regularity to suggest that the leading companies never intended to cover their liabilities*. Peabody executed this maneuver in the original formation of Patriot Coal in 2007. Patriot consisted of only 13% of Peabody's coal reserves but 40% of its retiree liabilities to 8,400 former Peabody employees. Furthermore, the mines Patriot inherited were largely legacy mines in the Appalachia basin whose coal could no longer be sold at a profit, but which had accrued significant environmental liabilities.[265]

In 2008, Patriot Coal acquired Arch Coal company assets as well as liability for 2,300 retirees' pensions.[266] By divesting these mines into a separate entity, Peabody and Arch removed the associated liabilities from their respective balance sheets. This spin-off arrangement is also how Alpha used bankruptcy to separate its profitable assets from its onerous regulatory liabilities.

The third of the overlapping tactics involved "coal companies engag[ing] in financial gimmickry by overvaluing assets, undervaluing liabilities, or pushing liabilities off [the] balance sheet in order to appear solvent and continue operating."[267] This scheme allowed Patriot and Peabody to operate while being legally insolvent, and also permitted Alpha Natural Resources "to pile all of its

262. Macey & Salovaara, supra note 254, at 934.

263. *Id.*

264. *Id.*

265. *Id.* (emphasis added).

266. S*ee* Kris Maher, *Patriot Coal, Creditors Probe Firm's Spinoff*, WALL ST. J. (Apr. 3, 2013), https://www.wsj.com/articles/SB10001424127887323916304578400891652718394 [https://perma.cc/Q7X9-NJ9W].

267. Macey & Salovaara, *supra* note 254, at 934. In its second bankruptcy, Patriot Coal Company supplied erroneous valuations of its assets and liabilities that allowed it to continue operating although insolvent. "This valuation tactic [worked] in concert with the divestiture and liquidation tactic . . . because an incorrect valuation enables divestitures that would not have occurred had the company liquidated." *Id.* at 919.

worthless assets and environmental and retiree liabilities onto a company that was unable to pay its debts just weeks after it began operating."[268] Environmental groups attacked these deals in bankruptcy court, claiming they violated SMCRA's bonding rules, but the court held that the groups lacked standing.[269]

Alpha Natural Resources provides an example of successful accounting ploys utilized in coal bankruptcy proceedings:

> Alpha did not record much of its SMCRA obligations on its balance sheet. The company recognized $1.6 billion in total asset retirement obligations, which consisted largely of reclamation liabilities, while only $583 million was accounted for on the balance sheet. The company thus assumed, for purposes of calculating its assets and liabilities, that it would not have to pay $1 billion in reclamation bonds. Moreover, despite its reported positive net worth, Alpha had recorded losses ranging from $730 million to $2.4 billion in each of the four years prior to its bankruptcy. But when state regulators attempted to force the company to account for those very liabilities, Alpha was unable to do so and immediately declared bankruptcy.[270]

Alpha is just an example of leading coal companies' strategic manipulation of bankruptcy procedures. Macey and Salovaara also dissected the bankruptcy schemes of top coal producers Arch

268. *Id.* at 934–35. In bankruptcy, Alpha failed to satisfy the self-bonding rule or obtain other security yet was able to persuade Wyoming and West Virginia regulators to let it keep mining without bonds in violation of SMCRA. Macey and Salovaara document the specifics:

> For instance, Alpha granted Wyoming a $61 million superpriority claim to cover the company's $411 million of reclamation bonding obligations in that State. Similarly, Alpha granted West Virginia a $24 million superpriority claim and a $15 million letter of credit to cover the company's $244 million of reclamation obligations in that State. Although Alpha owed a total of $655 million in reclamation liabilities, state regulators agreed to accept a superpriority claim on only $85 million in the event that the company stopped operating. This arrangement seemingly gave Alpha a legal right to abandon over $500 million in cleanup costs that the company would have had to pay had it been forced to liquidate.

Id. at 919 (citations omitted).

