GETTING THE COAL OUT




Motor Road 40" Rail
Telephones & Lines
Mine Pumps
Mined Jan. 1st to July 1st 1923
Mined July 1st 1923 to Jan 1st 192
MAP
OF
FRANKLIN MI
SEC'S 24-30-R3-T5 SEC'S 19-25-
RICHLAND TWP.—BELMONT CO.
THE CLEVELAND & WESTERN
BELLAIRE—OHIO.

GETTING THE COAL OUT

"Getting the coal out."
—Response of Alexander Zeller, who worked for
The North American Coal Corporation as a section foreman
of an underground mining crew in southeastern Ohio,
to the author's request for his job description

GETTING THE COAL OUT

A Centennial History of The North American Coal Corporation and NACCO Industries, Inc., 1913–2013

DIANA TITTLE



With an added epilogue describing "The First Decade of the Second Hundred Years" 2013-2023

NACCO Industries, Inc. Cleveland, Ohio

Dedication

This book is dedicated to the steadfast family owners, exceptional managers and can-do workforce of The North American Coal Corporation, past and present. By virtue of their hard work, vision and grit, these men and women have transformed North American Coal from its bootstrap beginnings a century ago into one of the largest producers of lignite coal in America.





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The Depression-era tipple and cleaning plant of a company mine in Prenter, West Virginia



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A shovel used to remove overburden at the Betsy surface mine in the 1940s

Opposite page: *A company locomotive and coal shuttle, circa the 1950s*

INTRODUCTION

Freedom Mines

On February 18, 2013, The North American Coal Corporation marked the centennial of its incorporation and joined an elite cohort of American companies that have been in business for 100 years or more. The achievement of this milestone is indeed a cause for celebration and commemoration. Most business start-ups fail, typically within their first five years. Those that do manage to survive longer often do not earn the anticipated return on investment. Companies able to remain competitive and profitable for 10 straight decades are—according to Jim Collins, an expert on corporate longevity and the author of the influential business-management books *Good to Great* and *Built to Last*—a "special and rarefied group."

A recent Standard & Poor's analysis backs up Collins' contention. It found that fewer than 500 of the more than 5,000 publicly traded companies in the United States are centenarians. Most of the members of this exclusive club are household names: American Express, Chevron, Ford, General Electric, IBM, Johnson & Johnson, Procter & Gamble and 3M. Others, such as medical supply company McKesson and chemical firm PPG Industries, are well-known leaders within their respective niches. This is certainly true of The North American Coal Corporation, one of the country's top 10 coal producers.

Established in 1913 as a regional coal sales brokerage based in Cleveland, Ohio, North American Coal has nimbly reinvented its business model several times in response to changing market conditions. Within a decade of its incorporation the brokerage had evolved into a vertically integrated corporation with coal mining, dockyard and railroad subsidiaries. Produced in underground mines in Ohio, Pennsylvania and West Virginia, the company's bituminous coal fueled trains and stoked industrial and residential furnaces. During the postwar years North American refocused its energies on providing steam coal to the skyrocketing electrical power industry. With bituminous coal producers facing a regulatory environment that grew ever more complex and stringent after the late 1960s, the company began to withdraw from underground mining in the East and broaden its involvement with surface mining in the West and Southwest. The company moved its corporate headquarters to Dallas, Texas, in 1988.

Today North American Coal mines and markets lignite coal primarily as fuel for electrical power generation. Its state-of-the-art surface mines are located in North Dakota, Texas, Mississippi, Alabama and Louisiana (see map on page 11). This geographic distribution is not a matter of happenstance. The most extensive deposits of lignite—a woody, low-sulfur fossil fuel—are found in the Gulf Coast states and in the northwestern Great Plains states. In 2012 North American returned to its historic roots with the acquisition of three bituminous coal mines in central Alabama that produce steam coal and metallurgical coal for the steel industry.

Opposite page: *Often working around the clock to produce fuel for electrical power generation, North American Coal's state-of-the-art surface mines make an important contribution to the country's growing energy independence.*


CATERPILLAR



Alfred M. Rankin Jr., chairman, president and chief executive officer of NACCO Industries, Inc.



Robert L. Benson, president and chief executive officer of The North American Coal Corporation, a wholly owned subsidiary of NACCO Industries

A wholly owned subsidiary of NACCO Industries, Inc., a holding company based in Cleveland, North American Coal also provides dragline mining services for independently owned limerock quarries in Florida and management and engineering services to assist the development of coal mines overseas. Alfred M. Rankin Jr., the current chairman, president and CEO of NACCO Industries, encouraged the coal company to expand into these arenas. Rankin, whose grandfather founded the coal company, also spearheaded its diversification into entirely new businesses. Indeed, the consistent profitability of North American Coal prompted the creation of the publicly traded holding company in 1986 to manage the accelerating diversification program.

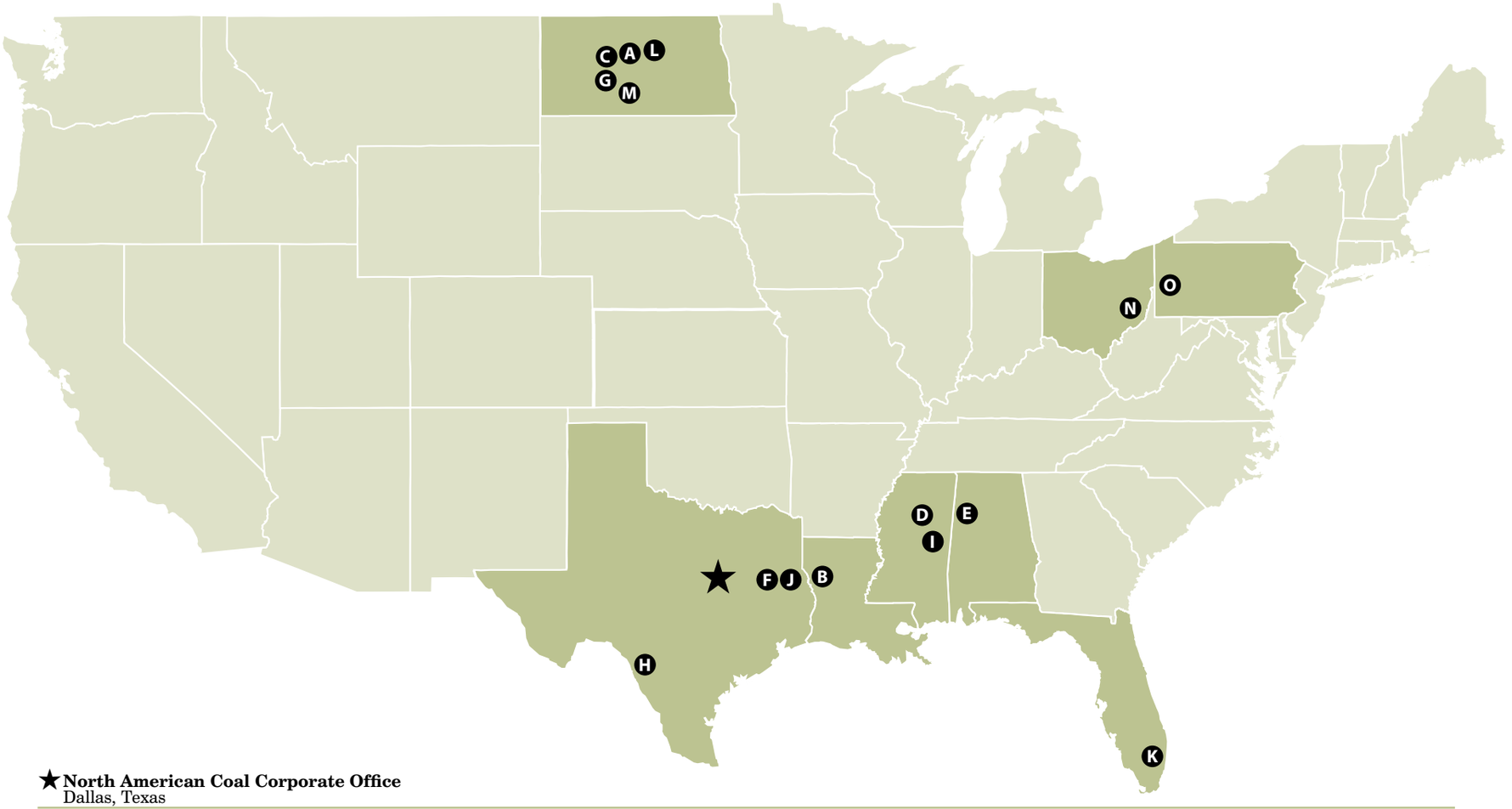
Financed in part by the coal company's excess cash, NACCO acquired subsidiaries in the lift truck and small appliance industries and in the specialty retail field. As each of the companies in NACCO's Industries' portfolio rationalized its manufacturing, sales and distribution functions, gained market share, and achieved long-term profit growth under Rankin's strategic leadership, the parent company grew into a $3.9 billion concern. In 2012 NACCO Industries spun off its largest subsidiary, the $2.5 billion Hyster-Yale Materials Handling Group, a leading global manufacturer of lift trucks and warehousing equipment. Hyster-Yale is now an independent public corporation traded on the New York Stock Exchange.

One of the strategic goals set for North American Coal was to become the nation's largest miner of lignite, an objective achieved in 2000. Today the company is still a top-ranking producer. Its lignite mines yield 28.5 million tons of coal annually, or 2.5 percent of the nation's total coal production. Most of North American's tonnage goes to adjacent or nearby electric plants whose power-generating turbines are fueled by coal supplied under long-term contracts.

Nationally, coal-fired power plants generate about 40 percent of the electricity on which the American economy and lifestyle depend. The name of North American Coal's largest surface operation, the Freedom Mine in Mercer County, North Dakota, derives from the mine's development in the early 1970s, when the country's energy security was threatened by the Arab oil embargo. To North American's founding family, leaders and workforce, all of the company's mines are "freedom mines." Each makes an important contribution to America's growing independence from reliance on foreign energy sources.

Under the leadership of Robert L. Benson, North American Coal's president and CEO since 2006, the company has continued to build and acquire new mines and to plan for the future by seeking new customers who are converting coal into useful products, such as activated carbon, or who are pioneering advanced new technologies, such as coal gasification. Growth has not been pursued at the expense of core values, however. North American Coal continues to strive to be a model corporation whose business strategy, profitability, mining expertise, employee relations, safety record, reclamation practices and governance set an example of principled leadership for the entire coal industry.

Mining Operations of The North American Coal Corporation



★ **North American Coal Corporate Office**
Dallas, Texas

Active Surface Mines

A. Falkirk Mine
Underwood, North Dakota
The Falkirk Mining Company

B. Five Forks Mine
Coushatta, Louisiana
Demery Resources Company, L.L.C.

C. Freedom Mine
Beulah, North Dakota
The Coteau Properties Company

D. Red Hills Mine
Ackerman, Mississippi
Mississippi Lignite Mining Company

E. Reed Minerals Mines
Jasper, Alabama
Reed Minerals, Inc.

F. Sabine Mine
South Hallsville, Texas
The Sabine Mining Company

Surface Mines Under Development

G. Coyote Creek Mine
Beulah, North Dakota
Coyote Creek Mining Company, L.L.C.

H. Eagle Pass Mine
Eagle Pass, Texas
Camino Real Fuels Company, L.L.C.

I. Liberty Mine
De Kalb, Mississippi
Liberty Fuels Company, L.L.C.

J. Marshall Mine
Marshall, Texas
Caddo Creek Resources Company, L.L.C.

Florida Dragline Operations

K. CEMEX Quarries
Miami-Dade/Lee Counties, Florida
North American Mining

K. White Rock Quarries
Miami-Dade County, Florida
North American Mining

K. Titan Quarry
Miami-Dade County, Florida
North American Mining

DryFining Unit

L. NoDak Energy Services, L.L.C.
Underwood, North Dakota
GRE Coal Creek Station

North American Coal Royalty Company Offices

M. Bismarck, North Dakota
N. Powhatan Point, Ohio
O. Armagh, Pennsylvania


CATERPILLAR
6
CAT




752



Benson, a civil engineer with an extensive background in mine construction, joined North American Coal in 1976 as a contract administrator of a North Dakota mine development project. He subsequently served as general manager or president of four other company mines. Having worked "in the trenches," he can readily explain how an enterprise that began on a shoestring at the turn of the 20th century has managed not only to survive into the 21st century, but also to remain vital and vigorous. The CEO modestly gives the credit for all these accomplishments to "our people." Upon further consideration of the responsible factors, the laconic North Dakotan adds: "One hundred years of hard work by coal miners." The ingenuity and dedication of North American Coal's 1,500 employees are "next to none," he asserts.

The same could be said for the family owners, managers and employees who devoted themselves to the company's advancement in previous decades. Going back to North American Coal's start-up in 1913, each successive generation of owners, staff leaders and workers has had to overcome a perfect storm of challenges—adversity, stiff competition, market volatility, technological change, labor-management conflict and increasing federal and state regulation—that swamped hundreds of competitor firms. But the men and women who worked for The North American Coal Corporation down through the years have been an unusually courageous, farsighted and determined band. In that regard, they take after the company's daring, visionary, relentlessly striving founder, Frank E. Taplin Sr.



History shows that few challenges have proved too big for North American Coal's dedicated employees. For example, miners today must operate or maintain heavy-duty, multimillion-dollar computerized equipment, such as the 300-ton Kress coal-haulage truck at the left.

In underground mining, where North American got its start as a coal producer nearly a century ago, miners tunnel into the earth to reach the underlying coal. In surface mining (opposite page)*, the earth is removed to expose the coal, which is then loaded onto trucks for delivery to customers via rail or conveyor belt.*

Next page: *Sunflowers grown for their oil thrive on coal lands reclaimed by North Dakota's Freedom Mine. Getting the coal out safely and providing exceptional service to customers is only half of the job. The second half is restoring mined lands to the same or better condition as before.*




COTCAM

The First 100 Years of Mining

Turning Points

1913

Coal salesman Frank E. Taplin Sr. starts a coal brokerage firm called the Cleveland & Western Coal Company in Cleveland, Ohio.







1957

The company purchases its first lignite coal mine. A surface operation located in Zap, North Dakota, the mine is renamed Indian Head, after its most popular brand of coal.

1948

To replace bituminous coal's waning railroad and domestic heating business, North American Coal begins to pursue long-term supply contracts with electric utility companies.





1925

Taplin reorganizes his diverse holdings, which include bituminous coal mines, railroads and Great Lakes dockyards, into The North American Coal Corporation. The new corporation ranks as one of the country's largest underground mining firms.

1942

After Taplin's death, a college-educated engineer, Henry G. Schmidt, takes over the company's presidency, marking the beginning of the professionalization of the company's management.

Milestones

1913

The Cleveland & Western Coal Company, the predecessor of North American Coal, starts as a one-man brokerage selling other companies' coal.

1916

Cleveland & Western (C&W) acquires an interest in three underground mines in southeastern Ohio to better serve its railroad and residential customers.

1917

Taplin adds underground mines in West Virginia and Pennsylvania to C&W's holdings.

1920

With the acquisition of dockyards in Milwaukee, Wisconsin, and Duluth, Minnesota, the company establishes a strong sales presence in the upper Great Lakes.

1922

C&W begins construction on what will become the company's flagship underground mine on the Ohio River in Powhatan Point, Ohio.

1926

The newly organized North American Coal Corporation anticipates annual sales of 15 million tons.

1931

Powhatan Mine has grown into Ohio's largest underground mining operation.

1938

Taplin unexpectedly dies at age 62. His descendants remain committed to the business and retain majority control to this day.



1964

North American Coal is awarded its first contract to build a fuel-supply mine adjoining a new power plant, the Conemaugh Steam-Electric Plant in New Florence, Pennsylvania.

1988

Powahatan No. 6, the company's last underground bituminous coal mine, is sold, and its corporate headquarters and Western Division office are moved to Dallas, Texas.





2012

North American Coal re-enters the bituminous coal business, acquiring an Alabama producer of steam and metallurgical coal.



1976

Having assembled more than four billion tons of lignite reserves, the company enters into contracts with "mine-mouth" power plants throughout the West and Southwest.

2000

North American Coal ranks as the largest lignite producer in the U.S.



1943

After experiencing a Depression-era decline, North American Coal regains its financial footing and begins building a new base of utility customers.

1956

North American Coal stock is publicly traded for the first time in an over-the-counter offering.

1961

The North American Coal Corporation is listed on the New York Stock Exchange.

1977

A Southwest Division is formed with headquarters in Dallas.

1983

A corporate diversification program is launched. It leads to the company's entry into the lift truck industry (1985–1989) and the housewares industry (1988–1990) and prompts a corporate restructuring.

1986

As diversification accelerates, NACCO Industries, Inc., a new publicly traded holding company, is formed. North American Coal becomes a wholly owned subsidiary of NACCO.

1994

North American Coal diversifies into limerock mining in Florida and begins consulting on an international basis.

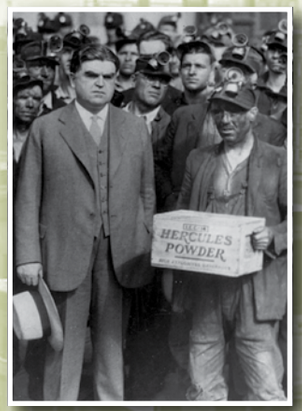
2000

North American Coal purchases the mining assets of joint venture partner Phillips Coal. Positioning the company for future growth, the acquisition also includes a comprehensive geological data-base of Gulf Coast lignite reserves.

Accomplishments

1933

Taplin helps to draft federal regulations establishing minimum wages and improved benefits for coal miners, winning the respect of union leader John L. Lewis.





c. 1945

Powhatan Mine is the first underground operation in Ohio to be fully mechanized.



c. 1948

North American Coal voluntarily restores the old workings at its Betsy surface mine in Ohio, three decades before the federal government mandates land reclamation efforts.



1972

North American is awarded a contract to supply fuel to what becomes the country's first coal gasification plant.



1980s

North American Coal begins hiring women for such traditionally male positions as engineer and dragline operator.

Taplin's Acquisitions and Mergers

c. 1915

Acquisition of the Wisconsin Coal & Dock Company of Milwaukee

1916–17

Incorporation of the A. J. Morgan Company to operate the Franklin, Johnson and Taplin mines in Belmont County, Ohio

1917

Acquisition of the Cora and Loma mining companies of Logan County, West Virginia, to be operated by the newly incorporated Standard Island Creek Coal Company

1917

Acquisition of the Meadow Lands Coal Company, operator of the Arden and Avella mines in Washington County, Pennsylvania

1919

Merger of Wisconsin Coal and the Gross Coal Company in Milwaukee to create the United Coal & Dock Company of Milwaukee

1920

Establishment of the Inland Coal & Dock Company in Duluth, Minnesota, which acquires the E. S. Kendrick coal brokerage and leases the Island Creek Coal Company dockyards

c. 1923

Acquisition of the Pittsburgh & West Virginia Railway Company, a regional railroad line with eight captive coal mines

1986

Only three years after opening, the Freedom Mine in Beulah, North Dakota, receives a Sentinels of Safety Award for having surpassed its peers in achieving the greatest number of man-hours worked in a 12-month period without a lost-time accident or fatality.



1987

The U.S. Office of Surface Mining presents the Falkirk Mine in Underwood, North Dakota, with an Award for Excellence for wetland restoration. To date, company mines have received more than 100 awards for land reclamation.



1989

A collaboration between a North Dakota mines team and the Bucyrus-Erie Company on the redesign of a dragline bucket increased the bucket's efficiency by 20 percent without increasing its weight. After the prototype was perfected, the manufacturer was inundated with orders for the innovative bucket from other customers.

1988

A North American planning analyst persuades the State of Mississippi to accept for the first time a mining permit application submitted in electronic format. The practice spreads throughout the industry.



2011

The Sabine Mine near Hallsville, Texas, wins a prestigious Sentinels of Safety trophy for setting the best safety record for 2010 in the Large Surface Mines Group.

"We will conduct our business in an ethical, professional, safe and environmentally sound manner."

1991

North American Coal formally adopts a mission statement affirming the company's core values and also codifies a set of guiding principles aimed at promoting employee empowerment.

1924

Merger of the Meadow Lands and Pittsburgh & West Virginia mines to create the Pittsburgh Terminal Coal Corporation

1925

Incorporation of the Powhatan Mining Company to operate the Powhatan, Johnson and Franklin mines

1932

Incorporation of the Red Parrot Company to operate mines acquired at auction in Boone County, West Virginia

c. 1925

Acquisition of a minority interest in Canada Coal Ltd., whose dockyard at Sault Ste. Marie provided entrée to the Ontario market

1926–27

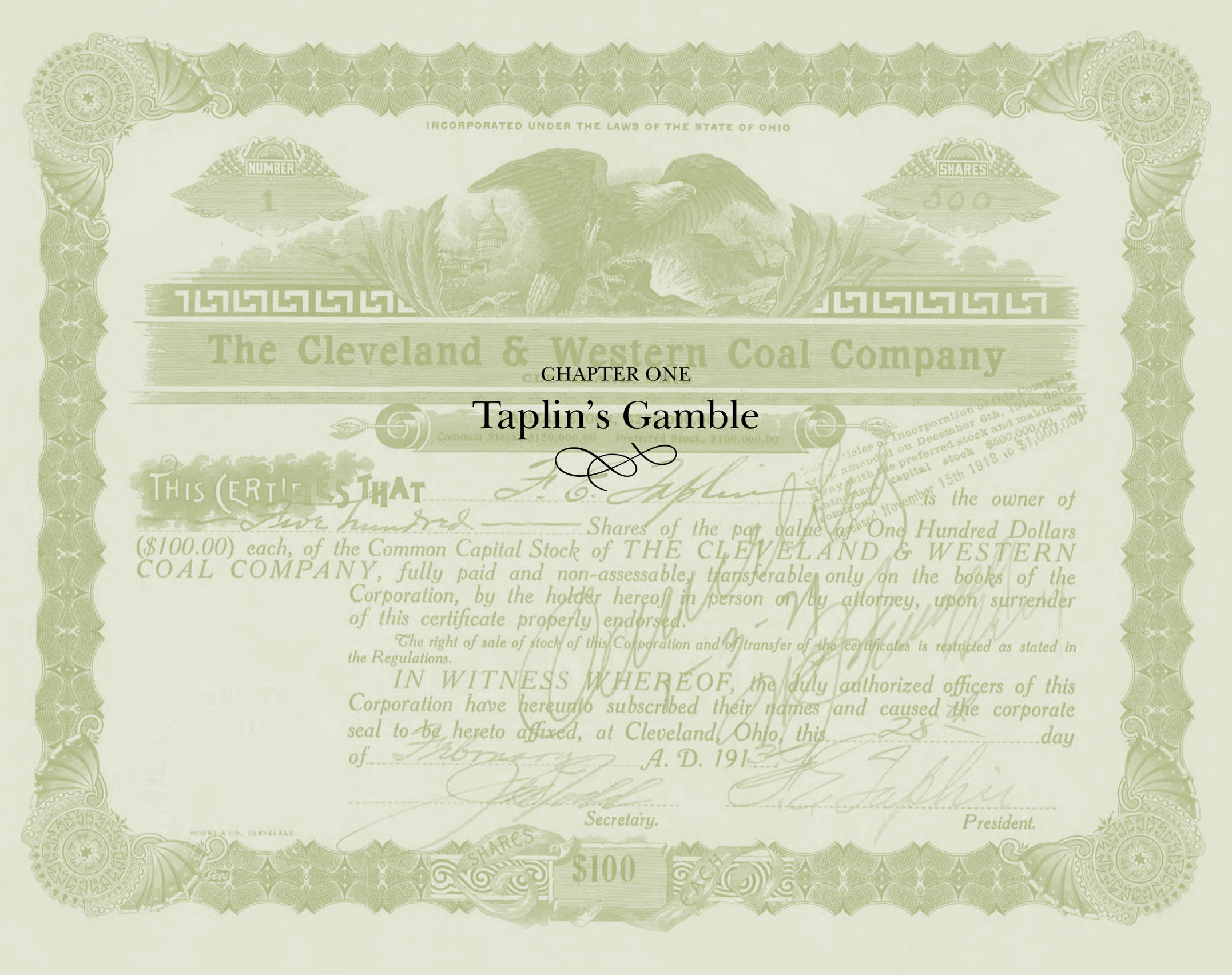
Acquisition of controlling interest in the common stock of the Wheeling & Lake Erie Railway Company, with the intention of securing a "friendly" connection for the Pittsburgh & West Virginia to the Great Lakes

1936

Acquisition of the C. H. Mead Company of Beckley, West Virginia, a producer of metallurgical coal


CAPTINA
STEINERSVILLE
ESTATE OWNERS
J. N. PEW ESTATE LESSOR
LEASE OF POWHATAN MINING CO.
WESTERN LIMIT OF LEASE
R.4W.
R.3W.
T.4N.
CO.
CREEK
RUN
CAT
COAL=617
COAL=550
ROBT GREENE
GREEN'S MINES
OWENS MINE COAL 641
SANTA VENERI MINE
THE CAMBRIA COLLIERIES CO
HIGH WATER
OUTCROP
CROP-631
670 Contour

1913–1938



CHAPTER ONE

Taplin's Gamble

In early January 1913, Frank E. Taplin walked into his apartment in East Cleveland, a suburb of Cleveland, Ohio, and presented his wife with some bad news. He had lost his job as sales manager of the Youghiogheny & Ohio Coal Company (Y&O). The 38-year-old Taplin had devoted the previous decade of his life to helping the Cleveland-based company, which operated a dozen of the country's 5,800 bituminous coal mines, build a solid customer base of railroads, manufacturing businesses and utility companies throughout the Great Lakes region. His clients together purchased about one-third of the annual production of Y&O's mines in Pennsylvania and Ohio.

Y&O's new president seemed indifferent to Taplin's contributions. After assuming the company's leadership in 1911, S. H. Robbins had begun to question his sales manager's sizable travel expenses and noncommunicative behavior. Taplin refused to concede the legitimacy of his superior's concerns, pointing out that his servicing of 17 major clients required him to be constantly on the road and out of contact. Robbins had finally chosen to end their ongoing dispute by acting on advice Taplin himself had earlier offered his boss in writing: "If you want matters ironed out there is undoubtedly a way of doing so. . . . If you do not it is up to you to apply your remedy."

Taplin did not seem particularly upset by his dismissal, or so his wife of 11 months perceived. Sandy-haired, wiry and of medium height, he was a man of few words—until provoked. As was his nature, Taplin neither elaborated on the situation nor discussed its ramifications with his spouse. Yet Edith Smith



Frank E. Taplin Sr., who incorporated the Cleveland & Western Coal Company, the predecessor firm of The North American Coal Corporation, in 1913, around the time this photograph of the young entrepreneur was taken

Opposite page: *A Cleveland & Western stock certificate*

Previous page: *Detail from a map of Belmont County, Ohio, showing the location of Taplin's future flagship mine*



Attorney Charles Farrand Taplin became his brother Frank's most trusted legal and business adviser.

Taplin took the unsettling turn of events in stride. A graduate of Smith College (Class of 1905), Edith had been attracted to Frank's supreme self-confidence from the moment she first encountered him at a party. Wearing a "dirty suit and 'stowing' a toothpick," he sat apart from the other guests, coolly observing their interactions.

Though not college educated himself, Frank, in turn, had been captivated by Edith's intelligence. Indeed, she now quickly guessed the reason for her husband's calm demeanor. Buoyed by a "strong belief in his ability to succeed in anything he set out to do," Taplin had decided to go into business for himself.

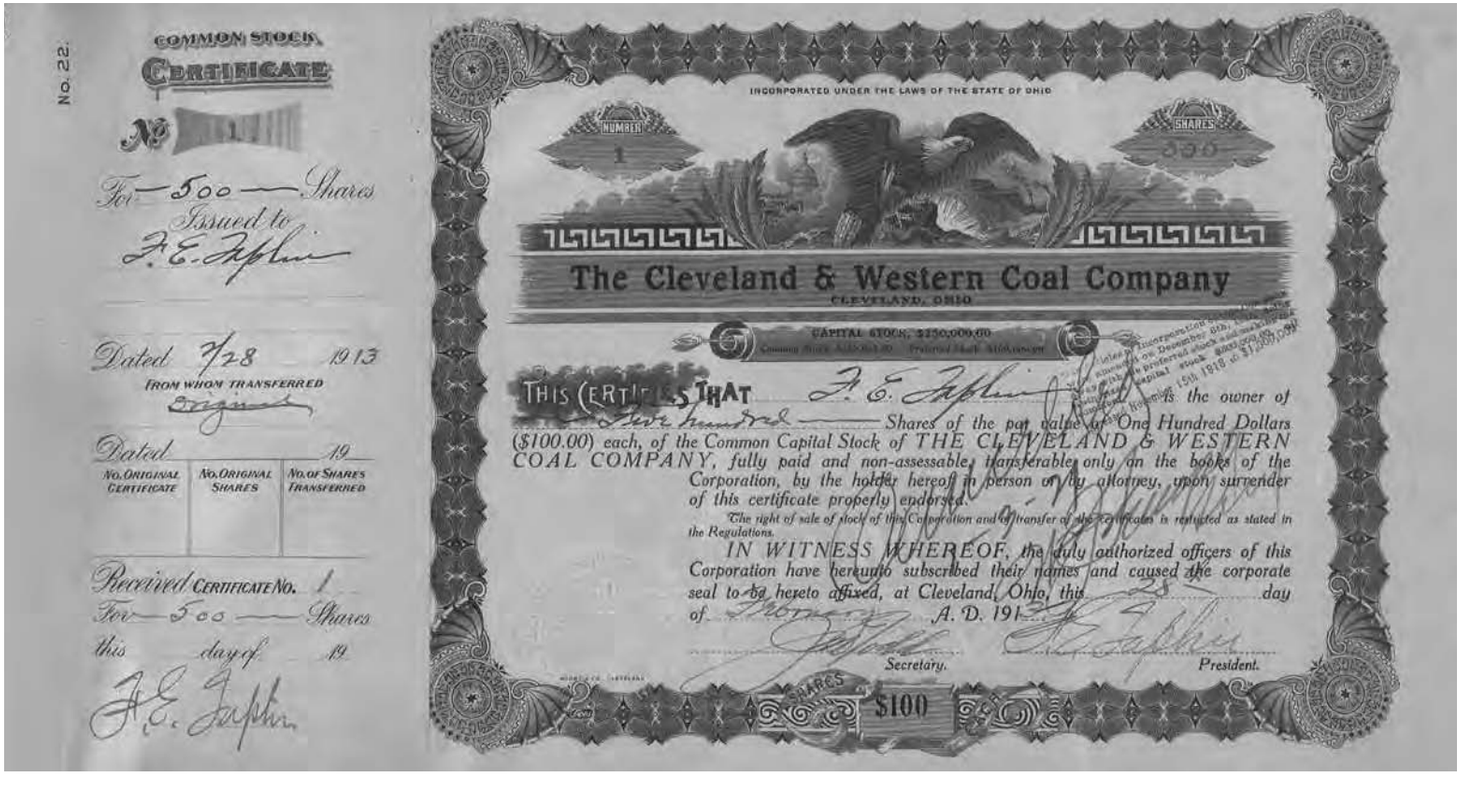
Taplin's younger brother, Charles, was an attorney, and barely a month later, on February 18, 1913, he filed articles of incorporation for Frank E. Taplin's new business venture, the Cleveland & Western Coal Company, with the secretary of state in Columbus, Ohio. The incorporation papers explained that Cleveland & Western (C&W) had been established for the "purpose of mining, producing, manufacturing, transporting, handling, buying, selling and dealing in coal, coke and all other kindred products, and to own and control real estate and property, and do all things necessary and incident to the carrying on of said business." The elastic mission statement, and C&W's plan to raise $250,000 in capital through the sale of stock arbitrarily valued at $100 per share, attested to Taplin's ambitions of building an integrated coal company.

For the moment, however, C&W was a one-man operation focused on brokering coal, the abundant but unglamorous black mineral that had helped to fuel America's transformation from a hostile wilderness into the most prosperous industrial nation in the world. C&W's name identified the territory in America's heartland that Taplin had decided to stake out: the Great Lakes region and the midwestern markets served by that transportation nexus.

Taplin funded C&W's start-up by purchasing corporate stock at critical junctures and persuading family members and associates to do likewise. A total of 1,071 shares of common and preferred stock were spoken for in the first six months after C&W's incorporation. The company's founder subscribed to 625 shares, his brother 125 and his father 50. The remainder of the shares went to J. M. Todd, F. G. Danielson, E. W. Astel and H. T. Wilson, a principal of the Wilson Transit Line. (Wilson's freighters carried cargo and commodities between the Great Lakes states and the East Coast, and it was obviously in his interest to support a colleague who intended to do business with his freight line.) The shareholders elected Taplin president; Fred G. Danielson, a former Y&O salesperson, vice president; James M. Todd, a resident (like Taplin) of East Cleveland, corporate secretary; and Taplin's brother, Charles, treasurer. To come up with his personal investment, Taplin most likely raided savings accumulated as a result of his highly productive tenure at Y&O and his extreme frugality. (Until three or so years before his marriage at age 37, C&W's future president had lived with his parents.) The first round of subscriptions enabled Taplin to rent an office in the recently opened Leader-News Building in downtown Cleveland.

C&W's syndicators subscribed to capital stock valued at $40,000 in 1914 and $32,250 in 1915. During these rounds Taplin increased his ownership stake by 347.5 shares, while Charles (known to family and friends by his middle name, Farrand) received an additional 125 shares. If the syndicators paid full price for their shares, C&W could have been infused over its first three years with the equivalent of up to $3.35 million in current dollars. More likely, some portion of the assigned stock was paid for in sweat. It could very well be the case that Cleveland & Western, the precursor of the North American Coal Corporation, began on a shoestring and was kept afloat during its early years by Taplin's steely determination and the swelling economy of the 1910s.

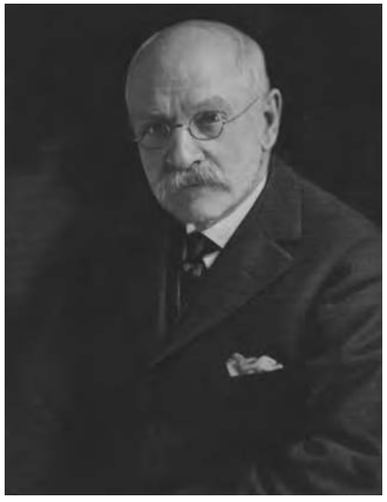
On Frank Taplin's first day in business, two former Y&O customers, one based in Philadelphia and the other in Milwaukee, loyally called in orders to help him get started. Taplin received another boost when William C. Atwater & Company, a large coal distributorship with a head office in





Frank and his wife, Edith (above)*, had been married less than a year when Taplin went into business for himself, but she had absolute confidence in her husband's "ability to succeed in anything he set out to do."*

Left: *Taplin funded his agency start-up by personally purchasing shares of its corporate stock at critical junctures and persuading relatives and associates to also invest.*



Charles Grandy Taplin, Frank's father, was a longtime employee of the Standard Oil Company of Ohio. Frank received his apprenticeship in business at Standard Oil, where he worked after graduating high school.

New York, retained C&W as its western sales representative. Atwater owned mines in West Virginia's fabled Pocahontas Field, the source of a "smokeless" coal popular for home and industrial use alike because it did not produce as much boiler-clogging slag as other grades of bituminous coal. More than a million tons of "Atwater Pocahontas" were sold annually. In 1914 Taplin also became the sales agent for the A. J. Morgan Coal Company, the owner of two underground mines (one of them recently developed) in southeastern Ohio's Belmont County. Lying atop the thick "Pittsburgh No. 8" coal seam, Belmont County was familiar territory to Taplin. Y&O had established its first two mines there.

With reliable sources of high-quality bituminous coal now secured, Taplin set out on his belated quest to make Cleveland & Western a significant link in the well-established supply chain feeding the country's ever-increasing appetite for the fossil fuel. Every week C&W's president went on the road, making sales calls on railroads, whose steam-driven trains, loaded with passengers and goods, crisscrossed the nation; on steel corporations, in whose coke furnaces iron for skyscrapers and machinery of all kinds was forged; and on old-line utility companies that burned coal to manufacture gas, which was piped to homes and businesses in urban areas for lighting and cooking purposes. He may also have called on some of the new steam-powered electric plants that were springing up in large eastern cities.

Even after Edith became pregnant with their first child in late 1914, Taplin maintained his regimen of constant travel. The birth of Frank E. Taplin Jr. in 1915, followed by that of Clara Louise Taplin in 1917 and Thomas Ely Taplin in 1919, intensified their father's determination to succeed. Now, not only C&W's survival, but also his family's security, hinged on his ability to parlay into competitive advantage the skills and connections he had acquired during a 20-year apprenticeship in business.

Born in Cleveland in 1875 to Charles Grandy and Frances Smith Taplin, Frank Elijah Taplin had entered the world of work at an early age. When he turned 12, his father arranged for him to be hired as an office boy by the Standard Oil Company of Ohio, where the senior Taplin had started out as a bookkeeper and went on to become sales manager of the refined oil and naphtha department. (The eighth employee hired by company founder John D. Rockefeller, Charles G. would stay with Standard Oil for 50 years, eventually rising to the position of second vice president.) Young Frank was entrusted with the responsibility of taking the daily mail to Rockefeller at his country estate. The youngster was unquestionably bright; according to one of his teachers, no other student of hers was quicker in raising a hand to signal his ability to answer a question.

Taplin's father was still supporting a wife and three children on a bookkeeper's salary when Frank earned a diploma from Cleveland's Central High School in 1893. The modesty of his family's financial circumstances seems to have required Taplin to forgo a higher education. He landed a clerk's position in the tank-wagon department of Standard

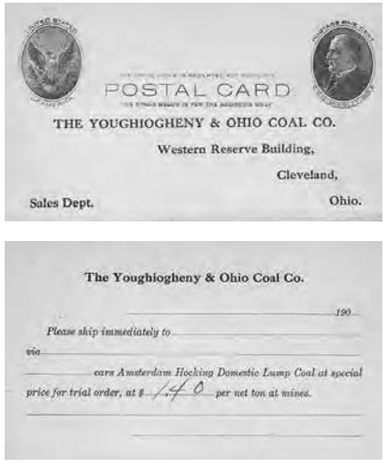
Oil right out of high school. Taplin was generous with his earnings. A gift to his sister, Grace, enabled her to "finish" her education by traveling in Europe, and he helped his parents send Farrand to Western Reserve University in Cleveland in 1897 and on to Harvard University law school, where Farrand earned his juris doctorate in 1904. Only when both of their sons were employed and contributing to the household's upkeep were Charles and Frances able to afford to move from a noisy, gritty downtown Cleveland neighborhood to a home in a less congested part of the central city.

Taplin worked for Standard Oil for about six years. His immersion in a corporate culture notable for its unrelenting competitiveness, acute attention to cost accounting and pioneering application of the concept of vertical integration left a mark that would become evident in his management of Cleveland & Western. Taplin left Standard's employ around 1899, the year that the tonnage of coal produced in the United States surpassed that of Britain, the birthplace of coal mining. He told friends that he wanted to work for a company at which he could be sure that he would rise due to merit alone.

Taplin obtained a sales position with a small Cleveland-based coal firm, Osborne, Seager & Company, which merged circa 1899 into a combine of coal producers operating mines near Pittsburgh. Osborne, Seager principal Frank M. Osborne was elected president of the newly formed Pittsburgh Coal Company, which overnight had become the country's largest coal mining concern, with 81,000 acres of coal lands and 21,000 employees. The new president and his fellow officers soon began to differ about the company's direction. Osborne chose to resign, and in 1902 started the Youghiogheny & Ohio Coal Company with the help of four other Pittsburgh Coal renegades, including Frank E. Taplin and S. H. Robbins.

Taplin's decision to work for Y&O as a sales agent would prove fortunate, both in the short term and the long run. Taplin, Robbins and their two colleagues were named Y&O directors by Osborne, who appreciated their leaving a sure thing for an uncertain future. Y&O was capitalized at $300,000. Having purchased all but four of the available shares of authorized capital stock with the proceeds from the sale of his Pittsburgh Coal interests, Osborne retained control of the new company, but he permitted his directors to purchase one share of stock for 10 percent of its par value of $100. As the company's revenues grew, Y&O president Osborne thanked Taplin for his stellar sales performance by promoting him to sales manager. Over time, Taplin's stock holdings increased to 815 shares. His stake in the company was likely sweat equity, a reward for his hard work and enterprise.

Unfortunately, F. M. Osborne—a large man with a forceful personality—was the only Y&O executive "who could handle Taplin at all successfully." When F. M. died in July 1911, he was succeeded as president by vice president and general manager S. H. Robbins, for whom Taplin had little respect. The feeling was mutual. "If you have an idea your work is to be independent of everyone, even the Officers of the Company," Robbins had cautioned Taplin even before becoming president, "you are wrong."


POSTAL CARD

THE YOUGHIOGHENY & OHIO COAL CO.

Western Reserve Building,

Cleveland,

Sales Dept. Ohio.

The Youghiogheny & Ohio Coal Co.

190

Please ship immediately to

via

cars Amsterdam Hocking Domestic Lump Coal at special price for trial order, at $ 1.40 per net ton at mines.

The front and back of an order form used by the Youghiogheny & Ohio Coal Company for which Taplin worked as sales manager during the early years of the 20th century


G. GIBSON
FOR HIRE
BLACK SATIN
COAL

Upon Taplin's termination in 1913, Y&O's directors attempted to buy him out. Taplin turned down their offer of $150 per share. Although he could have used the lump payment of $122,250 to underwrite C&W's immediate entry into coal mining, where profits far larger than straight sales commissions could potentially be earned, he believed the proffered price per share to be insultingly low.

If anything served to turbocharge C&W's early growth, it was the good timing of Taplin's entry into the coal business. U.S. coal production reached a new annual high of 570 million tons in 1913, more than double the production of 1900 and more than eight times the production of 1880. The outbreak of World War I in 1914 dramatically increased the already record demand for American coal. Mining companies found themselves "in the novel position," an industry historian has noted, "of being able to sell as much coal as they could produce, almost regardless of price." The average spot price for coal leaped from $1.30 to $4.01 per ton in the last month of 1916. It peaked in February 1917 at $4.18.

Indicating that C&W had more business than he alone could handle, Taplin began to assemble a staff. A. P. King joined the company in 1915 as an estimator. He moved into sales and on to significant operational responsibility. Also in 1915, Taplin dispatched C&W investor Eugene W. Astel to Toledo, Ohio, to open a sales office. In 1916 O. C. Larsen hired on as an accounting clerk. Within a decade Larsen would rise to the position of company treasurer. Mary Griffin became C&W's switchboard operator in 1917 and remained in that position until her retirement in the 1930s. Of the early years she later recounted, "The coal had to be moved, and it was up to me to remain [on duty] until they got it moving from the mine. Sometimes it was after six and I was powerfully tired."

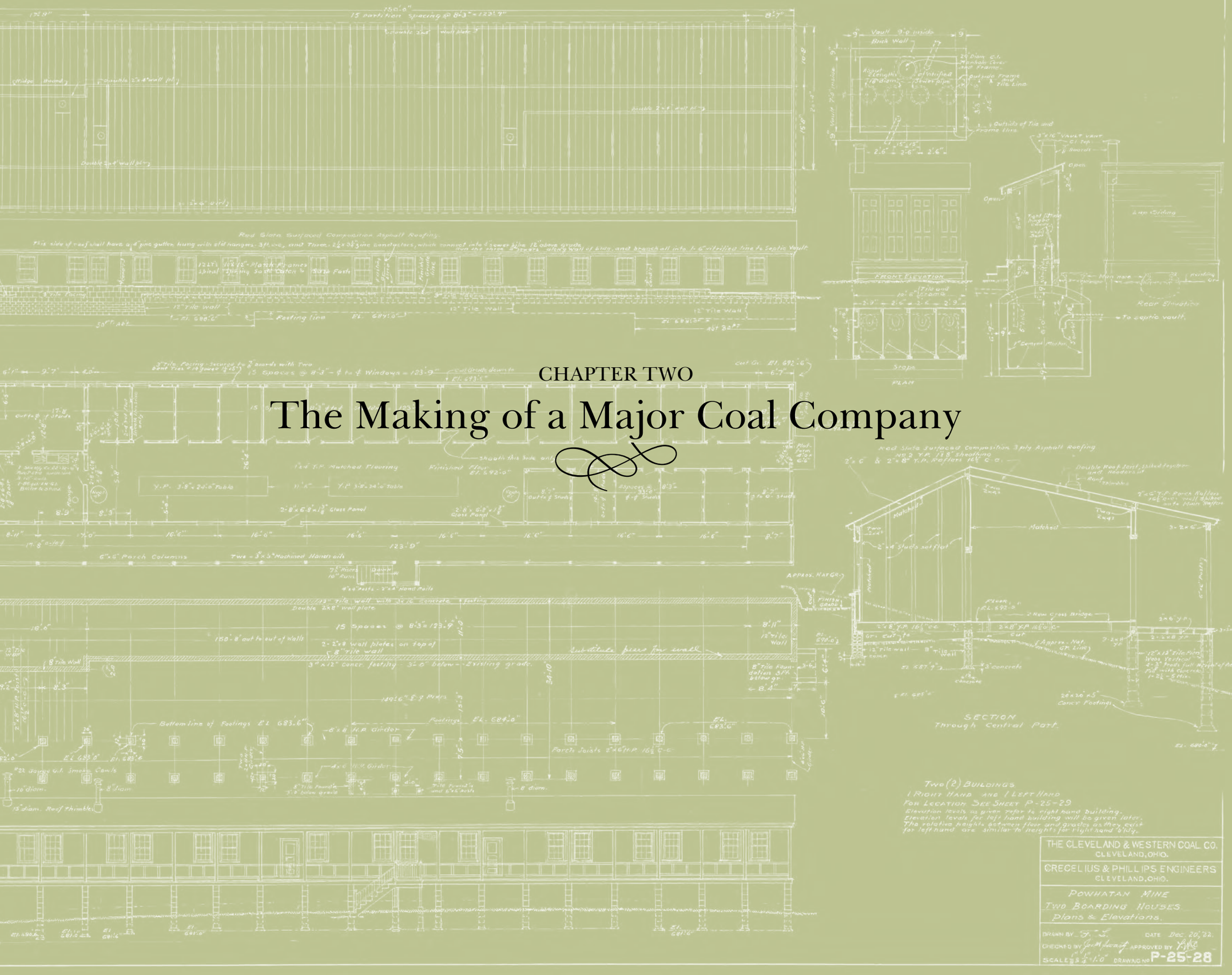
U.S. coal production had kept pace with demand through much of 1916. Indeed, the country's 700,000 coal miners achieved their highest annual output ever that year. Aided by labor accords, the industry went on to surpass that record in each of the next two years. (In exchange for a wage increase to $5 a day, the United Mine Workers of America had pledged not to call a strike of its 400,000 members for the duration of the war.) As the winter of 1917 approached, continuing high demand for coal prompted fear of shortages in the Northeast, causing a panic among homeowners who had not yet purchased their annual supplies of heating fuel.

Taplin had planned ahead. Sensing trouble brewing before others could—an ability he would again demonstrate at an even more critical moment—he had earlier that year secured sources of coal over which he could exert direct control. By the end of December 1916 Cleveland & Western was the sole authorized sales agent for the output of three A. J. Morgan & Company mines in Belmont County, Ohio. Taplin had exchanged C&W's financial backing of Morgan & Company's expansion for an ownership stake in the enterprise. Like its competitor Y&O, C&W now had a beachhead in Ohio's top-producing coal district.

Opposite page: *With fears mounting that shortages of heating coal would prevent retail dealers from making their accustomed deliveries during the final years of World War I, Taplin decided to go into the coal mining business in order to ensure that C&W had product to sell.*

CHAPTER TWO

The Making of a Major Coal Company



Belmont County lies at the northernmost reaches of the Appalachian Coal Field, one of the most extensive deposits of coal in the country. The field stretches from central Ohio through western Pennsylvania and West Virginia to the eastern parts of Kentucky, Tennessee and Alabama. In Belmont County, which shares a border on the Ohio River with West Virginia, bituminous coal once outcropped naturally along streams and in riverbanks. The county's earliest miners were farmers, who turned to coal to stoke their hearths after their timberlands were exhausted in the early 19th century. More than 200 years later the so-called "Pittsburgh No. 8" seam of coal underlying the southeastern swath of the Ohio River Valley would still be productively mined.