269. *Id.* at 920 (citing *In re* Alpha Nat. Res., Inc., 544 B.R. 848, 856 (Bankr. E.D. Va. 2016)) ("The Environmental Parties have failed to plead any concrete and particularized injury in fact that would result from the approval of the West Virginia Settlement. The only allegations set forth in the Environmental Parties' objection are that the settlement violates the laws of the United States of America and West Virginia.").

270. *Id.* at 921.

Coal,[271] Patriot Coal,[272] and Peabody Energy,[273] all of whom entered bankruptcy in 2015. The overlapping tactics of these companies allowed them to shed billions of dollars of reclamation liabilities and healthcare obligations.

D. *Insolvent Sureties Guarantee SMCRA Reclamation Bonds*

State regulators approved billions of dollars of major coal company self-bonding assurances that could be tapped to fund reclamation if a company entered bankruptcy. Such approvals should have been contingent on documentation of the self-bonders operators' history of financial solvency and continuous operation.[274] However, when more than seventy coal companies went bankrupt from 2012 to 2020, no longer qualifying for self-bonding, "federal regulations require[d] it to either replace self-bonds with other types of financial assurances or stop mining and reclaim the site."[275] That did not happen.

Rather, as one commentator observed, "[t]he large insurance companies that once wrote surety policies are fleeing the industry, allowing a few insurance providers to take on much more liability than they can handle. If enough coal companies go under, it will

271. *Id.* at 926–27. Arch discharged $5 billion of its debt reclamation and employee benefit debt in bankruptcy. It also dumped huge liabilities when it spun off unprofitable mines and heavy pension obligations to Patriot Coal in 2007. *Id.*

272. *Id.* at 912–18. Patriot Coal unloaded $1.8 billion in liabilities in its first bankruptcy; in its second bankruptcy all of Patriot's assets were sold or abandoned. Blackhawk Mining, LLC purchased a portion of Patriot's most desirable mines. $738 million in environmental and retiree liabilities were excluded from the Blackhawk purchase. Blackhawk subsequently filed for bankruptcy on August 20, 2019, leaving behind 151 permits and 181 bonds totaling only $39.4 million. *Id.*

273. *Id.* 927–33. Bankruptcy allowed Peabody Energy to offload $2 billion in reclamation liabilities and a total of $8 billion of debt. An independent analysis of Peabody's bankruptcy claims found the company's representations misleading and not credible. *See* Tom Sanzillo, INST. FOR ENERGY, ECON. AND FIN. ANALYSIS (August 31, 2016), https://ieefa.org/wp-content/uploads/2016/09/IEEFA-memo-on-Peabody-Bankruptcy.pdf [https://perma.cc/5Q3Z-KFNH], ("Peabody's presentation of its financial condition is misleading and is reminiscent of the company's, 2007 spin off of Patriot Coal, which filed for bankruptcy in 2012—and again in 2015.").

274. Also, regulators were required to limit the total amount of self-bonds of any single operator to no more than twenty-five percent of its tangible net worth in the United States. 39 C.F.R. § 800.23(d) (2022). That rule was not strictly enforced.

275. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 257, at 21.

set off a chain reaction, taking these insurance companies down with them."[276]

A 2018 report by the U.S. Government Accountability Office speculated that regulators might have been reluctant to order an undercapitalized insolvent operator to replace its self-bonds with an alternative form of assurance.[277] The suggestion was that, notwithstanding the law, the reluctant regulators would unilaterally decide to allow the operator to continue mining with the hope (or dreams) that more mining could generate profits that could be used eventually by the company to reclaim the site.[278]

Similarly, reluctant regulators failed to monitor insurance/surety companies that ostensibly possessed sufficient capitalization to allow regulators to forfeit reclamation bonds and use the funds to reclaim abandoned mines.[279] Regulators were fearful of the domino effect of forfeiting bonds that would make it more difficult to obtain bonds and curtail future mining. Instead of forfeiting bonds that had been presumed to be available to fully reclaim bankrupt operators' mines, state and federal regulators winked and nodded. They carried hundreds of abandoned mines on their books as "inactive" so they could avoid forfeiting woefully inadequate bonds—as the forfeiture would not generate sufficient funds to reclaim. Another option, similar to their response to worthless self-bonding, was favored by state regulators. It allowed insolvent operators to continue mining while accumulating additional mining law violations and expanding the environmental harm and eventual externalized cost of reclamation when the company inevitably collapsed.[280]

276. Mark Olande, *Exposed: West Virginia and Other States Relying on 'House of Cards' to Pay for Coal Mine Cleanup*, DESMOG (June 25, 2020), https://www.desmog.com/2020/06/25/coal-surety-bond-pools-liabilities-mine-cleanup [https://perma.cc/RX9B-H5BK].

277. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 275, at 27.

278. Olande, *supra* note 257.

279. Patrick McGinley, *Will Taxpayers Foot the Bill for Bankrupt Coal Companies?*, AP NEWS (May 9, 2016), https://apnews.com/article/d9bdd35689864ee79fb36c2e583130c6 [https://perma.cc/EMT4-D4YY]. Surety bonds are posted by a coal operator at the time of receiving a mining permit. The operator pays a surety company to guarantee funds will be available to reclaim its mine in the event of forfeiture. The surety company agrees to pay the amount of the bond to the regulatory authority. *Reclamation Bonds*, OFF. OF SURFACE MINING RECLAMATION ENF'T, https://www.osmre.gov/resources/reclamation-bonds [https://perma.cc/VP7S-L9KA].

280. A New York Academy of Sciences analysis placed a dollar figure on the aggregate externalized costs:

In the surety bond context, for example, Indemnity National Insurance Company, had issued surety bonds to cover the cost cleanup of almost one-fifth of the U.S. coal mining industry.[281] Public records show that, nationwide, surety bonds backed more than $7 billion of reclamation costs.[282] Indemnity National underwrote $2 billion of those bonds in top coal-producing states.[283]

In 2021 West Virginia's Legislative Auditor reported that Indemnity National held sixty-seven percent of the total coal company surety bonds, or $620 million.[284] The Auditor also found that Indemnity National held $125 million in reclamation bonds for ERP Environmental Fund, a coal company operating in West Virginia.[285] In March 2020, ERP laid off all its employees and effectively abandoned its mines, including more than 100 permits and $100 million in reclamation liability.[286] ERP's potential reclamation liability was so great the WVDEP was concerned ERP's forfeiture would bankrupt Indemnity National—the surety backing ERP's reclamation bonds. WVDEP feared Indemnity National's demise would, in turn, render insolvent the entire West Virginia bond pool—the Special Reclamation Fund.[287]

Then, in June 2021, in a court filing in a matter concerning ERP's implosion, came a shocking and long overdue confession from West Virginia mining regulators. The ABS program they had touted for four decades as compliant with SMCRA was

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> [E]ach stage in the life cycle of coal—extraction, transport, processing, and combustion [that] generates a waste stream and carries multiple hazards for health and the environment estimate that the life cycle effects of coal and the waste stream generated are costing the U.S. public *a third to over one-half of a trillion dollars annually*. Many of these so-called externalities are . . . cumulative . . .

Paul R. Epstein et al., *Full Cost Accounting for the Life Cycle of Coal*, 1219 ANNALS N.Y. ACAD. SCI. 73, 73 (2011) (emphasis added).

281. Leslie Kaufman & Will Wade, *The Tiny Insurance Company Standing Between Taxpayers and a Costly Coal Industry Bailout*, BLOOMBERG (Nov. 8, 2022), https://www.bloomberg.com/news/features/2022-11-08/the-tiny-insurance-company-standing-between-taxpayers-and-a-costly-coal-industry-bailout [https://perma.cc/V5C9-6GUV].

282. COAL MINE RECLAMATION, *supra* note 257, at 11.

283. Kaufman & Wade *supra* note 281.

284. *Id.*

285. *Id.*

286. W. VA. OFF. OF LEGIS. AUDITOR, LEGISLATIVE AUDIT REPORT: WV DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF MINING & RECLAMATION SPECIAL – RECLAMATION FUNDS REPORT 3 (2021) https://www.wvlegislature.gov/legisdocs/reports/agency/PA/PA_2021_722.pdf [https://perma.cc/2KKA-CYCH].