Belmont County's first commercial mine, an underground operation, was established in 1830 in the village of Bellaire. Sometime after 1858, Bellaire's wholesale grocer, Edmund G. Morgan, opened a small retail coal works to serve the village on an adjoining tract of land with a coal seam five feet thick. His son George still ran the mine for a strictly local market as late as 1890. By the time Frank Taplin came down to Belmont County in search of mining companies that needed sales representation, a member of the third generation of Bellaire Morgans had transformed the operation into a large commercial venture employing 100 men.

To supplement the production of his Edge Hill Mine immediately north of Bellaire, Arthur J. Morgan had a second underground mine under development at Bannock, Ohio, 11 miles away. After Taplin and Morgan agreed to join forces,



The Franklin Mine near Stewartsville, Ohio, was among the first mines in which Taplin acquired an ownership stake. A detail from a map of the workings of this underground mine is reproduced on the endpapers of this book.

Opposite page: *A blueprint of a boarding-house intended to lodge the single men who worked at the Powhatan Mine, the first underground operation built from scratch by Cleveland & Western*

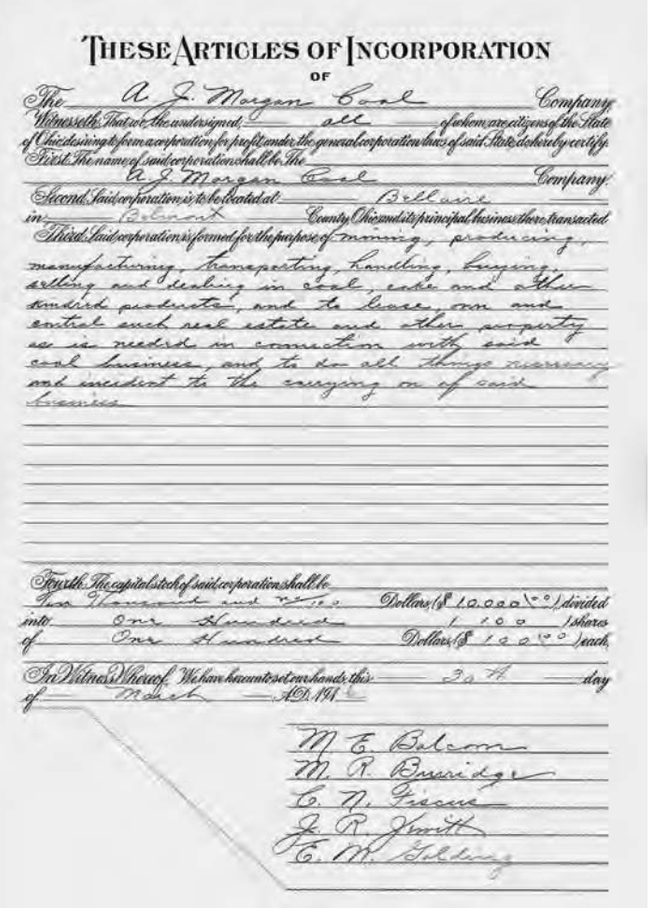
Morgan decided to name that mine in honor of his company's new sales agent. The entry slope and air shaft at the Taplin Mine in Bannock were completed by the end of March 1914. Two weeks later 15,000 eastern Ohio miners represented by the United Mine Workers of America (UMWA) went on strike. For the next 11 months Cleveland & Western had no Morgan coal to sell.

The coal producers finally signed a new contract with the UMWA in late March 1915. A. J. Morgan had helped to bring the strike to an end when he broke ranks with his fellow operators and independently agreed to the union's wage demand of 47 cents per ton mined. It may well have been Taplin who pushed Morgan to accept the four-year contract (which also established a nine-hour workday and a six-day workweek). Taplin's later stance toward the UMWA was notable for its pragmatism.

By early 1916 the Taplin Mine was up and running. Edge Hill, on the other hand, had nearly exhausted its reserves. Morgan planned to shut down Edge Hill and move its equipment and some of its workforce over to Bannock. Taplin had bigger ambitions for their unchartered partnership.



Incorporated by coal producer Arthur Morgan and Frank Taplin in March 1916, the A. J. Morgan Coal Company expanded its long-established mining operations in southeastern Ohio with C&W's financial assistance.



THESE ARTICLES OF INCORPORATION
OF

The A. J. Morgan Coal Company

Witnesseth: That we, the undersigned, all of whom are citizens of the State of Ohio, desiring to form a corporation for profit under the general corporation laws of said State, do hereby certify:

First: The name of said corporation shall be The A. J. Morgan Coal Company

Second: Said corporation is to be located at Bellaire in Belmont County, Ohio, and its principal business there transacted.

Third: Said corporation is formed for the purpose of mining, producing, manufacturing, transporting, handling, buying, selling and dealing in coal, coke and all kindred products, and to lease, own and control such real estate and other property as is needful in connection with said coal business, and to do all things necessary and incident to the carrying on of said business.

Fourth: The capital stock of said corporation shall be Two Thousand and 00/100 Dollars ($ 10,000.00) divided into One Hundred 100 shares of One Hundred Dollars ($ 100.00) each.

In Witness Whereof, We have hereunto set our hands this 30th day of March A.D. 1916

M. E. Balcom
M. R. Bonnidge
C. N. Fisher
J. R. Smith
E. M. Gilding

On March 30, 1916, the A. J. Morgan Coal Company filed formal papers of incorporation in Columbus. Arthur Morgan was to serve as president of the new corporation, and Frank Taplin would perform the duties of assistant secretary. Bankrolled by Cleveland & Western, Morgan Coal had already taken over the operation of the Franklin underground mine at Stewartsville, Ohio, seven miles west of Bellaire. The Raven Coal Company, which owned Franklin's 500 or 600 acres of reserves, had been willing to negotiate a lease. The Johnson Brothers mine in Dilles Bottom, Ohio, was leased by Morgan Coal in December.

The Johnson Mine, located on a tributary of the Ohio River called Pipe Creek, had been developed by the owners of a water-powered mill to provide alternative fuel when Pipe Creek ran dry in the summer. Reporting on the change in management, the *Bellaire Daily Leader* described the Johnson underground mine as "one of the biggest" in the southern part of Belmont County. It employed several hundred men.

Underground coal mining was dirty, labor intensive and dangerous. Carbon monoxide asphyxiation, roof cave-ins and methane gas explosions were ever-present risks. Until the development of battery-powered cap lamps, miners worked by the light of potentially hazardous open-flame lamps attached to their headgear. Conditions at Morgan Coal's new leased mines were somewhat less arduous than at many other mines in the Ohio River Valley because they were partially mechanized. Their previous operators had replaced the picks and shovels traditionally used to sever coal from the working face of a seam with electric cutting machines. Miners used the so-called "breast" machines to make a series of parallel 3.5-foot-wide by 6-foot-deep cuts into the coal. "Loaders" lifted the fallen blocks,

which could be as large as hay bales, into mine cars. At the Franklin and Johnson Mines, mules now did the work loaders used to perform, pulling cars laden with coal out of the "rooms" carved into the seam as the coal was removed. Taken to staging areas in the mines' main corridors, or "mains," the cars were joined into trains powered by 10-ton electric locomotives and pulled along narrow-gauge rails up the entry slope and out to the tipple. Here the cars were tipped over and coal was broken into one of several desirable sizes, with rock and other debris removed by hand. The final step in the preparation process was to sort coal by size categories, such as lump, egg, nut or pea, before it was shipped to market. The Johnson Mine on Pipe Creek could take advantage of barge transportation, while Stewartsville, where the Franklin Mine was located, was serviced by the Baltimore & Ohio Railroad.

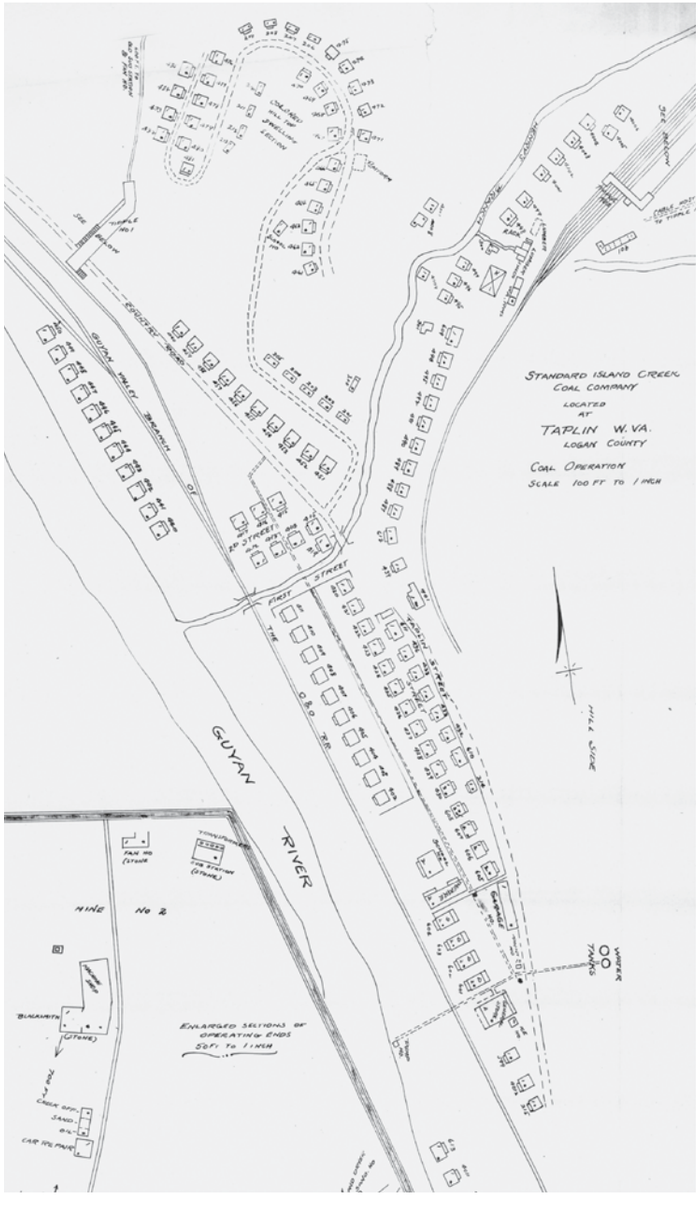
On a good day Franklin's workforce could cut, load and move 400 tons of coal to the tipple. As coal miners then worked an average of 214 days a year, Franklin's maximum annual output would have been about 85,000 tons. Even after factoring in similar levels of production for the Johnson and Taplin Mines, C&W's mining arm had a long way to go before qualifying as a nationally ranked producer. Twenty-five of the country's 48 states mined coal. In Pennsylvania alone, there were 27 coal companies capable of mining a million or more tons per year as of 1910. Taplin's closest competitor, the Youghiogheny & Ohio, which had plans to add eight mines in Ohio and one in West Virginia to the 12 mines it held in 1913, was well on its way to achieving 3.5 million tons of annual production (a feat accomplished in 1920).

The immediate challenge facing the A. J. Morgan Coal Company was to generate sufficient cash flow to meet its increased operating expenses. Until it was able to do so, Cleveland & Western served as Morgan Coal's banker, advancing monies to cover, for example, the Franklin Mine's first monthly payroll of $457.21 and a similar amount spent by Franklin in April 1916 on "mules, collars and feed." C&W soon needed to secure more working capital. In December 1916 and January 1917 Taplin subscribed to a total of 2,164 shares of C&W stock, while the aforementioned C&W syndicators and A. P. King spoke for a combined total of 1,470 additional shares. Some $20,000 of proceeds paid for a new tipple and blacksmith shop for the Franklin Mine. As a condition of its financial support, C&W received a commission of five cents a ton on its sale of A. J. Morgan coal.

Taplin moved quickly to corner sources of bituminous coal in other Appalachian Field states. In May 1917 he established the Standard Island Creek Coal Company for the purpose of acquiring the Cora and Loma coal mining companies based in Logan County in southwestern West Virginia. The Cora Coal & Coke Company, which had been in operation since 1907, produced an easily ignited, or "high-volatile," coal sold under the brand of "Island Creek" (the name of a Logan County stream). It was located 15 miles away from the Loma Coal Company, established in 1916 to mine 800 acres of high-volatile



Well into the 20th century, underground miners worked by the light of small, open-flame oil lamps attached to their caps. An example of a miner's oil lamp is pictured at the top. Below it is a carbide light, the next generation of miner's lamps.



C&W's West Virginia subsidiary, the Standard Island Creek Coal Company, built a large mining camp in the southwestern part of the state. A detail of the master plan of this camp at Taplin, West Virginia, shows the placement of miner's houses along the Guyan River (a.k.a. the Guyandotte).

coal on the Guyandotte River. Over the next three years C&W paid $37,860 for its 90 percent share of Standard Island's capital stock. By the time final subscription monies were paid in 1920, Standard Island's three Cora mines and three Loma mines had a fair market value of $180,000. Demand for Loma's "Eagle" brand coal justified opening a fourth mine near the Loma mining town of Taplin, West Virginia, in the early 1920s.

The armed conflict that had erupted in August 1921 between 10,000 Logan County miners and 3,000 lawmen and strikebreakers deployed by coal producers to suppress the UMWA's attempts to unionize southwestern West Virginia bypassed Standard Island's Loma and Cora mines, which remained nonunion. As a result, Standard Island's miners were paid at a lower wage scale than their UMWA brethren at C&W's Ohio mines, prompting A. W. Fay, the subsidiary's general manager, to recommend to the Cleveland office in August 1922 that a 10 percent raise be paid to "keep our men from going to the union field." Fay didn't want to lose miners like Loma's Jerry Dunn and Cora's William Smith, whose strong work ethic had been demonstrated earlier in the summer.

During the last half of June 1922 Standard Island sponsored a loading contest that pitted Dunn against Smith. During the 13-day contest each man mined enough coal to fill the equivalent of a 50-ton railroad car per day. "This is a record output for a miner," stated a letter to the editor in an October 1922 issue of *Coal Age* magazine whose author also noted the difficult conditions under which contestants had labored: drilling blast holes, shooting off explosives and

loading the fractured coal while standing bent over in the four-foot-high seam. Dunn, who had edged out Smith in total tonnage by contest's end, received a cash prize, which he probably spent on goods and services sold by his employer. Taplin, West Virginia, boasted not only the requisite company store, but also a company-run soda fountain, pool room and movie theater. Standard Island's entry into these atypical business sidelines constituted more evidence that its mining operations generated excess cash.

In contrast to his significant financial investment in West Virginia, Frank E. Taplin acquired his first Pennsylvania mines at fire-sale prices. The Meadow Lands Coal Company, the operator of three mines at Arden, Washington County, Pennsylvania, and another mine in the county at Avella, was in receivership when Taplin assumed control of the company in 1917. It was only natural that Taplin would have looked in the heart of the Pittsburgh Field—the "granddaddy" of western Pennsylvania's coal districts—for opportunities to expand. Washington County was familiar to him as the home of Y&O's Charleroi and Enterprise Mines.

Meadow Lands' new president had to juggle oversight of his underperforming Pennsylvania mines with many other duties. Other than ordering for one of the Arden mines a Vulcan Iron Works electrical hoist capable of lifting two tons of coal from 220 feet underground in a single pull, Taplin did not initially focus on the mines' turnaround. There was little incentive to invest in cost-saving efficiencies as long as the price of coal remained high.

Following the end of World War I in November 1918, a confluence of factors began to dampen the American market for coal. Between 1916 and 1918, the number of bituminous coal mines in the country had jumped 50 percent—to about 10,000—in response to skyrocketing demand. During the postwar years, coal producers had to contend with not only stiffer competition, but also a reduction in demand caused by a drop in industrial activity, the growing use of fuel oil and natural gas for heating purposes, and improvements in energy efficiency. "King Coal" would reach the peak of its dominance in 1920, when this organic sedimentary rock was used to satisfy fully 65 percent of America's energy requirements. Never again would coal claim as high a share of the energy marketplace in the United States.

Sensing in 1921 that the time had come to address the problems of his Pennsylvania mines, Taplin sent Standard Island general manager A. W. Fay to Washington County to investigate. Fay wrote a report describing the deplorable conditions he had observed at the Arden and Avella mines, including the shoddy construction of facilities, a lack of light rail transport within the mines, insufficient or poorly maintained equipment, inattention to safety and a chronic shortage of workers. Arden No. 3 Mine had been reduced to paying an employment agency a $5 fee for each miner furnished, only to see these recruits quit their jobs almost as soon as they were hired. Fay suspected that the laborers were following orders from the employment agency, which had discovered that it could multiply its earnings by continuously rotating each man in its labor pool through a series of mines.



The competitors in a Standard Island coal-loading contest written up in Coal Age magazine had to drill, shoot and shovel coal while standing bent over in a four-foot-high seam.





The men who did show up for work at Taplin's Meadow Lands mines were often inadequately trained and supervised. "In going through the old workings of the no. 3 mine," Fay wrote in a wince-inducing section of the report documenting the failings of the mine foremen and superintendents,

> we found great quantities of rail, ties, electric feed wire, several electric pumps, much water line, a number of pit cars and mining machines, haulage locomotives, parts for haulage locomotives, parts for cutting machines, discarded armatures, etc. which had been left there and by subsequent [roof] falls cut off from the rest of the mine and thus made quite difficult of removal. Also . . . much tonnage of coal has been permanently lost, as well as the cost of developing the entries and travel roads for haulage of coal through this section.

The lack of discipline at the Pennsylvania mines had another, more visible effect on C&W's bottom line. "Loaders do not seem to appreciate the necessity of cleaning coal properly," Fay reported back to his boss. They left too great a percentage of "reject"—slate, stone and other debris—mixed in with the Meadow Lands coal that C&W sold throughout the Great Lakes region. "At the docks this year there is no end to the trouble had with the very poor quality and preparation of the coal furnished," Fay elaborated. "Many customers will not risk a second order and practically every complaint requires an adjustment on the price of from 50 cents to $1.50 a ton."

Taplin, who was well known for his "low tolerance for stupidity," ability to "swear like a trooper" and "red headed" temper, could not have received this news with good grace. The salesman in him would have been aghast at the thought

At C&W mines, as elsewhere, slate, stone and other debris were separated from coal by hand.

of losing repeat business, while the businessman that he had become was extremely "profit conscious," according to his wife. He "always asked," Edith once observed, "'How did we come out financially?'" As Taplin himself would say later, upon learning that another of his mines was attempting to compete by offering coal at a price perilously close to what it cost to produce, "I prefer to shut the mine down, because that is not selling coal; it is giving coal away." The fact that the Arden and Avella mines were *not* shut down suggests that at least some of the operational changes Fay recommended were instituted.

The docks to which Fay referred were located in the Lake Superior port cities of Milwaukee, Wisconsin, and Duluth, Minnesota. They were the most recent additions to Taplin's business holdings. It was established practice for major northern coal mining companies to secure unloading and storage facilities at strategic points along the St. Lawrence Seaway in order to facilitate sales and distribution to eastern and midwestern markets. Taplin had been able to make these relatively expensive acquisitions, which brought him one step closer to his goal of creating a fully integrated coal company, because of an unexpected personal windfall.

After several years of wrangling with Taplin over the value of his Youghiogheny & Ohio stock, his former employer had finally retained an independent appraiser to establish a fair market price. Y&O subsequently extended a buyout offer of $1,150 a share that Taplin deemed acceptable. In 1918 he received a payment of $937,250, the equivalent today of $14 million. His first thought was to take care of his family. He purchased a new home at 3090 Fairmount Boulevard in the prosperous suburb of Cleveland Heights, subscribed to 1,000 shares of C&W stock in the name of his wife, and created irrevocable trust funds for his three children that were seeded with C&W stock. Then he set about to strengthen his sales and distribution effort on the upper Great Lakes.

Taplin had seen firsthand the benefits that Y&O reaped from having inventory and a strong sales presence in Milwaukee and Superior, Wisconsin. Sometime after 1915 he had persuaded Farrand and A. P. King to join him in purchasing the Wisconsin Coal & Dock Company of Milwaukee. The move gave C&W access to a coal-unloading facility equipped with three 1.5-ton clamshell buckets and a storage yard with a capacity of 100,000 tons. Presented with the need or opportunity to expand in 1919, the three partners acquired Milwaukee's Gross Coal Company, which they merged with Wisconsin Coal to create the United Coal & Dock Company.

The Gross family, which had been in the fuel distribution business since the 1880s, owned a dockyard on the Menominee River at Milwaukee's First Avenue that was open around the clock and equipped to unload 500 tons of bituminous coal an hour. In exchange for selling this asset, the family received two-thirds of United's authorized capital stock, plus cash reimbursement of $291,249 for the dockyard's three Pierce Arrow trucks and inventory of coal and wood. Taplin, Farrand and King received the balance of United's stock and $516,315 in cash for Wisconsin Coal's inventory. Adam Gross, whose father, a tailor, had started the company to dispose of coal and

firewood bartered for his suits, was the logical choice to be president of United Coal & Dock. Having begun work in the days when coal was hoisted in half-barrels from the holds of sailing vessels by means of a pulley powered by horses, Gross had 30 years' experience in running a dockyard.

The transaction that brought the Inland Coal & Dock Company of Duluth into the C&W fold was considerably more complex. Indeed, it typified the increasing opacity of the business relationships between Taplin, Cleveland & Western and its subsidiary or affiliated companies. In June 1920 C&W, the Wilson Transit Line and E. S. Kendrick Jr., the proprietor of a Minnesota coal brokerage, organized Inland for the purpose of operating a dockyard in Duluth, the "bulk cargo capital" of the Great Lakes, for the mutual benefit of the partners. Inland paid Kendrick, whose sales contracts produced about $40,000 in annual profits, $50,000 in cash for his business, which he, in turn, invested in 500 shares of Inland stock. Kendrick also purchased 700 shares of Inland stock with a note for $70,000, $60,000 of which was to be paid by Inland's collection of Kendrick's accounts receivable. The balance of the initial 6,000 shares of common stock was issued to Cleveland & Western and Wilson Transit. The shipping company showed its appreciation for the new business it anticipated from Inland Coal & Dock, as well as for C&W's past patronage, by renaming a 440-foot lake freighter in honor of Frank E. Taplin Sr. in 1920.

Inland's cofounders had set their sights on a dock located on the St. Louis River near the Arrowhead Bridge connecting



The Wilson Transit Line, a Great Lakes shipper with which Cleveland & Western did significant business, named a lake freighter in honor of Taplin.

Duluth to Superior, Wisconsin. An intermediary was retained to negotiate a lease with the dock's owner, the Island Creek Coal Company, a C&W competitor that operated a dozen mines in Logan County, West Virginia. If Island Creek had been kept in the dark about the intermediary's intention of transferring the long-term lease to Cleveland & Western, the secret was revealed as soon as Taplin deposited 2,500 shares of his own C&W stock with the lessor as escrow. At the first meeting of Inland's shareholders, a board of directors headed by chairman Taplin was elected. The board accepted the transfer of the dock lease from Cleveland & Western and voted to reimburse C&W $460,000, a sum representing $300,000 Taplin had placed in escrow with Island Creek to secure the performance of the lease, plus $75,000 paid to Island Creek for the first six months' rent on the dockyards and $85,000 paid to the intermediary for services rendered.

Elected Inland's vice president, E. S. Kendrick was placed in charge of managing the dock and developing new business. The directors' faith in the abilities of the World War I veteran was rewarded. Within two years of Inland's incorporation, business had increased to the point that it became necessary to build a 500-foot-long extension to the dock and to purchase equipment for loading coal into railroad boxcars. In addition to authorizing the expenditure of nearly $100,000 on these capital improvements, Inland's board also felt comfortable obligating the dockyard to accept delivery on more than 500,000 tons of coal during the 1922 "season of lake navigation." That May Kendrick placed orders for 150,000 tons of "Atwater Pocahontas" and 400,000 tons of Logan County bituminous coal. The suppliers for the latter product included C&W subsidiary Standard Island and Amherst Fuel, a West Virginia company in which C&W's president had personally invested.

Taplin remained on the hunt for coal mines that could be integrated into C&W's supply chain with minimal risk or expense. He had already secured full control of the Franklin and Johnson Mines by personally buying the majority of the C&W stock owned by A. J. Morgan, who returned to operating the Bannock Mine on an independent basis in early 1921. Taplin also personally owned stock in three independent coal mining companies based in Logan County, West Virginia—the aforementioned Amherst Fuel Company, Lundale Coal Company and Three-Forks Coal Company—



C&W's coal-unloading and storage yards in Duluth, Minnesota, were located on the St. Louis River near the Arrowhead Bridge.

and had purchased additional shares of each for his children's trust funds. In October 1922 the three companies announced that they were joining forces under the banner of the Logan County Coal Corporation. Although the Taplin family held a minority interest in the new firm, Taplin's election to its board suggests that he helped to engineer the merger, which put the Logan County Coal Corporation (LCCC) on the map as a million-ton-per-year coal producer.

LCCC's 14 mines had trouble maintaining that level of productivity. Management blamed the railroads for the mines' reduced tonnage in 1923. Beginning in July 1922, when railroad maintenance shop workers had gone on strike, and continuing for the next 12 months, LCCC's mines had found it impossible to secure the number of boxcars needed to ship coal on a daily basis. "This caused intermittent running time of the mines . . . and few contracts could be made because of the inability . . . to ship regularly," according to LCCC's annual report for 1923.

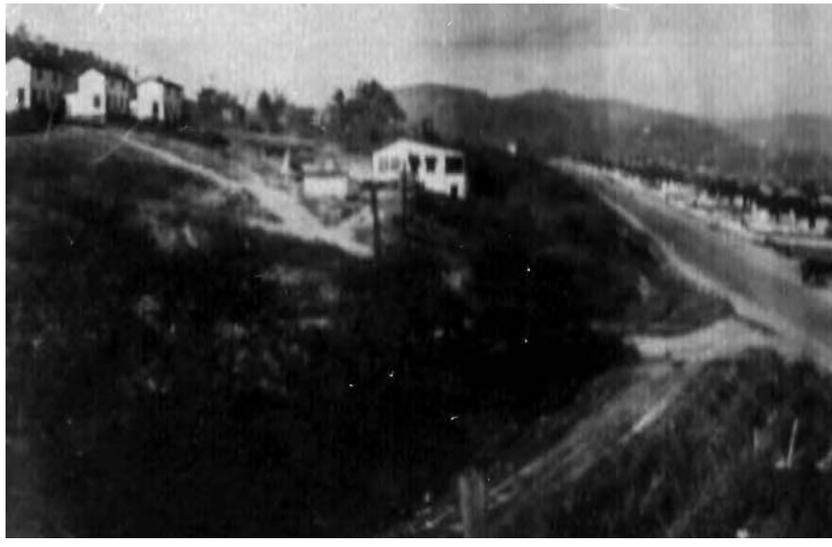
Confronted with the same problem in Pennsylvania, Taplin had filed a lawsuit against Pittsburgh & West Virginia Railway Company (P&WV), charging that the railroad had discriminated against his Meadow Lands mines by denying them regular transport while dispatching a steady stream of boxcars to P&WV's proprietary, or "captive," coal mines. The actions that Taplin could take to protect his family's interests in the Logan County Coal Corporation were constrained by



the limitations of his role as a director. Troubled by LCCC's continuing underperformance, Taplin sent A. P. King, who now served as C&W's vice president of operations, down to West Virginia in 1925 to tour the mines and advise him on ways to increase their efficiency and lower their expenses.

The Taplin group's investments in the Morgan Coal, Meadow Lands, Standard Island and Logan County mines were comparatively small and made for reasons of necessity or short-term gain at a time when most of the mines were approaching the foreseeable ends of their coal reserves and economic lives. With Y&O monies in hand, Taplin was ready to place a big wager that he believed would have a spectacular payoff. In early 1921 he committed Cleveland & Western to the colossal undertaking of developing an underground mine from scratch. His ace in the hole was a reserve of Pittsburgh No. 8 coal that was near rail and river transportation and large enough to last for 25 years. Taplin's judgment about the profit-making potential of a wholly owned mine with massive reserves proved correct—in the long term. However, the timing of the venture was unfortunate. After enjoying nearly steady growth since 1893 (the year in which the systematic collection of U.S. coal production statistics was inaugurated), the coal mining industry was now entering a decade-long slowdown that would devolve thereafter into an unprecedented depression.

With his ear always to the ground, Taplin had learned that the trustees of the estate of Joseph N. Pew, the founder of the Sun Oil Company (Sunoco), were interested in selling the mineral rights to 11,000 acres of coal lands in Belmont County.



He succeeded in locking up the reserve, which bordered on the Ohio River, in a long-term lease and royalty arrangement. By February 1922 Cleveland & Western had engaged the engineering firm of Crecelius & Phillips, with offices in the Hanna Building in downtown Cleveland, to draw up a master plan and specifications for a deep mine and a company town to be constructed near the old Pew residence in a riverfront village called Powhatan Point. A farming and ferrying community with a population of 406 as of 1920, Powhatan Point was located six miles west of C&W's Johnson Mine in Dilles Bottom. The village's site on land that swelled into the Ohio River at the mouth of a pristine stream called Captina Creek accounted for the last half of its name, but no one could explain the rationale behind "Powhatan." Chief Powhatan, as he is popularly



A 1926 panorama of the Powhatan Mine stretches from the miners' boarding-houses on the hill at the left to the tipple and support buildings on the right. The large white building in the center of the photograph is the company store. Behind it lies the miners' housing "patch."

remembered today, was a 17th-century Native American leader named Wahunsenacawh who united the indigenous peoples of the Tidewater region of Virginia into the Powhatan Confederacy. The father of Pocahontas, he was not known to have set foot in Ohio. Taken perhaps with its connotations of courage and might, Taplin bestowed Powhatan's name on his newest mine.

By May 1922 work had begun on the conversion of the Pew residence into a boardinghouse to lodge workers hired to dig Powhatan Mine's slope and air shaft. The first slope tunneled into the earth had to be filled in when quicksand was hit. As a precautionary measure, the replacement slope was encased part of the way into the mine with concrete.

The following spring Powhatan's housing "patch" was laid out to the northeast of the mine entrance. C&W purchased ready-to-build dwellings from Minter Homes Corporation of Huntington, West Virginia, paying almost $200,000 for a pair of oversize boardinghouses—one for single whites, the other for unattached blacks—100 miners' cottages and 12 mine managers' residences. The miners' homes, which each had four rooms and an outhouse, and the other residences, which were one or two rooms larger, went up on streets running perpendicular to the river and bearing the name of various native Ohio trees. The large number of housing units signaled Taplin's intention of hiring a workforce great enough to make Powhatan Mine a significant producer. By comparison, the company town at C&W's Franklin Mine had 20 houses. Rental fees there ranged from $3 to $12 a month, and Powhatan's tenants probably paid similar rents.

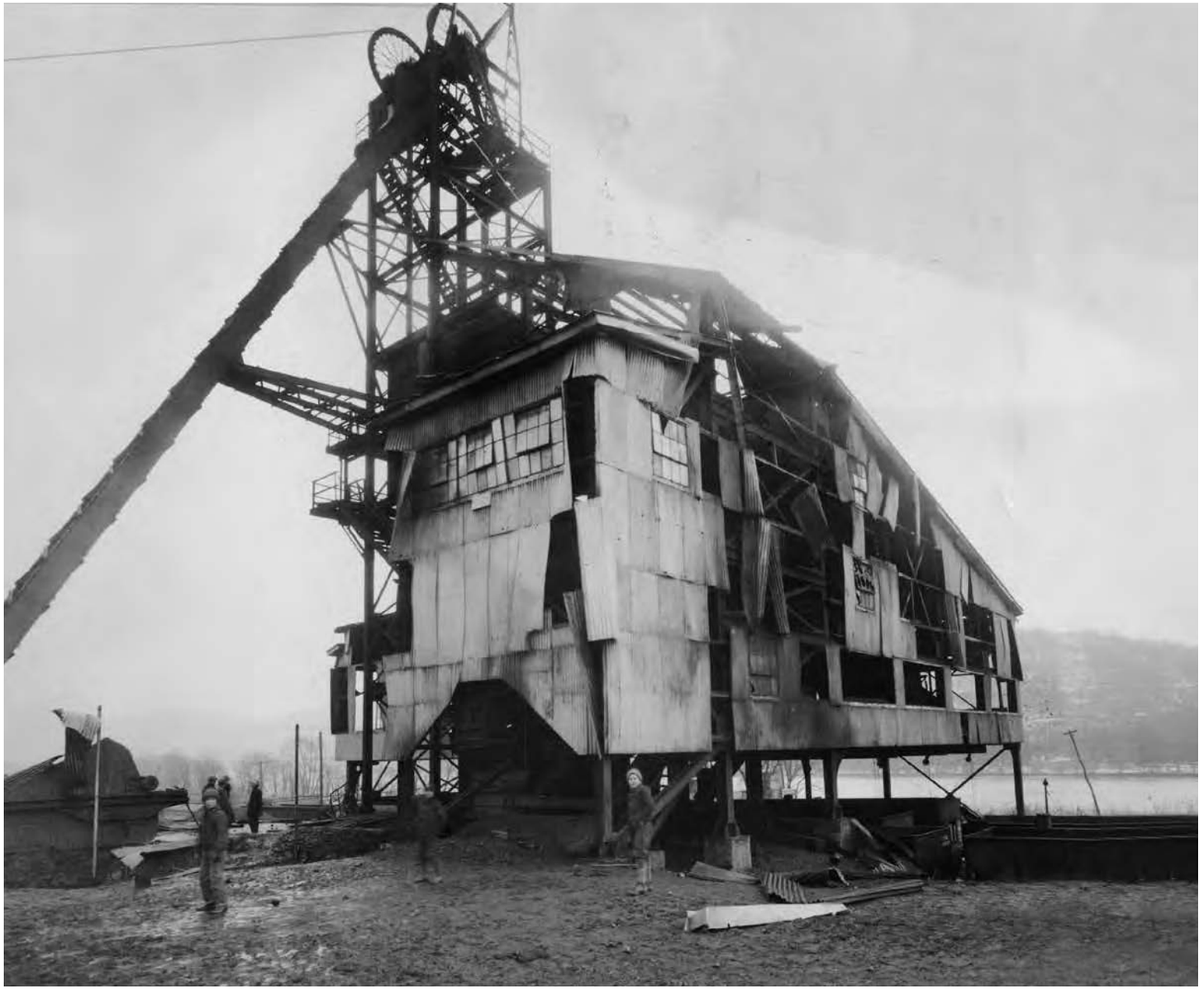
Minter Homes also supplied Powhatan's hoist house, fan house, powerhouse and substation at a cost of $21,000. The mine was in operation by March 1924, even though a contract for construction of the tipple was not let until May of that year. The tipple had to be rebuilt in 1925 because of damages caused by a coal-dust explosion. It was not yet widely understood that inert rock dust, such as pulverized limestone, when generously applied to the roof, floor and sides, or "ribs," of an underground mine, would prevent the combustion of coal dust. The explosion at the Powhatan Mine, which occurred 50 feet underground at the beginning of a day shift, set off a shock wave so strong it blew the tipple apart. There was "hardly a whole board left," the Wheeling *Daily News* reported. A dozen injured men had to be transported to Bellaire Hospital, and a 27-year-old miner named Louis Baroni was killed.

Prior to Powhatan's opening, Powhatan Point had been home primarily to western European Protestants. However, the ranks of Ohio and West Virginia miners from which Powhatan Mine recruited its workforce included large numbers of eastern European Catholics. Word of jobs and business opportunities attracted an influx of Italians, Hungarians, Poles, Serbs and Croatians, as well as families of English, Welsh or German extraction. Sons who wanted to follow in their fathers' and (in some cases) grandfathers' footsteps applied at the mine. Entrepreneurs also came to town with dreams of starting small businesses, and soon the village enjoyed such amenities as a new restaurant, poolroom, shoe repair shop and barbershop. Within a few years Powhatan Point's population would soar



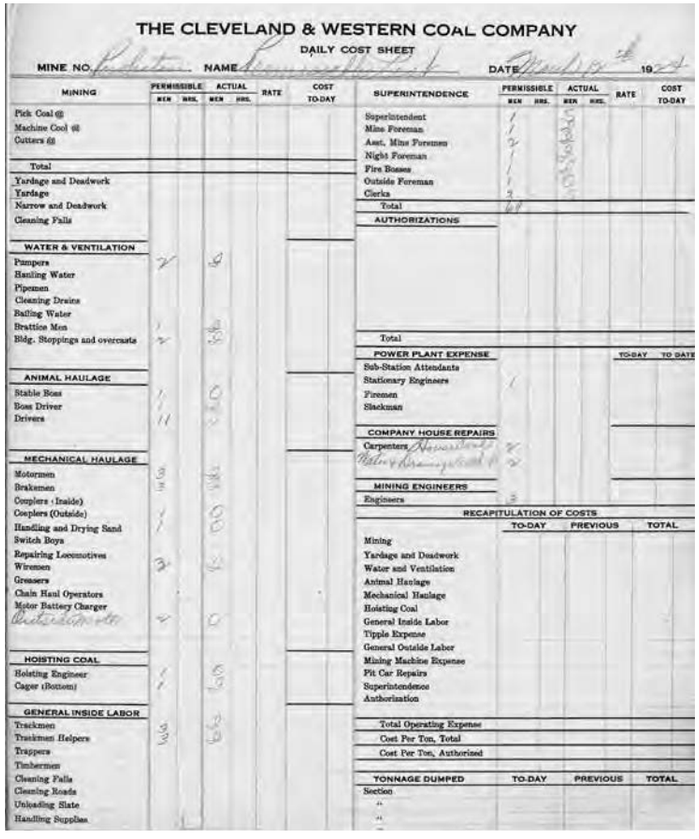
to more than 2,300, and the village would be considered the "most promising" community in Belmont County, according to the *Bellaire Democrat*. The presence of the mine had lent "prestige to the village," the newspaper would explain, "and . . . brought new people who have now become amalgamated with the old residents into a progressive and prosperous center."

One of the newcomers was Milos Boich, a Yugoslavian immigrant who previously worked as a miner in Stewartsville. Boich and several associates won a five-year contract to manage Powhatan's company store. Because of the absence of other general merchandisers in the isolated regions where coal mines were usually built, company stores carried all the necessities. Powhatan's counterpart at Taplin, West Virginia, sold everything from cans of spinach to men's shoes, at an average markup of 33 percent. In addition to food and clothing, the Powhatan store stocked picks, shovels, augers, tampers, dynamite and blasting caps. Miners were traditionally



Less than a year after the Powhatan Mine opened in 1924, an explosion of coal dust shattered the tipple.

Opposite page: *The practice (illustrated here) of spraying pulverized limestone on every surface in an underground mine to prevent the combustion of coal dust lay decades away.*



THE CLEVELAND & WESTERN COAL COMPANY

DAILY COST SHEET

MINE NO. [illegible] NAME [illegible] DATE [illegible] 19[illegible]

MINING	PERMISSIBLE MEN	PERMISSIBLE HRS.	ACTUAL MEN	ACTUAL HRS.	RATE	COST TO-DAY
Pick Coal @						
Machine Coal @						
Cutters @						
Total						
Yardage and Deadwork						
Yardage						
Narrow and Deadwork						
Cleaning Falls						
WATER & VENTILATION						
Pumpers						
Hauling Water						
Pipemen						
Cleaning Drains						
Baling Water						
Brattice Men						
Bldg. Stoppings and overcasts						
ANIMAL HAULAGE						
Stable Boss						
Boss Driver						
Drivers						
MECHANICAL HAULAGE						
Motormen						
Brakemen						
Couplers (Inside)						
Couplers (Outside)						
Handling and Drying Sand						
Switch Boys						
Repairing Locomotives						
Wiremen						
Greasers						
Chain Haul Operators						
Motor Battery Charger						
[illegible]						
HOISTING COAL						
Hoisting Engineer						
Cager (Bottom)						
GENERAL INSIDE LABOR						
Trackmen						
Trackmen Helpers						
Trappers						
Timbermen						
Cleaning Falls						
Cleaning Roads						
Unloading Slate						
Handling Supplies						

SUPERINTENDENCE	PERMISSIBLE MEN	PERMISSIBLE HRS.	ACTUAL MEN	ACTUAL HRS.	RATE	COST TO-DAY
Superintendent						
Mine Foreman						
Asst. Mine Foremen						
Night Foreman						
Fire Bosses						
Outside Foreman						
Clerks						
Total						
AUTHORIZATIONS						
Total						
POWER PLANT EXPENSE					TO-DAY	TO DATE
Sub-Station Attendants						
Stationary Engineers						
Firemen						
Slackman						
COMPANY HOUSE REPAIRS						
Carpenters						
[illegible]						
MINING ENGINEERS						
Engineers						

RECAPITULATION OF COSTS	TO-DAY	PREVIOUS	TOTAL
Mining			
Yardage and Deadwork			
Water and Ventilation			
Animal Haulage			
Mechanical Haulage			
Hoisting Coal			
General Inside Labor			
Tipple Expense			
General Outside Labor			
Mining Machine Expense			
Pit Car Repairs			
Superintendence			
Authorization			
Total Operating Expense			
Cost Per Ton, Total			
Cost Per Ton, Authorized			

TONNAGE DUMPED	TO-DAY	PREVIOUS	TOTAL
Section			
"			
"			

As can be surmised from this daily labor summary, Taplin placed a premium on meticulous cost accounting. It was one of the principles of business success that he had learned at Standard Oil.

required to provide their own tools and supplies. A provision of a UMWA contract of the 1930s would end this practice, but not the miners' reliance on the comprehensiveness, convenience and credit offered by company stores. As Edward R. Fellabaum Jr., a miner's son born and reared in Powhatan Point, would put it, "Everything we ate, wore and lived in for 40 years came of, by or from the Company."

The company chose not to extend Boich's contract when it came up for renewal. Having demonstrated impressive profitability, Powhatan's company store would henceforth be run by the mine's managers. Merchandising was on its way to becoming a significant corporate division.

Large coal companies had also found it beneficial to establish transportation divisions as a means of reining in freight charges, and Cleveland & Western would follow suit. Taplin began to think seriously about entering the railroad business once the development of Powhatan Mine was under way. In 1923 he assembled a syndicate of investors willing to help him buy the small regional railroad whose unreliable service had bedeviled him. "We wanted to make some money out of it," Taplin explained when queried in 1933 by the chief counsel for the U.S. Senate Committee on Banking and Currency about why he had sought control of Pittsburgh & West Virginia Railway Company. The committee, assisted by a former assistant district attorney for New York County named Ferdinand Pecora, was investigating the role that the nation's bankers and stockbrokers had played in the stock market crash of 1929.

The Pittsburgh & West Virginia commanded attention because it had once been part of the business empire of financier George Jay Gould. With the bankruptcy of Gould's transcontinental railroad system, P&WV had become an unaffiliated orphan, and Taplin recognized that it might have value as a bargaining chip in an era of railroad consolidation. As he was to testify before the Senate committee, he had tried

to "get as much [P&WV] stock as I could under control. The more I could get under control the better."

"The better for whom?" Pecora asked.

"Better for me," Taplin replied.

If nothing else, Taplin believed that he could make the coal-hauling line more efficient and profitable. The syndicate ultimately gained control of 73 percent of P&WV's stock. Taplin, his wife and brother, and his children's trusts held about 30 percent of this stake; Cleveland & Western and its business partners, W. C. Atwater and E. S. Kendrick, were among numerous other shareholders.

The syndicators paid an average of $52.50 a share for a railroad whose track was largely confined to Pennsylvania. P&WV's greatest asset was a terminal in Pittsburgh. There it could connect with the Wheeling & Lake Erie Railway to reach the Great Lakes. P&WV had no similarly "friendly" connection to the Eastern Seaboard. Nonetheless, Taplin could see that P&WV had the potential to be a critical component of a lake-to-sea line that railroad barons such as Gould had long dreamed of creating. Construction of only 38 miles of track would forge P&WV's needed connection to the Western Maryland Railway serving the Atlantic port of Baltimore. With or without that track, Taplin thought he might be able to sell the Pittsburgh & West Virginia at a profit to a larger trunk line that needed a more direct freight route between the Midwest and the Baltimore–Washington, D.C., area. In the meantime, the acquisition had an immediate payoff for the Taplin group. The Meadow Lands mines now had a coal hauler whose service to Pittsburgh they could count on. And eight captive coal mines with 75 million tons of reserves that P&WV owned in Allegheny County, Pennsylvania, had been added to C&W's stable.

Taplin's lawsuit charging the Pittsburgh & West Virginia with discrimination was settled in his favor shortly after he purchased the railroad. As P&WV's new president and chairman of the board, Taplin was called upon to pay damages to his Meadow Lands mines. "He signed the voucher without batting an eye, even though the railroad was hard up at the time," son Frank Jr. later asserted. Railroad company ownership of coal mines was of questionable legality under the Interstate Commerce Act. No doubt acting upon Farrand's advice, Taplin divested P&WV of its coal mines. They were merged with the Meadow Lands mines to create the Pittsburgh Terminal Coal Corporation in November 1924. Although he vested operational authority in an appointed president, Taplin wielded influence over corporate policy as chairman of the board. The Pittsburgh Terminal Coal mines remained P&WV's most important customer, and Cleveland & Western became their exclusive sales agent.


NUMBER 1 — One — SHARES

The Powhatan Mining Company

Capital Stock 20,000 Shares without Nominal or Par Value

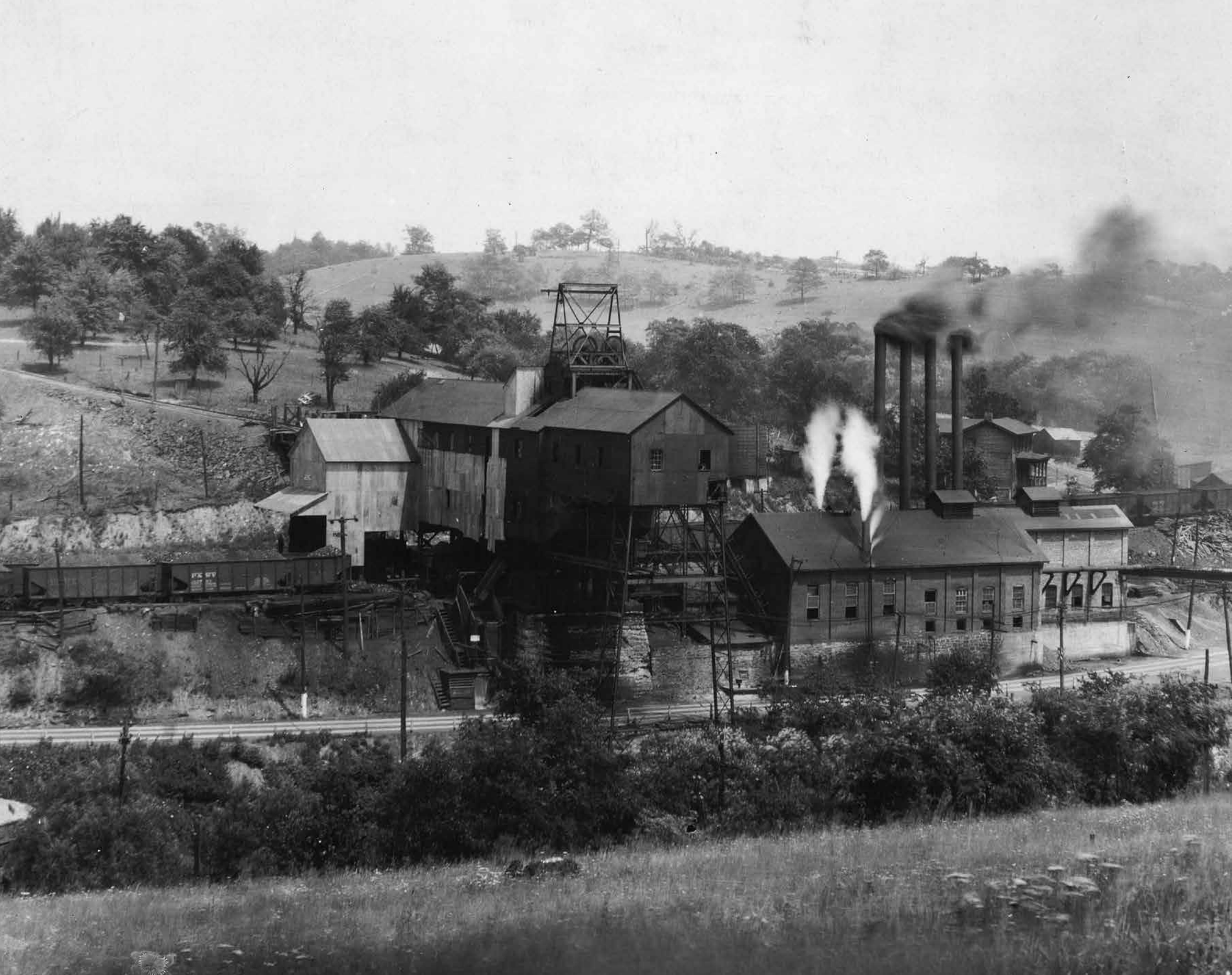
This Certifies that F. E. Taplin

is the owner of One shares of the fully paid and non-assessable COMMON Capital Stock of this Company, without nominal or par value, transferable on the books of the Company only by the holder hereof, in person or by duly authorized attorney, and upon surrender of this certificate properly endorsed.

In Witness Whereof, The Powhatan Mining Company has caused this certificate to be signed by its duly authorized officers, and its corporate seal to be hereunto affixed at Rockwood, Cuyahoga County, Ohio, this 31st day of December A. D. 1925

A stock certificate issued by the Powhatan Mining Company, which was created in 1925 to manage the southeastern Ohio mines of the newly formed North American Coal Corporation

"Big Coal Merger Near in Bituminous Field," the *New York Times* declared on December 31, 1925. The article reported that Frank E. Taplin, whom it identified first as president of



the Pittsburgh & West Virginia Railway and second as head of Cleveland & Western, had decided to bring together all of his business interests under the management of a large holding company. (These interests now included a minority stake in Canada Coal Ltd., whose dockyard at Sault Ste. Marie provided Taplin with entrée to the Ontario market.) The *Times* explained that the formation of a conglomerate was the next "logical step" in the Taplin group's organizational development. Described by the *Times* as the coal industry's "first important merger" in years, the reorganization had created a combine that was greater than the sum of its parts. "It is expected," the article concluded, "that the new company . . . will be one of the largest organizations of its kind in the country." The name of this powerhouse was to be The North American Coal Corporation.

Cleveland & Western was no more. At a special meeting on December 21, 1925, its shareholders had agreed to assign C&W's Powhatan, Johnson and Franklin Mines, their reserve coal and their equipment to the soon-to-be-incorporated Powhatan Mining Company. The value of these assets was placed at $2 million. In turn, Powhatan Mining was to assign to The North American Coal Corporation (NACoal, to use the current abbreviation of choice) the entirety of its authorized capital stock, valued at $2 million. On January 2, 1926, NACoal's new contracts to act as the exclusive sales agent for Powhatan Mining, Pittsburgh Terminal Coal and Standard Island—its three mining subsidiaries—were to go into effect. NACoal would receive a four-cent commission on every ton of coal sold.

North American Coal expected to have a "producing and selling capacity of 15,000,000 tons annually," according to the *New York Times*. *Time* magazine subsequently reported that in 1926 NACoal had become the "world's largest producer of tonnage." This news must have come as a surprise to the Pittsburgh Coal Company, which had for many years been considered to be No. 1. Pittsburgh Coal's 70 mines in Ohio, Pennsylvania, Illinois and Kentucky posted a record 30 million tons of production in 1920. Its closest rival in the first half of the 1920s was the Consolidation Coal Company of Maryland, with annual production that ranged between 10 and 12 million tons. However, Consolidation's mines in Maryland, Pennsylvania, West Virginia and Kentucky made gains in 1926 and 1927 that allowed Consolidation to wrest the title of the largest commercial coal producer in the United States away from Pittsburgh Coal, or so Consolidation believed. A lack of confirmable data about North American Coal's total annual production in the second half of the 1920s begs the question of where NACoal stood in this ranking.

There can be little doubt, however, about the accuracy of the conclusion reached by John W. Love, a financial reporter for the *Plain Dealer*, Cleveland's morning newspaper, in an article published on January 2, 1926, the day that North American Coal officially took over the reins from Cleveland & Western. "Coal, railroad and steamship men all over the United States will remark on the appearance this morning of the new star in the coal trade," John Love observed, "Frank E. Taplin of Cleveland."

Gaining control of the Pittsburgh & West Virginia Railway in 1923, Taplin took over the operation of the railroad's eight captive coal mines. P&WV's No. 3 Mine, pictured on the opposite page, was located in Benicoll, Pennsylvania.



CHAPTER THREE

“A Snug Position”

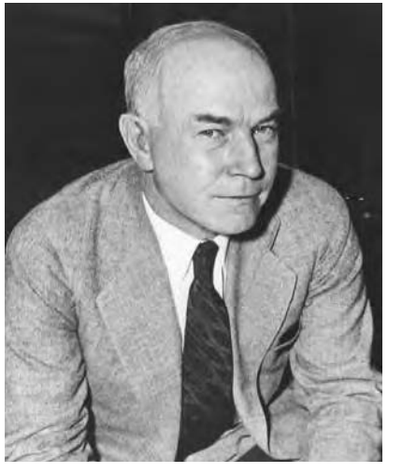
At age 50, Taplin could have easily looked back over the labors of the past 12 years and reached the conclusion that he had laid a solid foundation for North American Coal's success. Yet the company still seemed like a work-in-progress to him. Described by the *Plain Dealer*'s John W. Love as a man who "works practically all the time, plays a little golf, but finds most of his recreation with his wife and three children," Taplin charged onward, determined to execute several new plans for growth.

North American Coal's claim to industry dominance would be indisputable if the Taplin group were to gain control of Pittsburgh Coal. Taplin began to buy that company's stock on the open market in 1926 or '27—or so the *Plain Dealer* reported in series of stories based on inside information apparently gleaned from stockbrokers. Rumors about a possible merger of the Pittsburgh Terminal Coal Corporation, a NACoal subsidiary, and Pittsburgh Coal, Taplin's one-time employer, sent the latter company's stock price soaring 40 points in the early summer of 1927. If the Taplin group were able to assemble a sufficiently large stake in Pittsburgh Coal, 75 mines and coal reserves with an estimated life span of 75 years would be added to NACoal's network. In addition, the Pittsburgh & West Virginia Railway would gain a major customer. Pittsburgh Coal might rely on P&WV to ship as much as six million tons of coal every year, an enterprising *Plain Dealer* reporter calculated. This new freight business could contribute up to $9 million in additional revenues to the railroad annually.

Fanning the flames of speculation, Taplin and his brother and trusted legal adviser, Charles Farrand Taplin, traveled in June 1927 to Pittsburgh, where they reportedly conferred with "important interests at the Duquesne Club." A Cleveland journalist who had followed Taplin to Pennsylvania asked him to confirm rumors that he had been buying Pittsburgh Coal stock for several months. "I cannot say anything at this time," Taplin demurred.

By September it had become clear that the merger talks, if indeed they had taken place, were not going to bear fruit. Now Taplin vehemently disavowed all interest in a takeover. In an affidavit submitted to the U.S. District Court for the Western District of Pennsylvania in early September, Pittsburgh Terminal Coal's chairman denied that he or any person or company associated with him had ever purchased Pittsburgh Coal stock. The affidavit countered allegations contained in sworn statements submitted earlier to the court by three top-ranking UMWA officials in an attempt to block Pittsburgh Terminal Coal's request for an injunction to prevent what it considered to be excessive UMWA picketing of its mines. The UMWA's national president, John L. Lewis, and two of his deputies claimed in their affidavits that Taplin had requested the union's help with his bid to gain control of Pittsburgh Coal.

There is a scenario that fits both sets of assertions. Taplin had in fact considered a takeover only to discover, as his affidavit went on to explain, that Pittsburgh Coal stock was held by a few individuals only and that a controlling interest



Even in his 50s Taplin worked "all the time," driven by the ambition of dominating the coal and coal-shipping industries.

Opposite page: *Chunks of bituminous coal from Boone County, West Virginia, which North American began marketing during the Depression under the brand name "Red Parrot," were reputed to be the hardest and largest on the market.*



could not be obtained. In any event, Pittsburgh Coal remained an object of intense interest to Taplin, who went on to form a syndicate in 1928 that ultimately invested $2.7 million in the company's stock.

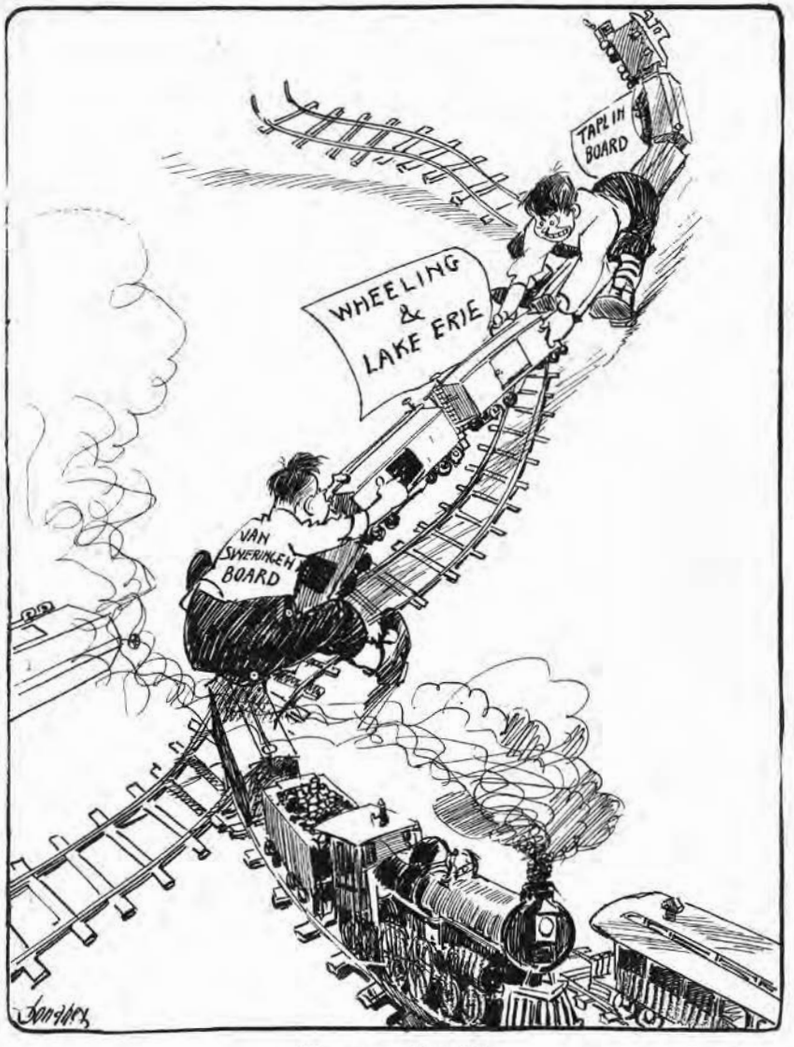
Taplin had also decided to invest in a new type of coal fuel. In the fall of 1928 NACoal's United Coal & Dock subsidiary opened a factory at its Milwaukee dockyards to manufacture a product that he hoped would expand the market for slack coal, whose use was ordinarily confined to steam-heating plants because of its half-inch or smaller size. When mixed with a petroleum-based asphalt, slack could be pressed into a uniform, dustless "briquet." Because briquets were easy to ignite and burned with a minimum amount of smoke, they were ideally suited for home and industrial heating purposes. Taplin expected a handsome return on the $250,000 United spent to build one of the first briquet factories in the country. When operating at capacity, the plant would be able to produce about 250,000 tons of the new fuel each year. Once the product was successfully launched, annual sales could total as much as $2.25 million. United Coal planned to introduce the new product to its customary markets of Wisconsin, lower Minnesota, northern Illinois and Iowa.

The most audacious of Taplin's plans would make North American Coal's transportation and distribution system second to none. He had decided to transform the Pittsburgh & West Virginia Railway into a lake-to-sea line. In pursuit of this objective, P&WV had applied to the Interstate Commerce Commission (ICC) in 1927 for permission to build a 38-mile extension of its Pennsylvania track. To run from Cochran's Mill to Connellsville, the extension would link P&WV with Baltimore via the Western Maryland Railway. According to "brokerage circles," the Taplin group simultaneously acquired a substantial interest in Western Maryland through the open-market purchase of its stock. The move was meant to ensure Western Maryland's receptivity to a future partnership with P&WV.



North American Coal found an innovative use for slack coal in the late 1920s. The company built a manufacturing plant at its United dockyards in Milwaukee (opposite page) *to convert slack into uniform, dustless briquets intended for heating use. The briquets were delivered to residential and industrial customers by truck.*

Taplin had already addressed P&WV's need for access to Lake Erie. In 1926 he "went boldly into the open market and . . . spent over $5 million" to gain controlling interest in the common stock of the Wheeling & Lake Erie Railway (W&LE), whose western terminus was at the Lake Erie port city of Huron, Ohio. Taplin placed some of his W&LE shares in trust for his namesake son, but he remained the largest individual



"Leggo my railroad!"
Cleveland Plain Dealer, May 24, 1929

investor in W&LE. As such, he intended to ensure that the connection between the Wheeling and the Pittsburgh & West Virginia remained "friendly."

At minimum, the two lines would be a logical choice to carry iron ore from the upper Great Lakes to Pittsburgh and coal on the return trip. However, should the ICC approve the Connellsville connection, Taplin would be positioned to pull off an unbelievable coup. He would then be able to parlay his acquisition of an overlooked 132-mile-long railroad line into an affiliated rail system capable of distributing NACoal coal to markets throughout the northeast and north-central United States. In the process, P&WV would have outmaneuvered four major railroad trunk lines pursuing their own lake-to-sea consolidation dreams.

There was just one problem. Another syndicate comprised of the New York Central, the Baltimore & Ohio and the Nickel Plate Railroads had homed in on the Wheeling & Lake Erie at the same time as Taplin. Indeed, it was a disclosure of serious interest in W&LE by the owners of the Nickel Plate, the Van Sweringen brothers of Cleveland, that had prompted the Taplin group to make its stock play. During his testimony before the U.S. Senate Committee on Banking and Currency in 1933, Taplin was to compare the competition for ownership of the Wheeling to a "poker game." It appeared that he had come up with a losing hand. The Van Sweringen syndicate had managed to acquire 52 percent of Wheeling's preferred stock, which alone had voting rights.

Taplin and Farrand elbowed their way onto the Wheeling board in May 1927. For the next decade they continued to fight for control of the Wheeling, arguing their case in the boardroom, the newspapers and the offices of the ICC. The commission gave the Taplins a temporary edge in 1929 when it approved P&WV's petition to build its Pennsylvania extension. The extension's completion in early 1931 marked the physical realization of Taplin's vision. But control of W&LE remained in dispute while the ICC weighed the competing consolidation plans of all the major railroad lines. The bankruptcy of the Vans during the Depression muddied the ownership picture. The Taplins' greatest victory in the railroad wars came in 1935, when they forced W&LE's preferred shareholders to begin paying a regular dividend on the common stock. "This is a long time to have to put up a fight to get what belongs to you," Frank Sr. wrote to his elder son, Frank Jr., whose trust fund contained Wheeling stock.

The rivalry with the Vans, which ended only with the deaths of Oris P. and Mantis J. Van Sweringen in the mid-1930s, left both sides embittered. According to family lore, Taplin kept a pledge never to step inside the Vans' Union Terminal railroad station or their Terminal Tower, the tallest and most prestigious office building in Cleveland. Herbert H. Harwood, a biographer of the Vans, sized up Taplin as a "street-fighter at heart" and accused the brothers' longtime foe of "persistent ungentlemanliness."



Locomotives on the Wheeling & Lake Erie Railway line hauled boxcars of coal from points throughout Ohio, Pennsylvania and West Virginia to the Lake Erie port city of Huron, Ohio.

Opposite page: *The competition between the Taplin and Van Sweringen shareholder groups to control the Wheeling & Lake Erie was no laughing matter. The winner would be in a position to create the nation's first lake-to-sea railroad line.*







Trust funds containing North American Coal stock that Taplin established for his three children—Frank Jr., Clara (above) *and Tom—ensured continuing family ownership of the company.*

Center: *W. W. Atterbury, the president of the Pennsylvania Railroad, reached an agreement with Taplin to purchase the Pittsburgh & West Virginia Railway one month before the 1929 stock market crash.*

Right: *Ferdinand Pecora, chief counsel of a U.S. Senate inquiry into the financial crisis that precipitated the Depression, asked Taplin, who had been called to Washington to testify about the P&WV sale, to explain the fortuitous timing of the deal. "It looked like a good time to get out from under," Taplin replied.*

Frustrated by his failure to win clear control of the W&LE, Taplin was willing to entertain the notion of disposing of the Pittsburgh & West Virginia. The interested purchaser was General W. W. Atterbury, the president of the Pennsylvania Railroad (Pennsie), whose professional acquaintanceship with Taplin extended back to 1920. Atterbury did not want P&WV to be wrested away by a competitor. "I saw him every month or so, and he usually mentioned the matter of selling," Taplin later recalled. The two men, though good friends and business allies, could not settle on a price. Taplin wanted $200 a share, a sum representing a profit of almost $150 per share. Atterbury was not prepared to go that high. The general was willing, however, to recommend that the Pennroad Corporation, Pennsie's holding company, extend Taplin a $1.95 million loan to buy additional shares of Wheeling & Lake Erie common stock. The stock, purchased in 1929, was placed in trust for Taplin's 12-year-old daughter, Clara. Again, Atterbury was playing defense: He wanted to strengthen the Taplins' hands in their fight against the Vans, whose railroad partners were Pennsie's rivals.

In September 1929 Taplin and Atterbury finally arrived at an understanding. P&WV's president now offered to sell the railroad line for $170 a share. The price was exactly halfway between the $200 Taplin had wanted and the stock's market quotation of $140. A month before the stock market crash that precipitated the Great Depression, the Pennroad Corporation purchased 222,930 outstanding shares of P&WV stock for $38 million. Taplin and Atterbury consummated the deal with a simple handshake. Just as remarkably, General Atterbury asked Taplin to continue running the Pittsburgh & West Virginia after the change in ownership.

P&WV's sale came under scrutiny during Taplin's appearance before the U.S. Senate Committee on Banking and Currency on July 6, 1933. The chairman of North American Coal Corporation was a compelling witness, and newspapers from as far away as Montreal reported on his testimony. Taplin's folksy persona—"He wears plain, serviceable clothes, puts horn-rimmed glasses on his nose when he reads and … slang rolls off his tongue freely," noted the *Cleveland Press*—made for a dramatic contrast with the sharpness of his business instincts, revealed again and again in his responses to Ferdinand Pecora's questions. The chief counsel asked Taplin to explain, for example, why he had chosen to sell P&WV at a



The sale of its P&WV holdings allowed North American to mechanize the coal-cleaning processes at the Powhatan Mine. A Chance sand-flotation machine (left)*, which separated debris from coal in a continuously agitated mixture of sand and water, was installed at the mine in 1931.*

moment that proved to be so fortuitous. "Well, along in 1929 things didn't look so good to me," Taplin stated. "I thought the entire economic situation was top heavy. It looked like a good time to get out from under."

"Do you mean you saw the stock market crash coming?" Pecora asked.

"I don't want to say I was a prophet," Taplin replied, "but it was a good time to get into a snug position."

Pecora also asked Taplin why he had placed his trust in an oral purchase agreement. The witness said that he had absolute confidence in the integrity of William Wallace Atterbury, a brigadier general credited with having streamlined the movement of American troops and supplies by rail during World War I. "If it had been anybody else," Taplin stated, "I would have wanted it in writing." He added, "He took my word that I would give him the stock, and I took his word that he would give me the money."

Taplin, his wife, his three children through their trusts, and his brother had together owned 68,000 shares of P&WV stock. The family's share of the proceeds from the railroad's sale was $11.5 million, roughly equivalent to $147 million today. Taplin need never again worry about the security of his spouse or offspring.

The North American Coal Corporation had also owned P&WV stock. At the dawn of the worst economic downturn in American history, NACoal received a check in the amount of $921,600 for the sale of its 5,421 shares. This was the equivalent in current dollars of nearly $12 million. Taplin chose to invest some of the proceeds in the mechanization of coal cleaning processes at the Powhatan Mine. A Chance sand-flotation machine, which separated rock and other debris from coal in a continuously agitated mixture of sand and water (a task previously performed by hand), was installed at the mine in 1931. The sale proceeds also helped to cushion NACoal at least initially from the economic dislocations of the Depression.

Within three years of P&WV's sale, the coal industry was on its knees. Production in 1932 fell to its lowest annual level since 1904. Fewer than 300 of the country's 5,000 bituminous coal mining companies recorded a profit in 1932. One of the coal producers forced into receivership was the

Collieries Company of Boone County, West Virginia. NACoal had provided sales representation for the company's three mines since the late 1920s. The Collieries product had earned a reputation as the hardest bituminous coal on the market. Not wishing to lose to a competitor a source of big, solid blocks of coal capable of withstanding shipment and storage with minimum degradation, Taplin decided to invest a portion of NACoal's P&WV proceeds in a takeover of the bankrupt company. The impending exhaustion of NACoal's Standard Island mines in Logan County, West Virginia, provided another reason why it made sense to secure new operations and coal lands in that state. When acquired in 1917, Standard Island's Cora and Loma mines had an estimated life of 9.5 years and 15 years, respectively, and these deadlines had been reached.

The Collieries Company was to be placed on the block at a judicial auction scheduled for June 30, 1932. Taplin dispatched

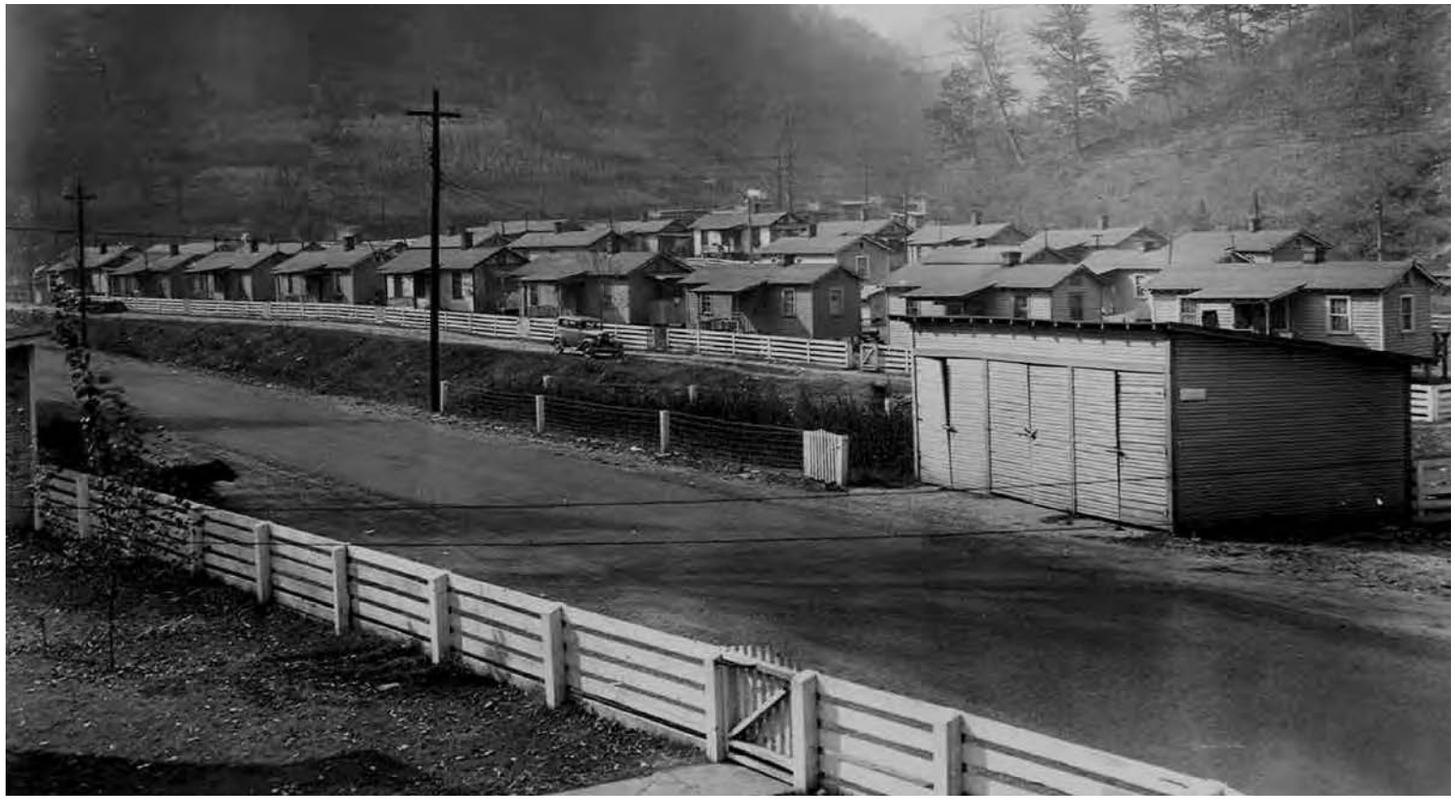


The main office of North American's West Virginia subsidiary, whose three underground mines were acquired at a judicial auction in 1932. A photograph of the tipple and cleaning plant of the Red Parrot mine in Prenter can be found next to the dedication in the front of the book.

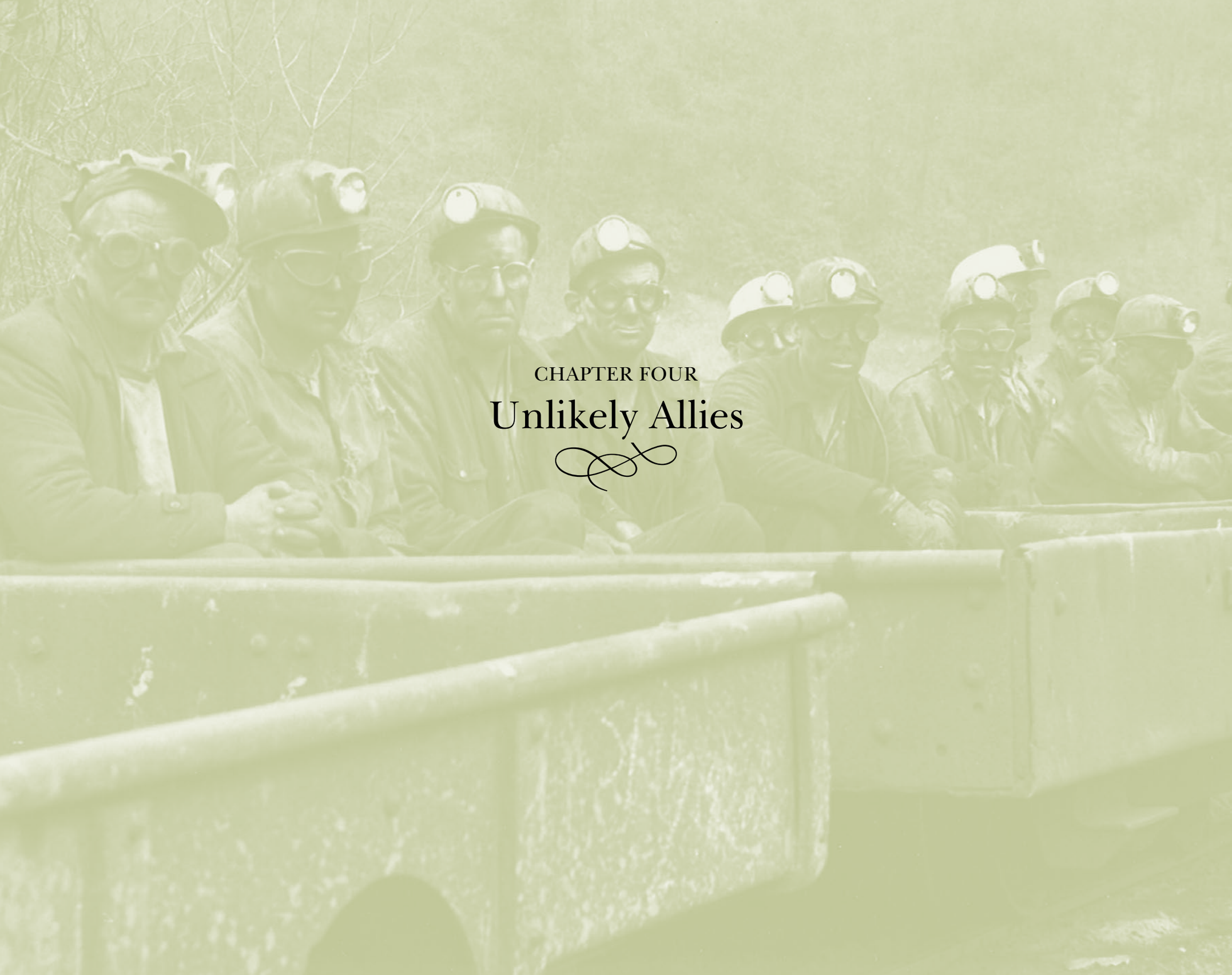
emissaries to West Virginia to compete for the distressed operation. He must have been fairly confident of success because North American Coal had already incorporated a subsidiary, the Red Parrot Company of Charleston, West Virginia, to run the Collieries Company mines. NACoal had subscribed to $400,000 of Red Parrot's authorized capital stock, giving the emissaries the resources to place a winning bid of $370,000 on Red Parrot's behalf.

Along with the three underground mines, ownership of company towns at Prenter and Keith, West Virginia, was transferred to NACoal's wholly owned subsidiary. Red Parrot also assumed the Collieries Company's leases on 8,000 acres of mountainous coal lands.

The Collieries acquisition brought the total number of mines owned or represented by North American Coal to more than 20. The challenge was to keep them all running.



Miners' cottages at the Red Parrot mining camp in Prenter, West Virginia



CHAPTER FOUR

Unlikely Allies

North American Coal's ability to weather the Great Depression depended, in Taplin's estimation, on maintaining sales at a high enough volume to warrant operating NACoal's mines on a steady basis. The lowest overhead per ton was achieved when a mine ran at full capacity, and a low cost of production could spell the difference between insolvency and subsistence when coal was selling on the commodities market for less than $1.50 per ton, as it did in 1932. "That is the reason I have tried to convince everybody for a long time that this Company could not exist unless they sold coal enough to run the mines full time," Taplin said later about the survival strategy that he tried to follow during the 1930s.

Taplin's vertically integrated corporation, hailed a few years earlier as a monumental achievement, was crumbling under the economic strain created by the precipitous drop in demand for coal. NACoal's new West Virginia mines were years away from developing into a profitable enterprise, and its Pennsylvania mines had recorded annual losses since 1926.

NACoal's dock subsidiaries were in similar financial shape. In the mid-1920s the dockyards had become subject to budget overruns caused by the aging of their facilities and equipment, episodes of spontaneous combustion that degraded their coal inventories, and inordinate snow removal charges incurred during unusually harsh winters. At the same time, price-cutting competition had undermined dockyard revenues. Inland Dock & Coal in Duluth had at first refused to lower its prices to match those offered by underbidders, only to lose a 185,000-ton contract with the Minneapolis General Electric Company and see a standing order with the Great Northern Railway reduced from 200,000 tons to 40,000. Even after bowing to the necessity of making "sacrifice sales," Inland watched as its profit of $115,316 in fiscal 1928 declined by nearly 60 percent, to $48,960 in fiscal 1929. Inland's slim margins disappeared during the Depression. In fiscal 1933 the Duluth dockyard posted a loss of nearly $40,000.

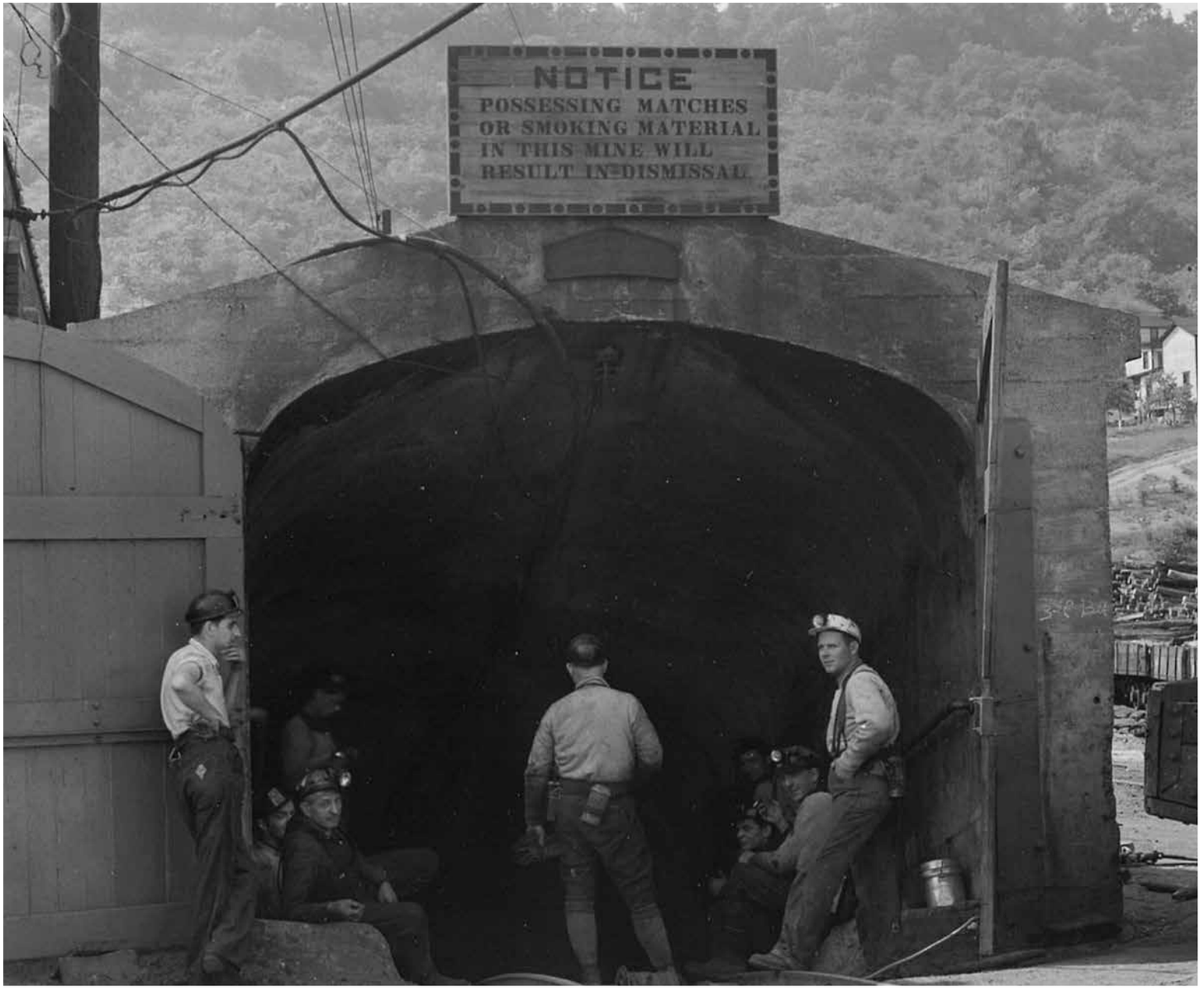
With many NACoal subsidiaries awash in red ink, Taplin needed to summon an extraordinary performance from his flagship mine at Powhatan Point, Ohio. Powhatan had great upside potential. As of late 1931, it was the largest underground mine in Ohio, according to the *Bellaire Democrat*. (It also was—or would soon be—NACoal's *only* mine in Ohio. Franklin Mine had closed in 1927 when the last of its reserves were exhausted, and the Depression would finish off the Johnson Mine, which had been in operation since before the Civil War.)

Also working in Powhatan's favor was the resourcefulness of the mine's managers, who demonstrated an admirable openness to new equipment, technological advances and innovative mining practices. Indeed, their receptivity to modernization initiatives established a tradition of "early adoption" perpetuated by later generations of North American Coal mine managers. Powhatan Mining Company general manager W. O. Percival, for example, was an enthusiastic participant in the Safety-First program, created in 1926 by the Division of Mines of Ohio's Department of Industrial Relations in an attempt to reduce the state's coal mining accident and fatality rates, which had remained virtually unchanged over the previous decade.

Opposite page: *A mantrip transports North American Coal miners to the bathhouse at shift's end.*







The strong warning over the portal at the Powhatan Mine exemplifies an early approach to safety training.

Previous page: *During the Depression, the Powhatan Mine was North American Coal's only operation in Ohio. The village of Powhatan Point lies in the upper left-hand corner of this photograph taken prior to the construction of the mine's river-loading facility in the mid-1940s.*

(The same was true for the industry as a whole. In 1926 the national fatality rate per 1,000 coal miners was 2.94 percent, .09 percent less than in 1917.) Percival introduced Powhatan's foremen to Safety-First. He also encouraged the presidents of UMWA locals at the Powhatan, Johnson and Franklin Mines to send representatives to a safety training session in Columbus. "It is very important that we adopt some scheme to cut down on the number of accidents," the superintendent reported to Taplin, adding an argument with known appeal, "and thereby reduce our insurance rates."

W. O. Percival's boss "knew the value of a dollar," as a newspaper once said of Taplin. In family circles, Frank Sr. was famous for having thriftily saved wood shingles removed during the re-roofing of his house for use in place of firewood in his fireplace. The heightened cost-consciousness of NACoal's staff reflected their chairman's priorities. Powhatan would become the first fully mechanized mine in Ohio in the 1950s as the result of an effort to combat rising labor costs through the adoption of the latest technology that began the day the mine opened.

Although a pasture, barn and blacksmith shop were part of Powhatan Mine's original facilities, and every section crew was outfitted with one or two mules, Powhatan was among the first mines in the country to experiment with an electric loader. Made by Joy Mining Machinery of Franklin, Pennsylvania, the loader had a belting system that conveyed the coal directly into mine cars. The rival Jeffrey Manufacturing Company of Columbus, Ohio, tried to persuade A. P. King, NACoal's vice president of operations, to purchase its model instead. Noting the still-experimental nature of the conveyor equipment, A. P. King suggested to the Jeffrey salesman, "If you wanted to put one or more of your machines into this mine at your own expense, with the understanding that, if the machine proved successful, we would purchase same . . . I could interest Mr. Taplin in such a proposition."

North American Coal's traveling auditor was even more zealous in his attempts to control expenditures. Having heard that three mules at Powhatan had been accidentally killed, he shot off a letter to the mine's assistant manager asking for official confirmation of the animals' deaths. "It is very essential that we get a report of the loss of each mule at our Cleveland office," he instructed, "so that we will be able to discount our livestock records." The auditor meticulously double-checked the math on the payroll records submitted to him by Powhatan's chief clerk in order to determine whether each miner's paycheck was in accord with the total hours recorded on his timecard. Discrepancies were to be dealt with in the following manner: "The men we overpaid will have deductions from their wages the next payday and the men we underpaid are being reimbursed when they make their complaint to the office."

With labor accounting on average for as much as two-thirds of the cost of coal production, attempts to reduce manpower expenses were not uniformly fair-minded. Indeed, coal mining companies in the nonunion Southern Appalachian Field set wages 30 to 50 percent lower than pay scales observed by operators in the north, where the United Mine Workers of America had been a force since before the turn of the century.

Frank E. Taplin Sr. may have at first been compelled to accept the legitimacy of collective bargaining out of necessity. By the mid-1920s the UMWA had signed up the vast majority of miners in the "Central Competitive Field," consisting of Ohio, western Pennsylvania, Indiana and Illinois, as dues-paying members. Like most coal producers in the Central Competitive Field, Taplin had signed a three-year contract with the UMWA in 1924 that cemented the power of John L. Lewis, who had been elected national president of the UMWA in 1920. The contract established an eight-hour workday and a pay rate of $7.50 per day, provisions that were considered liberal at the time. The operators' hope was that the "Jacksonville agreement" (named after the Florida city in which Lewis and the northern operators had worked out the contract terms) would have a stabilizing influence on wages industrywide.

Despite North American Coal's recognition of unionism, Powhatan's first years of operation were not free of labor-management conflicts. Disputes over workplace issues played a major role in the mine's failure to achieve the optimal performance desired by Taplin with ever-increasing fervency as the years passed. UMWA leaders in Subdistrict 5, which covered Belmont County, were particularly strong advocates for their membership. In fact, Subdistrict 5 was ahead of the national office in championing such revolutionary provisions as a six-hour day, a five-day workweek and portal-to-portal pay. (The time miners spent waiting to go underground, traveling to and from their sections, and washing up after work would remain uncompensated for another decade.)

Even though the Jacksonville agreement did not include the reforms desired by Subdistrict 5, its terms still proved onerous to northern operators. In order to compete with coal mined in the south, where operators had seen no reason to match the 1924 pay scale, many coal mining companies in the Central Competitive Field independently decided to slash wages. North American Coal was not among them. NACoal adhered to the 1924 contract until its expiration, while seeking to contain labor costs through mechanization and innovation. Powhatan, for example, experimented early on with longwall mining, a methodology invented in 17th-century England in which a coal face is cut away in long slices and the overlying rock is allowed to collapse into the void. American coal companies customarily used the room-and-pillar methodology, in which coal was carved out of a seam, leaving a series of large excavated "rooms" separated by "pillars," or columns of coal, that helped support the roof.

The longwall experiment erupted into labor-management contention in the fall of 1925. The mine's managers and subdistrict officials disagreed about the wages to be paid longwall miners to remove rock in order to reach a coal seam or make a roof safer—a point on which the 1924 contract was unclear. Commanding the attention of both Taplin and John L. Lewis, the protracted dispute illustrated the difficulties of overcoming the mistrust that smoldered beneath the surface in the inherently adversarial union-management relationship.

The disagreement began on September 30, 1925, when employee representatives serving on Powhatan's "pit committee"

informed management of their demand for a new wage scale for those workers engaged in longwall mining. Longwall cutters paid by the day must henceforth be paid by the ton for removing rock that exceeded three feet in thickness, or the pit committee would call for a work stoppage. Informed of the threat, Taplin wired Lewis immediately. The telegram's intimate tone suggested that the two men had arrived at an understanding of sorts based on a shared interest in union discipline. "Unfortunately, a man was killed yesterday at Powhatan mine," Taplin stated,

> and today the mine is idle, celebrating the event with a brass band on the job. [The contract allowed miners to go home for a day whenever a fatal accident occurred, but not to shut down a mine for a funeral.] I am mentioning this as another evidence of lack of control in the No. 8 coal field. I can give you plenty more evidence if you want it.
>
> . . . The best thing for you to do is try a little of the Howat [sic] remedy on that crowd down there. [Lewis had recently purged Alexander Howat, a radical UMWA leader from Kansas, and other proponents of wildcat strikes from the union's national board.]
>
> I expect all of our mines will be shut down in another week, in view of the position we have taken regarding the thick stone at Powhatan, but we are not going to change our position.

NACoal's VP of operations A. P. King simultaneously informed the president of Subdistrict 5, Frank Ledvinka, of the company's belief that the contract did not cover longwall mining. "Until such a scale is made," King argued, "it is right and proper that the cutting should be done at the day wage scale." The consequences of a work stoppage would be dire, NACoal's operations chief warned Ledvinka. "I have instructed Mr. Percival," King stated,

> in case any cutters ordered to cut this longwall face refuse, to discharge them and order more cutters. If they refuse, discharge them. If we succeed in getting the coal cut, and the miners refuse to load the coal, to discharge the miners. This probably will bring on a strike, but the mine might as well be shut down by a strike as to be run by a Pit Committee regardless of contract provisions or anything else except their own sweet whims.

Taplin received a prompt but unsatisfactory response from Lewis, because he sent the UMWA leader a second telegram containing more strongly worded advice. "The long and the short of it is," NACoal's chairman wired Lewis,

> we will not get anywhere until you remove the Ohio officials. . . . It seems to me that you ought to take this matter firmly in hand and clean house if you expect the people in the field to try to operate their mines under the Jacksonville Agreement, which we are doing at a loss.

In due course Frank Ledvenko was replaced as subdistrict president by his vice president. But the argument dragged on.

UMWA District 6 president Lee Hall, who had been drawn into the debate, stoutly maintained that the contract did in fact contain a pertinent provision. "I thought I knew the contract by heart," A. P. King confessed to Taplin,

> but they pulled Rule Seventeen on me, which is as follows: "All working places 15' wide or over, tonnage price only. . . ." Mr. Hall took the position that, as this says all working places, it would apply to a longwall face . . . and, on a strict interpretation of the contract, I am inclined to think he is right.



Taplin came to believe that attempts by the United Mine Workers of America to establish a minimum wage scale for the entire industry helped to limit cut-throat price competition from nonunion coal producers in the South.

With Lewis's backing of Hall and Taplin's refusal to concede the point, the two sides had reached an impasse. The stalemate was broken at Thanksgiving time, when Powhatan's managers abandoned the experiment, having reached the conclusion that the English methodology was not going to be, as King informed Taplin, "a feasible way of mining."

Earlier in the month the mine had twice been idled by work stoppages unrelated to the longwall dispute. On Armistice Day, the miners took an unauthorized holiday, and they also refused to work on the day after a new ventilation fan had been installed, ignoring the mine foreman's assessment that conditions in the mine were once again safe. Conceding that the two shutdowns violated the contract, Subdistrict 5's new president sent King a written apology, which the operations chief declined to accept. King's response revealed the depth of NACoal's frustration with the union. "You have been writing me so many letters about our living up to the contract that I want to tell you now that we expect you to live up to your contract," King stated in his follow-up letter to Subdistrict 5 president John Cinque. "Telling us you are sorry . . . does not take care of our losses," he asserted,

> and we will not stand for this any longer. The next time your men quit work in violation of your contract the mine will be shut down and there will be no further contract between your union and this company for the operation of the Powhatan mine. . . . I cannot write plainer English than this.
>
> If there is any company that has been hamstrung by your union from start to finish in the Ohio district it is The Cleveland & Western Coal Company, who have done more to live up to the Jacksonville agreement than any other operator in your district, and that is all the thanks we get for it. . . .

When the 1924 contract expired in 1927, North American Coal joined with the rest of the Central Competitive Field operators in declining to negotiate a new contract with John L. Lewis until Lewis agreed unconditionally to wage reductions. In response, the UMWA chief called for a nationwide strike, which began on April 1. With the strike still in effect three months later, the coal operators proposed to rehire union miners—at the 1917 wage scale. Speaking for the Ohio's six district presidents, Lee Hall rebuffed the offer, declaring that it would "pauperize" workers.

With no end to the strike in sight that fall, North American Coal began to evict miners from company housing at Powhatan Point for nonpayment of rent. Sixty-four cottages stood vacant by Thanksgiving, while 40 were still occupied by what the Cleveland office described as "undesirable tenants." An order to turn off the lights in the camp further reduced the number of unemployed miners living there. Although tough, the company's stance toward the strikers was leavened by compassion for a miner with a sick wife who was given a reprieve from eviction until his spouse recovered. NACoal's rival, the Pittsburgh Coal Company, dealt with its striking Pennsylvania miners much more harshly, engaging the strikebreaking services of the state-chartered Coal and Iron Police, a private security force known for the brutality of its tactics.

As the strike wore on into the early winter of 1927, U.S. labor secretary James J. Davis attempted to intervene.

He called a conference of coal producers and union officials that few of the former attended. Taplin felt compelled to explain to the secretary the reason why operators refused to bargain with the UMWA. "There is simply no way . . . that union wages can exceed nonunion rates by 50 percent when nonunion mines provide the nation with all the coal it needs," he wrote Davis.