287. *Id.*

dysfunctional and on the verge of total collapse. WVDEP's lawyers provided an exemplar of the agency's self-created crisis:

> Of particular concern to [WVDEP] is the Defendant's Tygart River Mine complex . . . commonly referred to as the "Martinka" mine. The Martinka underground mine has been shuttered for years. But water naturally builds up in the mine. To avoid "artesianing"[—]the topping of water above the mine's natural "pool" that would result in uncontrolled, untreated and contaminated discharge of polluted water from the mine[—]the Martinka mine must be constantly pumped with the removed water treated for contaminants. The costs associated with the pumping and discharge have run nearly $900,000 annually. As the Defendant's operating cash flow has deteriorated and now dried up completely, . . . [w]ithout consistent pumping and treatment, the water in the mine steadily rose at the rate of about one foot per week to levels that risked artesianing and sending contaminated water into the Tygart River, the source of drinking water for thousands of West Virginians.[288]

But, as WVDEP lawyers confessed "[t]he situation at Martinka represents the proverbial canary in the coal mine."[289] The entire SMCRA mandated bonding system was imploding and there was no money to deal with the impending Martinka emergency. If the agency were to revoke ERP's bonds the entire regulatory house of cards would collapse:

> Without immediate funding and effective management oversight of its environmental liabilities and operations, any one or all of Defendant's mine sites in West Virginia could soon . . . . [place] the environment and the health and safety of many thousands of West Virginians at significant risk on a much broader scale.
>
> Indeed, [*WVDEP*] *stands poised at the precipice of having to revoke the Defendant's permits, forfeiting the associated surety bonds, and transferring the responsibility for cleaning up the Defendant's mess to the State's Special Reclamation Fund, potentially bankrupting the Defendant's principal surety and administratively and financially overwhelming the Special Reclamation Fund, the State's principal backstop for all revoked and forfeited mine sites in West Virginia.*[290]

Digging deeper into taxpayer's pockets, West Virginia enacted legislation to create a "private" surety company with $50 million of

288. Plaintiff's Motion for Temporary Restraining Order and Preliminary Injunction, and Temporary and Preliminary Appointment of a Special Receiver at 2–3, Ward v. ERP Env't. Fund, Inc., No. 20-C-282 (Circuit Ct. Kanawha Cty. March 26, 2020).

289. *Id.* at 2.

290. *Id.* at 2–3. (emphasis added).

taxpayer funding to provide bonds for in-state coal operators whose statutory obligation to reclaim is too risky for existing insurers to underwrite.[291]

In West Virginia and across the Appalachian coalfields, the "climate of lawlessness" Judge Haden had aptly described two decades earlier reached its denouement.

CONCLUSION

When it enacted the SMCRA in 1977, Congress looked both backward and forward. It created an Abandoned Mine Land fee and fund that would eventually pay to reclaim land and waters despoiled by almost a century of earlier coal mining—remedial work estimated to cost billions of dollars.[292] Moreover, in enacting SMCRA, Congress looked to the future with the goal of preventing the costly legacy of abandoned coal mining. SMCRA's § 509 required coal companies to provide adequate financial guarantees in the form of performance bonds, sureties, or other pledges that would assure the availability of adequate funds for government mining regulators to use to fully reclaim all mined lands in the event of coal company bankruptcies.

Today, in seven Appalachian states, over 600,000 acres of mined lands have been abandoned without reclamation since SMCRA became law forty-five years ago.[293] The unfunded cost of reclamation of those lands—including treatment of polluted water—falls billions of dollars short of the amount generated by OSM-approved state bonding programs.[294] Seventy coal companies sought

291. W. VA. CODE § 33-61-2 (2022); *see also* Christopher Marshall, *Senate Passes Bill to Create Mining Mutual Insurance Company*, WRAP UP: OFF. BLOG OF THE W. VA. LEGIS. (Jan. 26, 2022), https://blog.wvlegislature.gov/senate-floor-session/2022/01/26/senate-passes-bill-to-create-mining-mutual-insurance-company/ [https://perma.cc/4NJN-STTQ].