In the summer of 1928 John L. Lewis finally accepted defeat, advising local union leaders to negotiate separate agreements with coal producers in their districts on the best terms offered. Powhatan's miners had already returned to work that spring. "The winter had driven them out of the union," explained Ohio River Valley coal mining historian Rebecca Steadman Morgan, whose maternal grandfather and father worked for Powhatan Mining Company. Indeed, the 16-month-long strike had decimated the entire ranks of United Mine Workers of America. By mid-1928 union membership had fallen to perhaps 80,000, two-thirds of whom resided in a single district: Illinois. Miners in Ohio had accepted an average wage reduction of one-third. As the percentage of bituminous coal mined in America under union contract continued its decline to a low of about 20 percent in 1933 from a high of 65 percent in 1922, northern operators, Taplin among them, began to realize that the UMWA's ruin had hurt them, too. With no check on cut-throat competition, overproduction and labor troubles, the coal industry faced total disaster.



UMWA national president John L. Lewis (second from left) tangled with Taplin over local and national labor issues several times in the 1920s, but they joined forces during the Depression to advocate for uniform wages and benefits.

In the early summer of 1931 John L. Lewis appealed to President Herbert Hoover to convene coal producers and union leaders to jointly address the industry's acute problems. The chairman of North American Coal Corporation found himself in agreement with UMWA's national president on the need for federal intervention. Taplin also encouraged the president to take action. "For the past four years these operators who have dispensed with Union agreements," Taplin stated in a letter written to Hoover that June,

> have had plenty of time to view the experience of running without any fixed wage scale or without having any labor organization to deal with. It must be admitted by everybody that the situation is even worse than when we dealt with the Union. Many operators try to keep their properties operating by cutting prices to ridiculous figures, then go back and cut the wages of the miners. Personally, I would much prefer to deal with the United Mine Workers than with these ruthless, price-cutting operators who are a detriment to the industry.

Taplin sent a similar letter to operators in the old Central Competitive Field, advising,

> We may find that the only way to solve the wage problem is to put all competitive fields under a well managed union with a fixed living scale, to which the miners are entitled, but which never can be done without a union because the operators will not stick to any decent fixed wage if they are left to their own devices.

Backing up his words with deeds, Taplin had already signed an agreement with the UMWA. But he also recognized that the union lacked the strength to quickly organize all the coalfields it had lost, and he pleaded with Hoover for help in stabilizing the industry. "Please think this over carefully," he urged the president in his June 1931 letter, "and let me know what comments you have to make of a constructive nature." Hoover deflected responsibility, turning Lewis's request for a coal summit over to the secretaries of labor and commerce, each of whom declined to act.

That August, Taplin joined John D. A. Morrow, the president of the Pittsburgh Coal Company, and several other prominent industry executives in publicly calling for the federal government to declare bituminous coal mining a public utility and regulate it accordingly. Again, no action was taken.

With the election of Franklin D. Roosevelt to the presidency, deliverance finally seemed at hand. Roosevelt had campaigned on a platform that included the promise of labor legislation, and the National Industrial Recovery Act (NIRA) was passed within the first 100 days of his taking office in March 1932. NIRA delegated to each industry authority to write codes of fair competition which, once approved by the president, were not to be governed by antitrust laws and which were to be binding upon all members of the industry. On behalf of the Central Coals Associates of Ohio, Pennsylvania, West Virginia, eastern Kentucky and Maryland, Taplin helped to draft one of 28 separate codes that were formulated by various producer coalitions. The UMWA also entered the debate, calling for a single national code that provided for a return to wages of $5 per day and a 30-hour workweek.

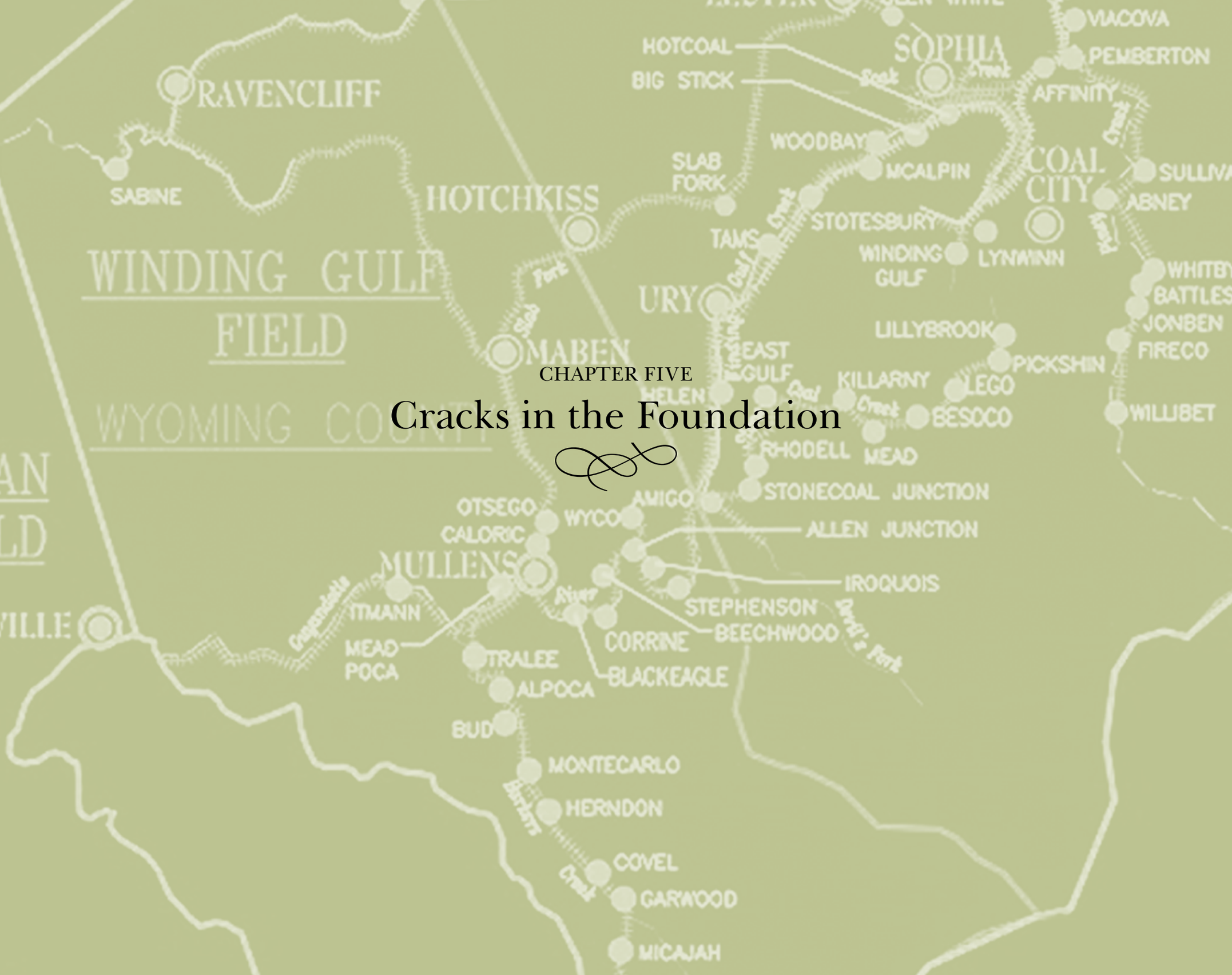
NIRA held hearings in Washington, D.C., in August 1933 to examine the merits of the proposed codes. Speaking on behalf of the Central Coals Associates, Taplin surprised John L. Lewis by testifying that he supported all of the UMWA's proposals except for that of a shortened workweek. Taplin went on to say that the coal industry could "no longer survive as half slave labor and half paid labor," as *Newsweek* paraphrased his comments. NACoal's chairman returned to the capital in September to lobby General Hugh S. Johnson, NIRA's director, who had drafted an amalgamated code that provided for 15 separate wage districts to accommodate the demands of operators in the Southern Appalachian Field. Tapping the floor with his toe and puffing impatiently on a cigar while he waited in an anteroom for admittance to Johnson's office, Taplin spoke with reporters, accusing the southern operators of "stalling" while they mined large inventories of coal at a labor cost less than would be imposed by a national code. "I'm going to tell General Johnson he's letting this gang of nonunion Appalachian operators make a sucker out of him," Taplin told the journalists.

The Bituminous Coal Code approved by President Roosevelt on September 18, 1933, retained the wage differentials insisted upon by the southern operators, but it also laid the groundwork for marked improvements in the well-being of miners. The code instituted minimum wages and a maximum workweek of 40 hours. It gave miners the right to have their tonnage checked by an independent weighman and to establish grievance committees. Labor by children under age 17, compulsory purchases at company stores and the use of scrip to pay miners were all abolished, and collective bargaining was endorsed. Buoyed by the federal government's backing of union representation, John L. Lewis embarked on an aggressive recruitment campaign that saw 90 percent of the country's miners enrolled in UMWA within a decade.



The Bituminous Coal Code of 1933, a set of federal regulations to which Taplin contributed a draft, was soon overturned, but it paved the way for the industry's later acceptance of a minimum wage, a 40-hour workweek and an end to compulsory patronage of company stores, such as the emporium at the Powhatan Mine pictured here.

In 1935 the U.S. Supreme Court ruled against the constitutionality of the governing principles of the National Industrial Recovery Act. It had already become come clear that NIRA had not succeeded in stabilizing the coal industry, as Taplin and other northern operators had hoped. The 1935 Bituminous Coal Conservation Act, which specifically sought to establish minimum prices for the commodity, was also declared unconstitutional by the Supreme Court. Ruthless price cutting would continue unchecked until World War II caused an upsurge in demand.



CHAPTER FIVE

Cracks in the Foundation

Sometime in 1935 Taplin turned to his wife and declared, "The coal business is worse this year than ever in its history."

"He had said this each year," Edith later recalled.

This time Taplin was not exaggerating. North American Coal's sales were down 50 percent from the lows of three or four years before. The company was losing so much money that it was no longer possible to avoid layoffs. Although anxious to stop the hemorrhaging, NACoal's chairman had to delegate responsibility for addressing what he considered the company's paramount problem: "the complete failure of the sales organization."

Taplin had placed day-to-day management authority in the hands of Inland Coal & Dock's former chief executive E. S. Kendrick, who had been promoted to the presidency of North American Coal around 1934. A year or so later, Kendrick had to leave Cleveland to attend to his sick wife back in Minnesota. During Kendrick's prolonged absence from the office, Taplin attempted to motivate his deputy to "get the sales end straightened out" by peppering Kendrick with letters of complaint, advice and exhortation.

June 29, 1935
Dear Ed:
We built a river tipple down at Powhatan mine to load river coal, but we have not loaded one pound on the river. We have not even put in a bid, as far as I know. . . . The river mines are taking all of the business in Cleveland. We have a river tipple but don't get a ton of business.

August 19
Dear Ed:
You will always find that whenever business is bad that is the best alibi for our sales people . . . but . . . business was just as bad in July for the Pocahontas operators as it was for everybody else, and still Carter's Olga mine run about the biggest tonnage that they ever got out; in fact, they ran more tonnage in July than they did in June. Now how can this be explained, except that regardless of bad conditions their sales organization seem to know how to get enough business to always run their mines full time.

September 11
Dear Ed:
If Bess [Kendrick's wife] is not in shape for you to get away you just stay in Minneapolis. . . . I want to make it clear, however, that I do not think from your standpoint it would be advisable for me to stay around here and run your job for the rest of this month, because I have found out . . . enough things that are wrong and boners that have been pulled that I would probably let three or four of your best men go and thereby put you in a hole when you got back.

September 30
Dear Ed:
John Howell ought to . . . go and see important buyers. He has a good personality and will not get anywhere sticking around the office all the time. All you need for that is accountants and bookkeepers.

October 18
Dear Ed:
My estimate of the Powhatan loss this month is $25,000, and of course my object in writing now is to be sure that no such loss is taken next month. It must be stopped without delay because we could not borrow any money next year from the banks if we had two or three months' showing like the present one. . . .

Opposite page: *Taplin's final acquisition gave North American Coal entrée to West Virginia's Winding Gulf Field, known for its "smokeless" and metallurgical coal.*



Now the next problem is what should we do—and I suggest the following for your immediate consideration:

1. Give your sales people a minimum price . . . and if they cannot get these prices do not take an order.

2. Shut down the cleaning and treating plant and save the 15 cents a ton cost, if they cannot get that much more for cleaned and treated coal.

3. Shut the mine down. . . .

October 22
Dear Ed:
I asked for Mr. Larsen yesterday but he was not here. He is away again this morning. I asked for Mr. Troppman yesterday and he was not here, nor is he here today. I asked for Mr. Patton this morning and understand he is out of the city. Who is going to stay around here to run the company?

February 12, 1936
Dear Ed:
I did not know . . . that we had passed up 50 cars of PRR [Pennsylvania Railroad] fuel coal the week before last at $1.80 because we were loaded up with commercial coal business, which, as you know, is paying us only about $1.50 at the mines. . . . If the Powhatan mine were making money, I would have no objection, but when they lost $17,000 last month we have either got to get the price for commercial coal that the Pennsylvania Railroad pays [for fuel coal] or give to Pennsylvania all the coal that they will take. This is a matter of self-preservation.

Robert Cowan, who hired on with North American Coal as a clerk in the "turbulent thirties," remembered when Taplin decided to take matters into his own hands. After Kendrick resigned in 1936, the chairman began changing sales managers nearly as often as other men switched ties. Taplin despaired of finding anyone who could generate the volume of orders needed to keep the mines running full time. "Finally, he decided," Cowan recalled, "that he would take over himself through the medium of sales meetings which all would attend, even the cubs such as myself."

A legendary figure in the eyes of newer staff members, NACoal's chairman impressed the young clerk as being tall, although Taplin was under six feet in height. The company's founder had a sharp tongue, too—"if he found you in error." Cowan could scarcely respond when, toward the end of one sales meeting, Taplin asked him point-blank for his opinion of the Powhatan Mine. The clerk reluctantly admitted that he had not seen any of the company's mines. Taplin went to his office, retrieved five 20-dollar gold pieces (each company director received a gold coin as an honorarium for each board meeting attended), and handed the money over to his employee with the instructions not to return to the office until he had visited every one of NACoal's mines. "He was a man of action and sudden decision," remembered Cowan, who took advantage of the opportunity to learn the coal business from the ground up and went on to become the president of Monongahela & Ohio Coal Company of Cleveland.

Preoccupied with NACoal's survival, Taplin confided to a colleague that he had no appetite for new acquisitions. "If you have any proposition to get me into any new deals," he wrote in 1935 to J. H. Sanford, the president of a Pittsburgh coal

Opposite page: *The Powhatan Mine built a new tipple on the Ohio River in 1934, hoping to increase business by offering deliveries of coal by barge, a less expensive means of transport than rail.*

company, "I am not interested." The opportunity to secure a proprietary supply of high-quality coking coal proved too good to pass up, however. In 1936 North American Coal purchased a controlling interest in the C. H. Mead Coal Company, a pioneering operator of underground mines in the Winding Gulf Field near Beckley, West Virginia. Winding Gulf was well known for its low-volatile, or "smokeless," bituminous coal, and its metallurgical coal was also prized, as it could compete with anthracite in terms of offering the low ash and moderate sulfur content demanded by steelmakers. Playing off Winding Gulf's national reputation, Mead's output was marketed under the brand name of "East Gulf."

The vast majority of coal mining companies continued to lose money into the late 1930s, and North American Coal was no exception. "The basic problems of the industry—too many mines, too much tonnage, and too many miners—remained in force," a biographer of John L. Lewis has explained. As a result of these conditions, coal miners suffered more economic pain than other categories of workers during the Depression. Bituminous coal miners endured a greater decline in average per-capita wages than any other blue-collar workers between 1929 and 1932. At the Depression's end, their earnings still lagged behind those of other laborers. In 1939 American workers earned an average income of $1,730, while coal miners averaged about $1,000 in annual wages.

Coal mining families like the Fellabaums of Powhatan Point made ends meet through extraordinary industriousness.

In 1936 North American Coal acquired the C. H. Mead Coal Company, a producer of low-volatile and metallurgical coal in West Virginia's Winding Gulf Field near Beckley. Right: *A Mead mine.* Below: *Mead Coal Company scrip*






C H
MEAD COAL
CO



In their spare time members of all three generations of the family who lived together in the same modest house cut locust trees into nine-foot lengths to be used as roof bolts. They earned nine cents a bolt. Eddie Fellabaum, who grew up in Powhatan Mine's camp during the Depression and war years, helped to supplement his father's and grandfather's sporadic wages as a drover of coal-car ponies. Eddie became adept at slowing the speed of cars on downhill runs by the insertion of a stick into a wheel well, a trick called "spragging." When work was steady, the Fellabaums took advantage of the company discount on heating coal. When they couldn't afford to pay even 10 cents a bushel for heating fuel, Eddie helped to lug home in 100-pound potato sacks the coal the family picked out of Powhatan Mine's refuse dump, or "gob pile." He also helped his grandmother with the Monday-morning washing of his father's and pap's work clothes, which were boiled in water fortified with the shavings of several bars of Fels-Naptha soap in a double-burner laundry tub to remove the lingering smell of the "pit."

A catastrophe unique to the upper Appalachian Field added to the troubles of Powhatan Mine's workforce and corporate owners. The Johnstown Flood of 1936 caused the Ohio River



The Johnstown Flood of 1936 inundated downtown Powhatan Point, whose main street is pictured (left) *before the waters subsided. The threat of flooding caused the shutdown of the Powhatan Mine.*

Opposite page: *The office staff at Mead headquarters circa the 1940s*

to crest at 55.5 feet near Wheeling on March 19, two days after the Conemaugh River, swollen by ice melt and three days of heavy rainfall, inundated Johnstown, Pennsylvania. Powhatan Point was almost completely submerged, and Powhatan Mine, in imminent danger of flooding, was shut down, freeing its 1,000-man workforce to cope with the devastation of their homes.

Powhatan miner Raymond Jackson and members of his extended family, who lived downtown, were forced to move upstairs as the water filled their house all the way to the top of the staircase. "The Red Cross would come by [in rowboats], and my dad and uncle would hang us kids by the heels out the window to get food, milk and water," son David later recalled. Conditions in the village did not return to a semblance of normality for more than a week, leaving the mine incapacitated as well.

Reluctantly, Taplin came to accept the reality that "there seems to be no way of stopping the losses." Frank and Edith did not shield their almost-grown children—the future owners of North American Coal—from the truth. "Dad says the bottom is dropping out of everything and we are in for hard times," Edith wrote to son Tom, a senior at Andover preparatory school, in the fall of 1937. Early the following year Tom's



Taplin, papers in hand, testified once again about the sale of the Pittsburgh & West Virginia Railway before the U. S. Senate in 1938.

Opposite page: *Taplin's successor conceived a new business model centered on long-term fuel-supply contracts with electric utilities.*

father was called again to Washington to testify about the sale of the Pittsburgh & West Virginia, this time before a U.S. Senate committee on interstate commerce. Taplin returned to Cleveland "very low and touchy," Edith reported to son Frank, who was studying at Oxford University in England on a Rhodes Scholarship. A few days earlier Frank Jr. had received a disturbing letter from his father, reporting on the deaths of two colleagues, both of whom had headed railroad companies. "The men are kicking off pretty fast," Frank Sr. observed to his eldest son, "in many cases due to worry over their business during the past seven years—that is a long time."

Clara Taplin, a senior at Smith College and the newly elected head of student government, also received a letter from her father in early 1938 in which he candidly shared his concerns. "Business was never so bad in 1931 and 1932 as it is today," Clara's father stated, "and the worst of it is, it is really getting worse, and the government is not doing anything intelligent to correct it. . . . However, there is nothing much I can do about it, so there is not much use in worrying very much."

Edith Taplin perceived that her husband was, in fact, "terrifically worried." Hoping that a respite from his problems would improve his outlook, Edith persuaded Frank Sr. that they should travel to England that spring to visit Frank Jr. The couple returned to Cleveland in late April, and Taplin went back to his hard-charging routine.

On Saturday, May 21, while working at the company's offices in the Union Commerce Building in downtown Cleveland, he fell ill. Lawrence Crecelius, Taplin's engineering consultant, witnessed his colleague's complaints of dizziness and a severe headache and later shared with Edith what he believed to have caused Taplin's distress. "There had been mental strain & loud talking & excitement all a.m. & I guess it was too much for Dad to stand," Edith summarized in a letter to Frank Jr.

An ambulance arrived to take Taplin home, where his doctor diagnosed the problem as a cerebral hemorrhage. For a while, the founder of North American Coal Corporation seemed to be on the mend; he even asked to see his mail and read the newspaper. The convalescence was brief. Frank E. Taplin Sr. passed away on June 7 at the age of 62.

"Don't grieve," Edith Taplin wrote to her son Frank the following day. "It was a perfect end to a fighter's life. He died in the harness."



1938–1963



CHAPTER SIX

Engineering a Recovery

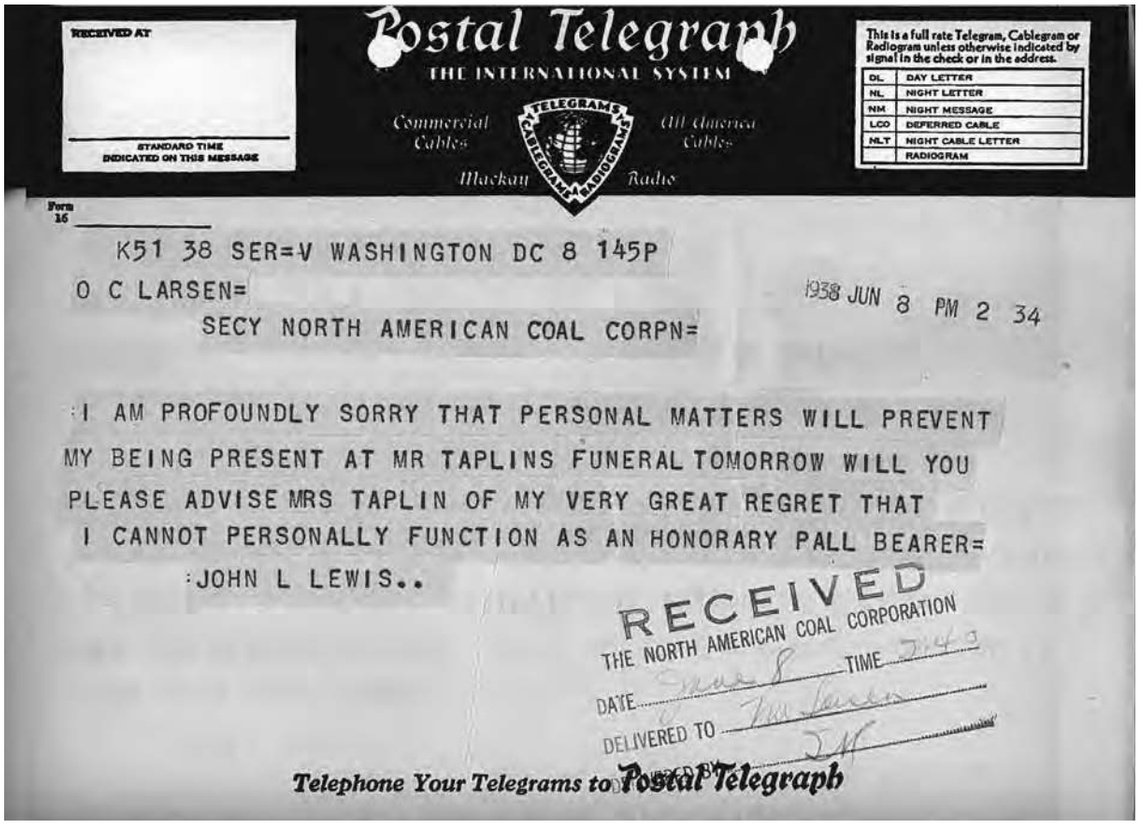




The reaction to Taplin's death, which was announced on the Dow Jones Industrial ticker tape even before it was reported in Cleveland, reflected the high regard in which the founder of North American Coal was held. Condolence notes poured into the Taplins' home from around the country. The sentiments echoed those of John L. Lewis, who sent a telegram to Taplin's widow, Edith, that said:

> I was indeed grieved to learn of the death of your distinguished husband. During my long years of association with him I learned to admire his judgment[,] ability and integrity. I extend to you and the members of your family my deep personal sympathy in your very great loss.

Wishing to acknowledge the breadth and closeness of her late husband's professional and personal relationships, Edith invited no fewer than 72 of Taplin's business associates and friends to serve as active or honorary pallbearers at his funeral.



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LCO	DEFERRED CABLE
NLT	NIGHT CABLE LETTER
	RADIOGRAM

Form 16

K51 38 SER=V WASHINGTON DC 8 145P
O C LARSEN=
SECY NORTH AMERICAN COAL CORPN=

1938 JUN 8 PM 2 34

I AM PROFOUNDLY SORRY THAT PERSONAL MATTERS WILL PREVENT MY BEING PRESENT AT MR TAPLINS FUNERAL TOMORROW WILL YOU PLEASE ADVISE MRS TAPLIN OF MY VERY GREAT REGRET THAT I CANNOT PERSONALLY FUNCTION AS AN HONORARY PALL BEARER=
JOHN L LEWIS..

RECEIVED
THE NORTH AMERICAN COAL CORPORATION
DATE Jun 8 TIME 2:43
DELIVERED TO

Telephone Your Telegrams to Postal Telegraph

Among them were O. C. (Larry) Larsen, Whitney Warner, Elroy J. Kulas and John W. Reavis. Edith and her children, Frank Jr., 23, Clara, 21, and Tom, 18—the new majority owners of The North American Coal Corporation—would come to rely on these four men to manage the company.

NACoal treasurer Larry Larsen assumed the duties of president in July 1938. Whitney Warner, who ran W. H.

John L. Lewis wired his regrets that he could not attend Taplin's funeral.

Edith (left) *turned to her late husband's closest associates, including tax attorney John W. Reavis* (center), *for assistance in managing North American Coal.*

Opposite page: *The machine shop at the Powhatan Mine*



When Henry G. Schmidt became North American Coal's third president in July 1942, the company teetered on the verge of bankruptcy. Annual production had fallen to 2.5 million tons.

Warner & Company, a Cleveland-based coal producer with mines in Ohio, Pennsylvania, West Virginia and Kentucky, was elected chairman of NACoal's board. E. J. Kulas, a close friend of Frank Taplin and the president of two Cleveland-based steel companies, also joined the board in 1938. The Taplin family's attorney, Jack Reavis, a corporate tax lawyer with the influential Cleveland firm of Jones, Day, Cockley & Reavis, served as Edith's personal confidante and business adviser. In 1941 Reavis' invaluable if unofficial contributions to NACoal's management were acknowledged with his appointment to the company's board. One of the first decisions made by the new guard was to move the corporate headquarters from the Union Commerce Building to the Terminal Tower, the Van Sweringen office building that Frank Taplin Sr. had vowed *never* to enter.

E. J. Kulas, who would serve on the NACoal board until his death in 1952, put his stamp on the company as a talent scout. His Midland Steel Products Company had been a client of Jones, Day since the 1920s, and it could very well have been Kulas who introduced Frank Taplin to Jack Reavis. A young go-getter on his way to becoming the law firm's managing partner, Reavis would over time serve as a director of more business corporations than perhaps any of his counterparts in the United States. Because of his familiarity with a wide range of business problems and strategies for their solution, Reavis provided a critical "outside" perspective for NACoal's inside board of directors. After completing their service in World War II, Frank Taplin Jr., a Yale-educated attorney, and Clara Taplin's husband, attorney Alfred M. Rankin, who was also a graduate of Yale Law School, joined the board in 1945 and 1946, respectively. Tom Taplin, who had decided to pursue a career in manufacturing in Denver after working at Powhatan Mine and NACoal's head offices for a time, became a director in 1948.

Kulas may have also been responsible for the recruitment of Whitney Warner, whom he knew as a fellow trustee of Cleveland's Union Trust Bank and the Cleveland Orchestra. When Warner died suddenly in February 1941, Kulas found the candidate who was to replace Warner as NACoal's chairman. Kulas was the Taplin family's representative on the board of the Wheeling & Lake Erie Railway, and at a board meeting in 1942 he asked the railroad's president, George Durham, if Durham knew of someone capable of leading a coal company. Durham said yes, a fellow named Schmidt.

Henry G. Schmidt, a 42-year-old native of Kansas with postgraduate training in chemical engineering from the Massachusetts Institute of Technology, had wound up in Ohio as the general manager of the Wheeling Township Coal Mining Company. A subsidiary of the Goodyear Tire & Rubber Company of Akron, the mining operation was based in Cadiz, which was served by a branch line of Durham's railroad. Goodyear had also entrusted the supervision of its engineering department,

which planned and managed the company's construction projects, as well as its power plant facilities to Schmidt. The University of Kansas graduate had left his postgraduate studies to go to work for the tire company in 1927 because he couldn't turn down the offer of a monthly salary of $350. "I thought that was more money than was paid to anybody in America," recalled Schmidt, who grew up on a farm.

Henry Grammer Schmidt had never seen a coal mine before he was asked to take charge of the Wheeling Township Coal Mining Company upon the death of its manager. A quick study—he would later teach himself German, the language of his ancestors—Schmidt realized that he could turn around the unprofitable operation through the introduction of mechanization. His choice of this strategy would have endeared him to Frank Taplin Sr., who had adopted modern technology whenever possible as a means of reducing costs.



A North American Coal delegation sent to Akron to interview the candidate came away impressed with Schmidt's blending of practical expertise and college training. "A coal man with an education!" Schmidt's recruiters had privately rejoiced after meeting the exceptionally capable individual who became chairman and chief executive officer of North American Coal on July 2, 1942. Two days later Schmidt passed the final test of fitness for his new responsibilities. Taken to meet Taplin's widow by Jack Reavis, whose law firm had handled the settlement of Taplin's estate, Schmidt endeared himself to Edith with his promise to "do the best possible job for the company and for the Taplin family."

Schmidt lived up to his pledge. He met with Edith regularly to discuss her ideas and concerns and provide updates on the company's recovery from the ravages of the Depression. His familiarity with the workings of power plants would ultimately lead him to reposition NACoal as a reliable supplier of low-cost coal to electric utility companies. Schmidt's reinvention of North American Coal's business model tied the company's fortunes to a market that began to grow exponentially after WWII. Indeed, NACoal's new chairman would be one of the first coal industry executives to recognize the potential of this expanding market to compensate for reductions in postwar demand for fuel and heating coal. Other coal producers would not survive the loss of their mainstay railroad customers to diesel fuel and residential users to natural gas.

The 42-year-old Schmidt had experience as the general manager of a coal mining operation based in Cadiz, Ohio (left), *but it was his engineering education that most impressed North American's board.*

During the first years of Schmidt's tenure, North American Coal faced an even greater threat than the rising popularity of ashless fuels. The corporation was on the verge of bankruptcy, according to Schmidt's later portrayals of the situation, which was indisputably challenging. By 1942 North American Coal's annual production had fallen to 2.5 million tons. The company had dropped out of the ranks of top coal producers down to 34th place. Saddled with several millions of bank debt that had been incurred to finance operations, NACoal had less than $150,000 in working capital to acquire needed reserves, purchase new equipment and attend to the physical repair of its mines, most of which were in "deplorable" condition. With the exception of the "patches" at Prenter and Powhatan Point (whose civic amenities now included a second movie theater called the Taplin), conditions in the company's mining camps had also deteriorated. And NACoal had long before stopped paying a dividend, prompting the active displeasure of minority shareholder Charles Farrand Taplin.

In 1936 Farrand and his brother Frank had severed their once-inseparable relationship as a result of their conflicting views about the governance of the Wheeling & Lake Erie Railway. Farrand left the NACoal board, and after his brother's death he had begun to question NACoal's officers and directors about the judiciousness of their actions and decisions—in private and at the company's annual shareholders' meetings. The situation, painful to all parties, resisted easy answers.

North American Coal was also awaiting a resolution of a federal lawsuit filed against NACoal, the Taplin group's Pittsburgh & West Virginia line, and several other defendants in December 1941. The suit had been brought by William G.






Heiner, trustee of the failed NACoal subsidiary, the Pittsburgh Terminal Coal Corporation. It charged that the defendants had ordered the mining subsidiary to operate at capacity in order to maintain their accustomed business volumes and profits even though to do so enlarged the losses of the plaintiff. The so-called Heiner suit sought an accounting and recovery of the losses for the period between 1926, when NACoal began marketing the plaintiff's coal, and 1939, when the Pittsburgh Terminal Coal Corporation declared bankruptcy.

Events had not been unremittingly bleak during the four-year interval between Taplin's death and Schmidt's arrival. Two developments of the late 1930s in particular boded well for the future. To remedy the loss of Charles Farrand Taplin's services as in-house counsel, North American Coal had turned to Jones, Day, Cockley & Reavis. A young Jones, Day attorney named Arthur L. Dougan, who had clerked for U.S. Supreme Court Justice Learned Hand during Hand's service on the U.S. Court of Appeals for the Second Circuit, had experience dealing with the Depression-era federal agency responsible for regulating the coal trade. Dougan began handling NACoal's legal affairs in 1936. Applying his supple mind to the massive challenge of rebuilding the company, Dougan in time became invaluable as a business strategist.

Also fortuitous was NACoal's acquisition in 1939 of a partial interest in the Betsy Mine, a shovel-and-truck operation located in Jefferson County, Ohio. This was the company's introduction to surface mining. The success of the joint venture with the Jefferson Company of Steubenville persuaded NACoal to become more deeply involved in the 1940s and '50s with this method of coal mining, which would later gain







These photographs of the Red Parrot mining camp at Prenter, West Virginia, date from the 1930s. From left to right: *Prenter's main street; a miner's cottage; housing for middle managers and the company doctor; the community center/clubhouse; the elementary school; the company store's soda fountain; and the Presbyterian church*



North American acquired an ownership stake in its first surface mine in 1939. At the time the Betsy Mine, located in Jefferson County, Ohio, was a shovel-and-truck operation.



Betsy Mine's Caterpillar RD7 bulldozer

dominance over underground mining as the most efficient and least expensive means to tap America's storehouses of coal. The Betsy Mine earned a profit of nearly $100,000 in 1942 and seems to have been the only NACoal mining operation that was not in the red when Henry Schmidt assumed leadership of the company.

North American Coal's new CEO refused to be daunted by the fact that, as he later put it, "We were losing our shirts." Believing business to be much like war, Schmidt attacked NACoal's longstanding problems head on. "There must be no break in our lines or let-up in our drive for continued success," he wrote early in his tenure to rally his colleagues and workforce. "Only by eternal vigilance and hard work can we stay on top."

Stemming the red ink was Schmidt's No. 1 priority, but he did not choose to solve the problem primarily by slashing costs. Schmidt recognized that, after a decade of belt-tightening, the company's expenses were close to an "irreducible minimum." Over the next four years the CEO did manage to save a total of $240,000 in administrative and sales costs by slowly reducing the number of central-office employees. These cuts to the contrary, Schmidt's personnel management policies were advanced for their era. To compensate for the inflationary pressures of wartime, NACoal steadily increased staff salaries and in 1943 began to provide salaried staff with life and health insurance in addition to paid vacations and sick leave. Schmidt believed in paying especially competitive salaries to his operations staff and mine superintendents and within a few years would institute a bonus plan for all staff members with two or more years of service.

Nor did NACoal's new CEO seek to balance the company's budget on the backs of its mine workers. During the war years miners' wages were still depressed. However, four annual strikes called by John L. Lewis between 1945 and 1950 would ultimately win for UMWA members hourly rates that were among the highest paid any industrial workers in the United States. Schmidt did not publicly challenge the principle of collective bargaining or actively fight increases in wages and benefits; indeed, his moderate approach to labor relations would earn him an appointment in 1958 as one of three trustees of the UMWA's Welfare and Retirement Fund. (He would help to administer the fund, into which coal producers paid a per-ton royalty to provide pensions and medical care for union miners, until 1969.)

Schmidt did denounce strikes and work stoppages as counterproductive. During the first two postwar years frequent disruptions of coal mine operations had resulted, he charged in NACoal's 1947 annual report, in the "weakening of the confidence of large consumers of fuel in the dependability of coal" and hastened the conversion of traditional customers to alternative fuels. Having achieved a living wage and decent benefits for its members by the early 1950s, the UMWA also saw the advantages of normalizing the collective bargaining process. Well into the 1960s labor-management relations in the coal industry would be notably less strained. After NACoal enjoyed a string of strife-free years, Schmidt waxed effusive

in expressing his gratitude. "We pay high tribute to the mine workers of this company for their loyal adherence to the terms of their contract," he stated in 1955, ". . . which we expect will continue into the future."

After sizing up as slim the prospect of averting bankruptcy through stricter wage-and-cost controls, Schmidt had decided to try to grow the company out of trouble. He quickly settled on a strategy of upgrading NACoal's mining capabilities wherever the outcome seemed sure to increase net income. Over time this strategy evolved into a $12 million modernization program, which was largely funded from excess cash. The expenditures would position North American Coal to enter the 1950s with a production capacity of more than four million tons.

Working capital was scarce in 1942 when Schmidt persuaded NACoal's board to approve the first in what became a seven-year-long series of strategic capital improvement projects. Within three weeks of Schmidt's arrival in the head office, he and vice president of operations A. J. Ruffini had determined that the Mead Mines could be operated profitably if their coal was better cleaned and sized. At Schmidt's first meeting with NACoal's board, a $60,000 expenditure on new screening equipment for the West Virginia subsidiary was authorized. By January 1943 Mead's anticipated output for the entire year was under contract.

Seeing glimmers of recovery at the Red Cedar Mine in Keith, West Virginia, which showed a monthly profit for the first time in years in December 1942, Schmidt found the resources to build a new entry slope at Red Cedar in 1943. The miners assigned to work the newly opened seam were equipped with production-boosting loading equipment transferred from the Powhatan Mine. Red Cedar's productivity subsequently increased by about 25 percent.

Powhatan had more production capacity than it needed because the mine had nearly exhausted the coal lands NACoal had initially leased from the J. N. Pew estate. Aware that the competition to secure reserves in the Ohio River Valley would grow only more heated as other coal producers in the area also depleted their holdings, Schmidt wasted no time in securing additional coal-bearing acreage for the company's flagship mine. In January 1943 he obtained from the Pew estate an option to purchase a tract adjoining the Powhatan Mine that contained an estimated 72 million tons of coal. By May he had negotiated a purchase price for the so-called Gaddis tract of $1.2 million, to be paid in monthly installments of $12,000 over 10 years at 1 percent interest—exceedingly fair terms.

When Farrand Taplin objected to making such a sizable commitment at a time when the corporation was still more than $1 million in arrears on dividend payments to its stockholders, Schmidt returned to the negotiating table and arranged to lease the reserves on behalf of Powhatan Mining Company, which in turn agreed to pay NACoal a royalty of 5 cents a ton, with a 500,000-ton-a-year minimum payment. In 1944 Schmidt was finally able to carry out his plan to purchase the Gaddis tract and lock this 40-year reserve up tight. A new entry slope and bathhouse were built in the heart of the reserve near Cat Run around the same time as portal-to-portal pay provisions

went into effect in 1944. As Powhatan Mine's original portal was located about four underground miles from the Gaddis reserves, the miners' use of the Cat Run facilities reduced the time they spent traveling to and from the newly opened working faces in the tract.

Early in his tenure Schmidt also recognized the growth potential of the Betsy Mine, which had war-related buyers clamoring for its annual production of about 50,000 tons. To fund an expansion of the mine's capacity, Schmidt and Reavis conceived a plan to recapitalize NACoal's joint venture with the Jefferson Company. A new subsidiary, the East Farm Coal Company, was incorporated in 1942, with NACoal and the Jefferson Company each subscribing to $100,000 of the company's authorized capital stock. East Farm then purchased additional coal lands for the Betsy Mine and a Bucyrus-Erie 9-W dragline with an eight-cubic-yard bucket. East Farm planned to recoup these outlays by leasing the new reserves and the $200,000 dragline to the Jefferson Company.

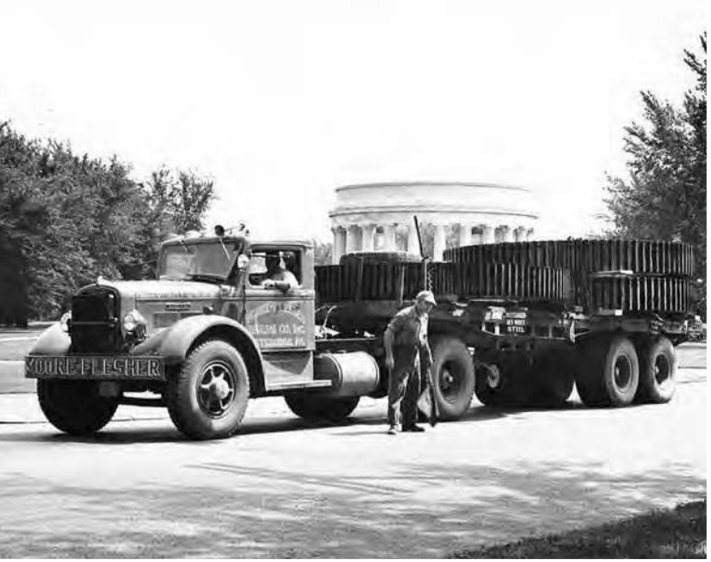
NACoal was so pleased with the results produced by the Betsy Mine investments that it bought out the Jefferson Company's 50 percent interest in East Farm in late 1943 and acquired the Jefferson Company itself for $1 million in 1945. By 1948 demand for Betsy coal had again outpaced its capacity, requiring the purchase of a Marion 7800 with a 200-foot boom and a 30-cubic-yard bucket—the largest dragline then available.

Early in 1943, North America Coal had acquired its second surface mining operation, the Fulton Mine, located at Jewett in Harrison County, Ohio. In exchange for $100,000 of Powhatan Mining Company (PMC) stock, the Fulton Mining Company transferred its physical property and leases to PMC. Powhatan Mining Company also gave stock to North American Coal as reimbursement for NACoal's outlay of $450,000 to purchase new equipment and coal reserves for the Fulton Mine. By the end of the decade, production at NACoal's two surface operations had skyrocketed to nearly 780,000 tons. By 1949, 20 percent of NACoal's annual sales of coal produced by its own mines came from the Betsy and Fulton Mines.

Henry Schmidt did not take his first vacation until the fall of 1943, when he squeezed in a few days of pheasant and duck hunting in South Dakota after making his semiannual inspection of NACoal's dock operations in Minneapolis and Duluth. Like NACoal's other subsidiaries, Inland Coal and United Coal had seen their finances improve as a result of escalating demand for coal following America's entry into World War II. Although Schmidt fretted that "when the war is over and normal conditions return there will be the same old struggle for markets that has existed for many years," he now felt comfortable taking a little time off. The North American Coal Corporation was well on the way to recording its second straight year of profitability.

In fiscal 1943 the corporation recorded consolidated net sales of $17.9 million (a year-to-year increase of 37.5 percent) and consolidated after-tax earnings of $920,083.96.This was a greater profit than had been earned in any of the previous 20 years. In addition, NACoal was current on all its accounts payable and had paid off its collateralized bank loans, as well

Opposite page: *In 1948 the Betsy Mine trucked in and assembled a new Marion 7800 dragline. With a 200-foot-high boom and a 30-cubic-yard bucket capable of holding a pickup truck, the Marion was the largest dragline then available on the market.*


MOORE FLESHER


SOHIO








PIPE
BOX






MARION



Schmidt did not take a vacation until the company's health was on the mend.

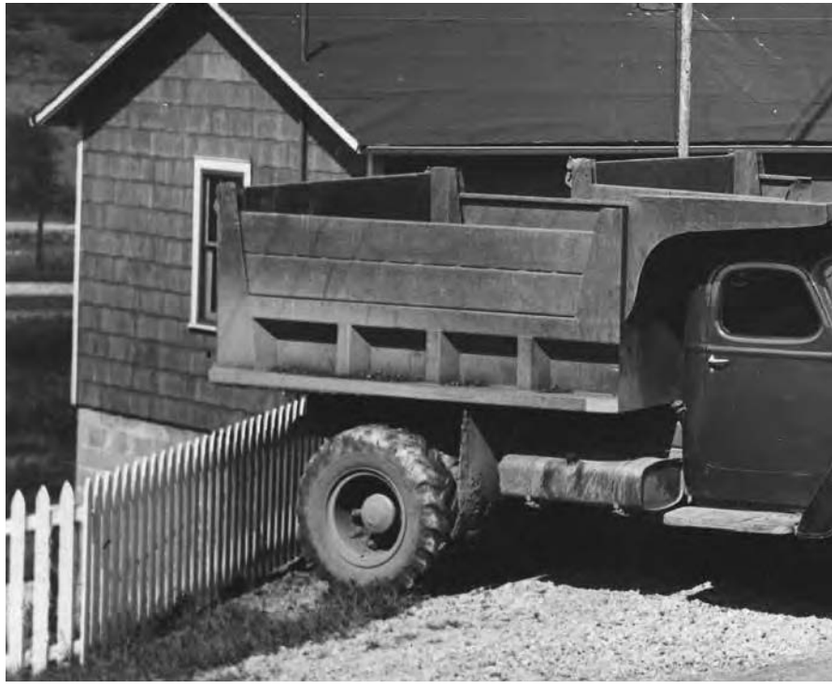
Right: *The Fulton Mine's coal-hauling fleet, circa the 1940s*

as the bank loans that its dockyard subsidiaries had taken out against warehouse receipts. Schmidt credited the company's astounding turnaround to the "ability, integrity and complete loyalty of every member of our organization." Wartime's "abnormal demand" for coal had also played a role.

Even NACoal's indomitable CEO thought that it would be an "impossible task" to improve the company's performance in fiscal 1944. But, the following year, North American Coal's sales grew to $18.5 million and its net profit exceeded that of fiscal 1943. Yet Schmidt was not satisfied with the extent of the company's recovery. Working capital was still insufficient, requiring the corporation to limit its annual expenditures on capital improvements and land acquisition to the amount of its annual charge-offs for depreciation and depletion. And, at 2.5 to 1, the ratio of the corporation's current assets to current liabilities was still too slim. "I will not consider that our company is in a safe and sound financial condition until this ratio is very much higher," Schmidt wrote in a letter to staff accompanying the company's 1944 annual report.

Shareholder relations were somewhat improved. Nearly $200,000 of the company's excess cash went to pay the preferred stockholders a dividend of $10.50 per share in fiscal 1944. The same dividend would be paid in each of the next two years. But, as NACoal's chairman reported to the shareholders in 1944, it was doubtful that the $1 million dividend arrearage could ever be paid. Schmidt hoped that this debt could be eliminated in a recapitalization. To date, however, discussions between Jack Reavis and Henry L. Hoppe, the law partner and personal attorney of Charles Farrand Taplin, had failed to produce a recapitalization plan that met the needs of NACoal, the Frank Taplin Sr. family shareholders (whose proxy was held by Reavis), and minority shareholder Farrand Taplin, who held the proxy for the preferred stock owned by his children and his sister and her children.

The minority shareholders gained representation on the NACoal board with the election of Henry Hoppe as a director in June 1944. At the annual shareholders' meeting later that month, Farrand voiced no criticisms and asked that the annual



report be filed as submitted, but he would continue to raise objections in correspondence with Schmidt to expenditures that he considered exorbitant or unwise.

Schmidt was pleased to report to the shareholders that the Pittsburgh Terminal Coal Corporation's suit against North American Coal had been settled in May 1944, leaving NACoal litigation free. To staff, he confided that the $1 million judgment against the company had been "quite a blow." To pay the cash portion of the settlement (which also required NACoal to surrender its Pittsburgh Terminal stock, bonds and notes and its assigned portion of the bankrupt company's accounts receivable), NACoal was required to sell its Wheeling & Lake Erie Railway stock. The last of the 16,300 shares were sold in the fall at the board-authorized price of $59 per share. Upon learning of this arrangement at the October 1944 board meeting, Hoppe asked that the minutes note that he would not have voted for the sale at this price had he been a director when the board granted authorization. Schmidt felt confident that the sale had been in the best interests of the company. The proceeds covered not only the $697,000 cash judgment, but also added more than $265,000 to NACoal's working capital, allowing the company to accelerate its modernization program.





After acquiring reserves that would extend its life for 40 years, the Powhatan Mine built a new portal and bathhouse for the miners working a newly opened tract at Cat Run.

Opposite page: *The interior of the Cat Run bathhouse. Miners traditionally hung their street clothes near the ceiling to keep them free of coal dust.*

North American Coal had turned a corner, or so it must have seemed until the morning of Wednesday, July 5, 1944, when tragedy struck at the Powhatan Mine. Around 11 a.m. a timberman was sent from the Cat Run portal two miles "inby" to the intersection of the mine's C North haulage corridor and Entry No. 3, where he had been instructed to remove debris that had fallen on a suspended wire of the trolley haulage system. While working to clear the high-voltage line, the timberman accidentally pulled down a 100-foot section of the mine's roof. Swinging wildly back and forth, several trolley wires dislodged from their moorings by the rock fall sparked each time they hit the haulage tracks. Before the timberman could reach a breaker box to cut off power to the lines, the coal dust in the air had ignited and the haulage corridor was ablaze.

The timberman fled to safety, as did all but 65 of the 199 men working the day shift. When foreman George Emery, a 42-year-old father of four, heard that a fire had blocked the egress of a large group of miners working at C North, Entry No. 4, he ran into the mine and somehow managed to reach the cut-off miners. At 11:55 that morning Emery telephoned a dispatcher to report the fire, which had gone undetected by the Entry No. 4 crew because it had as yet produced no smoke in their area. Emery told the dispatcher that he planned to build brattice walls to block the entry off from the haulage corridor. Until the blaze could be extinguished, the walls would prevent carbon monoxide gas (produced during the burning of carbon-containing compounds) from suffocating the trapped miners.

By 1 p.m. Powhatan Mine's general superintendent Roy Fox had reached Cat Run, where he remained for the next 16 hours, helping Ohio Division of Mines officials direct the efforts of Powhatan Mine's rescue team and seven other squads sent to the scene by NACoal's Ohio River Valley competitors. Section foreman Michael G. Rydosz, who would have been working C North that day had it not been for a twist of fate, was one of the numerous volunteers who also fought the blaze. While some rescuers cut a new 500-foot-long tunnel behind Entry No. 3 in an unsuccessful attempt to bypass the flames and reach the trapped miners, others vainly tried to put out the fire by smothering it.



"Roy Fox was up on top of that [rock] fall just the same as I was," Rydosz would recall more than 50 years later. "We were throwing rock dust on it,

> trying to put it out, trying to get water on it. It was an impossible task. We just couldn't. That damn flame would come right up through the rock and singe the hair off your head and off your arms. It was really something.

At shift change at 2 p.m., the mine siren blew for several minutes longer than usual. This was one of the first outward signs that something was wrong. At Powhatan Point, women and children came out of their homes to investigate, and those who lived near the old portal noticed that the entry was billowing smoke. As the word of the fire spread, the kinfolk of miners who had not returned home from the day shift began hurrying out to Cat Run. Powhatan Mine drew its 850-member workforce from a string of river communities, and some relatives completed the long journey from their towns on foot. There they discovered that sheriff's deputies were admitting only essential traffic on the road leading to the Cat Run portal.

As dark fell, the rescuers still believed that they could extinguish the fire. But, as the evening wore on, "their faces became more and more grim," reported the Bellaire *Times-Leader*. If it was a "night of horror for those who gave their utmost to reach the trapped men," the newspaper observed, "it was even worse for their families, barred from the Cat Run area and striving for information that none could give." At 5:45 a.m. on July 6, with the fire still uncontained and



On July 5, 1944, an accident sparked a fire that blocked the main haulage road leading to the Cat Run portal, trapping 66 miners.


PORTAL & SHOP

tests showing the presence of explosive gases in Powhatan's atmosphere, state and federal officials, the mine's managers and local union leaders agreed to shut off the ventilation fans (whose high-velocity circulation of air had contributed to the blaze's ferocity) and seal the mine's portals and other openings. As the day progressed, black wreaths went up on the front doors of homes throughout the valley.

At the request of UMWA District 6 leaders, Powhatan Mine officials agreed to sink an eight-inch-diameter shaft into the mine at the location where the men were thought to be entombed. The attempt to make contact was delayed by the difficulty of transporting to the site a 25-ton drill lent by the Hanna Coal Company. When the shaft reached 325 feet early Sunday morning, a telephone was lowered, but there was no response. Tests of the air in the shaft revealed low levels of oxygen and high concentrations of carbon monoxide, evidence persuasive to most that the trapped miners could not have survived.

In early fall, recovery operations were started, and by September 16, 57 of the victims had been removed from the mine. Nearly a year would pass before the final five bodies were located. The contents of a letter found on the remains of George Emery, the foreman who heroically gave his life to go to the aid of his colleagues, was released to the public by state mine officials. According to the Associated Press, the letter "chronicled, hour by hour,



A memorial stone engraved with the names of the fire victims was dedicated on October 29, 1944. It still stands in Powhatan Point's cemetery.

Remembering the Men Who Lost Their Lives in the 1944 Powhatan Mine Fire

Bellaire, Ohio
John Burda
Edward Dennis
Henry Johnson
Lester Marling
Hampton Matthews
Wilson McFadden
Tie P. Miller
Fletcher Rieves
Melvin Smith
Charles Stevens
William Zemmick

Bridgeport, Ohio
James Jobb

Cameron, Ohio
Edward Fletcher

Captina, West Virginia
Marion G. Wingrove

Clarington, Ohio
Glen Cook
Henry Hawley
William Hawley
Charles Nelson
Boyd Taylor

Glencoe, Ohio
James Gibson
Harry McGilton
Dwight Mellott
Virgil Preston
Andrew Sichi
John Yoblonski

Jacobsburg, Ohio
Russell Caldwell
Mike Chimley
Myron Wright

Neffs, Ohio
John Johnson

Powhatan Point, Ohio

> a story of stark bravery, of torture from cold after the men shed all their clothing to plug a barrier against gas, of the gas finally descending upon them as [Emery's] heart tried "to get out of [his] shirt," and over and over of his devotion for his wife and children.

Taken as proof that the miners had not lingered hopelessly for days, Emery began writing the letter's final message about 12 hours after the fire began. It read:

> 10:40 p.m. I can see the smoke in this place. The men are restless. They are talking about death. That is a bad sign. I am starting to vomit myself.
> 10:45 p.m. I am lying down. Too sick to explore. My light still burns. Aberegg is laying next to me back to back [to keep warm]. . . . God bless us all. I don't think we can last much longer. —G. E.



The high-velocity ventilation fan at Cat Run, a contributor to the intensity of the fatal blaze

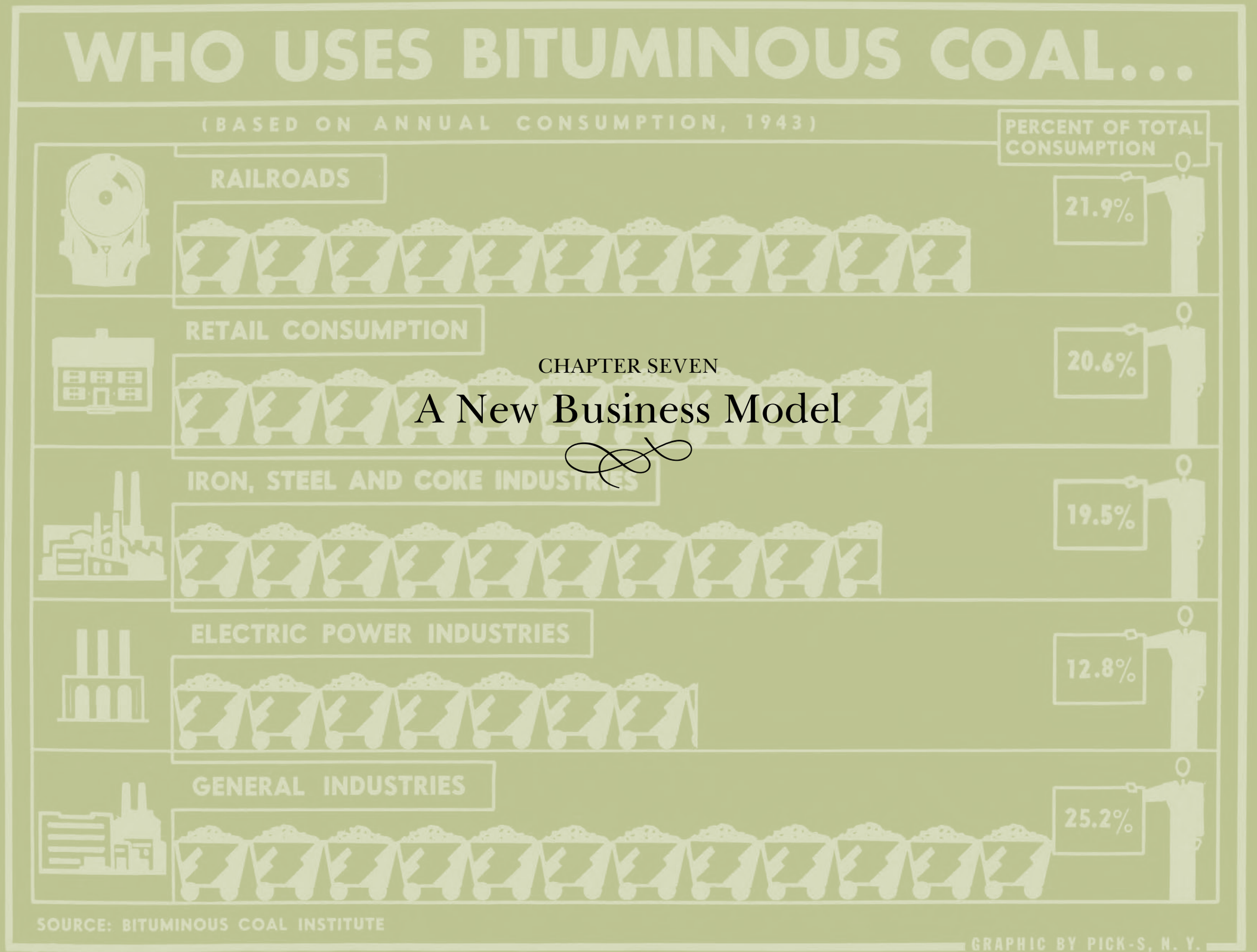
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Floyd W. Aberegg
Jacob Bellville
Dain Bragg
Charles Brown
Odell Brown
Wilson Brown
Alex Ciszewski
Sherman Cordery
Clinton Corwin
George Emery
Earl R. Gibson
Adam Gursky
Raymond Jackson
Roy Jennewein
Dale Jones
Charles Kacir
Wilbert Kneufner
Samuel Larkins
Denver Lee
James McConnaughey
Ralph McGonagle
Robert Munas
Virgil Newkirk
Andrew Punko
Matt Simonetti
John Stewart
Pete Utka
Ned Van Goshen
Avrel Vaught
Ralph Vilkoski
John Warsnick
George Wisor

Shadyside, Ohio
Dorsey Hartline
Mike Harvey
Dewey Munas Jr.
Toney Wach

St. Clairsville, Ohio
Frank Reick

—Reprinted from Carolyn Saner Rutter's A Sesquicentennial History of Powhatan Point, Ohio *(Dayton: Bucher Printing, 1998)*



CHAPTER SEVEN

A New Business Model

Henry Schmidt had dropped everything to make his way to Powhatan Point on the day the blaze broke out. He had witnessed the "courage and fortitude" of general superintendent Roy Fox and the other "key men" who had assisted Fox with the rescue operation. The conduct of the mine's managers, their CEO believed, had been "beyond reproach."

Returning to Cleveland with an appreciation of the "terrible tragedy" that had befallen the Powhatan Mining Company's employees, as well as a permanent stockpile of "personal information and impressions," Schmidt had remained "constantly in touch with subsequent events." His first concern was to lighten the burden of the victims' families. "We can truthfully report," he stated at the approach of the first anniversary of the fire, "that everything which could possibly be done to that end was done."

The families of each of the lost miners were given $100 in emergency monies by the United Mine Workers of America and more significant compensation by North American Coal. Helen Caldwell, for example, who was the widow of Russell Caldwell and a mother of three, received a survivor's benefit of $7,000, the equivalent of nearly three years' wages. But nothing could lessen the agony of waiting for the recovery operation to begin. "It was awfully hard that summer—before they could get to them," Mrs. Caldwell later confided to Powhatan Point historian Carolyn Rutter.

> You just lived for the time you could get to them, and it seemed it took so long. Of course, you couldn't show them. They just put them in bags.

Although she was 18 when she lost her father, Alex, Helen Ciszewski Kontra told Rutter that she had experienced trouble coming to grips with the events of that summer. "Powhatan was like a dead town," Kontra recalled.

> . . . It was hard for a kid my age to understand. It was scary, and then the funerals, sometimes three or four in one day. We had dad at the house . . . because it was just too many for the funeral home to handle.

Except for the section that had been ravaged by fire, Powhatan Mine was reopened on October 24, 1944. More than two years passed before C North was unsealed under state and federal supervision. In the interim, an investigation by the Ohio Department of Industrial Relations found that no violation of the state's mining code had caused or accelerated the fire, which would go down in history as the state's third worst coal mining accident.* The Powhatan Mine fire is also remembered as Ohio's *last* major coal mine disaster to date.

North American Coal struggled to absorb a $1 million loss arising from the downtime, reduced tonnage and rehabilitation of Powhatan Mine. The financial strain had been eased somewhat by a one-million-ton-per-year supply contract that NACoal signed with the Canadian National Railroad (CNR) in the fall of 1944. The CNR agreement represented an early

Opposite page: *An industry chart shows changing patterns of bituminous coal use during the war years.*

*The first and second worst disasters were caused by explosions that claimed 82 lives at Sunday Creek Coal Company's Millfield Mine in Athens County on November 5, 1930, and 72 lives at Hanna Coal Company's No. 10 Willow Grove Mine in Belmont County on March 16, 1940.



The tipple at the Powhatan No. 2 Mine. Acquired by North American Coal in 1945, primarily for its reserves, this underground mine, formerly owned by the Rail & River Coal Company, was located north of Powhatan Point.

Right: *Powhatan No. 2 miners on their meal break. Sandwiches fit into the top compartment of dinner pails; the bottom section held ice that kept the food fresh and slowly melted into drinking water.*



attempt by Schmidt to mitigate the uncertainty of year-to-year contracts. It could be terminated by either party only on three years' notice.

With this sort of business guarantee, North American Coal could justify spending $125,000 to acquire the additional production capacity it needed. To satisfy what was likely the contract's quid pro quo, NACoal acquired an underground mine that had been owned and operated in the Ohio River Valley since 1924 by the Rail & River Coal Company, a CNR subsidiary. Formerly known as the Stewart Mine, Rail & River No. 4 was located three miles north of Powhatan Point.

After NACoal purchased the mine in 1945, it underwent yet another name change, to Powhatan No. 2, and received a $1.25 million makeover. Given the proximity of Powhatan No. 1 and No. 2, it made sense to consolidate their coal preparation operations. The $350,000 Point Central Cleaning Plant, built on the riverfront at Powhatan No. 1 Mine in 1946–47, was designed for maximum flexibility. Able to receive coal by truck, rail or mine car, Point Central gave customers their choice of transportation options: truck, rail or river.

By the spring of 1947 normal production rates had been restored at Powhatan No. 1 and the renovation of No 2. was nearly complete. The following year NACoal's finances made a full recovery. The company recorded a historic $2.2 million profit in fiscal 1948. The value of its net fixed assets stood at more than $8 million, and its working capital topped $4 million, notwithstanding the expenditure of $2.7 million in fiscal '48 on facilities, equipment and reserves.

In a good-faith gesture to NACoal's shareholders, who had agreed in 1947 to exchange their preferred and common stock for new dividend-paying common stock in a recapitalization that eliminated the dividend arrearage, the company distributed a $4 dividend. NACoal had also decided to give something back to the citizens of Powhatan Point, in gratitude for their resilience in the face of adversity. In October 1948 a new high school athletic stadium, a gift of the Powhatan Mining Company, was dedicated to the village's youth during the halftime of a Powhatan Indians football game. Complete with steel bleachers, an electric scoreboard and a refreshment stand, the field had cost more than $60,000.

North American Coal's continuing investment in Point Central must have also given the residents of Powhatan Point hope for the recovery of their community. In response to growing





Powhatan Mining donated a high school athletic stadium to Powhatan Point in 1948 in gratitude for the community's resilience in the face of adversity. The dedication ceremony, at which Henry Schmidt spoke (left), *took place at a Powhatan Indians football game, cheered on by the enthusiastic fans who filled the stadium's 2,000-seat bleachers.*

demand for river transportation of Powhatan coal, NACoal beefed up Point Central's shipping facilities by dredging a harbor, purchasing barges and towboats, and installing barge-loading equipment. This $300,000 capital improvement project was completed in early 1949.

The following year North American Coal acquired a majority interest in Canada Coal Limited, a coal sales and lake-forwarding company with dockyards in Ontario. NACoal had held a minority position in Canada Coal since the mid-1920s. It made sense to secure control over the distribution system on which NACoal relied to service its Canadian National Railroad contract, which had been renewed in 1947 and again in 1950. With the addition of wholly owned docks in Toronto, Hamilton and Port Maitland, NACoal had a strong presence in Ontario that Schmidt hoped would open new markets in the industrial heartland of Canada.

In 1946–47 a new riverfront cleaning plant was built at Powhatan Point to serve Powhatan Nos. 1 and 2 Mines. As more and more industries and power plants also chose to locate on the Ohio River, the Point Central Cleaning Plant was outfitted with a fleet of tugboats and barges that transported coal up and down the river.



North American Coal was healthier in ways that could not be measured in dollars and cents. The Powhatan Mine fire had heightened the corporation's sensitivity to working conditions in its mines. Although North American Coal had been cleared of fault, the fire prompted a renewed focus on safety that over time became a core element of NACoal's corporate culture. Reinforced by greater vigilance on the part of governmental regulators in the years to come, the company's safety-first ethos was rooted in measures swiftly taken by the Schmidt administration to improve safety conditions at Ohio's largest underground mine.

Never again would Powhatan No. 1 lack for an ample source of water and firefighting equipment. As of early 1946 a 30,000-gallon reservoir and a piping system capable of reaching every corridor, entry and room in the vast mine were operational, and the mine's rescue team had been given a dedicated mantrip (a small electric train used to transport miners to and from their sections) that was outfitted with hoses, pumping equipment and chemical suppressants. Schmidt (who had exchanged the title of chairman for that of company president upon the retirement of O. C. Larsen in 1945) proclaimed the firefighting vehicle an industry first.

Under the guidance of safety director C. G. Evans, Powhatan Mining Company had "really exerted quite an effort to straighten things up," affirmed Mike Rydosz, who became safety director after Evans was promoted to general superintendent of the Red Parrot mines in 1949. Having been through the ordeal of fighting the Powhatan Mine fire and recovering the victims' remains, Rydosz had no tolerance for safety violations. He shrugged off the "flack" he took from some of his former colleagues for reporting unsafe conditions or behavior. "Hey, if it was the man's fault, it was the man's fault," Rydosz later elaborated on his rationale to Rutter. "Because some people were pretty darn careless, and that was an invitation. You can't be too careful."

Although pursued for cost savings and efficiency's sake, Schmidt's modernization program helped to improve safety and working conditions throughout the company. As more sophisticated or automated machinery came on line to perform operations that had once required manual labor, the physical strain on miners and the chances of mistakes and mishaps were lessened. All of NACoal's underground operations were equipped with coal-cutting machines and mechanical loaders by 1949, with the exception of the Mead mines, whose extremely low roofs did not permit the use of such equipment. Mike Rydosz, who started at Powhatan No. 1 in 1939 as a "mantrip rider," throwing switches for the motorman and helping to couple the transit cars, personally witnessed No. 1's transformation from a pick-and-shovel operation to the first fully mechanized mine in Ohio by the mid-1940s.

In the late 1940s NACoal began to replace its trolley haulage systems (which had supplanted mule-driven mine cars) with conveyor belts and shuttles. Then, beginning in the mid-1950s, NACoal systematically replaced the first- and second-generation cutting and loading machines in its Ohio deep mines with eight new continuous miners. In his new capacity as Powhatan



North American's dock in Hamilton, Ontario, was operated by a subsidiary, the Canada Coal Ltd.



Point Central's Chief Powhatan *tugboat*

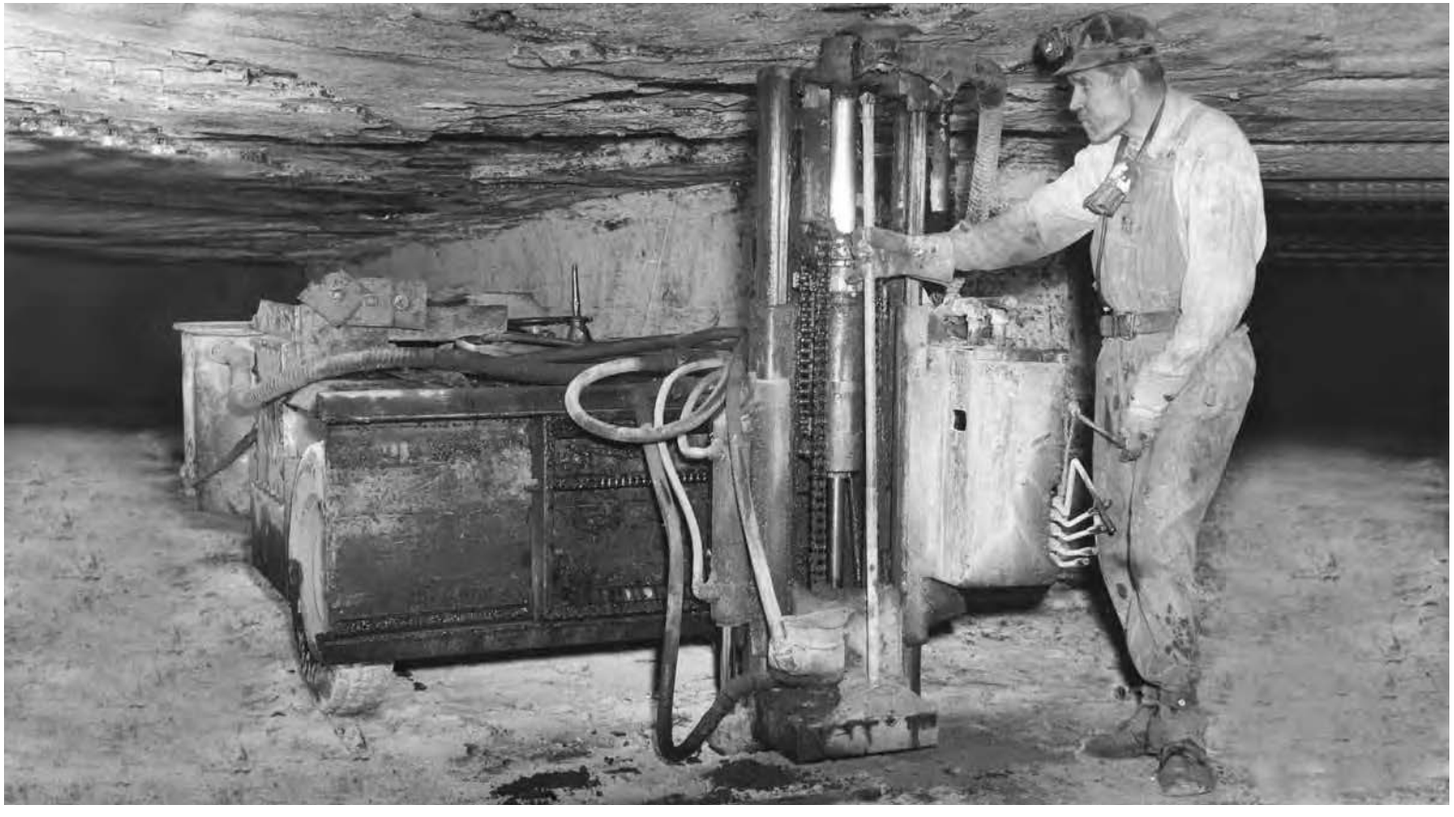


In the 1950s the Powhatan mines fielded rescue teams whose members kept their skills sharp by competing in challenging state-sponsored drills and simulations.

Right: *North American Coal's adoption of roof-bolting technology around 1955 improved the safety of the company's deep mines by eliminating conventional wooden roof supports, which were prone to collapse.*

Mining Company mechanization foreman, Rydosz trained miners to operate this machine, which performed the functions of cutting, drilling, shooting and loading the coal in a single operation. The changeover was completed by the end of 1957, at a cost of $2 million. The development of a rotary continuous miner finally allowed NACoal to mechanize the last remaining Mead mine—No. 3—which produced the company's only coal for domestic coke foundries and metallurgical use overseas.

The continuous miner eliminated the use of explosives to loosen coal at the working faces of underground mines. Another significant advancement in deep mine safety came with the introduction of roof bolting. The U.S. Bureau of Mines championed this innovation of the late 1940s as superior to conventional wooden posts and crossbeams, which were prone to collapse. Until the new ground-control technology became widespread, roof falls accounted for one-third to one-half of



all coal mining fatalities in 20th-century America. Most of the North American Coal's underground operations stopped using wooden supports around 1955 and began to reinforce mine roofs with steel rods anchored into drilled holes.

North American Coal was also rethinking its involvement in the lifestyle choices of employees. The impetus had come from the so-called Krug report documenting the deterioration of America's coal mining camps, released by the federal government in 1947. Based on a nationwide survey conducted by five teams of doctors, the highly publicized report declared that the majority of coal company towns were a "menace to healthful living." Schmidt forthrightly acknowledged that conditions in some of NACoal's camps were "almost as bad as the worst portrayed in this survey." He moved quickly to correct the most severe problems, but also recommended to NACoal's board of directors that the company dispose of its housing stock as soon as practicable. However, "it is necessary to give preference to expenditures for safer and more efficient machinery as against expenditures for housing improvement," Schmidt argued.

The company's largest residential holdings were the approximately 150 houses, scattered across the Ohio River Valley, that Powhatan Mining Company rented to employees. These miners' cottages were the first to be put on the market. Almost without exception, the houses were purchased by their tenants, who were eager to own and fix up their own homes. PMC was out of the housing rental business by early 1950. Red Parrot's home sales program was still ongoing as of 1958.

The wind-down of NACoal's merchandising arm took place more gradually. Schmidt recognized by the mid-1950s that UMWA contract concessions and marketplace realities had put an end to the "time when company-owned stores could dominate the business in the area 'round our properties." However, when confronted with declining profits at NACoal's six company stores, he sought to turn the numbers around, rather than abandon the business of selling food, clothing and household goods outright. In 1954 NACoal found a department store operator that agreed in principle to take over management of the NACoal Stores Division. The deal fell apart at the 11th hour after the department store company decided that it didn't need the "additional headaches."

With no choice but to become more competitive with local merchants and national chains that miners were now free to patronize, the merchandising division subsequently adopted a customer-oriented approach. NACoal's company stores began offering telephone-ordering service, free home delivery and a variety of credit plans, and a gas station was added to Powhatan No. 1's merchandise mix in 1956. Store employees were given written instruction in telephone etiquette ("Adjust your telephone transmitter about 1/4" way from your lips"; "Hurried speech is indistinct"; "At the end of your conversation, let the other person hang up first").

The retooling worked. In fiscal 1956 the NACoal Stores Division returned a net profit of $155,600, more than twice the previous year's results. Determined to maintain the positive



The company store at Powhatan Point stayed in business until the early 1980s by offering a wide selection of goods, credit and free home delivery.



The gas station at the Powhatan No. 1 Mine opened in 1956.



The Cincinnati Gas & Electric Company signed a five-year contract for Powhatan coal in 1949.

Opposite page: *Schmidt (at far left) on an inspection tour of the Betsy Mine conducted in 1948 for representatives of prospective utility company customers*

trend line, the Schmidt administration imposed a strict fiscal discipline on its merchandise outlets. When a store could no longer consistently achieve a gross operating profit of 40 percent, it was closed. The Powhatan No. 1 store, which remained open until the early 1980s, was the last to be shuttered.

On the sales side, North American Coal made an even more consequential transition. Reading what were then merely hints that coal's traditional markets were shrinking, Schmidt watched with keen interest as practically all of the electric utility companies in NACoal's tri-state area added new capacity in the postwar years. He also observed the growing number of industries that were locating along the Ohio River. Almost without exception, new power-generating units were designed to burn coal. Coal was also the choice of general industry because under most circumstances it was the cheapest fuel. Between 1942 and 1966 the consumption of coal by electric utility companies would jump from 64 million tons per year to 264 million tons. Long before this trend line became clear to all, North American Coal had refocused its sales effort on utilities and, secondarily, on industry.

The outlines of North American Coal's new business model began to emerge in 1948. Believing that NACoal would eventually lose all of its railroad business and most of its retail coal business—markets that accounted for 40 percent of the coal consumed annually in the United States at the time—Schmidt and Frank E. Whitaker, the company's vice president of sales, had pursued and landed a long-term supply agreement with the Ohio Public Service Company. This small utility, which provided electricity to six medium-size cities in north-central Ohio, signed an eight-year contract that averaged out to 40 tons per year over the life of the contract. The base sales price of 16 cents per million BTU (British thermal units) was to be adjusted in the event of decreases in the heating value of the coal delivered or increases in the costs of production. One detects the hand of NACoal's outside counsel Art Dougan, who became the corporation's assistant secretary circa 1946, in this early attempt at designing a long-term contract that would protect the interests of both parties as circumstances changed.

On the last day of 1948 the Pittsburgh Plate Glass Company, a manufacturer serving the automotive, aviation and construction industries, signed a five-year contract for Powhatan coal, and on the first day of 1949 the Cincinnati Gas & Electric Company became a PMC customer under a one-year contract, with options for renewals. Twenty years later the Powhatan mines would still be supplying the coal that powered the "Queen City."

Contracts signed with other electric utility companies in the early 1950s proved similarly durable. In 1951 Ohio Edison, whose recent acquisition of the Ohio Public Service Company (OPS) had boosted the former into the ranks of the nation's 10 largest electric utilities, became a North American Coal customer. In addition to assuming OPS' contract, Ohio Edison selected NACoal to supply coal to its seven-year-old R. E. Burger Power Plant in Shadyside, Ohio. Burger and three sister plants on the Ohio River constituted the largest electrical





Schmidt (seated, at center) signs an agreement to purchase Rail & River's No. 6 Mine, located at Dilles Bottom, Ohio. The acquisition of the mine, which was renamed Powhatan No. 3, boosted North American Coal's annual production to five million tons.

generating network in the nation at the time. As a result of a series of four expansions that increased Burger's capacity to 541 megawatts by 1955, coal sales to Ohio Edison grew 12-fold over the first 11 years of the contract, from 59,000 tons in 1951 to 748,267 tons in 1962.

Not only was the size of North American Coal's 1951 contract with Ohio Edison significant, its terms filled in the outlines of the company's new business model. It was truly a long-term contract, with a projected duration of 25 years. It was the first to be negotiated on a cost-plus basis, whereby the Akron-based utility company agreed to reimburse NACoal for all its allowed expenses up to a set limit (subject to escalation talks) *plus* pay an additional sum that constituted NACoal's profit. A cost-plus contract was attractive to both parties because it ensured a relatively predictable fuel cost for the utility while rewarding the coal supplier for the excellence of its managerial skills. During the first 11 years of the Ohio Edison contract, NACoal kept increases in the base price of $3.868 per ton FOB mine to less than 1 percent. Gains in efficiency resulting from mechanization permitted the company to retain or widen

its margin of profit while maintaining the cost of coal to the customer—a significant reason why NACoal's long-term supply contracts were consistently renewed.

In exchange for committing to a long-term relationship, Ohio Edison had made its approval of the coal sales agreement contingent on NACoal's purchase of Rail & River's No. 6 Mine in Dilles Bottom, Ohio. The mine, which had supplied the Canadian National Railroad since opening in 1908, was fully mechanized. It had several other critical assets: top-quality coal with high volatility and low ash content, a 100-million-ton reserve and a location a mile and half downriver from the Burger plant. And the proximity of the coal supply would save Ohio Edison an estimated 15 cents a ton in freight charges. (In the future the cost benefits of locating new power plants near the mouths of supplier coal mines would work again and again to NACoal's favor.)

The acquisition of Rail & River No. 6 promised to boost NACoal's total potential output by 20 percent, to five million tons per year, and permit the company to reclaim its former status as one of the nation's 10 largest coal producers. It would raise the value of the company's net fixed assets from $10.9 million to $16.2 million. But all these benefits came with a $5 million price tag, which Schmidt proposed to finance through bank loans and the sale of $4 million in sinking fund debentures. The secured debentures would give four national insurance companies—the prospective purchasers—veto power over the corporation's financial activities and even operating decisions for more than a decade. Schmidt, who did not ordinarily countenance challenges to his authority, obviously considered the venture essential to NACoal's continued success. He gave the board of directors several months to study carefully the merits of the complicated deal.

The 4.5 percent interest on the debentures, which were to be paid off over the course of 15 years, could largely be covered by annual charge-offs for depreciation and depletion of No. 6. Ohio Edison had agreed to a management fee of 15 cents per ton plus a 6 percent profit, which would give NACoal a 9 percent annual return on capital invested. The limited risk and tremendous upside of the acquisition were very attractive, as was the utility company's willingness to cover some of the mine's needed capital improvements. This "skin-in-the-game" financing provision was to become a standard feature of NACoal's future fuel-supply contracts with new "mine-mouth" electric plants.

For all of these reasons the board gave Schmidt the go-ahead to make the most costly acquisition of his tenure. In September 1951, Rail & River No. 6 became Powhatan No. 3. The following year NACoal decided to suspend operations at Powhatan No. 2 in order to lighten the burden of managing the company's rapid-fire growth. No. 2 never reopened and its reserves were ultimately dedicated to other Powhatan mines.

A system of elevated conveyor belts spanning State Route 7 and the Pennsylvania Railroad tracks was built in 1952 from No. 3's tipple to the Ohio River, with Ohio Edison contributing $500,000 toward the cost of construction. NACoal absorbed the costs of building No. 3's new harbor—its third coal-loading



The purchase of Powhatan No. 3 Mine secured a 25-year commitment from Ohio Edison's R. E. Burger Power Plant, located a mile upriver. The Burger coal sales agreement was North American's first truly long-term contract.

facility on the Ohio River. (Two years earlier the company had built a harbor upriver at Martins Ferry, Ohio—a stop on the New York, Chicago & St. Louis Railroad—in order to give Powhatan Mining Company access to a second railroad shipper whenever Pennsie, its primary carrier, was short of coal cars.) Ohio Edison also paid $1 million to purchase a section of No. 3's 30,000 acres of coal lands; for each ton of coal mined in that section, the utility company was to receive a royalty of 10 cents. This arrangement would prospectively give Ohio Edison a 16 percent annual return on its $1.5 million investment in the mine's improvement.

The ink on the Ohio Edison deal had barely dried when the Ohio Valley Electric Corporation (OVEC), a joint venture of 15 private utility companies, awarded NACoal a 1.5 million ton per year contract, to start in late 1954 and run for 15 years. The largest fuel-supply agreement in the company's history to date, the contract called for NACoal to supply half of the coal requirements of a new OVEC plant under construction near Gallipolis, Ohio. In addition to serving businesses and consumers, OVEC's Kyger Creek Plant was scheduled to provide electricity to an Atomic Energy Commission (AEC) gaseous diffusion plant under construction near Portsmouth, Ohio. Given the unprecedented nature of the AEC's plans to produce enriched uranium for defense and energy-generation purposes at the Ohio River facility, a provision in the 1952 OVEC contract required the utility company to pay curtailment charges in the event that it did not take the specified quantity of coal.

A composite view of Powhatan No. 3 shows the investment in new infrastructure made in the 1950s. From right to left: *the updated tipple and cleaning plant; the 2,000-foot-long system of conveyor belts that bridged a highway and railroad tracks standing between the tipple and the river; and the new harbor and barge-loading facility*





Undoubtedly inserted at the recommendation of Art Dougan, the "take-or-pay" provision became a standard clause in NACoal's coal-supply agreements. Such protections actually enabled NACoal to serve customers better, in that they took most of the guesswork out of mine planning. Utility and industrial clients agreed to these kinds of terms because their need for massive quantities of coal of uniform size and quality shipped in a steady volume at stable, affordable prices could only be met by large coal producers with proven managerial ability, veteran workforces, modern facilities, state-of-the-art equipment and plentiful reserves.

In the space of only 10 years, North American Coal had once again become such an exemplar, and in appreciation for the role that Dougan had played in developing the company's win-win relationships with leading members of the burgeoning electric-power industry (and in limiting the downside of long-term contracts), the Jones, Day attorney was invited to take a place alongside his colleague Jack Reavis on North American Coal's board of directors in 1954.



In 1950 North American Coal built a dock and harbor at Martins Ferry, Ohio, gaining a connection to a backup railroad carrier.







CHAPTER EIGHT

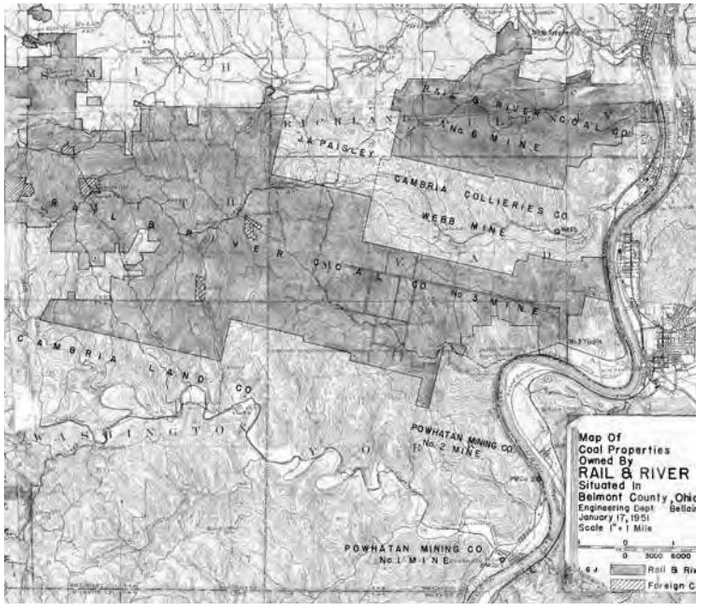
What Next?

The continuing decline of North American Coal's railroad business depressed the company's earnings in the first half of the 1950s. Railroads had accounted for about 17 percent of the company's total output early in Henry Schmidt's tenure, but the sales department's forecast for fiscal 1954 predicted that this class of business would not exceed 2 percent. To make matters worse, competition for heating-fuel sales, always fierce, had become "chaotic and atrocious," as Schmidt put it. North American Coal was one of 17 coal companies—some from as far away as Kentucky—that competed, for example, to fill a 1954 order from the City of Galion, Ohio, for a miserly 12,000 tons of nut and slack. The bid submitted by NACCO (to adopt the corporate acronym then in use) came in dead-last on price.

Despite the bottoming out of coal's traditional markets, Schmidt remained upbeat about the company's prospects. "NACCO has faith in the future of Ohio deep-mined coals," he confidently stated in an employee newsletter announcing the acquisition of yet another underground mine in the Ohio River Valley. In 1954 NACCO paid $125,000 to purchase the Cambria Mining Company's Webb Mine in Shadyside, Ohio. The company had no intention of operating the property. It planned to appropriate the mine's ventilation shaft and its 5.3-million-ton reserve to lengthen the life of Powhatan No. 3.

Schmidt was justifiably optimistic about the future. A growing new market—the electric utilities industry, whose capacity NACCO's president expected to quadruple by the mid-1970s—had been opened, and as of the end of October 1956 utilities accounted for 59 percent of NACCO's total sales. With general industry speaking for another 22 percent of the company's sales, the reconfiguration of NACCO's customer base was nearly complete.

Scrambling for dwindling spot-market and retail sales was no longer productive or necessary. Indeed, in 1959 NACCO would decide to sell its Canadian and American dockyards and exit the lake-forwarding business. The previous year only 350,000 tons of company coal had been shipped to customers via the Great Lakes, compared to a peak of 3.6 million tons in 1943, and Schmidt and the board thought it wise to dispose of the docks while they were still showing a profit. NACCO's river-loading and shipping facilities, on the other hand, were busy dawn to dusk. Ninety percent of Powhatan Mining Company



This map shows Powhatan Nos. 1 and 2 Mines, as well as the competitor operations that North American acquired during the 1950s.

Opposite page: *A lab worker in North American's quality-control department checks the temperature of an oven used to analyze the chemical composition of a sample of coal after combustion.*



The Detroit Edison Company's St. Clair County, Michigan, power plant, a long-term Betsy coal customer. As of 1957, North American's 45th year in business, coal sales agreements of more than one year in duration accounted for fully 65 percent of company-wide production.

coal was now shipped to customers via the Ohio River. PMC, which had built a fleet of two tugs and 20 barges, couldn't keep up with the demand and looked to outside contractors to supplement its own water transportation services.

With utility and industrial customers placing a high premium on a stable fuel supply, NACCO no longer had to contend with the unpredictability of year-to-year contracts. After the Cleveland Electric Illuminating Company extended its customary one-year contract for Betsy and Fulton coal to five years in 1956, nearly all of PMC's annual production was under long-term contract. The Detroit Edison Company placed a multi-year order for Betsy coal in April 1957. At the beginning of NACCO's 45th year in business, coal sales agreements of more than one year in duration now accounted for fully 65 percent of company-wide production.

NACCO's other enviable assets included a veteran workforce of 2,173 miners and 449 salaried and supervisory staff members, 19 of whom had given the company 30 or more years of service. NACCO also controlled 423 million tons of reserves, about half of which were located on the Ohio River. Its net fixed assets were valued at $22 million and its working capital stood at $10 million.

North American Coal's competitors had taken note of the company's turnaround and hopeful future. As early as 1953 Schmidt and members of the Taplin family began to receive inquiries about whether NACCO was for sale. One of the earliest feelers came from Cleveland industrialist Cyrus S. Eaton, a one-time natural gas producer who had diversified into steel, railroads and coal. Over the next several years the Peabody Coal Company of Illinois (now Peabody Energy, the world's largest private-sector coal producer), the Pocahontas Fuel Company of Virginia and the Valley Camp Coal Company of West Virginia all expressed interest in a merger or a purchase. "North American seems to be the fair damsel that everyone desires," Schmidt marveled about this turn of events to Frank Taplin Jr. in 1956.

NACCO's president did not welcome any corporate restructuring that would result in the Taplin family's losing control of North American Coal. "Nothing destroys the effectiveness of management as completely as a divided board," Schmidt observed to a business associate. "A dual monarchy never works and must be avoided at all costs." The company's majority owners were not interested in ceding their authority, either. Pocahontas Fuel, which had discussed a possible buyout offer with director Alfred Rankin Sr., had informed Rankin of its desire to be the controlling shareholder, and, as Schmidt reported to Rankin's brother-in-law Frank Taplin Jr., "Al turned them down flat."

The other suitors went away disappointed, too. The discouraging responses they received were no doubt similar in tone to the polite turndown NACCO's president sent to the Kaiser Aluminum & Chemical Corporation. The California-based manufacturer had net earnings 40 times greater than those of North American Coal, and Schmidt acknowledged that the Taplin family considered Kaiser Aluminum's interest in NACCO a "very high compliment." He went on to indicate that

the company was not for sale. “Our prospects for the future are exceedingly bright,” Schmidt wrote, “so that nothing less than an unrealistic and fabulous offer would be considered.” To avoid giving offense, he offered a word of explanation about the goals of the majority shareholders, stating, “They are young people imbued with a desire and eagerness to see the company expand and grow in the years ahead.”

Schmidt and the board of directors had agreed in 1953 to explore the possibility of growth through diversification. The company commissioned a firm of consulting engineers to study the feasibility of NACCO’s entering the oil refining business. The study disclosed that oil refining was almost as competitive as the coal industry, and that option was tabled. Because of his training as a chemical engineer, Schmidt personally believed that the chemical business—specifically, the conversion of coal and coal waste into useful industrial products—held more promise.

Schmidt had taken note that the largest coal producer in the United States, the Pittsburgh Consolidation Coal Company (formed by the 1946 merger of NACCO’s former rivals, the Pittsburgh Coal Company and the Consolidation Coal Company), was experimenting with the gasification and carbonization of coal. Schmidt recommended that NACCO establish its own “Research Department, no matter how small, and get started on projects of this type.” The board approved this initiative in 1955, even though “investment in research into coal waste processing” was, as Al Rankin Sr. pointed out, “inconsistent with our capital austerity program.”

Because earnings had dipped in 1953 and again in 1954 before trending upward in 1955, working capital was once again tight. In order to make the improvements that would ensure that Powhatan Mining Company had the capacity to fulfill the OVEC contract, NACCO had taken on an additional $1 million in long-term debt. As a condition of their financing of the additional debt, the four insurance companies that held NACCO’s debentures raised the interest rate on the entire amount owed by 0.25 percent. The need for compensatory cost savings likely prompted NACCO to move its corporate headquarters in 1954 from downtown to a two-story building on Cleveland’s border with the suburb of Shaker Heights that was formerly home to a small savings and loan company. Occupying the first floor at 12800 Shaker Boulevard, NACCO further lowered its administrative overhead by renting out the second floor.

Faced with an annual debt payment of $670,000, Schmidt nonetheless recommended in 1955 that the company buy out its minority shareholders. After three years of on-and-off negotiations, Charles Farrand Taplin had lowered his expectations of selling the minority owners’ stock at $106 per share. Even Taplin’s fall-back figure had floored NACCO’s president, who was conducting the negotiations with Taplin’s law partner Henry Hoppe. “I told Henry that I would collapse completely if the Company would ever agree to take on such an added burden,” Schmidt informed Frank Taplin Jr. As of 1955 the minority shareholders had agreed to accept $60 a share. This sum, close to the average price of the stock of publicly traded



North American Coal moved its headquarters from downtown Cleveland to suburban Shaker Heights in 1954.

Right: *The support staff worked in a "bullpen" in the rented corporate office building* (opposite page, left).

coal companies, represented a price-to-earnings ratio of 8.19. Perhaps Farrand had decided to take his own frequently cited advice: "The time to sell tarts is when people are buying them."

NACCO's insurance company lenders declined Schmidt's request for a loan of $1.5 million to be used to purchase the minority owners' 25,000 shares. Schmidt began to look for alternative funding. His research on the stock prices of publicly traded coal companies may have sparked NACCO's decision to enter the equity market. In July 1956 The North American Coal Corporation issued 250,000 shares of common stock to be sold over the counter by the investment firms of Dominick & Dominick of New York City and Ball, Burge & Kraus of Cleveland. Priced at $12 a share, the stock offering was oversubscribed "by a wide margin," a delighted Schmidt reported to Frank Taplin Jr. As the first anniversary of the offering approached, NACCO's stock was selling at 12 times earnings. At $16.63 a share, the stock represented "excellent value," opined the McManus-Walker stock rating agency, "and a medium to participate in the growth of one of the leaders in a vital and progressing industry."

The underwriters presented Schmidt with a check for $2,712,500 in August 1956. This was $537,500 less than Schmidt had anticipated due to a misunderstanding about the size of the underwriters' commission. Not long afterwards





Congratulatory floral bouquets bedeck the company's new reception desk.



Robindale Mine's standing utility contract and plentiful reserves outweighed the operating challenges presented by its equipment, some of which was as outmoded as this Vulcan Iron Works hoist.

NACCO's president discovered that he and Roy Fox, now vice president of production, had underestimated by 45 percent the capital expenditure budget for 1957 (the year that NACCO switched from fiscal-year to calendar-year accounting).

The unexpected budget increase resulted from closer scrutiny of the infrastructure needs of NACCO's newest acquisition, the Robindale Mine, located in Westmoreland County, Pennsylvania, near the Conemaugh River (whose storm-swollen waters had flooded Johnstown in 1936). Reviving the company's historic presence in the Pittsburgh Field, the underground mine had been acquired from the Pennsylvania Electric Company (PennElec) in May 1956. A new NACCO subsidiary, the Conemaugh Mining Company, had been incorporated in Pennsylvania to manage the renamed Conemaugh Mine.