292. This is commonly referred to as "The AML Program." 30 U.S.C. §§ 1231–1245.

293. Erin Savage, *Repairing the Damage: The Costs of Delaying Reclamation at Modern-Era Mines*, APPALACHIAN VOICES, July 2021, at 4, https://appvoices.org/resources/RepairingTheDamage_ReclamationAtModernMines.pdf [https://perma.cc/C7PP-59A6]. The seven states were: Alabama, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. It is important to note that post-SMCRA unreclaimed mine lands also exist in other coal producing states in the Midwest and Great Plains, and Inter-Mountain West. No in-depth calculation of costs of reclamation in those regions has been made. *Id.*

294. *Id.* at 17. One report estimates the reclamation and water treatment costs at $7.5 to $9.8 billion dollars. *Id.* at 4. The unreclaimed acreage and reclamation costs are estimated because neither OSM nor state regulators have undertaken such an analysis. *Id.* "[Despite limited data, we have attempted to estimate a rough cost of outstanding liability across the region. Understanding reclamation liability from state to state is a necessary part of

bankruptcy protection. Some top coal producers gamed the federal bankruptcy system to successfully dump billions of reclamation obligations on undercapitalized entities that were designed to fail.[295] State ABS systems are insolvent. Few surety and insurance companies are willing to risk underwriting new or renewed bond coverage for coal mining operations in the United States.[296]

The product of four decades of "winking and nodding" is clear to see for anyone who cares to look.[297] The American Coal industry has not spiraled into a cataclysm of bankruptcies and dissolution because of shale gas, Obama's "War on Coal," or activist's concerns about climate change. No, the coal industry's current plight is a continuation of a century of successful evasion of its responsibility and liability for the enormous externalities of coal mining—it is simply how politicians, regulators, and corrupt coal companies have exploited Appalachia.

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ensuring a positive transition for the region as coal mining declines. Given the likelihood of continued bankruptcies and widespread bond forfeitures, states should be doing everything possible to quantify the problem. . . . ." *Id.* at 15.

295. In recent testimony before a congressional committee, former OSM Director Joseph Pizarchik stated:

> It is a common practice for coal companies to extract as much profit from a coal mine as possible before the land reclamation and pollution-treatment responsibilities become due. Assets are stripped from the subsidiary and the underfunded subsidiaries are spun off into a new entity. These underfunded companies are doomed to failure and bankruptcy liquidation. When that happens, any mines that have a glimmer of profitability are "sold" to a vulture capitalist company for further exploitation, and ultimate failure.

Environmental Justice for Coal Country: Supporting Communities Through Energy Transition: Hearing Before the Subcomm. on Energy & Mineral Resources of the H. Comm. on Nat. Res., 117th Cong. 7–8 (2021) (testimony of Joseph G. Pizarchik, former Dir. of Off. of Surface Mining Reclamation & Enf't).

296. Kaufman & Wade, *supra* note 281. The West Virginia state Senate President, worrying about the potential insolvency of the small insurance company holding $620 million (67%) of all West Virginia coal companies' surety bonds, lamented "[i]f something happened in Alabama, Tennessee, Kentucky—even West Virginia—whoever is first at the trough will be able to get their resources to be able to do the mine reclamation . . . [t]he rest of us will be left hanging out in the cold with that exposure up to $8 billion." *Id.*; *see also* George W. Thompson, *Surety Exposure in Coal — A 2021 Perspective*, SIAS GLOBAL (Aug. 16, 2021), https://www.siasglobal.com/blog-Surety_Exposure_in_Coal-A_2021_Perspective.html [https://perma.cc/X4L4-VFFA] ("The surety industry's risk appetite for underwriting coal has fluctuated over time, and smaller or less capitalized coal operators have struggled to find surety to support their bond requirements under mutually satisfactory underwriting terms and conditions").

297. *Norton II*, 161 F. Supp. 2d at 683–84.