PennElec, which served the northern, western and south-central portions of the state, had made the mine's takeover a requirement of a 16-year contract to supply coal to its power plant in Seward, Pennsylvania. In addition to the guaranteed business, NACCO's acquisition of the Robindale Mine contributed 33 million tons of good-quality steam-turbine coal to the company's reserves. But it also came with serious operating challenges. In-state coal producers, who were familiar with these difficulties, had been unwilling to assume the mine's management, which is why PennElec had turned to NACCO. Robindale's mineable coal was riddled with rock veins and washouts, and its equipment was antiquated. Coal was still loaded into wooden mine cars that had to be hoisted one at a time up a 200-foot shaft. This created a bottleneck that adversely affected the mine's production, which amounted to about 250,000 tons annually.

To ramp up to the minimum annual delivery of 720,000 tons of coal specified in the second year of the PennElec contract, NACCO would have to bring in four continuous miners (at a cost of $250,000 each) and modernize the mine's haulage system by investing in 15-ton steel mine cars, the construction of a new slope, and the installation in the slope of a conveyor belt fed by a new rotary dump and hopper. When completed, these capital improvements would boost the mine's production by almost 40 percent, but they also contributed significantly to the estimated $5 million that Schmidt and Fox now calculated they would need to satisfy the "insatiable" capital demands of all the company's mines in 1957 alone. How would the additional resources be secured?

Presented with the opportunity to sell an additional 83,000 shares of common stock to a private investment company in December 1956, NACCO proceeded with the sale, which netted $166,000. Schmidt was opposed, however, to a second over-the-counter offering that would further dilute the shareholders' interests. Of the nearly 1.5 million shares of NACCO common stock that were now outstanding, Edith Taplin and her children and their families still retained control of 68 percent. Schmidt recommended that the board consider a refinancing and expansion of the company's long-term debt instead.

The results obtained from the sustained capital expenditure program of the prior 15 years argued in favor of Schmidt's proposition. North American Coal produced 5.6 million

tons of coal in 1956, setting a record high for the Schmidt administration. The tonnage represented a 37 percent gain over the previous year's output and bested the rate of growth in the national production of coal, which was up only 19 percent. Another reassuring indicator that the company had rebounded from the loss of its traditional markets was fiscal 1956's net profit of $1.5 million, which represented a 300 percent growth in earnings over the previous year.

The board gave Schmidt the go-ahead to renegotiate the debt with the four insurance companies, who agreed in November 1957 to purchase $10 million in notes paying 5.25 percent interest. With the subsequent appointment of Lucius F. Hallett Jr., the financial secretary of New England Mutual Life Insurance Company of Boston, to NACCO's board, the insurance companies gained a stronger say over the company's governance necessitated by the loan's favorable terms. No principal retirement would be required for the first five years. Thereafter $7.5 million in senior secured notes would be payable in 10 equal annual installments; the remaining $2.5 million in convertible subordinate notes would not be due until 1973. Finally Schmidt had what he believed to be sufficient working capital to pursue the board's growth mandate.

NACCO had launched an R&D program in September 1956 with the hiring of Robert L. Savage, Ph.D., a professor



The continuous miner performed the functions of cutting, drilling, shooting and loading the coal in a single operation. Most of the crews in the company's underground mines had been outfitted with this innovative piece of equipment by the mid-1950s.

of chemical engineering at Cleveland's Case Institute of Technology. Within five weeks of his appointment as vice president of research, Dr. Savage had decided to focus on developing processes for recovering alumina from coal wastes. Alumina—a synthetic aluminum oxide traditionally produced from bauxite—had broad utility: as a starting material for the smelting of aluminum, as the raw material for advanced ceramic products and as an active agent in chemical processing. If NACCO succeeded in economically producing alumina from coal spoils, it would be the modern-day equivalent of the medieval alchemist's dream of turning base metals into gold. The board's modest first-year allocation of $50,000 for research salaries and expenses had not given Dr. Savage the resources he needed to aggressively pursue his alumina agenda. However, with a second-year, post-loan allocation of $250,000, he was able to retain the Strategic Materials Corporation (SMC) of Buffalo to conduct extensive laboratory tests.

Declining to put all their eggs in one basket, Schmidt and the board remained interested in growth through mine acquisition. In the recent past their guiding principle had been to purchase a mine only when the price was fair and the market for the coal was assured under long-term contract. Caution had also governed the acquisition of reserves, which had to be available at a reasonable price, located near an existing NACCO mine, and contain sufficient coal to replace or exceed that mine's annually depleted tonnage over the foreseeable future. NACCO's purchase of a lignite surface mine in North Dakota in August 1957 did not conform to the usual ground rules. Yet Schmidt, who had traveled with Roy Fox to inspect the property, had recommended that NACCO acquire the Dakota Collieries Mine near Zap, North Dakota, "without reservation." The mine's owner, Twin Star Industries of Dallas, wanted to sell the property in order to focus on the development of lignite mines in the Southwest. NACCO's offer to exchange 25,000 shares of common stock valued at $500,000 for mine assets worth an estimated $750,000 was accepted without prolonged negotiation.

In 1956 Dakota Collieries had earned a pretax profit of $127,000 on annual production of about 300,000 tons of heating coal sold under the names of "Indian Head," "Fire Chief" and "Lucky Strike" to retail and institutional customers. NACCO's president had based his "buy" recommendation on the expectation that the mine's record of "fine" earnings could be maintained or improved. A 20 to 30 percent annual return on NACCO's investment was entirely possible, he believed.

Other factors in the acquisition's favor were the pureness of the lignite seam (which made a cleaning plant unnecessary), the good condition of the mine's five-cubic-yard dragline, haulage roads and screening facility, and the mine's 7.5-million-ton reserve, which was located near other coal-bearing lands that could be inexpensively purchased or leased. Whatever Schmidt's rationale for taking a risk on mining a type of coal with which NACCO had absolutely no experience, the acquisition of the Indian Head Mine, as the property was renamed, would turn out to be one of his administration's most significant undertakings.



This small surface mine near Zap, North Dakota, was one of the Schmidt administration's most significant acquisitions, as it paved the way for the company's evolution into a lignite coal producer.

The company's merger with the Warner Collieries Company in 1959 would not work out as positively as Schmidt hoped, even though the deal more closely adhered to NACCO's usual acquisition guidelines. Unlike the Indian Head Mine, which had to win back the business of institutional customers every year, Warner's four mines had standing contracts with major utility companies for their annual production of one million tons of coal. Warner's Jensie underground mine near East Springfield, Ohio, provided fuel to the Cleveland Electric Illuminating Company, and its three deep mines near Mammoth, West Virginia, served the nearby Philip Sporn Power Plant of the American Electric Power Company.

The widow and son of Whitney Warner Sr.—NACCO's former chairman—owned a majority interest in the company, whose fixed assets, coal inventory and 37-million-ton reserves were valued at more than $3 million. They agreed to accept North American Coal's offer of a $2 million package of cash, NACCO stock and other considerations, perhaps because NACCO was willing to assume Warner Collieries' long-term debt and employ the company's president, Whitney Warner Jr., as head of its newly created Warner Division. (When Powhatan Mining Company was folded back into The North American Coal Corporation earlier in 1959, its mines were placed in a new Ohio Division.)

While warning that the merger with Warner represented an "additional 1,000,000 tons of headaches," Schmidt had recommended that the board of directors approve the deal. Plans were in the works to sell the Fulton surface mine in Ohio, and the Mead and Red Parrot mines were reaching the end of their "mineable and merchantable" reserves, judging by


POWHATAN MINING CO.
PULTON MINE


OUR MOTTO ~ "SAFETY"
C.H. MEAD COAL CO.
MINE NO. 7
FIREBOSS BOARD
1ST SHIFT
2ND SHIFT
DATE IN TIME OUT SECTION CONDITION FIREBOSS
REMARKS
3RD SHIFT
DATE IN TIME OUT SECTION CONDITION FIREBOSS
REMARKS





the number of customer complaints about coal quality that the sales department had been fielding on an "everyday" basis for several years. Schmidt must have hoped that the Warner mines, which became NACCO properties in June 1959, would counterbalance the impending loss of significant production capacity.

That December North American Coal shut down the Red Cedar Mine at Keith, West Virginia. The Mead No. 3 Mine was sold in April 1960 to a Winding Gulf Field competitor for $1.2 million. Even after watching the losses at Red Parrot mount from $25,000 in 1958 to 10 times that amount in 1959, NACCO did not close the once highly profitable mine at Prenter until November 1960. Schmidt's reluctance to act stemmed in part from his inability to negotiate an "honorable" termination of Red Parrot's longstanding coal-reserves lease, which did not expire until 1978.

Called in to provide legal backup, Art Dougan found the lease's undue length to be only one of many "unreasonable" terms imposed by an increasingly "greedy" lessor, who had taken "every possible advantage" of NACCO's strong commitment to Red Parrot. Dougan let it be known to the lessor that NACCO could justifiably walk away from the lease—the terms of which, he argued, "were not of our own choosing nor freely made"—if left with no other choice. Two weeks later the lessor agreed to a $1 million cash settlement, payable over 10 years. The total cost of disposing of the three West Virginia mines ran to nearly $2.75 million. To avoid incurring such a sizable loss, the Schmidt administration had allowed the festering problems at the mines to go from bad to worse.

It soon became clear that the Warner Division was turning into another "major drain" of the company's resources. After overcoming the issue of the Jensie Mine's unexpectedly "treacherous roof," the Jefferson County operation went on to become a solid performer. Renewals of a long-term contract signed with the Cleveland Electric Illuminating Company in 1966 kept the mine operating until 1978. Warner's "southern" mines, on the other hand, suffered from labor disputes and marketing problems that selling their coal under the once-esteemed "Red Parrot" label did nothing to diminish.

When NACCO shuttered the last of the three mines in January 1963, it closed the books on what Schmidt admitted had not been a "wise acquisition." Other than receiving royalties from a sublease of a tract of the Mammoth coal lands, North American Coal was completely out of West Virginia, never to return. With the sale of the Betsy Mine in 1964 NACCO also exited the surface mining business in Ohio.

The alumina processing venture had come to an end, as well. It had not proved economically viable, despite a promising start.

Schmidt and the board had decided to act on the encouraging results of the Strategic Materials Corporation's lab research. In 1958 NACCO committed to building a $500,000 pilot plant in Niagara Falls, New York, in order to determine whether bench-tested processes for producing alumina could be replicated in the field. Two years and hundreds of thousands of dollars later, Schmidt pronounced himself convinced that Dr. Savage and Strategic Materials (in which NACCO now held a minority interest) had perfected the joint venture's

Opposite page at the top left: *With the sale in the early 1960s of the Betsy Mine and the Fulton Mine, whose main office is pictured, the company no longer had surface mining operations in Ohio.*

Opposite page, top right: *As a safety precaution, managers at the Mead No. 7 Mine, like their counterparts throughout the company, kept track of the whereabouts of every underground crew on a chalk board positioned near the mine's portal.*

Opposite page, bottom left: *After the Mead and Red Parrot subsidiaries reached the end of their mineable reserves in the late 1950s, some of the West Virginia mines were sold and others were closed, such as the Red Cedar Mine at Keith.*

Opposite page, bottom right: *The Jensie Mine, an underground operation located in Jefferson County, Ohio, was acquired in 1959 to counterbalance anticipated losses from the disposition of the Red Parrot and Mead subsidiaries.*



On September 13, 1961, North American Coal stock was traded for the first time on the New York Stock Exchange. Schmidt (at right) was on hand to celebrate the ticker-tape announcement of the stock's listing under the ticker symbol "NCO."

proprietary processes. The pilot plant had demonstrated that it was possible to convert six tons of coal waste into a ton of aluminum oxide, which could then be decomposed to produce a half ton of high-quality alumina.

Schmidt convinced the board in 1960 to authorize the expenditure of $1.3 million on the construction of a full-scale chemical plant capable of producing 40,000 tons of alumina per year. Six months before the plant, which was located at Powhatan No. 1 Mine, opened on a limited-production basis in the spring of 1962, a story in the *New York World-Telegram* described the "gold" fever that had possessed NACCO's leaders. "If North American can prove this out commercially," the article stated, "bauxite may become an old-fashioned word, coal a glamour word and the unsightly mine waste may yield more profit than the mined product."

The story appeared on September 14, 1961, the day after North American Coal's stock was listed on the New York Stock Exchange under the ticker symbol "NCO." That January the *New York Times* reported that NACCO planned to cut its quarterly dividend from 15 to 7 cents a share in order to conserve cash to "help finance the company's expansion into the chemical field."

Schmidt was immediately asked to fly to New York to explain the dividend cut to the board of directors of Ralph E. Samuel & Company, a brokerage firm that had sold NACCO stock to a number of clients. Schmidt expected the meeting to be "unpleasant." The company's performance was also under heightened scrutiny from NACCO's board. Jack Reavis had stepped down in 1960 after 19 years of service, and two new outside directors had been added after NACCO went public: John N. Bauman, president of the White Motor Company of Cleveland, and William G. Stewart, president of the Universal-Cyclops Steel Corporation of Bridgeville, Pennsylvania.

Having already incurred construction cost overruns of about $700,000, the chemical plant posted first-year operating losses in the high six figures. Plagued by mechanical difficulties, it had succeeded in producing alumina after six months of effort—but not at a cost that was competitive with bauxite. Even Schmidt, the venture's staunchest champion, had to admit defeat. In mid-1963 NACCO shut down the chemical plant, dismantled its R&D department, and wrote off its $1.3 million investment in the Strategic Materials Corporation. SMC gave up ownership of the joint venture's alumina processing

patents, but without a research director there was no way for NACCO to exploit these rights.

In his private communications with Henry Schmidt about the company's recent series of missteps, Frank Taplin Jr. adopted a philosophical tone. "The most we can do is to learn from our mistakes and not make the same mistakes twice," Taplin advised NACCO's 63-year-old chief executive. Years later Taplin would even be able to laugh about the ill-fated alumina initiative, joking that he carried around a nickel-sized slug of pure alumina, produced at the Powhatan plant, as a reminder that "we didn't become a direct competitor of Alcoa."

Privately, Taplin and his fellow board members were concerned about the company's leadership. No one was prepared to push Schmidt to retire. As Taplin observed to his mother, Edith, the year before her death in 1963, "Henry had his good points. He has done much for the Company." However, as early as 1961, NACCO's board had begun to urge the CEO to groom a "no. 2 man."

With the Taplin family's strongest encouragement, an offer of employment was extended to Lucius Hallett, the insurance company's representative on NACCO's board. Hallett, whose experience was in finance, assumed the responsibilities of executive vice president on July 1, 1962. In less than five months he was gone, having accepted Art Dougan's offer of a year's salary as severance pay. "Lou and Henry couldn't get along," Frank Taplin Jr. wrote to his mother in a letter explaining the causes of the swift departure of Schmidt's presumed successor.

In the wake of what Taplin thought of as the "Hallett fiasco," the Taplin family board members began to explore the option of selling NACCO. Al Rankin tested the interest of Cleveland's Oglebay Norton Company, probably through a back-channel communication with the company's chairman, Courtney Burton, who was married to Rankin's sister. The president of Oglebay Norton, which had core businesses in iron ore mining and Great Lakes shipping, took up the matter with a few board members, who immediately vetoed the idea of such an acquisition. As Rankin had informed Schmidt, Oglebay Norton's directors were "deathly afraid of coal. They have had a bitter experience in this field and do not want any more of the same."

Discussions of varying degrees of seriousness also took place between NACCO and several other possible merger partners—most notably, the Pittston Company, then the nation's third largest coal producer, and Basic Incorporated, a publicly traded chemical company—but none of these talks came to fruition. The president of Pittston, which was based in eastern Pennsylvania, had been prepared as of November 1964 to pay NACCO's majority stockholders $20 per share. Schmidt advised the Taplin family to seriously consider accepting this "very high price." But NACCO's president, who had handled the discussions with Pittston, also pointed out to the Taplins that his long-standing effort to develop a "fine, young, aggressive team to take charge of things for the future" had finally paid off. This argument seems to have proved persuasive.

For many years Schmidt and his vice president of production, Roy Fox, had been the only college-educated



Brothers Thomas E. Taplin (left) and Frank E. Taplin Jr. joined the company's board of directors in the immediate postwar years and provided steadfast family leadership of the company for more than four decades.

engineers in NACCO's employ. Propelled by the need for staff with the technical expertise to guide the company's ongoing mechanization program, Schmidt had established a personnel department in 1953 and assigned its new director, C. G. Evans, the responsibility of hiring as many promising engineering graduates as possible. A former Red Parrot mine superintendent, Gerry Evans was tireless in his attempts to recruit bright, ambitious, well-trained individuals. Each year he visited every mining school in the tri-state area and, by 1957, had built North American Coal's engineering staff to 20 strong. One of these capable young men, who had been appointed vice president of production upon the retirement of Roy Fox in 1963, had especially impressed Schmidt as having "all of the qualifications of a top-flight executive."

"Otes is growing in stature every day," NACCO's president reported to Frank Taplin Jr. in July 1964, "and I shall be delighted to turn over more responsibility to him as time goes on." Reassured that in 43-year-old Otes Bennett Jr. a worthy successor to Henry G. Schmidt had been found, the Taplin family decided not to sell The North American Coal Corporation.

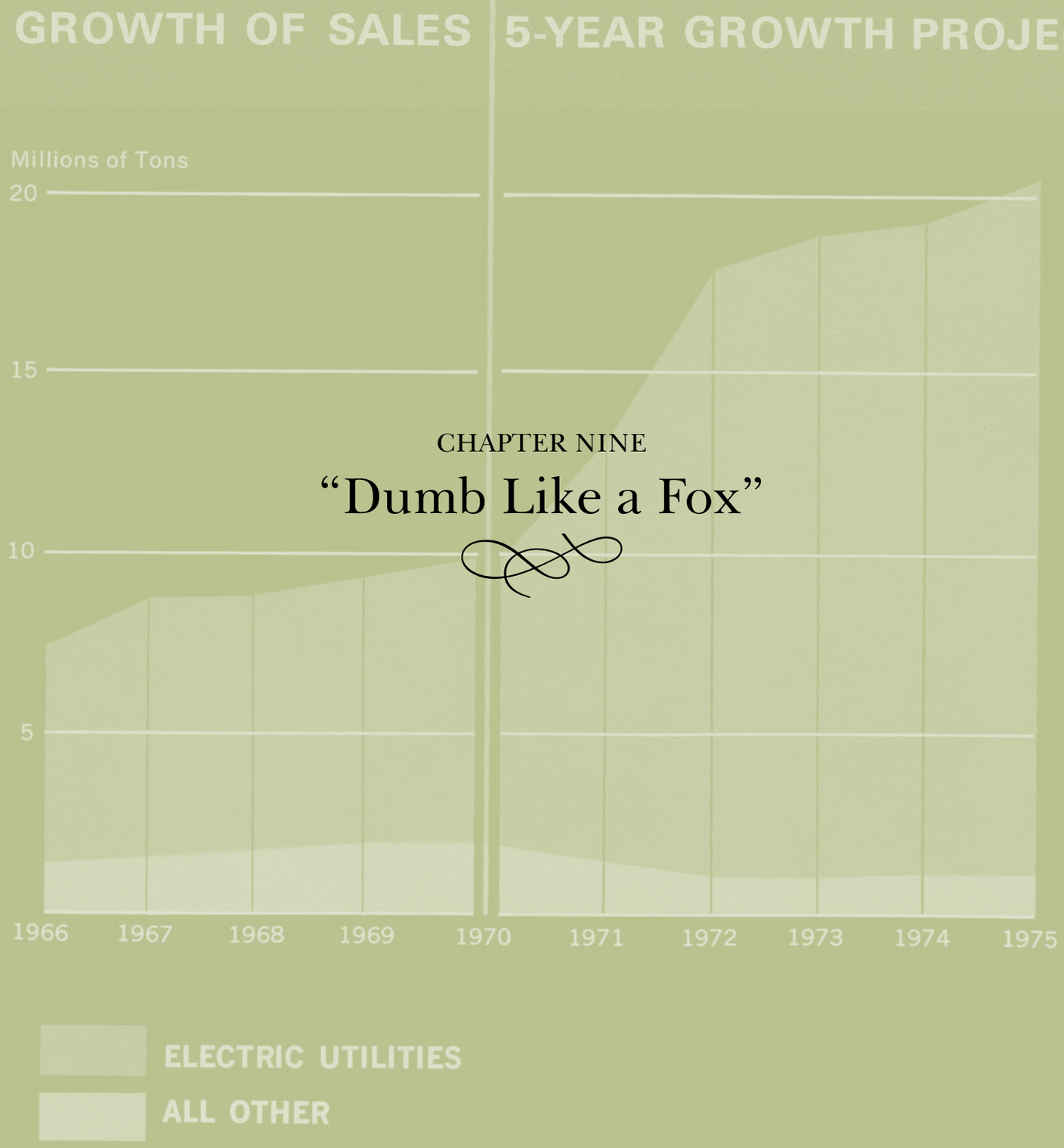


Schmidt (seated, at center) assembled a management team of college-educated engineers and professionals. Research vice president Robert Savage (at left), outside counsel Arthur Dougan (second from left), personnel director Gerald Evans (standing, second from left) and vice president of operations Roy Fox (third from right) were among the top executives and advisors photographed in the company boardroom in 1957.

Opposite page: *Schmidt's handpicked successor, Otes Bennett Jr., saw new opportunities for the company in surface mining in the West.*



1964–1988



CHAPTER NINE

"Dumb Like a Fox"

Blazing a path from the engineering department to the executive suite, Otes Bennett rose to the presidency of The North American Coal Corporation in 11 years. Bennett's swift ascent astonished everyone—except him. "In his quiet, methodical, understated way, he was simply achieving the goals he had set for himself," Frank Taplin Jr. later said of NACCO's fourth president, who led the company through a tumultuous 21 years of rapid growth and tighter governmental regulation of the coal industry.

During Bennett's first decade at the helm, NACCO aggressively assembled 4.3 billion tons of new coal reserves, enabling it to compete successfully for contracts to supply new "mine-mouth" power plants in the East, West and Southwest. Bennett's bold, visionary coal lands initiative completed the reconstitution of NACCO's customer base, ultimately boosting sales to electric utilities to 95 percent of the company's total production. To meet these new contractual obligations, NACCO expanded its production capacity to 24 million tons, added 5,000 good-paying jobs to a workforce that had declined during the mine-closing era to 1,600, strengthened its technical expertiseby building an engineering staff of more than 200, and rationalized its corporate structure with the creation of Eastern, Central and Western Divisions, each headed by a vice president or president who reported to a senior vice president of operations.

Even though Bennett initially believed that environmental protection and miners' health and safety laws passed in the late 1960s and early 1970s posed a dire economic threat to NACCO and the coal industry at large, it was under his leadership that the company determined how to comply with costly new federal and state regulations and still earn a profit. Consolidated net earnings increased 18-fold by the end of Bennett's tenure, providing resources for NACCO to diversify into manufacturing when the company's underground mines in the East began to experience difficulties as a result of the depletion of their best reserves, persistent labor issues and dwindling demand for their high-sulfur coal. In short, Bennett would be called upon to lead North American Coal through its most dramatic reinvention yet. Supreme self-confidence was essential to his ability to overcome most obstacles to NACCO's continuing success.

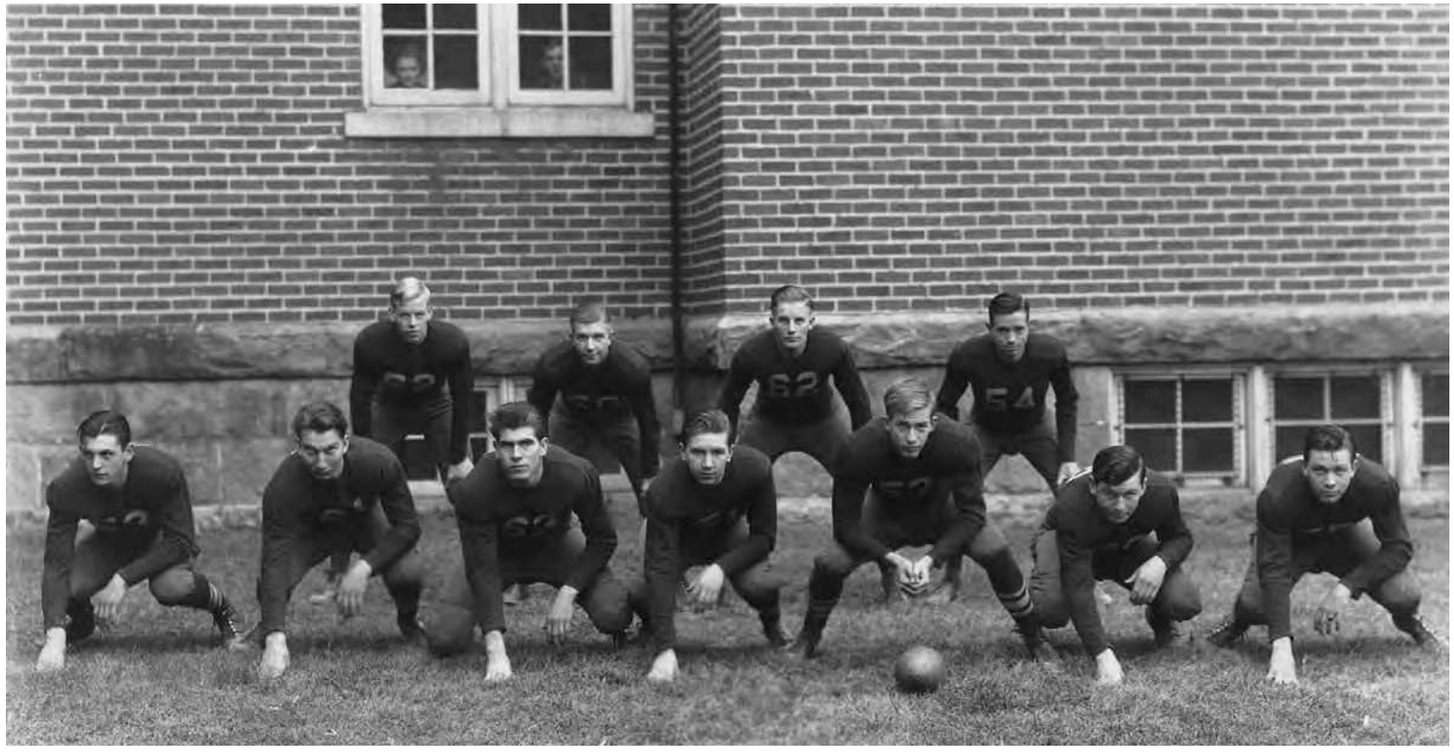
The son of a West Virginia coal miner, Otes Bennett Jr. was born in 1921 in the north-central part of the state. There was little doubt about the baby's future occupation. "His father had coal in his blood and saw to it that Otes had it in his," Frank Taplin Jr. once observed. When Otes turned 10, his foreman father began taking him along on Sunday-afternoon mine inspection tours. Otes Sr. taught Otes Jr. to operate a coal car train by allowing his son to "drive" the locomotive while seated on his father's lap.

During the Depression the family moved to Webster County in central West Virginia, where Otes Sr. obtained work at a coal mine operated by the Pardee-Curtin Lumber Company. Otes Jr. landed a real coal job at age 15. After school let out for the summer, he put in nine-hour days helping to build a new mine in a mountain wilderness some distance from his home. He earned 20 cents an hour. This modest pay barely covered his room and board.



Otes Bennett Jr. assumed the presidency only 11 years after joining NACCO as a section foreman.

Opposite page: *As this five-year company forecast shows, Bennett's bold acquisition of billions of tons of reserves enabled the company to capitalize on the electric utility industry's booming demand for steam coal.*



The son of a West Virginia coal miner, Otes Bennett realized the highest goal of his childhood: to play varsity football. The young guard, who also played center, is pictured in the front row, fourth from the left.

At Webster Springs High School he realized his ambition of playing on the varsity football team. After graduating in 1939, he immediately went to work at Pardee-Curtin's No. 2 Mine under the watchful eye of his father, who was now mine supervisor. In 1941 Bennett married Naomi Queen, his high school sweetheart and the daughter and granddaughter of coal miners. Not long after the wedding Bennett went off to war. Based in England as a lieutenant in the Army Air Force, he piloted B-17s over the European theater of operations. On one sortie he brought his badly crippled plane home against all odds. Bennett completed 32 combat missions in all. In addition to tenacity, his experiences in World War II taught him courage under fire. He would need it.

Having received an Air Medal with five oak leaf clusters for his exemplary military service, Bennett returned home and went back to work at Pardee-Curtin No. 2. During the postwar

coal slump, he advanced to the position of section foreman. Yet Bennett, who was now a father, realized that he must do something extra to ensure his steady employment. He decided to pursue a bachelor's of science degree in engineering from the School of Mines at West Virginia University (WVU). Starting the program on the GI Bill in 1951, Bennett went to classes six hours a day and worked as a laborer and later foreman at a Weirton Steel Company mine during the afternoon shift. On weekends he studied—while listening to football on the radio and allowing his toddlers to crawl playfully up his legs.

Interviewed by NACCO personnel director Gerry Evans in his final year at WVU, Bennett went to work for North American Coal after graduation in 1955. He was 34 years old and had accepted NACCO's job offer because he believed that the still-small size of the company's engineering staff guaranteed that he would have wide-open opportunity to advance. Within a year of his hiring Bennett was promoted to chief engineer of the Betsy Mine. He next worked in Cleveland as a staff assistant to vice president of production Roy Fox. Then, in 1958, he moved to Pennsylvania to become general manager of North American Coal's Conemaugh Mine.

The operation was in trouble. A state law requiring new miners to work beside an experienced colleague during their first 12 months on the job left Conemaugh perennially shorthanded. Those crews that could be mustered were burdened with the task of removing massive amounts of stone from rocky cutouts (called faults by the locals) that encircled the mine's coal seam. The Conemaugh Mining Company's inability to consistently meet the fuel needs of the Seward Generating Plant had strained its relationship with the Pennsylvania Electric Company.

Assessing the situation with fresh eyes, Bennett came up with a creative solution to customer complaints of two years' duration. In order to start meeting its contractual quotas, The Conemaugh Mining Company embarked on a program of leasing and mining other coal-bearing lands while continuing work on penetrating the faults so that Conemaugh's proprietary reserves could eventually be mined. "Bennett took a property that was losing money and turned it around," recalled Franklin L. Scott, Conemaugh's chief engineer. When Henry Schmidt asked Bennett to return to Cleveland in 1963 to become NACCO's general manager of production, Scott took over responsibility for Conemaugh Mine's management.

During Bennett's four-year stint at Conemaugh headquarters near Seward, he continued to add to the subsidiary's reserves. He seized every opportunity to acquire at fire-sale prices land whose owners had fallen delinquent on their property taxes. "Otes would buy anything that came up at government tax auctions," said D. David White, a former Ohio and Pennsylvania land manager for North American Coal. Today the company owns 2,200 acres of coal-bearing land in west-central Pennsylvania that were acquired by Bennett, sometimes for as little as $5 or $10 an acre. With the assistance of a local attorney, D. R. Tomb, who did reconnaissance and



Bennett immediately went to work in a coal mine after high school graduation. He later sought to advance himself by obtaining a bachelor's degree in mining engineering at West Virginia University.



Bennett received a promotion to general manager of production after he turned around the mine that served this power plant near Seward, Pennsylvania.

Opposite page: *During his four years in Pennsylvania in the late 1950s and early 1960s Bennett opened up a half-dozen surface operations, including* (clockwise from top left) *the Blacklick, Marldis Run and Robinson Mines.* Bottom left: *Trucks carried coal from the mines to a centralized preparation plant at Dias, where it was loaded onto freight trains for sale on the commodities market.*

title work, Conemaugh's reserves grew to more than 150 million tons. Fifty years after these holdings were assembled—during which time much of this acreage has been actively mined—North American's Pennsylvania coal reserves still stand at an estimated 100 million tons. The annual royalties received by the company to this day on mineral and gas rights and timber are impressive.

When Otes Bennett was assembling the Pennsylvania reserves, he did not know precisely to whom the coal would be sold. But he was "dumb like a fox," as *Forbes* magazine later put it. Bennett believed that he could persuade the state's electric utility companies to build new power plants on or near NACCO's coal lands. With the recent development of extra-high-voltage lines capable of transmitting electricity to load centers hundreds of miles from the generating plant, it was now cheaper to transport electricity than coal. Bennett also had an idea of how NACCO could finance the now-astronomical costs of constructing new coal mines to supply mine-mouth power plants on its shoestring budget. Recognizing that utility companies generally had excellent credit ratings and far more working capital than NACCO, he believed that he could convince prospective customers not only to pay a reasonable portion of the mines' operating costs, but also to underwrite or guarantee the mines' construction loans.

Until the anticipated long-term contracts were in hand, Conemaugh put its reserves to use by opening five satellite mines. Three of the mines were named for tributaries of the Conemaugh River on which they were located: Blacklick, Richards Run and Marldis Run. The other two mines were named for nearby communities: Josephine and Robinson. Mined by outside contractors, the coal from these small surface operations was sent by truck to a centralized preparation plant that Conemaugh built at Dias, Pennsylvania. There coal was loaded onto dedicated "unit trains"—groups of railroad cars assigned to high-volume customers. A recent innovation in railroads' haulage practices, unit trains had eliminated mine managers' daily scramble for single boxcars and enhanced coal's competitiveness by reducing delivery times and freight charges. Most of the contract coal was sold out of state on the commodities market. "It was very hand to mouth," recalled Herschell A. Cashion, an electrical engineer who started his career at Conemaugh and rose through the corporate ranks to become NACCO's vice president of sales in 1972. "We were selling the coal 20 or 40 tons at a time."

Assuming company-wide responsibility for production when he returned to Cleveland, Bennett had to contend with the underperformance of the Powhatan Nos. 1 and 2 Mines. Ironically, the production problems that were now plaguing the flagship mines could be attributed, in large part, to the unintended consequences of union-management détente.

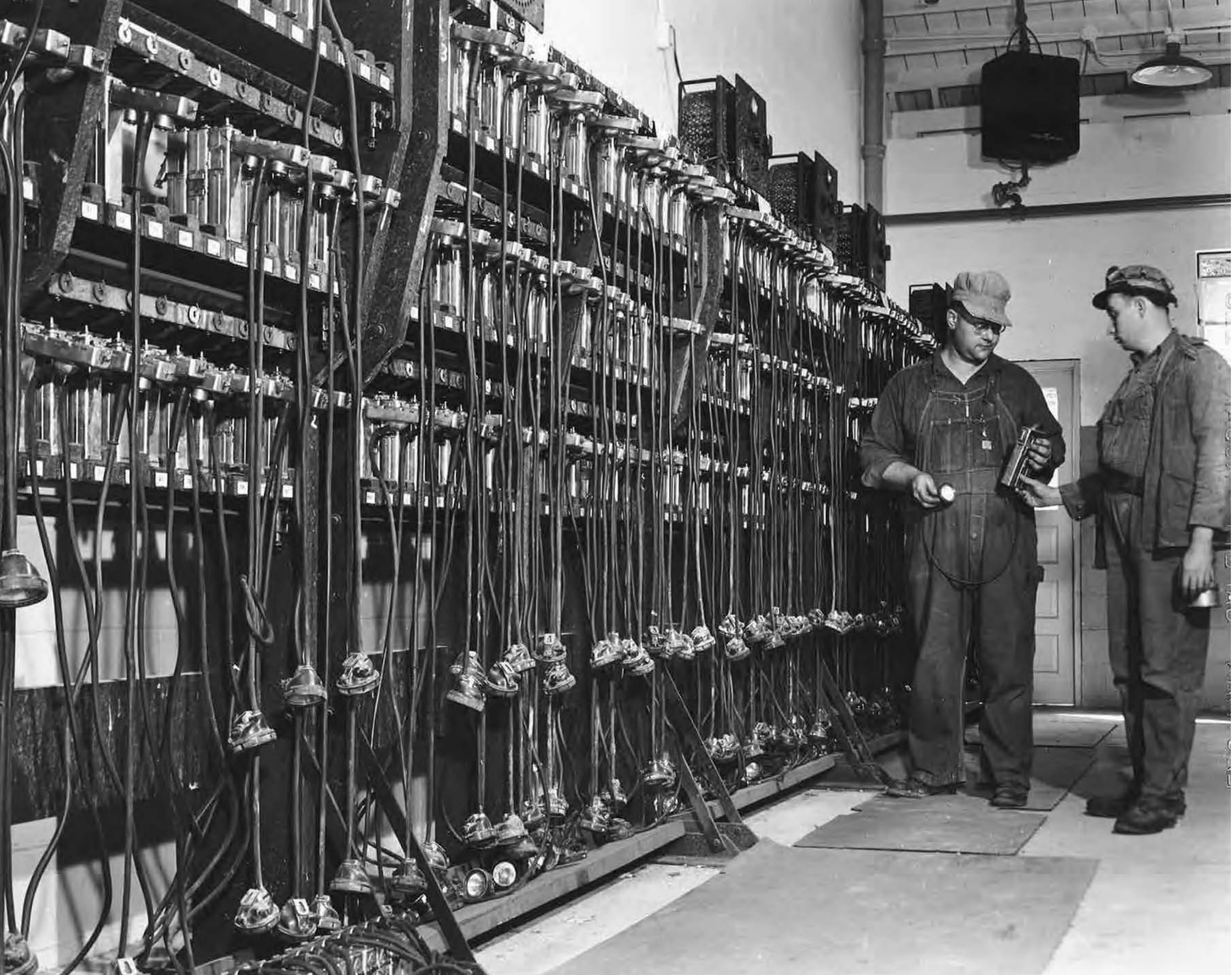
Between 1951 and 1962 the United Mine Workers of America and the nation's coal producers had avoided strikes harmful to both sides by dispensing with the negotiation of new coal contracts. Needed changes to standing contracts were made by amendments not subject to ratification by union members. Powhatan mine supervisors and local union representatives











had followed suit. They maintained labor-management accord by observing an unwritten policy of laissez-faire. After years of accommodation, production at Powhatan Nos. 1 and 2 had fallen below the national average of 12 tons per miner per day.

In the mid-1960s Bennett began to replace the superintendents at the company-owned Ohio deep mines with graduates of the engineering "farm system" developed by Henry Schmidt and Gerry Evans. Capable, energetic and ambitious, this new generation of mine managers intended to be much more actively involved in operations. Instead of issuing orders, however, each independently used communication and teamwork as their motivational tools of choice. Their early attempts at employee empowerment produced favorable results and planted seeds for the progressive approach to employee relations that NACCO formally adopted in the 1980s.

Samuel D. Warbel, named superintendent of Powhatan No. 1 in 1965, was a graduate of the Ohio State University (OSU) School of Mines who came to NACCO from the Pittsburgh Consolidation Coal Company. Warbel made it his business to get to know each of No. 1's 500 workers. He frequented the lamp room at morning shift change, making small talk with the men who were coming from and going to work. Afterward he changed out of his street clothes and spent the better part of the day underground, practicing management by walking around.

Warbel also decided to disseminate information about production goals, results and expenses so that his mining crews could measure how their efforts contributed to No. 1's success. He strengthened the bonds between crews and their immediate supervisors by ending the practice of rotating foremen's shifts. Warbel also pushed for capital improvements that had been deferred in order to conserve cash for the alumina venture. To speed the miners' travel to and from their work areas, a new shaft equipped with a push-button elevator replaced No. 1's original riverfront portal, which henceforth was used mainly for supplies. At the mine's Cat Run portal, a ski towline was installed to help tired miners climb back up the slope at the end of their shifts. As a result of these and other morale-boosting changes, "production improved and kept improving," according to Warbel, who received a promotion to general superintendent of Powhatan No. 1 in 1970.

At Powhatan No. 3, three superintendents had come and gone within the space of 18 months before the mine's assistant superintendent, Robert E. Murray Jr., was tapped to turn the mine around in 1966. The son of a former assistant superintendent at Powhatan No. 2, Murray had graduated from OSU's School of Mines in 1962, a few years behind Warbel. Murray's studies were underwritten by an innovative four-year college scholarship program initiated by the Schmidt administration in 1956 as a means of ensuring a steady flow of engineering graduates into the company's ranks. Once placed in charge of No. 3, the 26-year-old superintendent assembled the mine's veteran workforce. "If this mine continues to lose money, you're going to lose your jobs," he said to the miners, whose average age was twice that of his. "But I'm not the guy with the knowledge to straighten things out. You guys are."

Opposite page: *Powhatan No. 1's lamp room, where miners checked out their lighting equipment at the beginning of their shifts, was frequented by a new young superintendent who believed in the value of communication.*

The vice president of the Central Division encouraged the Powhatan underground mines to compete each day to see which produced the highest tonnage. The mines' managers, in turn, fostered a friendly rivalry among their crews.

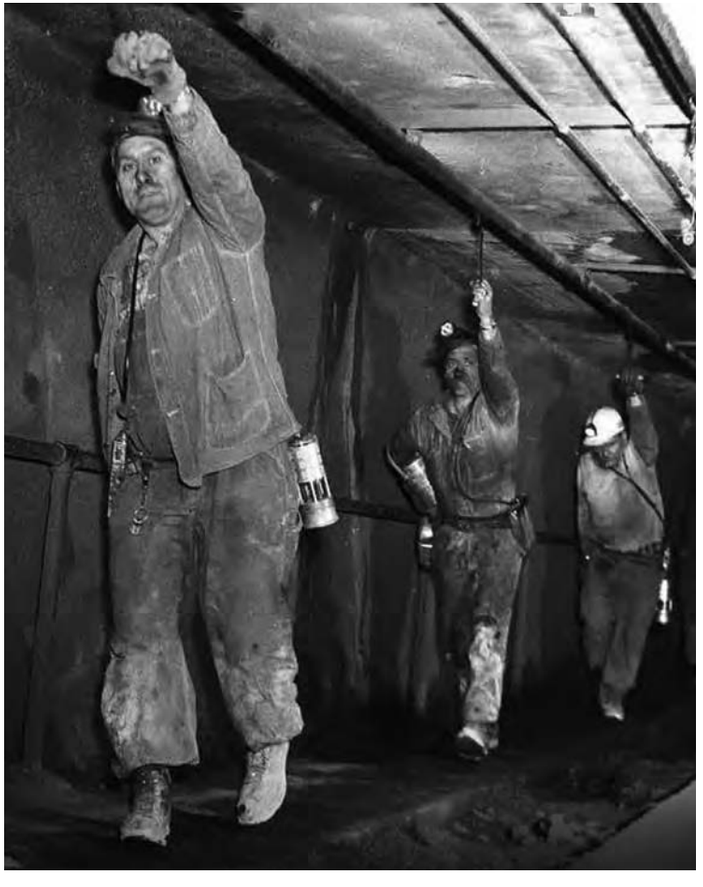
Murray, who had labored in NACCO's West Virginia mines during his summers off from college as a condition of retaining his scholarship, demonstrated his belief in teamwork by rolling up his sleeves and working side by side with the mine's master mechanic until together they solved an equipment malfunction that had been burdening mining crews with extra cleanup work for years. The undersized five-ton coal cars at Powhatan No. 3, which were prone to tipping over, especially at switching points, were another major irritant, to say nothing of a drag on production in a mine where haulage distances could run up to 9.5 miles one way. Murray again turned for help to veteran miners like shift foremen Orlando Piccardini and Romulo Zacchini, who came up with the simple solution of planking the mine floor between junction joints to reduce the number of these time-wasting tip-overs. The superintendent's emphasis on collaborative problem solving gradually changed the status quo. During the first two years of Murray's tenure at No. 3, production rose from 6,500 to 10,000 tons per day.



The vice president of the Central Division, to whom the Powhatan mine superintendents reported, did his part to sustain the improved production levels by not-so-subtly encouraging Powhatan Nos. 1, 3 and 5 Mines to compete. Every day Charles R. Heidelbach would place calls to Warbel, Murray and No. 5's superintendent, William P. Goddard, asking for an accounting of the tonnage produced at each mine during the 24 previous hours. After receiving the report Heidelbach would invariably put each superintendent on the spot by asking: What did the other guys get? Heidelbach, who had started with the company as a section foreman in 1945, had a management style similar to Otes Bennett's. Unlike Henry Schmidt, who had tightly controlled his far-flung mine managers by requiring their presence in Cleveland every Monday for a high-level staff meeting, neither Heidelbach nor Bennett believed in micro-management. Both men preferred to lead by setting clear objectives and allowing employees to determine how to meet them.

Bennett's goals for Pennsylvania were realized after his return to Cleveland. His reserves-acquisition program had indeed laid the foundation for NACCO's continued growth in that state. At its peak the company's Eastern Division would boast an annual production capacity of 7.5 million tons, a workforce of 2,000 and brand-new headquarters in Armagh, Pennsylvania. The first phase of this remarkable expansion began when a consortium of mid-Atlantic state utilities announced its plan to build a new power plant on the Conemaugh River at New Florence, Pennsylvania. The intended site was five miles from Seward, at the heart of the Conemaugh Mining Company's reserves. Economies of scale dictated that new generating units should be at least 500,000 kilowatts, making their cost crushingly expensive for a single power company. Increasingly, electric utilities were joining forces to create shared power plants. The discussions Bennett had initiated with the Pennsylvania Power & Light Company (PP&L), the leader of the New Florence project, before he left Seward had resulted in PP&L's request for a proposal from NACCO.

The consortium took a year or so to weigh the merits of NACCO's proposal to deliver four million tons of coal per year at a base price of 15 cents per million BTUs. Its chief competitor, General Electric, had proposed that the utilities consider building a nuclear power plant. According to Schmidt, GE mustered "all of its big guns in opposition to NACCO's proposal," but ultimately failed to convince PP&L and its partners that atomic energy would be less expensive than coal over the long term. In May 1964 NACCO was awarded a 30-year coal contract to supply the $225 million Conemaugh Steam-Electric Plant, whose two 900,000-kilowatt units were expected to be completed by 1971. Schmidt gave Bennett all of the credit for landing the cost-plus contract, noting that his vice president of production had "kept steadily at it all these months" and "handled himself beautifully."



Morale booster: a ski towline installed in the Cat Run portal to help tired miners climb back up the slope at the end of their shifts



In the late 1970s a new office building was constructed in Armagh, Pennsylvania, to house the general staff of the Eastern Division, which, at its peak, boasted an annual production capacity of 7.5 million tons and a workforce of 2,000.

As one of his last major acts as president, Schmidt assisted Bennett and legal counsel Art Dougan with the negotiation of a detailed coal sales agreement with PP&L and its partners. The agreement that was ironed out over the next two years promised NACCO a pre-tax profit of as much $1.5 million per year. Schmidt reported to the board that the Conemaugh deal was so significant, it promised to boost NACCO's consolidated net earnings by as much as 50 percent.

Bennett, who received a promotion to executive vice president in the midst of the negotiations, had also capably laid the groundwork for the company to build the project's two supply mines without significant capital outlay. The estimated $25 million cost of constructing the underground mines was to be financed through bank loans guaranteed by the utilities' signatures on the coal sales agreement. NACCO would carry the debt on its books and repay the loans from depreciation and depletion funds accumulated as the coal was mined. The consortium had also agreed to provide NACCO's new operating subsidiary, The Florence Mining Company, with working capital until Florence No. 1 and No. 2 Mines were able to make their first coal deliveries.

NACCO dedicated four of its satellite mines and their associated coal reserves to the project in exchange for Florence Mining Company stock. Schmidt, Bennett and Dougan also conceded to the utility companies the option to purchase at book value all of the Florence mines, which would eventually be connected underground via conveyor belts leading to a new preparation plant. The utilities had insisted on this provision to protect their huge investment in the power plant.

Because the electric utility industry had been "notoriously unsuccessful" in operating captive coal mines in the past, Schmidt and Bennett expected that the option-to-buy provision would never be exercised. They were mistaken. Fortunately, Dougan had taken the precaution of establishing limits on the damage that would be inflicted should this worst-case scenario come to pass. The coal sales agreement mandated that the consortium could not exercise its purchase option until the Conemaugh power plant had been in operation for five years. And, no matter who owned or operated the Florence mines, NACCO would continue to receive royalties on coal mined from Florence reserves.

The Conemaugh coal sales agreement established a model for the expansionary period of Bennett's presidency, which began with his promotion to that office at NACCO's annual meeting in May 1966. At that time Henry Schmidt was elevated to the new office of chairman and Bennett was elected to the

board of directors, replacing Henry Hoppe. Hoppe's retirement from the board was followed three months later by the death of his longtime law partner Charles Farrand Taplin. Schmidt served as chairman and CEO until his retirement in 1970. Board newcomer Everett Ware Smith, president of Cleveland Trust, the city's largest bank, replaced Schmidt as chairman, and Bennett assumed the responsibilities of chief executive officer.

At the approach of its 58th year in business NACCO was in the midst of its greatest mine-building campaign ever. When the six underground mines that were in development in 1970 achieved full production, they were expected to deliver 10 million tons of coal annually to customers under 20- to 30-year contracts.

In Pennsylvania, NACCO had entered into two new long-term contracts with existing electric utility customers. Two wholly owned subsidiaries had been incorporated to implement these coal sales agreements. The Helen Mining Company was established in 1966 to supply a mine-mouth power plant to be built in Homer City, Pennsylvania, by the Pennsylvania Electric Company and the New York State Electric & Gas Company. The 30-year contract called for annual deliveries of 1.8 million tons of coal to be produced by a new underground mine, whose construction and equipment costs were to be underwritten by the utilities.

Helen's capital expenses, estimated at $11 million, came in almost $2 million over budget. Construction costs at the Florence mines had been underestimated by $8 million. Bennett quickly took corrective steps, assigning the first president of the Helen and Florence Mining Companies to a less demanding



In 1966 North American Coal's board elevated Schmidt (fourth from left) to the new office of chairman and welcomed newly appointed president Bennett (third from right) to its ranks. Serving on the board at the time were second-generation family representatives Alfred M. Rankin Sr. (at left), Frank E. Taplin Jr. (second from left) and Thomas E. Taplin (at right) and outside directors Lee Wilson (third from left), Arthur L. Dougan (fourth from right) and Everett Ware Smith (second from right).



Vice president of production Bennett handled a presentation of a contract proposal to utility executives planning to build a $225 million power plant on the Conemaugh River near New Florence, Pennsylvania. The utilities agreed in 1964 to build the plant at the mouth of North American's reserves.



Right: *A cooling tower at the Conemaugh Steam-Electric Plant overlooks North American Coal's Florence No. 1 Mine. The mine's capital costs were financed by bank loans guaranteed by the utilities —a provision that was a critical part of the company's strategy for growth.*

position. NACCO's vice president of administration, James H. Hurley, had a background in industrial relations and the interpersonal skills of a "great politician." Bennett asked him to take over as the Pennsylvania subsidiaries' president. As of early 1971 Helen was on target to increase annual deliveries from 220,000 to 1.1 million tons, and the Florence mines expected to double their year-over-year production to three million tons.

With the Conemaugh project back on track, Pennsylvania Power & Light awarded NACCO a second contract to meet the supplementary fuel needs of its Montour and Brunner Island power plants. Confident that the soon-to-be-named Eastern Division could handle the additional production requirements, NACCO incorporated The Oneida Mining Company in late 1970 and transferred operational responsibility for a former Conemaugh satellite mine and the Dias tipple to the new subsidiary. To fulfill PP&L's coal sales agreement, which called for deliveries of up to 1.8 million tons annually, Oneida would be required to boost production at the satellite mine sevenfold. Adding to the difficulty of the assignment, the thin coal seam at the Oneida mine measured only three to five feet.

In Ohio, NACCO had four new underground mines open or under construction by the early 1970s. The Powhatan No. 5 Mine had started operations in 1966 to fulfill a major new contract from Dow Chemical of Midland, Michigan, and to service the Detroit Edison contract formerly handled by the Betsy Mine. Rather than reopening Powhatan No. 2, which was hemmed in by the workings of No. 1 and No. 3, NACCO had spent $6 million of its own capital to build No. 5's new portal, slope, cleaning plant and a railroad spur on Captina Creek southwest of Powhatan Point in preparation for mining the last of No. 2's coal reserves. With an estimated lifespan of 15 years, the reserves would see No. 5 through to the anticipated end of the Dow contract. Achieving full production within months of opening, No. 5 shipped its entire output of 1.2 million tons per year to its Michigan customers via unit train. Once the decision had been made to close No. 2 permanently, its old portal buildings were converted into a centralized machine shop for the Ohio Division, soon to be rechristened the Central Division.

Two longstanding options on Ohio River Valley coal lands had allowed NACCO to compete in the late 1960s for contracts from a utility company consortium called the Central Area Power Coordination Group (CAPCO). Projecting electricity demand in northeastern Ohio and western Pennsylvania to grow at an annual rate of 7 percent for the foreseeable future, CAPCO intended to build three coal-fired generating units on the Ohio River. The consortium had conducted a survey of all available coal reserves in southeastern Ohio and the West Virginia panhandle. If NACCO were to exercise both of its options—on a large parcel owned by the Manor Coal Company and on a smaller tract held by the Ohio Power Company—it would gain control over more than 330 million tons of coal that could be dedicated to the CAPCO units. Only two other coal producers had holdings sufficient to meet the units' estimated annual needs of 6.4 million tons for up to 50 years.

North American Coal had an edge over its competitors. The company had a proven track record with two of CAPCO's members: the Ohio Edison Company and the Cleveland Electric Illuminating Company. Its reserves were closer to the Ohio



Powhatan No. 5 coal was transported to Dow Chemical of Midland, Michigan, in dedicated unit trains. This innovation in haulage technology eliminated mine managers' scramble for single boxcars.





River than the competitors', and shipping coal by barge rather than by unit train would save CAPCO tens of thousands of dollars in freight charges over the life of a contract.

As discussions with the consortium progressed, NACCO decided to proceed with the purchase of a tract of land five miles south of Powhatan Point that Schmidt had optioned from the Ohio Power Company in 1955. The land purchase allowed NACCO to make an estimated 43 million tons of coal immediately available to CAPCO. All of these advantages proved decisive. In 1969 NACCO won a 25-year contract to supply 1.6 million tons of coal annually to a new CAPCO-financed generating unit at Ohio Edison's W. H. Sammis Plant near Toronto, Ohio.

With the first coal deliveries needed by late 1971, NACCO's newly created subsidiary, The Quarto Mining Company, immediately began construction of an underground mine on its new reserves near the village of Clarington in Monroe County, Ohio. Fortunately, the mine (which was called Powhatan No. 4 to fill in the numeric gap between Powhatan Nos. 3 and 5) was designed with excess capacity. By 1971 CAPCO had quantified the fuel needs of the two-unit Bruce Mansfield Plant to be built by the Pennsylvania Power Company on the Ohio River at Shippingport, Pennsylvania. The consortium asked Quarto whether it could gear up to provide an additional 4.8 million tons of coal per year. As had been the case with the Sammis coal sales agreement, CAPCO was willing to sign a cost-plus contract for the Mansfield project, so the deal had significant upside potential.

By the early 1970s the company had opened or was building four new underground mines in the Ohio River Valley to serve new or existing utility customers. Left: *Support facilities for the Powhatan No. 4 Mine under construction on the riverfront at Clarington, Ohio*



Powhatan No. 6 Mine was built to supply several Cleveland Electric Illuminating plants, including this power station in Eastlake, Ohio.

After conducting an internal assessment of the Manor Coal Company reserves, NACCO came back with a positive answer. The facilities at the Powhatan No. 4 Mine could be expanded in order to accommodate production of 3.2 million tons of coal per year, and Quarto (a name that perhaps played on the French or Italian word for the numeral four) could build and operate a second underground mine with identical capacity to work the Manor reserves. NACCO recommended a site 10 miles south of Powhatan Point near the Monroe County village of Hannibal for the proposed Powhatan No. 7 Mine. The site offered easy access to the Ohio River via Opossum Creek. Like Powhatan No. 4, No. 7 would be equipped with a state-of-the-art preparation plant and barge-loading facilities.

The capital costs for the two mines totaled an estimated $130 million. In order to obtain the requisite financing, CAPCO retained a top-ranked coal mining consulting firm to reconfirm Quarto's ability to meet the needed levels of production. The Paul Weir Company of Chicago sent a team of engineers and geologists to southeastern Ohio to assess the mine plans and reserves. The Weir Company's reports, issued in 1971 and 1972, documented what old-timers had often declared: that the Pittsburgh No. 8 coal seam thinned out south of Opossum Creek. Having also determined that roof conditions at the Quarto mines would be variable at best, Weir warned that "mining could be extremely difficult and costs correspondingly high." Faced with the loss of the only reserves readily available to the Mansfield plant, CAPCO dismissed Weir's critical evaluation as too conservative. NACCO agreed that the risks of the mining venture had been overstated. Arguing in favor of a more balanced interpretation of the facts on the ground, the consortium secured capital financing. By the fall of 1972 the shaft at No. 7 was under construction. First coal was scheduled to be delivered in 1975.

The Powhatan No. 6 Mine had been conceived before plans for No. 7 were formulated. The $25 million mine, which began limited operations in 1970, testified to the excellence of NACCO's longstanding relationship with the Cleveland Electric Illuminating Company (CEI). Located to the northwest of Powhatan Point in Alledonia, Ohio, No. 6 had been built to supply several of CEI's power plants in Greater Cleveland. Even before construction of the mine was completed, CEI had increased the annual tonnage specified in its 25-year contract from 1.5 million to 2.4 million tons.

Business was also booming at the mines owned outright by North American Coal. In 1966 the Indian Head Mine in North Dakota had begun to ship coal in fulfillment of a million-ton-per-year contract to supply a new lignite-fueled power station built in the surface mine's home county. In 1967 two mainstay contracts for bituminous coal produced by the Powhatan Nos. 1 and 3 Mines had been renewed at higher volumes than that specified in the predecessor sales agreements. Extended for five years, Cincinnati Gas & Electric's contract called for deliveries of 400,000 tons per year, a 25 percent increase in volume. Ohio Edison's new

15-year contract, with an annual average production of 1.6 million tons, represented a 60 percent increase.

NACCO's latest acquisition, the Castle Gate Mine near Price, Utah, had a standing 300,000-ton-per-year contract with the Utah Power & Light Company (UP&L). Purchased in late 1967 from the Independent Coal & Coke Company of Salt Lake City, primarily to give NACCO control over a 250-million-ton reserve in a far western state, Castle Gate still shipped by rail, even though its customer's power plant was located less than a mile away from the mine's cleaning facility. After promising to reduce costs by building a conveyor belt from the prep plant to the adjoining power station, NACCO was awarded a 10-year extension of the UP&L coal sales agreement in 1969. Back in Ohio, the Jensie Mine's standing contract with CEI was also renewed that year.

In the final 12 months of the 1960s The North American Coal Corporation recorded consolidated sales of nearly $45 million. Not since 1957 had coal revenues reached this dollar level. This exemplary performance was surpassed in 1970 when revenues from sales exceeded $56 million. Yet NACCO's full order book had not enhanced its profitability. The company's net income in 1969 was 36 percent less than that posted in 1957. Although earnings increased by 50 percent in 1970, that year's net income remained flat in comparison to the profits earned during the last 10 years or so of the Schmidt administration.

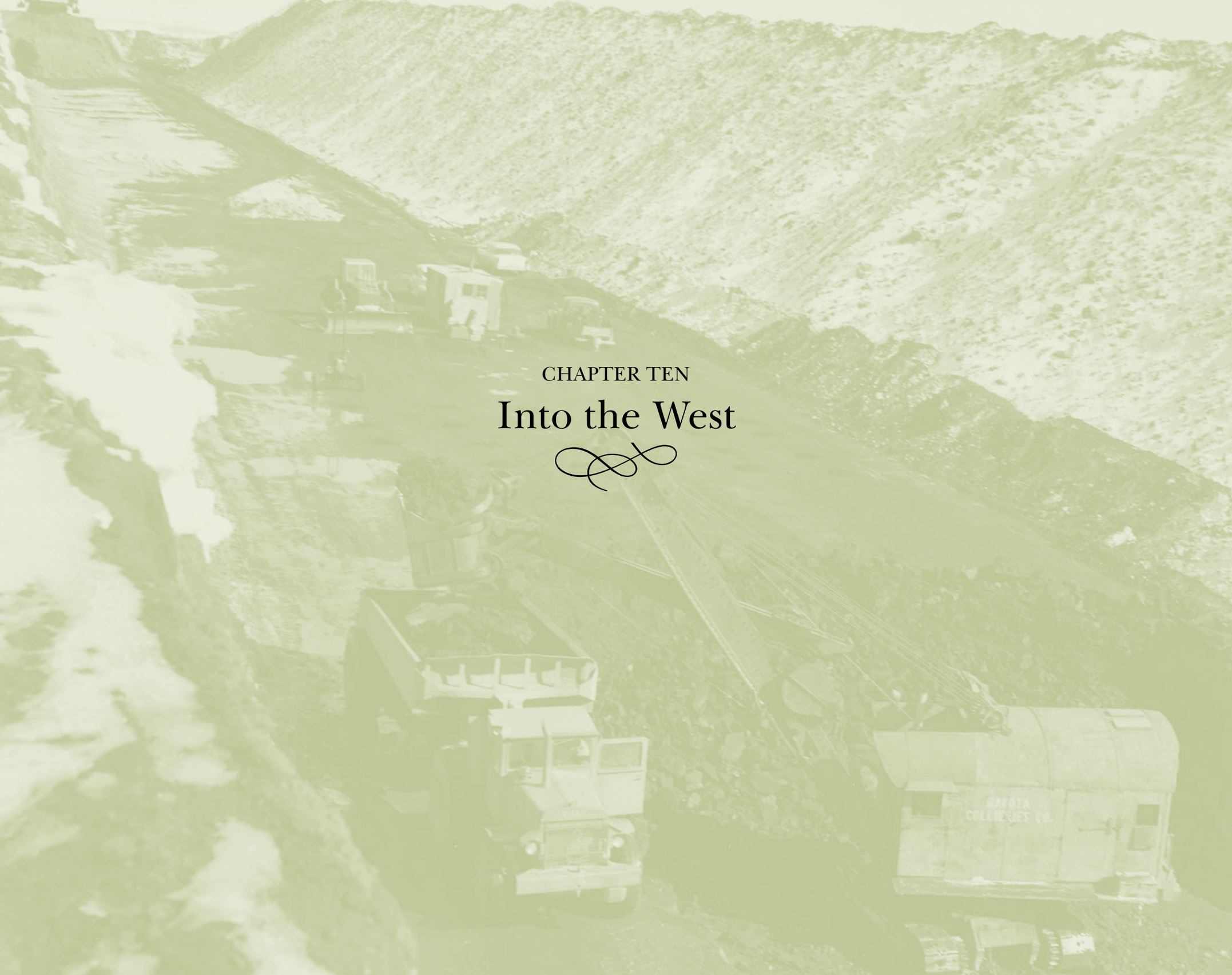
Even the farsighted Otes Bennett found it "difficult to predict" when North American Coal would realize its full potential. A sea change had begun to sweep over the coal industry, and its far-reaching consequences were still not clear.

Left: *Bennett (at right) on an inspection tour of the company's Utah mines*

CEI's renewal of its contract with the Jensie Mine (right) *contributed to the company's exemplary sales performance in the final year of the 1960s.*







CHAPTER TEN

Into the West

In 1964, after a decade of union-management accord, coal miners had once again begun to walk off the job in order to express their grievances. The outbreak of unauthorized strikes, prompted largely by non wage issues, spread to North American Coal in 1969. That year it was unusual for NACCO to record an uninterrupted day's work at all of its mines concurrently. The company's Ohio mines experienced walkouts in almost every month of the year. As a result, year-over-year production plummeted by 400,000 tons.

At NACCO and elsewhere, the protests could be attributed, in part, to rank-and-file dissatisfaction with union leadership perceived to be weak and ineffective in relation to the increasingly centralized ownership of the coal mining industry. Independently owned coal companies such as NACCO were bucking a national trend of consolidation. The 1960s saw oil companies and firms in major coal-fueled industries go on a spree of buying small and medium-size coal producers. As a consequence the share of national coal production controlled by independents fell from a third to 10 percent. The lack of strong leadership after the retirement of John L. Lewis in 1960 and a decline in UMWA membership due to mine mechanization had created a power imbalance that contributed to labor unrest.

The changing demographics of the workforce were also a factor. As veteran miners hired in the 1920s and 1930s retired, their places were filled by baby boomers, a cohort that would make its distrust of authority well known. The manpower needs of the Powhatan Nos. 4, 6 and 7 Mines added 2,000 young men to the payroll in the early 1970s. The new hires were required for the first time to have high school diplomas and attend an innovative training program sponsored by NACCO and the Belmont County Joint Vocational School. Even after six weeks of orientation, including hands-on practice in a simulated underground mine that had been built on Quarto property, many of the recruits remained raw and undisciplined.

"Young miners . . . skipped work whenever they felt like it and defied their bosses over simple, reasonable requests," observed Rebecca Steadman Morgan, a Powhatan miner's daughter and the author of two histories of coal mining in the Ohio River Valley. ". . . Disputes took the loyal union men out of the mine along with the wild bunch." In addition to frequent walk-offs, contract strikes—considered a relic of the past—became the norm again in the 1970s. Daily absenteeism rates in NACCO mines ran as high as 25 percent. A sardonic joke of the era asked why coal miners worked only four days a week. The punch line: "Because you can't live on three."

The miners' various expressions of grievance were a harbinger of sweeping changes that would be demanded of the coal industry in the decades ahead. Beginning in 1969, the U.S. Congress passed a series of laws aimed at improving the well-being of coal miners, reducing the industry's impact on air and water quality, and establishing strict standards for mined-land reclamation. Whether consumers of electricity would absorb the costs of compliance was an open question that would ultimately be resolved in the affirmative. At the time of the laws' enactment, the very survival of the bituminous coal industry seemed threatened. "Public authorities should proceed

Opposite page: *The Indian Head Mine in Zap, North Dakota, in the 1960s*



The company hired 2,000 recruits for its new Ohio River Valley mines in the early 1970s. These young miners (right) *filled jobs at Powhatan No. 3.*

Opposite page: *All new Central Division employees, including these prospective mechanics, received six weeks of orientation and training.*

slowly . . . lest they destroy the means of livelihood of thousands of wage workers, the backbone of our society," Henry Schmidt had cautioned in an industry address given well before the passage of the first of the reform mandates in 1969.

The Coal Mine Health and Safety Act, which President Richard M. Nixon signed into law in December 1969, addressed many of the wildcat strikers' concerns. In addition to providing for the compensation of miners disabled by respiratory diseases, the act set limits on coal dust levels in mines and strengthened other safety regulations. It stepped up the number of annual mine inspections and established stiff fines for unintentional violations and criminal penalties for willful violations. The objectives of the new health and safety regulations were undermined, however, by the hasty and muddled manner in which the act was implemented.

"Confusion reigns in the wake of this legislation," Otes Bennett stated in his 1970 annual letter to shareholders, elaborating:

> The U.S. Bureau of Mines, with many new and inexperienced inspectors and under political and public pressure, is enforcing immediate compliance with a law which is not fully understood by either the Bureau or the operators.
>
> . . . As a result, this has temporarily increased our mine accident rate and lowered the morale of our dedicated mine management. . . .



By affecting productivity, compliance with the new regulations also served to increase the price of coal, raising concerns about competitiveness with imported oil.

Bennett feared that the bituminous coal industry might be put out of business altogether by the newly created U.S. Environmental Protection Agency (EPA). The EPA had the authority to enforce the Clean Air Act of 1970, which sought to reduce the emission of pollutants into the atmosphere, and the Clean Water Act of 1972, which sought to limit the discharge of pollutants into American waterways. Targeted emissions included sulfur dioxide released by burning coal and acidic mine drainage.

Ninety-five percent of Ohio coal contained what the EPA considered to be excessively high levels of sulfur. Well in advance of the 1975 deadline by which the states were required to set new air quality standards that might restrict the use of bituminous coal by power plants, NACCO's CEO launched a full-throated defense of the bituminous coal industry. "Federal and state environmental protection groups dealt a severe blow to the future of the industry by placing unnecessary and unattainable limits . . . on sulphur dioxide emissions from the stacks of electric power companies," Bennett observed in the company's 1972 annual report. His larger concern was for the American way of life. "Such dedicated groups," Bennett argued, "intentionally or otherwise,

> create a force that weakens our free enterprise system, impairs the ability of the country to provide an ever improving standard of living, encourages inflation, increases unemployment, creates an imbalance in foreign trade, and leads to dependence for vital resources on foreign nations with unstable governments, resulting in impairment of our national defense.

Bennett called upon the shareholders of public corporations to counter these perils by taking a greater role in the formation of public policy.

Unable to count on a dramatic change in the political mood, electric utility companies began to formulate other strategies for complying with the Clean Air Act's mandate that all power plants built after 1970 must meet stringent standards on emissions. Some utilities planned to invest in flue-gas desulfurization technologies, even though so-called "scrubbers"





were still in their infancy and prohibitively expensive. Other utilities decided to turn to lower-sulfur coal, particularly lignite. As of the early 1970s eastern and midwestern coalfields still supplied more than 90 percent of the 600 million tons of coal produced annually in the United States, but they contained only 17 percent of the country's reserves of low-sulfur coal.

The preponderance of the low-sulfur reserves, conservatively estimated by the U.S. Bureau of Mines at 25.5 billion tons, lay west of the Mississippi. In order to compete for future utility contracts, coal producers raced to acquire coal leases in Arizona, Colorado, Montana, New Mexico, North Dakota and Wyoming. Even Texas, which had "never generated more than an asterisk in government coal production statistics," had three lignite-fueled power plants in the works as of 1971, according to a two-part series in the *New York Times* reporting on the "coal rush" in the West.

Henry Schmidt and Otes Bennett had anticipated the rising fortunes of lignite, even if they had not foreseen the *precise* reasons why demand for lower-sulfur coal would intensify. As Schmidt acknowledged, the bituminous coal industry had been caught off guard by the gathering influence of the environmental movement. "Almost out of the blue we were confronted with air and water pollution problems," he once stated.

Schmidt, an avid hunter* who had at one time served as national president of Ducks Unlimited, a wetlands and waterfowl conservation group, had a greater sensitivity to environmental issues than many of his industry peers. At his directive the company voluntarily undertook to reclaim the old workings at the Betsy Mine. This pioneering initiative, which predated the passage of the Surface Mining Control and Reclamation Act of 1977 by nearly three decades, reforested Betsy's mined acreage and turned its old pits into recreational lakes.

But NACCO's former president also hailed from a time when coal miners considered it therapeutic to breathe sulfur fumes. His purchase in the late 1950s of the Dakota Collieries surface mining operation in North Dakota—NACCO's first lignite mine—was not a matter of hedging the company's bet on bituminous coal. A few months before making the Indian Head Mine acquisition, Schmidt asked NACCO's board to approve an expenditure of $500,000 to secure additional coal lands in the Appalachian Field. Indian Head simply represented an opportunity, in Schmidt's words, to "purchase reserves in distant areas where they can be obtained cheaply."

Otes Bennett's decision to accelerate the growth of the Lignite Division in the late 1960s was motivated by his realization that the last of the company's Appalachian Field reserves would soon be dedicated to new power plant projects. NACCO needed inexpensive coal lands to market. Long before the implications of federal air and water quality legislation became clear to bituminous coal producers, the wily "fox" had pounced again. By the mid-1970s NACCO had locked up 4.2 billion tons of lignite in North Dakota and 174 million tons of lignite in Texas. With contracts secured or under discussion for much of

Opposite page: *Three decades before the passage of federal legislation regulating mined land reclamation, North American Coal voluntarily restored the old workings at the Betsy Mine, planting trees and converting nonworking pits into recreational lakes.*

* Schmidt died—"with his boots on"—in 1976, after suffering a heart attack while inspecting a marsh at a Utah duck hunting club.

Opposite page: *A long-term contract to supply the nearby Stanton Station of the United Power Association* (upper right) *required the company's Indian Head Mine to increase production sharply. Indian Head's outmoded equipment* (upper left) *was replaced by a 28-cubic-yard dragline dubbed the "Gypsy Rose"* (bottom left). *The miners rose to the challenge of filling 42-car unit trains on schedule* (bottom right).

the North Dakota tonnage in 1974, the Lignite Division rented offices in Bismarck and officially became the Western Division.

It was hard to believe how far and fast the Western Division had risen. A decade earlier the division had consisted solely of the languishing Indian Head Mine outside the small town of Beulah, in Mercer County, North Dakota. Almost as soon as NACCO had acquired Indian Head in 1957, the mine's home-heating business had begun to decline. As more and more area farmers switched to soot-free alternatives, the mine compensated for its reduced sales by cutting its workforce from 35 to 28 miners. At a time when 28-cubic-yard draglines were the industry standard, Indian Head made do with a five-cubic-yard Marion 7200 purchased in 1948.

The mine's only hope for a comeback was to find a major utility customer for its 61-million-ton reserve. That prospect looked dim because hydroelectric plants had always been sufficient to meet the needs of the western states. In the early 1960s, however, a group of Minnesota-based rural electric cooperatives announced plans to build a lignite-fueled power plant along the Missouri River near the Mercer County community of Stanton. NACCO wasted no time in contacting the United Power Association (UPA). The Indian Head Mine was located only 28 miles from Stanton, a decided advantage. But how could a mine whose annual production hovered between 100,000 and 250,000 tons successfully compete for the Stanton plant's million-ton-per-year fuel supply contract? Enter Jim Hurley, then NACCO's manager of industrial relations.

The Cleveland office may have dispatched Hurley to North Dakota because he knew his way around federal bureaucracies, and the United Power Association needed government assistance with project financing. Hurley helped the UPA obtain a low-interest construction loan from the Rural Electrification Administration, an agency of the U.S. Department of Agriculture. In 1964 UPA's grateful leaders signed a 10-year contract for Indian Head coal. NACCO set about increasing Indian Head's workforce and upgrading the mine's equipment. Outfitted with a 28-cubic-yard dragline and a 10-cubic-yard shovel capable of loading one of the mine's new 60-ton coal trucks in less than three minutes, Indian Head shipped its first coal to Stanton Station by unit train on April 24, 1966. Even with state-of-the-art equipment, the miners initially had a "hell of a time" filling up the 42-car train on schedule. Despite this shaky start, the "into the West" phase of the development of The North American Coal Corporation had begun in earnest.

Prudence required NACCO to supplement Indian Head's reserves in order to ensure that the UPA contract could be adequately covered. In 1965–66 the company increased its lignite holdings in central North Dakota from 61 to 86 million tons. Although modest, the leasing initiative attracted the attention of Virgil W. Carmichael, a geological engineer with the Northern Pacific Railway Company. Having surveyed the lands granted by the federal government to the railroad as an inducement to build a trunk line in the 19th century, Carmichael had a general knowledge of the location of lignite reserves across the


THE NORTH AMERICAN COAL CORP.
Lignite Division
150-B


upa


THE NORTH AMERICAN COAL CORP.
INDIAN HEAD MINE
THE GYPSY ROSE



upper United States that he wished to put to productive use. Once he realized that the Northern Pacific was not going to develop its coal lands, he approached the vice president of NACCO's Lignite Division with the offer to help the company expand its western reserves. He was hired in 1967.

NACCO's first geological engineer went on to create a full-fledged exploration department that at its height would employ 14 professional geologists and land agents. But the operation started small, with Carmichael personally conducting targeted exploration projects in Montana, Wyoming and British Columbia. For a variety of reasons (uncooperative landowners, lack of board approval, unacceptable expense), no reserves were acquired in these locations.

The hunt for inexpensive reserves in western states led to the acquisition of two underground mines near Price, Utah, in 1968.



Carmichael also surveyed the company's reserves in Utah, which had been acquired, along with two underground mines, when NACCO purchased the assets of the Independent Coal & Coke Company for $3.6 million in 1968. But the reserves were never developed, as the company's presence in Utah was brief. NACCO had immediately shut down Independent's unprofitable Clear Creek Mine. The Castle Gate Mine closed in 1972 after its mainstay utility customer disputed a 31-cent-per-ton increase in production cost incurred as a result of measures taken by Castle Gate to comply with the new federal health and safety regulations. NACCO sold the Utah mines and reserves to the McCulloch Oil Company in 1973.

Carmichael's work had the greatest initial impact in North Dakota. By the winter of 1968–69 the geological engineer had used aerial photography to establish the outlines of what became known as Mercer County's Beulah-Hazen Field. He then double-checked the photo-geological evidence through field testing. Carmichael spent untold hours confirming the boundaries of coalfields by drilling in roadside ditches. When his core samples no longer contained lignite, he knew he had reached an outer edge of the field. NACCO took immediate advantage of Carmichael's hard-won database, picking up leases in the vicinity of the Indian Head Mine, north and west of Beulah. The Lignite Division added 20 million tons to its reserves by the end of 1969.

A chance encounter in the hallway of a Holiday Inn in Bismarck two years later turbocharged the division's leasing

program. At the state's biennial lignite symposium in early 1971, a stranger introduced himself to Joe D. Mitzel, the Indian Head Mine's general manager. The man, a geologist with Michigan-Wisconsin Pipe Line Company, had noted Mitzel's affiliation with North American Coal. The geologist explained that his company, a subsidiary of the American Natural Gas Company of Detroit, was exploring the feasibility of converting lignite to synthetic natural gas.

Forecasts of a natural gas shortage in the mid-1980s had spurred the pipeline company's interest in the so-called Lurgi gasification process that the Germans had perfected during World War II. North Dakota seemed to be a good location for a gasification plant because of its plentiful reserves of lignite and water and its proximity to Michigan and Wisconsin, the states to which the synthetic fuel would be piped. The geologist wanted to know how much lignite NACCO controlled. "A lot," replied Mitzel, who promised to put the man in touch with Virgil Carmichael.

Otes Bennett seized the initiative as soon as he learned of the inquiry. By early June 1971 Bennett had met in Detroit with officials of Mich-Wish, as the subsidiary was nicknamed. He returned to Cleveland with the pipeline company's strong expression of interest in signing a coal sales agreement. At the time, Mich-Wish believed that its needs might run as high as 20 million tons of lignite per year. NACCO moved quickly to gain control over large tracts in the Beulah-Hazen Field. The following January Mich-Wish optioned all of NACCO's coal lands within a 40-mile radius of Beulah except those needed to meet Indian Head's commitment to the Stanton Station. The 1972 agreement gave Mich-Wish access to 1.5 billion tons of lignite. In exchange, the pipeline company granted NACCO the right to supply lignite to the four gasification plants that Mich-Wish proposed to build in North Dakota.

In anticipation of Mich-Wish's exercising its option, NACCO incorporated a wholly owned subsidiary, The Coteau Properties Company, in May 1972. Intended to serve as the builder and operator of the gasification plants' supply mines, the subsidiary took its name from the Missouri Coteau, a narrow band of glacial moraine that stretches from Saskatchewan through central North Dakota to South Dakota.

Carmichael, in the meantime, had completed his exploration of two of Mercer County's neighboring jurisdictions. Having established the boundaries of the Underwood, Riverdale and Washburn Fields in McLean County and the Center-Otter Creek Field in Oliver County, the geological engineer moved on to the Williston Basin in western North Dakota, where he mapped the Dickinson, Bowman and New England Fields. "You don't know how hard Virgil worked all those years," Joe Mitzel later observed. NACCO subsequently leased large tracts in all these fields, enabling the company to grant Mich-Wish's request for an option on an additional 1.2 billion tons of lignitein late 1972.

Events in the Middle East gave an unforeseen boost to the gasification initiative. In October 1973 members of the

Organization of Petroleum Exporting Countries imposed an international embargo on petroleum exports to express their displeasure over American support of Israel during the Yom Kippur War. The embargo resulted in a shortage of gasoline that reached crisis proportions in the United States. In response to President Jimmy Carter's call for the country to end its dependency on foreign oil, Congress passed legislation providing federal underwriting of projects that could help the U.S. achieve energy independence. The Michigan-Wisconsin Pipe Line Company applied for federal support for the construction of a pilot coal-gasification plant in the Beulah-Hazen area and, foreseeing the spread of gasification plants throughout the country, asked NACCO to expand its photo-geological mapping of lignite reserves to targeted areas of Georgia, Alabama, Arkansas and Texas.

NACCO's board of directors had already approved the expenditure of $2 million on lignite leases in the West. Agreeing with Bennett that coal gasification offered the "brightest hope of the future for providing the country with a practically unlimited source of clean energy," the board allocated an additional $1 million to be spent in 1974 on the exploration and leasing of lignite reserves in the South and Southwest.

NACCO's aggressive leasing program in North Dakota had placed it in contention for a new power plant to be built jointly by the United Power Association, the Minnesota-based operators of the Stanton Station served by the Indian Head Mine, and the Cooperative Power Association (CPA), another group of rural Minnesota electric cooperatives. Intended to serve fully one-fourth of Minnesota's population when operational, the proposed two-unit, 1,100-megawatt generating station would need access to more than 300 million tons of lignite over its estimated 50-year lifespan. Robert E. Murray, the Lignite Division's acting chief, had been present at co-op meetings in which plans for the new station were formulated, giving NACCO another leg up in the competition for UPA-CPA's business.

Murray, the one-time superintendent of Powhatan No. 3, was now vice president of the Eastern Division. He had been traveling regularly to North Dakota ever since the Lignite Division's former vice president had been relieved of his duties. Every year, Murray made it his business to visit each of the UPA's 15 member co-ops to provide updates on the Indian Head Mine, and his attention to customer relations helped ensure that serious consideration be given to locating the new power plant in central North Dakota near NACCO's reserves.

In 1974 UPA-CPA announced their plans to build the plant on a 2,500-acre site in McLean County, North Dakota, near the town of Underwood. Controlling 300 million tons of lignite within a five-mile radius of Underwood, North American Coal's new subsidiary, The Falkirk Mining Company, was awarded a 35-year contract to supply the Coal Creek Generating Station. The contract, which called for deliveries of up to six million tons of lignite per year, was signed by Bob Murray, who had recently been named vice president of the Western Division, and representatives of the electric cooperatives at the 1974

groundbreaking for the Falkirk Mine on farmland off U.S. Route 83 south of Underwood. As the mine site was still undeveloped, the signatories used the hood of a car for a desk.

On a visit to the site earlier that year, Murray had tried to envision where an access road and a railroad spur could be located. Standing alone in a field of durum wheat, he had suddenly recalled the grain silos owned by a McLean County cooperative called the Falkirk Farmers' Elevator Company and came up with the name for the mine. He also appropriated for the mine's use his high school colors: orange, black and white.

The first unit at Coal Creek was scheduled to come on line in November 1978, the second in 1979. NACCO had four short years in which to obtain the appropriate mining permits and build what was at the time one of the nation's largest mining complexes. UPA-CPA had agreed to underwrite or guarantee the financing for the $167 million mine.

Cutting short the Western Division's celebration of the new UPA-CPA contract, Indian Head's union workforce went on strike in the early fall of 1974. The wage dispute was the latest chapter in Indian Head's history of union-management conflict. Once home to 40 or 50 families, Indian Head's mining camp had been closed by the mine's former owners during a prolonged strike in 1950. The strikers moved to the nearby town of Zap and the nonstriking miners to Beulah. Memories of the old animosities fed the emotions of both sides during the 1974 strike, which dragged into the following year.





The groundbreaking for the Falkirk Mine (right) *took place on farmland south of Underwood, North Dakota. As the site was still undeveloped, Western Division head Robert E. Murray Jr., in the blue blazer, and representatives of the power plant to be supplied by Falkirk signed the fuel-supply contract on the hood of a car* (left).

With the UPA contract in jeopardy, Bob Murray decided to take action to save the Indian Head Mine and the striking miners' jobs. As Indian Head's dispatcher Duane Wolf later recalled, one day in January or February 1975 Murray came into the drafty Quonset hut that served as the mine office and said, "Boys, we are going mining." He had recruited 21 replacement miners at (according to legend) a motorcycle bar in Mandan, North Dakota. Mine and division staff voluntarily augmented their efforts to get out the coal. "We did whatever was necessary," remembered James F. (Jim) Melchior, the current president of the North American Coal Royalty Company, who was then a young land agent in the exploration department in Bismarck. "I would have operated the dragline and loading shovels if they had let me."

Even Virgil Carmichael pitched in, driving the bus that brought in some of the replacement workers each day. Others were flown in on planes that landed on Indian Head's haulage roads. Wolf and Melchior often slept on cots set up in the warehouse and machine shop and ate in an ad hoc mess hall in order to avoid crossing the picket lines. Otherwise they faced being pelted with marbles and eggs, having their car tires blown out by sharp objects strewn across the road, or even having their vehicles tipped over.

By March the Indian Head Mine was ready to ship coal again. Learning that the strikers were going to stop the first unit train from leaving the tipple by staging a massive demonstration on the railroad tracks, Murray sought and won an injunction against the planned trespass on private property. The sit-in took place nonetheless. The county sheriff arrived with too few deputies to break up the demonstration, whose participants included wives, mothers and even children of the striking miners. The next day the sheriff returned with additional manpower and arrested 97 of the protestors, some of whom had chained themselves to the tracks. Shipments to the Stanton Station resumed.

The Western Division's unshakable determination to keep Indian Head operating persuaded local union officials to return to the negotiating table. The parties reached a contract settlement in June. The strike might have ended earlier had United Mine Workers officials not continued to press for a concession that the Western Division was no longer willing to grant: a guarantee that the Falkirk Mine would be a UMWA operation.

Otes Bennett had always been a right-to-work champion. He strongly supported the Western Division's plan to give employees no reason to want to become members of the UMWA. To that end, Bob Murray asked 22-year-old Duane Wolf to transfer to The Falkirk Mining Company and head up an employee relations program. Help in defining the program's nature and objectives came from a member of the third generation of NACCO owners: Alfred M. Rankin Jr.

The son of Frank Taplin Sr.'s daughter Clara and a graduate of Yale Law School like his father, Rankin had been appointed to NACCO's board in 1972. At age 31, he had a

wealth of business knowledge acquired as an economics major at Yale College and as a member of the Cleveland office of the global corporate consulting firm McKinsey & Company. In 1974 Rankin left McKinsey to join Cleveland's Eaton Corporation, an old-line manufacturing firm, as executive assistant to the president and chief operating officer. Under the leadership of chairman and CEO E. Mandell de Windt, Eaton had successfully made the transition from a union to an all-salaried workforce, and Rankin arranged for key NACCO staffers to confer with the managers of the corporation's human resources program. Key to Eaton's development of a fair and productive relationship with its manufacturing plant workers were the concepts of competitive pay, open communication and employee empowerment. "We took many of Eaton's ideas and ran with them at Falkirk and Coteau," Rankin later observed. "The non-adversarial approach that we first developed out West has been absolutely critical to the company's ongoing success."



New appointees to the board in the 1970s included Alfred M. Rankin Jr. (second from right), representing the third generation of family owners, and James A. Hughes (right), chairman of the Diamond Shamrock Corporation in Cleveland.



CHAPTER ELEVEN

Mastering Large-Scale Surface Mining

Even before construction of the Falkirk Mine was completed in North Dakota, The North American Coal Corporation had a second large-scale surface mining operation under development there and a possible third in the pipeline in Texas. In April 1977 the ANG Coal Gasification Company, an affiliate of the Michigan-Wisconsin Pipe Line Company, exercised its option on NACCO's Beulah-Hazen reserves in Mercer County. NACCO's Coteau Properties subsidiary was finally able to begin development of what became known as the Freedom Mine. In its earliest days, however, the operation was simply called the Beulah-Hazen Mine.

When it reached full capacity, the Beulah-Hazen Mine was expected to produce more than 14 million tons of lignite coal annually, even though the fuel needs of the ANG Coal Gasification Company had been dramatically reduced. ANG's parent company, the American Natural Gas Company, had been required to cut the number of its planned coal-gasification plants from four to one due to financing and water permitting issues.

In the meantime, the Basin Electric Power Cooperative based in Bismarck had proposed to build an electric generating station alongside the gasification plant. The proximity of the two operations would reduce the operating costs of each by permitting certain facilities to be shared and the "fines," particles of lignite coal screened out prior to the gasification process, to be used as supplemental fuel for the power plant. In addition to anticipated annual deliveries of up to nine million tons of coal to the gasification plant, Coteau had signed a 25-year contract with Basin Electric to ship up to six million tons of coal per year to the proposed Antelope Valley Generating Station.

Also in 1977, North American Coal set up an office in Dallas, Texas, for its embryonic Southwest Division, which, until then, had consisted of a single Cleveland-based employee, civil engineer Clifford R. Miercort. Miercort had previously worked for the Shell Oil Company on the development of western surface mines from a base in Houston. He was offered a position at his first interview with Otes Bennett and senior vice president of operations Harry L. Washburn. His assignment at North American Coal—or NACoal, to revert to the corporate acronym adopted during the modern era under consideration here—would be to develop the company's Texas lignite reserves.

Beginning work on January 1, 1976, Miercort had justified Bennett and Washburn's instant appraisal of his savvy with his decision to call an associate in the minerals division of a former rival oil company to propose a collaboration. With mine construction costs skyrocketing (they would increase tenfold between the 1960s and the 1980s) and regulatory scrutiny of utility company expenditures tightening, Miercort realized that the Southwest Division would need a partner with significant resources to share the costs of constructing new mines.

Domestic oil producers had begun investing in coal mining ventures after Congress announced its intention of imposing a new tax on oil production to prevent oil companies from realizing "undeserved" profits when price controls imposed during the Nixon administration were finally lifted. The Getty



The Southwest Division's first employee was Clifford R. Miercort, a Houston-based civil engineer hired to help North American Coal market its Texas lignite coal reserves.

Opposite page: *As the first large surface mine built by North American Coal, the Falkirk Mine served as an organizational template for operating in a safe, ethical, customer-oriented and environmentally sound manner.*

Oil Company of Los Angeles, California, had leaped at the opportunity to help North American Coal market reserves containing enough coal to supply four large power plants in a state with a booming economy. As of May 1977, Miercort, NACoal's vice president of sales Herschell Cashion and representatives of its new joint venture partner, Getty Oil, were engaged in serious discussions with two potential customers for the lignite coal reserves owned by the joint venture southwest of Dallas. Each of the potential projects could support a mining operation yielding six million tons of coal per year. This tonnage was equivalent to that expected of the Falkirk Mine.

Even though it appeared that Falkirk was probably not destined to remain North American Coal's top-producing western surface mine, its contributions to the company's success can't be underestimated. As the first large-scale surface mine built by North American Coal, Falkirk served as an organizational template for the company's future surface mines. Systems and programs conceived at the Falkirk Mine were adopted or adapted by new subsidiaries, and the company would bring to bear elsewhere the expertise it had gained from having planned, designed, constructed and operated Falkirk.

Employees transferred from Falkirk provided start-up and ongoing leadership of The Coteau Properties Company and of The Sabine Mining Company, a wholly owned subsidiary incorporated in 1980 to construct and operate NACoal's first surface mine in Texas. Located in the eastern part of the



The Falkirk Mine in July 1979. Shown in the photograph on the near right are the site where the 105-cubic-yard "Prairie Rose" dragline was erected (foreground), the maintenance and office complex (center) and the coal-handling facilities (top right). The mine-mouth Coal Creek Generating Station can be seen in the background of the photograph on the far right, which also pictures the mine's railroad spur and fuel farm (center left).

state near the city of Longview on reserves controlled by the Southwestern Electric Power Company (SWEPCO), the Sabine Mine was developed to serve a mine-mouth power plant that SWEPCO proposed to build near the Sabine River.

In summary, an understanding of Falkirk's history provides important insights into how The North American Coal Corporation mastered large-scale surface mining. While representing an exciting new horizon, this undertaking would require the company's leaders, managers and employees to overcome an array of unfamiliar challenges. The Falkirk Mine pioneered in addressing these issues, which ranged from the complexity of the mining permitting process to the daunting height of the overburden in certain mining areas. For this reason the mine's development and first decade of operation merit examination.

Two thousand acres of the Underwood Field reserves had been set aside for the mine site. On this land would be built the infrastructure to support a state-of-the-art surface mining operation, including an office building and parking lot, coal preparation plant, maintenance shop, garage, warehouse, fuel storage tanks, electrical substations, groundwater discharge systems, access and haulage roads and a railroad spur. The spur was needed to facilitate delivery of a veritable battalion of heavy-duty mining equipment. The mine's planners would place orders for 23 tractor-scrapers and bulldozers, two 18-yard Bucyrus-Erie coal-loading shovels, eight 160-ton-capacity



The erection of Falkirk's first dragline neared completion with the raising of the boom in April 1979.

Kress coal-hauling trucks and two 17-yard Marion draglines, the last to be used primarily for removing the parting, or rocky layer, that separated coal seams. Arriving disassembled, the two Marion 8750 walking electric draglines with 105-cubic-yard buckets were to be erected by mine personnel over a period of three years—the timeframe for construction of the mining.

Falkirk's first employees—four field supervisors and the 21 replacement workers who had kept Indian Head Mine running during the strike—arrived on the construction site in the summer of 1975. They found only an old farmhouse, several run-down outbuildings and a bedraggled collie dog left behind by the farm's previous owners. The farmhouse was converted into a makeshift office, the dog was named Falkirk and assigned the role of mascot, and a trailer was brought in to serve as a change house. The simple act of setting up shop strengthened the bonds that already existed among the replacement workers, whom Bob Murray had insisted be hired by Falkirk en masse after the Indian Head strikers returned to their jobs.

Personnel for performing such functions as engineering, leasing, permitting, accounting, payroll, purchasing, environmental affairs, employee relations, safety and training were slowly added as the project progressed, and mining crews were eventually hired. New recruits were greeted as valued members of the team. The sense of belonging to a tight-knit family was further nurtured by a formal employee relations program. Representatives of the Falkirk workforce brainstormed ideas for the program, whose objective was to establish mutual trust among employees and managers.

In addition to sponsoring social gatherings and intramural sports, The Falkirk Mining Company instituted regular mine-wide meetings to keep employees informed on matters related to the project and to facilitate communication and dialogue. "We also spent a lot of time on training," added Harry Washburn, who became NACoal's senior vice president of operations in 1974. "When you have a union contract, everyone's responsibilities are spelled out. In an all-salaried system, supervisors have to learn how to talk with their crews and work closely with them to solve problems."

This collaborative approach was adopted at all levels of Falkirk's management. The mine's flattened organizational structure was later exported to the company's other western operations, helping to build a sense of teamwork that has characterized employee attitudes at North American Coal's surface mines ever since. The current vice president of The Coteau Properties Company, for example, carries a business card bearing the job description "Popcorn Maker" as a reminder that his charge is to do everything he can to smooth the way for the people who do the work. Even Coteau's president describes his job responsibilities as balancing the needs of employees and the bottom line. "If anything, I lean more toward focusing on safety, empowerment, training and

upward mobility," said Carroll Dewing, a civil engineer whose own upward trajectory at NACoal began in 1979, when he was hired to design roads and pump houses for the Falkirk Mine.

Construction at Falkirk could not begin, however, until the appropriate mining permits had been issued. While the state evaluated the mine's proposed plans for soil handling, groundwater monitoring, dust control, solid waste management, revegetation and protection of wildlife and historically significant sites, Falkirk's earliest employees busied themselves tearing down outbuildings and clearing out old farm equipment and other debris. Ultimately about 125 skilled construction workers found temporary employment on the project, which officially began with preparation of the entire site. By the end of 1976 the access road, railroad spur and a temporary shop had been built, the fuel tanks installed, and work on the coal handling facility begun.

A 29-year-old civil engineer named Bob Benson had been hired to supervise the facility's construction. Benson, who had previously worked for the construction firm Morrison Knudsen building surface mines in the Powder River Basin of Wyoming, took it upon himself to change the design of the coal-handling facility, which was the product of NACoal engineers accustomed to developing underground mines. Impressed with Benson's initiative and know-how, Bob Murray assigned him responsibility for all construction projects at the Falkirk Mine. After completion of the office building and maintenance



Falkirk Mine "alumni" who have gone on to serve in important managerial and executive positions include NACoal president and CEO Bob Benson, who began his career with the company as the construction supervisor for Falkirk's coal-handling facility at the left.

complex in 1979, Benson was promoted to Falkirk's production manager. In 1983 he became superintendent of the Indian Head Mine, another step on a career path that would eventually lead to leadership of North American Coal.

The mining operation at Falkirk began before construction ended, with first coal delivered on October 27, 1978. There had been no shortage of applicants in rural North Dakota for Falkirk's mining jobs with good pay and benefits. Indeed, NACoal subsidiary mines in McLean and Mercer Counties—the heart of "coal country"—would help to lift those jurisdictions into the ranks of North Dakota counties with the highest average wages in the state.

The company would also reap rewards from its adoption of competitive compensation policies in the West and Southwest.

Turnover would not be a serious problem. As of 1987, when the Western Division initiated a service award program, 92 division employees had been with the company for 10 or more years and 13 had recorded 20 or more years of service. Still on the staff of the Falkirk Mine today are several individuals who began work when the collie mascot was alive. Another reliable measure of employee satisfaction is an attendance rate that hovers around 98 percent at the company's surface mines today.

Falkirk Mine's recruiting efforts benefited from the large number of applicants who had road construction experience and the strong work ethic commonly found in individuals who grow up in rural America on ranches or farms. Specialized skills could be taught, according to Bob Benson, who would be intimately involved with workforce hiring and training during his first quarter century with NACoal as the general manager or president of four of the company's surface mines. Positions requiring special training included electric dragline and shovel operations or maintenance. Individuals who showed aptitude and dedication were often given a chance to succeed in more responsible or entirely different positions. Cross-training and



Architectural rendering of Falkirk's office building and service complex

promotion from within would become central to the coal company's efforts to develop the talents and managerial abilities of its employees.

Take the example of Melodie Wannemacher, who was hired by Falkirk as a utility worker in 1980. The five-foot-three mother of two drove water trucks that dampened down haul roads, manned the pumps at sediment ponds and greased dragline cables. After 30 months, she was given the opportunity to operate one of Falkirk's 17-yard draglines on a fill-in basis. She soon received a regular shift on the dragline, removing overburden and parting.* Two Falkirk engineers who went on to hold management positions at the Sabine Mine were subsequently tapped to lead NACoal subsidiaries: Carroll Dewing, the current president of The Coteau Properties Company, and Jay Kost, the current president of The Falkirk Mining Company. Rick E. Ziegler, the current president of The Sabine Mining Company, began his NACoal career at Coteau as a heavy-equipment operator and rose into the ranks of upper management during the tenure of Coteau's Falkirk-trained mine president, Marc Schulz.



Women such as Nancy Rippley (left) and Janice Barland (right) who capably handled workforce jobs at Falkirk paved the way for more females to be hired as miners. Today nearly 10 percent of North American Coal's workforce positions are held by women.

* About the same time that Wannemacher became the first woman dragline operator in North Dakota, NACoal hired its first woman engineer, Anna Miller Shumaker. Shumaker had followed her father, NACCO Mining Company president Fred H. Miller Sr., into coal mining. She began doing permitting and reclamation work for the Central Division and within three years had graduated to project engineering.

Having demonstrated their competence in traditionally male roles, Wannemacher and Shumaker paved the way for more females to be hired for mining and professional positions at NACoal. Today women constitute 8.4 percent of the company's workforce; 23 percent of them have mining-related jobs, 32 percent hold professional positions, and 45 percent are members of the support staff.


8750



The Falkirk Mine was officially dedicated in the summer of 1980. A roster of dignitaries attended the ceremony, including North Dakota governor Arthur A. Link, a champion of the development of both his state's energy resources and its pioneering regulations governing mined land reclamation. The governor's presence affirmed what The Falkirk Mining Company had persuasively demonstrated during the permitting phase: that coal mining could exist in harmony with farming, North Dakota's flora and fauna and the state's Paleo-Indian and Native American archaeological sites (see sidebar on pages 172–73).

To promote greater public awareness of its business activities and ethics, Falkirk launched a formal community relations program that began with a simple contest. County residents were invited to name Falkirk's two 105-yard draglines, whose heights, which rivaled that of the 18-story state capitol building in Bismarck, made them highly visible landmarks. The prize-winning submissions were "Prairie Rose" and "Chief Ironside." The contest proved so popular it was emulated by all of NACoal's subsequent surface mines. Falkirk also established a company-wide tradition of hosting school and community tours.

Falkirk's interactions with the nearby community of Underwood most clearly demonstrated the lengths to which the mine was prepared to go to be a good neighbor. The Falkirk Mining Company drilled new wells to ensure that Underwood's water supply was not adversely affected by the operation's groundwater discharges. In consultation with local residents and county officials, the company constructed a 14-mile pipeline to drain excess water from the mine site to the Missouri River.

The height of Falkirk's "Chief Ironside" dragline rivaled that of the tallest building in North Dakota. The dragline was named in a contest that capitalized on public interest in this new landmark towering above the prairie.

North American Coal's Award-Winning Reclamation Record

NACoal's land reclamation effort starts even before surface mining begins. Topsoil and subsoil are carefully removed (left) *and set aside, to be respread later on mined land that has been regraded to prescribed contours* (center). *Rock picking, fertilizing, seeding native grasses or crops* (right) *and mulching complete the process.*

Opposite page: *NACoal has received more than 100 awards honoring the excellence of its mines' individual reclamation projects. Every year the company restores thousands of acres of mined land to agricultural use or to native prairie and wetlands that support a diversity of flora and fauna.*

North Dakota led the nation in requiring coal producers to act in an environmentally sound manner. Indeed, the mined land reclamation legislation passed by the North Dakota legislature in 1969—and amended and strengthened at subsequent biannual legislative sessions—served as a model for the Surface Mining Control and Reclamation Act approved by Congress in 1977. In striving to meet state and federal regulations, the Falkirk Mine was able to draw upon the expertise of the Indian Head Mine, which had almost a decade of experience in land reclamation. Even before the state regulations were drafted, Indian Head had voluntarily planted sage and Russian olive on some of the spoil banks left by the mine's previous owners.

By the time the Falkirk Mine began operations, much more sophisticated processes of restoring mined acreage had been mandated. It was no longer enough to plant trees on unremediated ground. The Indian Head workforce had learned how to regrade mined land to prescribed contours, then respread subsoil and topsoil that had been carefully set aside before mining began. Rock picking, fertilizing, seeding native grasses or crops and mulching completed the process. Coal producers are required to take out performance bonds that must remain in place for as long as 10 years to ensure that reclaimed land has actually been returned to productive use.

To encourage and recognize outstanding land reclamation efforts, the U.S. Office of Surface Mining (OSM) started an awards program in 1987. There were only four winners of OSM's first Excellence in Surface Coal Mining and Reclamation Award. The Falkirk Mine was among the inaugural winners. Falkirk was honored for its restoration of 20 acres of wetlands mined between 1981 and 1983. Restored in 1985, these marshes and ponds were now home to large numbers of ducks and geese. To date, Falkirk has reclaimed more than 10,000 acres, and its environmental engineers enjoy telling stories about unusual wildlife sightings, such as the northern harriers that nest in the dense wheatgrass and needlegrass of the







restored prairie around Underwood, as compelling evidence of the success of their reclamation programs.

Falkirk's dedication to environmental stewardship has been embraced by all of NACoal's subsidiaries. As North American Coal's surface mines have come to define their mission, getting the coal out safely and providing exceptional customer service is only half of the job. The second half is restoring mined lands to the same or better condition as before. To date, the company's mines have received more than 100 awards for their individual land reclamation efforts, presented by civic, trade association and governmental bodies ranging from the North Dakota chapter of the Wildlife Society to the U.S. Environmental Protection Agency. The Sabine Mine, for example, has been singled out for its stewardship by the Texas Mining and Reclamation Association nearly every year since the mine began operating in 1984. Sabine has also won the Conservation Leadership Award from the Nature Conservancy of Texas.

But there is no higher honor in this arena than OSM's annual award, which has been won multiple times by North American Coal subsidiaries for initiatives ranging from erosion control to the sensitive handling of a Native American burial site. Falkirk uncovered the burial site during the course of mining. It had not been detected by archaeological surveys conducted during the mine's permitting phase. The mine immediately notified the state and worked respectfully with authorities and Native American leaders to recover and move the cultural artifacts from the burial ground, which is now listed on the National Register of Historic Places.









An eyesore of long standing was removed from the county's Lake Sakakawea recreation area when Falkirk purchased for resale a mountain of lignite coal unearthed 30 years earlier during the construction of the Garrison Dam on the Missouri River.

A real estate swap with Underwood's nine-hole golf course was even more ingenious. Falkirk purchased the mineral rights to coal lands on which the golf course was laid out, thus providing the city's golfers with the resources to build a new course and clubhouse on previously mined acreage received in trade for the old golf course. Two Falkirk employees even volunteered to refurbish an antique bar from the old clubhouse that was brought over to the Westridge Golf Course's new clubhouse.

The win-win relationship that the Falkirk Mine developed with its mine-mouth customer set the most important company-wide precedent. Recognizing how the price of steam coal affected demand for its customer's electricity, Falkirk's managers focused from the start on continually improving productivity in order to deliver lignite coal ever more economically to the Coal Creek Station. During its first 12 years of operation the mine reduced its per-ton production costs virtually every year. To cite just one example of how Falkirk reduced costs, the maintenance department devoted 60,000 man-hours to rebuilding the aging Chief Ironside dragline in the early 1990s. A brand-new replacement would have cost tens of millions more than the rebuild.

Abetted by Falkirk's determined pursuit of expense-reduction strategies, the Coal Creek Station was able to drop its rates at least twice within its first 12 years of operation. As the low cost of Coal Creek's electricity increased consumer demand, the power plant's fuel needs rose. In 1990, the year that the Coal Creek Station was ranked by the Utility Data Institute as the country's third most efficient coal-fired plant and the fifth most efficient power plant overall, the Falkirk Mine severed a record 6.8 million tons of lignite coal at the lowest cost per ton in the mine's 12-year history.

Doing more with less was a fact of life at Falkirk even before the leveling off of its workforce, which occurred in the aftermath of a boiler explosion at the Coal Creek Station in November 1986. During the year that Coal Creek was closed for repairs, more than 50 Falkirk employees had to be furloughed in order to save the jobs of those who remained. "It was a completely traumatic event," recalled technical group manager Randy Crooke, who joined Falkirk's staff in 1981, "because we all believed that, if we worked hard, we would be colleagues for life." After the crisis passed, the lingering memory of this painful experience prompted the creation of an employee committee that unemotionally examined the furlough procedures. The committee's thoughtfully suggested refinements were incorporated into Falkirk's human relations program, a work in progress that remains open to amendment and improvement as circumstances dictate.

Over time all the furloughed employees who had not found work elsewhere were offered an opportunity to return to Falkirk. But Dan W. Swetich, who became the mine's third president in 1989, took pains to ensure that the workforce remained lean, at about 180 full-time employees. Rather than



Win-win: Underwood, North Dakota, was able to build a new golf course as the result of an ingenious land swap with The Falkirk Mining Company.

staffing up to meet increased or seasonal demands, Swetich initiated the company's practice of engaging temporary employees. Not only did this measure help to prevent layoffs, it also contained production expenses paid by Coal Creek under the provisions of the original contract.

For the Coteau Properties mine, cost cutting almost immediately became a matter of survival. With the gasification plant on again in 1977, Indian Head Mine surveyor Ken Link was dispatched to the Beulah-Hazen reserve to begin preparing detailed surveys for mine planning purposes. One of Link's future colleagues, Mary Brecht, was the first woman to work as a land surveyor in North Dakota. Link and his associates learned to perform their technical duties even when confronted by landowners who never expected the mineral rights they had assigned to Coteau to be exercised. The first phase of construction began in the spring of 1978, with the transfer of 12 workforce employees from Falkirk.

The commitment to placing the customer's needs first came to be known throughout the coal company as the "busbar philosophy." A busbar is a metal plate through which an electrical current is conducted to a destination; in other words, it is the point at which electricity begins its journey from a power plant into the marketplace. Following Falkirk's example, all of NACoal's new mines would endeavor to do whatever was required to help their utility customers offer the lowest possible rates to the consumer, even if that temporarily placed the mining operation at a disadvantage. The adoption of this enlightened approach to customer relations marked another important step in North American Coal's evolution into a flexible service-oriented company.

These faded photographs, taken around 1975, document the site and first phase of development of the Freedom Mine, which grew over the next two decades into the largest lignite coal mine in America.





This was shortly before Congress mandated the deregulation of natural gas. When gas prices started to tumble, the future of the gasification plant seemed in doubt. How could a mine being built to produce upward of 10 million tons of coal per year remain financially viable on annual deliveries of five or six million to the Antelope Valley Generating Station, the first unit of which was not scheduled to go on line until 1984? The answer was stringent control of costs. Construction proceeded, but on a smaller scale. Equipment purchases were deferred, and employees who had decided to seek work elsewhere were not replaced.

Ground was finally broken for the Great Plains Gasification Plant in August 1980, shortly after the U.S. Department of Energy (DOE) conditionally approved a $2 billion construction loan to a consortium of interstate pipeline companies that ANG had assembled to rescue the project by providing interim financing. In early 1981 the DOE gave final approval of the construction loan for what became the nation's first commercial gasification plant. When the first stage of the plant opened, it would produce enough gas to heat 250,000 homes annually, with a projected savings of 20,000 barrels of fuel oil a day. In addition, the plant was expected to provide valuable technical, economic and environmental data for future projects of its kind. After a decade of intense involvement in the project, a gratified Otes Bennett declared that the Beulah-Hazen Mine would be renamed the Freedom Mine in recognition of this "major step forward in our nation's effort to shift its energy dependence back to our greatest natural resource—coal."

On July 28, 1983, the first synthetic natural gas made from lignite coal flowed from the Great Plains Gasification Plant





into the consortium's pipeline network, ending a half-decade of uncertainty for The Coteau Properties Company. The first unit of the Basin Electric's Antelope Valley Generating Station went on line the following July. Having planned for the best-case scenario as well for the worst, the Freedom Mine was able to meet the combined needs of Great Plains and Antelope Valley for 3.7 million tons of lignite coal by the end of 1984. The mine was then required to double its annual production virtually overnight as its customers' operations normalized.

After working at less than full capacity for several years, the workforce assembled and trained under the leadership of Coteau's first president, David J. Salisbury, rose to the challenge of ramping up from four to nine million tons of lignite coal delivered per year and thereafter maintaining or exceeding



The country's first commercial-scale coal gasification plant, pictured above under construction, began producing synthetic natural gas from Freedom Mine lignite in July 1983. It was hoped that the technology would be widely replicated, thereby reducing America's dependence on foreign oil.

Right: *The mine-mouth Antelope Valley Generating Station was built near the gasification plant to take advantage of the opportunity to share certain costs. After the station's first unit came on line in July 1984, the Freedom Mine doubled its annual tonnage virtually overnight.*



that level of production. In 1989 the Freedom Mine would celebrate the delivery of its 50 millionth ton of coal only a few months after the same milestone was achieved by the Falkirk Mine. In appreciation, North American Coal presented every Western Division employee with a commemorative jacket.

A few years earlier the Coteau team had been nationally recognized for its ability to accelerate production without sacrificing safety precautions. Ever since its establishment in the early 1970s the U.S. Mine Safety and Health Administration, the federal agency responsible for protecting the well-being of miners, had traditionally presented annual Sentinels of Safety awards to the nation's safest mines. In 1986, only three years after it opened, the Freedom Mine won this coveted trophy in the category of large surface mines for having surpassed its peers in achieving the greatest number of man-hours worked in the award year without a lost-time accident or fatality. In 2004 the Freedom Mine received its second Sentinels of Safety award, sharing the honor with another mine in its category.

Coteau's commendable safety performance underscored the effectiveness of the Western Division's emphasis on empowerment. Regular training on how to take responsibility for one's personal well-being is now a standard component of the employee relations program at every North American Coal operation. As a direct result, the company's lost-time rate is less than half that of the industry average, and a NACoal mine recently received the company's third Sentinels of Safety trophy. The Sabine Mining Company won the award for 2010 in the category of large operator of surface mines for the exemplary safety record of the Sabine Mine, which began delivering coal in 1984 contemporaneously with the Freedom Mine.

North American Coal had prevailed over seven other major coal mining concerns that submitted bids to mine lignite coal on Southwestern Electric Power Company-controlled reserves near Hallsville, Texas. SWEPCO projected that its new mine-mouth Henry W. Pirkey Power Plant, a one-unit facility designed with the capacity to expand to two units, would initially need 2.8 million tons of lignite per year. NACoal's winning bid was based on the Southwest Division's assessment that the reserves could be mined at a lower overall cost if 77-cubic-yard drag-lines were used instead of the 105-cubic-yard draglines that SWEPCO's consultants had recommended.

Southwest Division planners had also proposed not to use shovels to load coal. They recommended the use of a type of continuous mining machine called an Easi-Miner. Its seven-foot-diameter cutting head fed fractured coal onto a conveyor system capable of filling a 120-ton truck in three minutes. In addition to its speed, the Easi-Miner promised to increase the percentage of coal that could be recovered from the reserves, which had deep overburden and thin seams.

NACoal's unconventional bid was risky because the proposed mining methodology was untested. "This was a good example of how Otes and Harry allowed people to make independent decisions," recalled Michael J. Gregory, a former Central Division manager of coal preparation who had joined an internal consulting team that helped with the SWEPCO mine planning. "Even if your ideas crashed and burned, they



The Coteau Properties Company created this plaque enclosing a piece of lignite to commemorate the Freedom Mine's first delivery of coal to the Great Plains Gasification Plant on March 13, 1984.

didn't hold it against you. But we made it work." Sabine, which uses mid-size draglines to this day, delivered its 100 millionth ton of coal at the end of 2012.

With the start-up of operations in Texas, NACoal was confronted with a new weather challenge. In North Dakota, temperatures could fall to 40 degrees below zero in the winter. The bone-aching chill froze the top layers of soil—to say nothing of the moving parts of equipment. As a result, certain aspects of the work at Falkirk and Coteau could only be performed seasonally. In eastern Texas, which sometimes experienced as many as 70 days of 100-degree-plus temperatures in the summer, miners had to avoid the opposite extreme of overheating.

Yet it was an unusually wet spring that would remain forever etched in the memories of Sabine's veteran employees. Beginning in the afternoon of March 28, 1989, a 200-year storm dropped more than 12 inches of rain in 12 hours in the Hallsville area. Sabine's two working pits were flooded. Stalwart employees waded into the water to retrieve mired equipment, and the mine's dragline operators worked around the clock for the next nine days, scooping an estimated 156 million gallons of water out of the pits, in order to resume production.

"Walking" a dragline from one mining area to another was a challenge that every subsidiary's workforce eventually had to meet. In 2000 Sabine faced for the first time the necessity of opening a new mining area. A dragline would have to be walked 13 miles to reach the new work site. Years of meticulous planning typically preceded such a move, which could take weeks to complete because it entailed inching a dragline forward at the excruciatingly slow speed of 10 feet per minute by means of movable "feet" on its rotating platform.

Sabine's advance team had prepared plans and obtained permits for the dragline to cross three county roads and two state highways, but had not anticipated what happened when the dragline began navigating a floodplain. Encountering a soft spot, it sank several feet into the earth. Crews worked six long days to free the 3,000-ton piece of equipment. The move otherwise went smoothly—until the dragline arrived at the location of a 345-kV power transmission line. There it stopped for three days until electricity demand dropped and the power line could be temporarily taken out of service to allow the dragline to pass.

Sabine's next move to a new mining area made the 2000 effort look like a cakewalk. In 2012 The Sabine Mining Company had to construct a bridge, 1,000 feet long and 75 feet wide, over the Sabine River, as there was no other way to reach coal reserves across the river. The $45 million bridge would connect the mine's main haul road to the new reserves, under which lay enough lignite coal to keep the Henry W. Pirkey Power Plant operating for 25 to 30 more years.

The Sabine Mining Company had announced its plans to acquire the additional 21,000-acre reserves south of the Sabine River in the spring of 2009. Upon obtaining permits for the first five years of mining in this new reserve, Sabine joined the ranks of North American Coal subsidiaries, including Falkirk and Coteau, whose mastery of large-scale surface mining had led to decades-long extensions of their coal sales agreements.

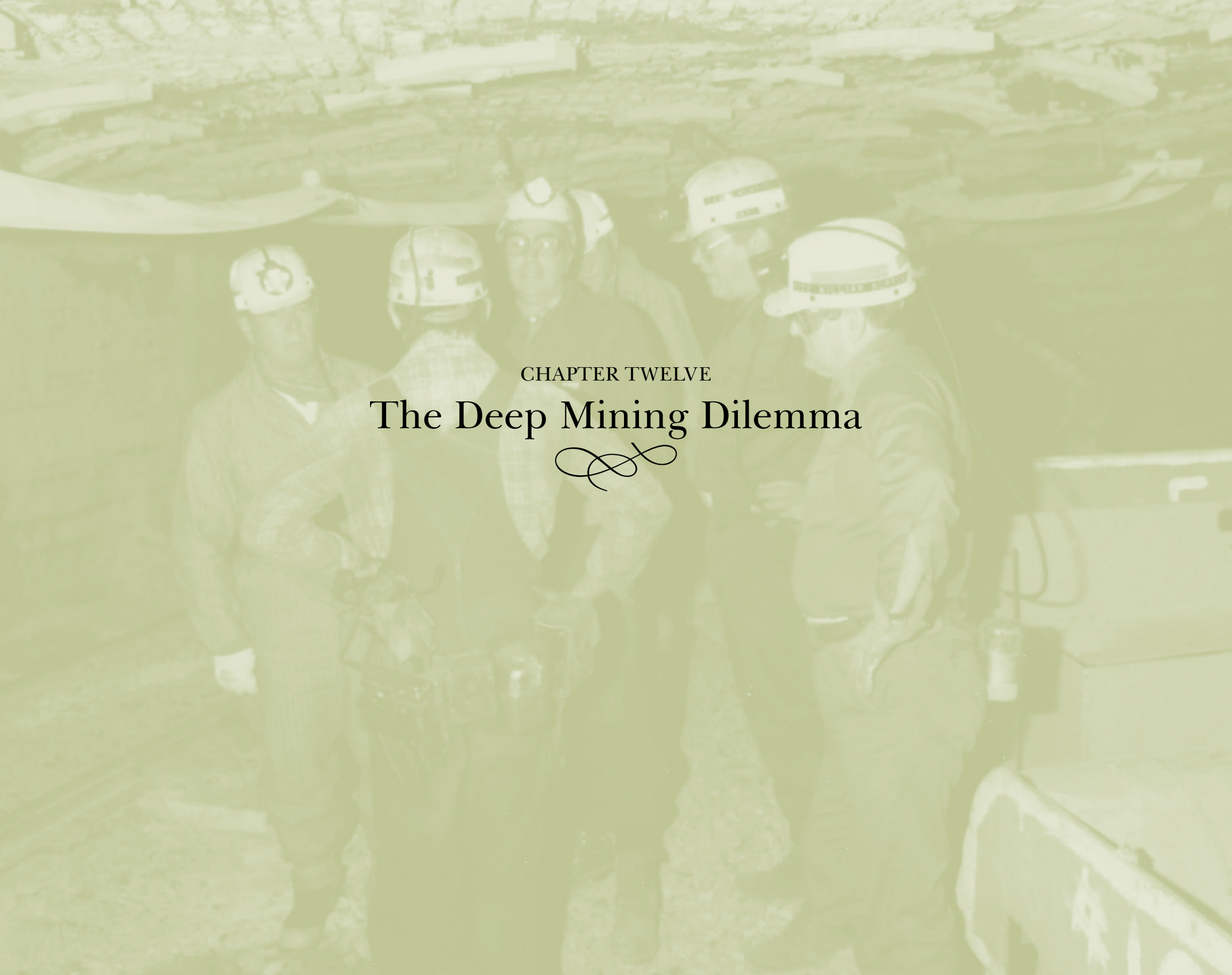






Far left: *The Sabine Mine's delivery of "first coal" to the Henry W. Pirkey Power Plant in eastern Texas*

Top right: *To open a new mining area in 2000, Sabine was required to "walk" a dragline across highways and roads. The Sabine Mining Company recently constructed a 1,000-foot-long bridge over the Sabine River* (bottom right) *in order to reach new coal reserves.*



CHAPTER TWELVE

The Deep Mining Dilemma

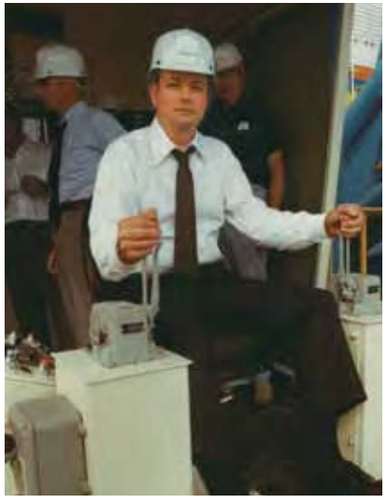
Cliff Miercort would always remember the Sunday afternoon when he received a phone call from SWEPCO, informing him that North American Coal's bid to supply the Pirkey plant had been accepted. "I was the happiest guy around," he recalled. Miercort had been appointed president of the Southwest Division after the launch of the Getty joint venture. The Pirkey project was essential to assuring the division's future, as the joint venture partners had yet to secure a mine-development project for their "Malakoff-Cayuga" reserves.

For the past several years NACoal's vice president of sales Herschell Cashion had flown to Texas every two weeks or so to call on utility companies, often accompanied by Miercort and Getty's point person for the joint venture. Fast-growing Houston Lighting & Power Company (HL&P) was at the top of Cashion's list of potential customers for the Malakoff reserves, 57,000 acres of forests, pastures and bottomlands containing an estimated 230 million tons of coal in Henderson County, Texas. HL&P, which had historically relied on natural gas as a boiler



The Southwest Division's president Cliff Miercort (in the checked shirt) led the NACoal board on a tour of the Sabine Mine site in 1982. Securing the fuel supply contract for the Pirkey power plant, seen under construction in the distance, ensured the future of the division.

Opposite page: *An inspection of a longwall working section of the Powhatan No. 4 Mine. Never before employed in modern-day Ohio, longwall technology was introduced as part of a concerted effort to increase the productivity of the company's underground mines.*



Vice president of sales Herschell Cashion, posing at the controls of a dragline, flew from Cleveland to Dallas every couple of weeks for several years to pursue business for the embryonic Southwest Division.

fuel, had recently decided for strategic reasons to use either coal or nuclear energy for all future additions to its base-load generating capacity.

Even after HL&P awarded a contract for its first lignite-fueled power plant to another coal producer, Cashion had persisted in the attempt to build a relationship of mutual trust with the president of Utility Fuels, HL&P's fuel purchasing subsidiary. "If I deserve credit for anything, it was for not giving up," Cashion later said. His diligence was rewarded. In November 1981, almost a year to the day after the incorporation of The Sabine Mining Company, NACoal received word of Utility Fuels' decision to award the joint venture partners a 30-year contract to supply fuel to a $1.9 billion power plant that HL&P planned to build in Henderson County by 1988. It was anticipated that the joint venture's soon-to-be-christened Trinity Mine would deliver a total of 190 million tons of lignite coal over the life of the contract to the Malakoff Electric Generating Station.

The Trinity project was a "heck of a sweet deal for us," as Miercort later put it. Not only would North American Coal be paid a fixed price per ton to mine the Malakoff reserve, it would own a 45 percent interest in the Trinity Mine. In addition, Getty Oil had agreed to pay NACoal's first $24 million share of the mine's development costs as compensation for its purchase of a 55 percent interest in the Malakoff reserves. Following the formation of the joint venture Getty had also paid NACoal an annual consulting fee for three years. These monies had helped to defray the start-up and administrative expenses of the Southwest Division.

NACoal might eventually be called upon to contribute as much as one-third of Trinity Mine's projected $300 million cost. The company's new corporate attorney, Thomas A. Koza, drafted a coal sales agreement that limited NACoal's downside risk. Koza, who had received his law degree from Duquesne University in 1973, had been hired to head up NACoal's first in-house legal department in 1977 in anticipation of the retirement from active practice of outside counsel Art Dougan.

Demonstrating that he possessed his predecessor's ability to think strategically, Koza inserted a provision to protect the company from financial loss caused by an event or effect that could not be reasonably anticipated. The clause would prohibit the cancellation of the Trinity contract for reasons of changing market conditions, for example. "It wasn't something we expected to enforce, as demand for electricity in Texas was rising," Koza later explained. "It was just an idea I had." Going on to serve as vice president, senior counsel and secretary during his 35-year career with NACoal, Koza would later have a good reason to consider this "idea" his most important contribution to date to the coal company's success.

Development of the Trinity Mine was scheduled to begin in 1985. Having launched the Southwest Division with five employees, Cliff Miercort set about recruiting a more diversified staff to meet the planning needs of the division's two mine projects. The exceedingly bright prospects of the Southwest Division made Miercort a potential successor to Bennett, who had turned 60 in 1981. The other strong contender was Western Division president Bob Murray, considered by Bennett

and the board to be a major contributor to his division's success. Murray's North Dakota colleagues and employees shared Cleveland's appraisal that his ability to get things done was unsurpassed.

With Coteau still in development and Indian Head planning to move the Gypsy Rose dragline to a new mining area, Murray had legitimate reasons for sidestepping Bennett's request that he return to Cleveland in 1981 to help the company address the multiple challenges facing the Central and Eastern Divisions. Starting in 1978 with the Jensie Mine in Ohio and Josephine No. 2 Mine in Pennsylvania, NACoal had been required to close some of its underground operations. According to senior vice president Harry Washburn, federal clean-air standards had eliminated demand for the high-sulfur bituminous coal produced by the closed mines. The continued operation of six other deep mines was also in doubt, Washburn acknowledged to the media at the time of the 1978 closings.

The mining communities of the Ohio River Valley had long anticipated the closure of Powhatan No. 5, which took place in 1980 due to the foreseen exhaustion of its reserves, but few outsiders suspected that the Powhatan No. 1 Mine, which still had an estimated 29 years of coal reserves, was on the endangered list. So was Powhatan No. 3, with an estimated 26 years of reserves. To mine the reserve coal, NACoal would have to invest in new portals, entry slopes and possibly a new preparation plant. But, in the view of Bennett and the board, uncertain market conditions did not justify investment in underground coal mining. Bennett would explain the company's outlook to *Forbes* magazine in 1985, saying: "It's a terrible time to put money into [bituminous] coal ventures. We are one of the few pure coal companies of our size left. We have been looking to diversify for years."

The diversification effort to which Bennett referred had been initiated by NACoal director Alfred M. Rankin Jr. in response to a five-year plan that management had presented to the board in 1974. Prepared before the company had secured multiple long-term contracts in the West, the forecast predicted limited growth in earnings per share and a large decrease in return on equity during the final years of the 1970s.

Alfred Marshall Rankin Jr., the eldest of five sons born to Alfred and Clara Taplin Rankin, was a relative newcomer to NACoal's board, and his prior knowledge of the coal business had been gleaned almost entirely from conversations with family members and company personnel, from reading and, in his youth, from an occasional supervised descent into one of the company's mines. Nonetheless, Rankin found the forecast "worrisome." The four years that he had spent at McKinsey & Company's Cleveland office had given him an invaluable grounding in research and analysis, problem solving and organizational development. Once joining NACoal's board in 1972, he naturally began to look at the coal company through the eyes of a management consultant.

In his first year as a director, Rankin had urged the board's expansion, believing that it would be beneficial to include more than one or two businesspeople from outside the coal industry. Beginning in 1973, with the appointment of James A. Hughes,





Top: *Senior vice president of operations Harry L. Washburn, who would succeed Otes Bennett as company president*

Bottom: *Pittsburgh attorney Thomas A. Koza became the head of NACoal's first in-house legal department in 1977.*



NACCO Mining Company president Fred H. Miller Sr. (in the dark blue shirt) welcomes company directors to the Powhatan No. 6 Mine. At the recommendation of Alfred Rankin Jr. (far left), NACoal appointed accomplished Cleveland business leaders such as James A. Hughes (center) and Ward Smith (to the right of Otes Bennett in sunglasses) to the board.

the chairman of the Diamond Shamrock Corporation, every few years a well-regarded Cleveland-based corporate executive was added to the board. These new directors, whose numbers included Ward Smith, the president and CEO of White Consolidated Industries, Inc. (appointed in 1980), E. Bradley Jones, a retired chair and CEO of the LTV Steel Company (appointed in 1985), and Richard B. Tullis, chairman emeritus of the Harris Corporation (appointed in 1990), all had expertise in manufacturing.

North American Coal also enlisted new directors with invaluable national perspectives. For example, John C. Sawhill, the president of New York University and a former deputy U.S. secretary of energy, was appointed to the NACoal board in 1976, and Robert M. Gates, a former director of the Central Intelligence Agency, was appointed to the board in 1993. Both contributed knowledge of the global energy industry and insights into its intersection with national policy and politics. The company's ability to recruit the best and brightest to board service ensured that a great diversity of informed viewpoints was brought to bear on the question of how to strengthen NACoal's performance during the last quarter of the 20th century and beyond.

Also early in his tenure as a director, Rankin set about investigating a proposition that he thought would broaden NACoal's business base and increase its return on equity (ROE) to a minimum target of 11 percent, the average for industrial companies at that time. In a personally prepared analysis that he discussed privately with his fellow family owners before making a formal presentation to management and the full board, Rankin reported that expansion through the acquisition of additional coal-industry assets would likely not bring a significant increase in ROE. The Getty joint venture, with an expected ROE that far exceeded Rankin's desired minimum, would be an exception to this trend.

Rankin's assessment was well received by the more senior family members on the board. "These are tough times all over," Tom Taplin wrote to Rankin after reviewing his nephew's analysis, "not just the investment and security fronts, but also

> the company's stock down to a price of 5 times earnings—I just never thought it would happen. A lot of asset value is diminishing in different directions, but ride it out we will.

Rankin believed that a better option might be to pursue acquisitions beyond coal—in short, to diversify. Yet, despite his personal conviction that "diversification into a related industry or a non-related industry may hold the most exciting prospects," Rankin acted with what came to be seen as characteristic caution. He had noted that the sizable amounts of cash generated by mining operations were being invested conservatively in such short-term vehicles as treasury securities and even bank certificates of deposit under the direction of vice president and treasurer Robert S. Hawekotte, whose ascent of the corporate ladder had begun with his appointment as assistant treasurer in 1959.

While appreciating the diligence with which Hawekotte (as a colleague later observed) "protected the company's assets as if they were his own," Rankin gently nudged North American Coal to begin an exploration of diversification by reconsidering the most appropriate uses of the company's significant cash holdings. Would an investment of excess cash in the stock market, particularly given the low price-to-earnings ratios then governing the price of publicly traded shares, offer improved "protection against the risk and cyclicality of the coal business"?

Hawekotte, a sternly imposing but respected figure who began each workday with a thorough review of the financial section of the *Wall Street Journal*, would not retire until 1987, giving the coal company ample time to groom a successor with experience as a chief financial officer. John R. Cook, the former CFO of a Union Oil Company of California subsidiary, was appointed vice president of finance and administration in 1979, and he began working with Hawekotte and the board to broaden NACoal's investment portfolio through the purchase of stock in carefully vetted industrial companies.

In 1980 the scenario of additional mine closings predicted by Harry Washburn three years earlier began to play out. The Central Division led by division president William P. Goddard was the first to be affected. North American Coal received notification from Ohio Edison of its intent to terminate prematurely its historic contracts with the Powhatan Nos. 1 and 3



Longtime treasurer Robert S. Hawekotte "protected the company's assets as if they were his own."

Mines, each of which still supplied Ohio Edison's R. E. Burger Power Plant with a million tons of coal per year. The utility company cited excessive production costs as its justification.

NACoal executives, on the other hand, believed that the severe air-quality restrictions imposed on utility companies by the Clean Air Act had prompted Ohio Edison's action. Confirming that NACoal was in full compliance with the Burger contracts, Tom Koza recommended actions that ultimately produced a settlement requiring Ohio Edison to honor No. 3's contract through the previously agreed-upon termination date of November 30, 1982. The utility's 40-year-old contract with the Powhatan No. 1 Mine was canceled.

No. 1 went on permanent standby in the spring of 1981. A fire that broke out that fall required the mine's sealing ahead of its planned closing at the end of the year. Two Eastern Division mines, including Conemaugh No. 1, were also shuttered in 1981. That year NACoal's per-share earnings dropped to 18 cents (from $3.07 in 1980), largely as a result of decreased sales revenues and charges associated with mine closings.

Unable to find a new customer, Powhatan No. 3 closed in November 1983. Ohio Edison had extended No. 3's contract through the end of 1983, but a mantrip derailment on the mine's main haul line forced its closing several weeks ahead of schedule. The accelerated closures of Nos. 1 and 3 intensified the anguish of the Ohio River Valley's mining communities over the loss of good-paying jobs. Between December 1978 and December 1983 the number of persons employed by North American Coal had declined from 6,870 to 4,117, and the preponderance of the job losses had been sustained by the Central and Eastern Divisions.

Above-market production costs incurred by the company's remaining Pennsylvania mines had strained the Eastern Division's relationships with its customers. Operations at both The Helen Mining Company and The Florence Mining Company had been hampered by their aging facilities and equipment and the working out of their best reserves. Eastern Division president Franklin L. Scott rightly contended that these problems were beyond NACoal's control, as the solutions required the customers' reinvestment, which had not been forthcoming. In fact, the owners of the Homer City Generating Station served by The Helen Mining Company had notified NACoal of their intent to exercise their option to acquire the subsidiary and turn its mining operation over to another coal producer. The nine utilities that owned the Conemaugh Steam-Electric Plant had taken a different approach to lowering that plant's fuel costs, asking The Florence Mining Company to invest its own capital in the mine's modernization and future operation and to accept reduced profits.

Even the future of the Southwest Division had turned cloudy. Earlier in 1983 Houston Lighting & Power had informally notified the Getty joint venture partners of a possible two-year delay in the construction of the Malakoff power plant while it weighed the economic ramifications of new federal regulations requiring electric utility companies to take advantage of so-called "co-generated" industrial power. Fortunately, with the Freedom Mine up and running, operations in the Western

Division were normalizing. With no unusually pressing issues on the horizon in North Dakota, division president Bob Murray had bowed to the imperative of helping NACoal restore customer confidence in the company's remaining underground mines.

Murray moved back to Cleveland in February 1983. That May, in a reorganization of executive responsibility, he was promoted to executive vice president of operations and Harry Washburn was named the company's president. Bennett, who retained the titles and duties of CEO and chairman, gave Murray free rein to determine how to improve the performance of the company's underground mining operations, while Bennett focused on the contract renegotiations that had been requested by the underground mines' customers. The executives called the concerted rescue effort "New Beginnings."

In Ohio, The Quarto Mining Company required the most attention. The cost of constructing Quarto's Nos. 4 and 7 Mines, which had been underwritten entirely by the utility company consortium known as CAPCO (Central Area Power Coordination Group), had come in at triple the estimated budget because of production problems that had extended the development phase. To protect its $430 million investment in the mines' construction, CAPCO had agreed to underwrite the purchase of expensive longwall mining equipment that Quarto



For more than 20 years former Central Division employees have assembled annually to renew their friendships and reminisce about working at the Powhatan mines. This reunion picture was taken in 2011.

believed would increase the productivity of the two mines. The equipment had been installed in 1977–78.

North American Coal was the first or second coal producer in Ohio to make contemporary, serious use of this mining technology, in which three- to six-foot-wide slices of coal are sheared in a single pass from a block of coal up to 1.5 miles in length. But the thin, rocky seams of coal that studded the Quarto reserves made for extremely difficult mining conditions, as the outside consultants hired by CAPCO to evaluate fuel-supply bids back in the early 1970s had predicted. The experiment with longwall mining did not initially lower Quarto's production expenses. In response, CAPCO had in the early 1980s negotiated reductions in the annual tonnage that Quarto delivered to the Bruce Mansfield Plant in Pennsylvania and a decrease in the per-ton price of Quarto coal.

There were no problems with the performance of the Powhatan No. 6 Mine, which employed 14 mining crews and a total workforce of 850 in fulfillment of The NACCO Mining Company's contract to supply the Cleveland Electric Illuminating Company's Eastlake, Ohio, power plant. However, the sulfur content of No. 6 coal, which was higher than that of any other bituminous coal supplied to Eastlake, was a matter of continuing concern. CEI had received a waiver to the Clean Air Act because of the pollution-dispersing capacity of Eastlake's tall smokestacks. Although this had staved off the day when the plant might no longer be able to use Powhatan coal, the





The Powhatan No. 4 Mine and its river-loading facility

utility company had nonetheless sought a reduction in its annual tonnage and opened negotiations with The NACCO Mining Company about replacing its traditional payment plan with an incentive program.

The economics of the cost-plus contract, a financing approach that had allowed North American Coal to invest its limited capital resources in acquiring marketable coal reserves while transferring the costs of mine development and operation to the utilities in exchange for the reliable provision of affordable boiler fuel, were now subject to greater scrutiny by public utility commissions (PUCs) established by state governments to oversee the rates and services of publicly owned or traded utility companies. In an era of expanding consumer protections, PUCs were proving to be increasingly resistant to utilities' requests for cost pass-through. As Otes Bennett explained to Forbes in 1985, "While the electric utilities were growing fast, before the commissions got after them, they had deep pockets. That pretty much has run its course."

Given this new reality, Bob Murray sought to address what he believed to be the chief contributor to above-market production costs in the Eastern and Central Divisions: poor management. Within a month of his arrival at corporate headquarters he had begun to effect leadership changes at the division and subsidiary levels. Mine supervisors and other key employees who retained their positions were required to attend management classes at the Oglebay conference center in Wheeling, West Virginia. "We are going to take back these mines," Murray explained to the attendees.



The Central Division's employee "awareness meetings" refocused attention and energy on the challenges facing the Ohio River Valley mines.

In 1978 and 1981 the bituminous coal industry's triannual contract negotiations with the United Mine Workers of America had resulted in extended strikes. The '78 strike lasted three months; the '81 strike ended after 72 days. The prolonged work stoppages at NACoal's underground mines had adversely affected the company's production costs and profitability, and Murray intended to make clear to their employees that the solutions to the mines' difficulties lay in their hands. Drawing on his positive experiences with mine-wide meetings in the Western Division, he instituted and regularly presided over "awareness meetings" at the Central Division mines.

Murray's arrival for these meetings raised anxiety levels throughout the Ohio River Valley's mining communities. But



A hardhat decal promoting the "New Beginnings" campaign

the policy of open communication and corporate transparency also served to refocus the attention and energies of the Central Division on the challenges ahead. A production record set by the Powhatan No. 4 Mine on September 21, 1983, when 14,344 tons of coal were processed within a 24-hour period, was the first sign of Quarto's turnaround. By the fall of 1984, when the UMWA and the coal industry reached a new national labor contract without a strike, The Quarto Mining Company was on its way to producing 3.5 million tons of coal for the year, its highest annual tonnage to date.

The subsidiary's improved performance put a momentary halt to discussions of CAPCO's exercising its option to acquire The Quarto Mining Company. Indeed, in early 1985 CAPCO indicated that it would be willing to entertain a bid from Quarto for a fixed-price contract to supply the Mansfield plant. "Our objective is to retain the Quarto operation, and we will do everything reasonable in our effort to do so," Otes Bennett assured the Ohio Edison executive who led CAPCO, whose fuel costs had been capped by the Public Utility Commission of Ohio in mid-1984.

NACoal had already complied with CAPCO's order to cease operations at the Powhatan No. 7 Mine. More than 200 employees had been laid off when No. 7 was placed on standby in June 1984. Operations at No. 4 were also streamlined. Under Murray's leadership, Quarto's total workforce dropped from 1,400 to 850, saving CAPCO an estimated $75 million a year in production costs.

In attempting to renegotiate the Helen and Florence Mining Companies' contracts, Otes Bennett had also done everything "reasonable" to accommodate the "lower return and higher risks demanded by the utilities." With the board's approval, Bennett had presented proposals to help finance future mining operations out of the subsidiaries' retained earnings. He had offered to dedicate additional reserves to Florence and to change Helen's fixed profit plan to one based on incentives. Despite the attractiveness of these terms, NACoal's Pennsylvania customers ultimately decided to exercise their options to acquire the Florence and Helen mines and assign their purchase rights to other coal producers.

In October 1984 The Florence Mining Company was turned over to the Rochester & Pittsburgh Company, and the following January the Valley Camp Coal Company bought The Helen Mining Company. Instead of the charges customarily incurred by the termination of a mining operation, the sale of the Pennsylvania subsidiaries produced one-time revenues of more than $20 million, a sum that included the mines' purchase prices and dividends paid from the subsidiaries' retained earnings.

As The Oneida Mining Company had been sold in 1976, eight years before, the Eastern Division no longer needed a large headquarters building in Armagh, Pennsylvania. The division's chief engineer, Ralph W. Shank, leased and then sold the building. The receipts defrayed the costs of constructing a small land office in Armagh, where Shank embarked on a

successful second career marketing the company's remaining Pennsylvania reserves.

Florence and Helen had contributed about four million tons of coal sales and $6 million of earnings to the company's ledgers in 1984. Their loss was counterbalanced by the surging productivity of NACoal's western surface mining operations. Indeed, coal shipments in 1984 exceeded the 20-million-ton mark for the first time in the company's 71-year history.

Profits set a new high, as well. In 1984 North American Coal enjoyed net earnings of $26.4 million, or $8.28 per share, exceeding even the record profits that had been set in each of the previous two years. In addition, as of the beginning of 1985, the company had about $90 million in unrestricted cash and marketable securities.

NACoal's bottom line had rebounded by the time of Harry Washburn's retirement from the presidency on June 30, 1985. However, the question of whether the company would be forced out of underground coal mining remained unsettled. Otes Bennett, who would celebrate his 64th birthday in a month, had agreed to take on the responsibilities of president once again. But he also intended to hand over the presidency the following June to Bob Murray, who had been promoted in the interim to president of coal operations. Murray's well-proven capabilities as a miner and a negotiator outweighed the challenges presented by his strong personality. As Tom Koza later explained, "Otes felt that Murray should be given a chance because of all Bob had done in North Dakota."

In the meantime, there was still the "New Beginnings" campaign to complete. Bennett and Murray remained committed to saving the Quarto and NACCO Mining Companies. That summer Bennett was in the final stages of renegotiating Quarto's contract with CAPCO. An agreement signed at year's end, which called for Quarto to fund the future capital requirements of the Powhatan No. 4 Mine, guaranteed the mine's continuing operation, although the utility consortium still retained the right to buy No. 4 and transfer its management to another coal producer. This was a live possibility. As Bennett reported to the board, the Consolidation Coal Company, NACoal's historic rival, which operated several underground mines nearby in West Virginia, wanted "this business in the worst way."

The employee awareness campaign implemented by Bob Murray had resulted in significant productivity increases at the Powhatan No. 6 Mine, as well as at No. 4. These gains came on the heels of the EPA's release of revised Clean Air Act regulations in the summer of 1985. Cautiously optimistic that the new rules would not prevent the continued use of No. 6 coal, the Cleveland Electric Illuminating Company had resumed contract renegotiations with The NACCO Mining Company in the fall.

In his next annual letter to shareholders Bennett thanked Central Division employees for their "efforts in lowering mining costs by establishing an upward trend in productivity" and expressed his belief that North American Coal would be able to "work through our few problems and capitalize on our many strengths" in 1986.



CHAPTER THIRTEEN

Momentous Transitions

No matter what transpired in operations during Otes Bennett's last year in command, NACoal's board had already decided to hedge its investment in coal by moving ahead with a diversification initiative, aided by what *Forbes* magazine described as the company's "tremendously liquid" balance sheet. The initiative had begun in earnest in the late 1970s with the purchase of shares in blue-chip companies such as Phillips Petroleum, Texaco, Standard Oil of Indiana, Getty Oil, Conoco, Atlantic Richfield, Reliance Electric, General Electric and Eaton Corporation. Over the course of several years North American Coal put more than $13 million in excess cash to work in the stock market. It also invested $7.5 million with a venture capital firm.

But the descendants of the company's founder who sat on the board remained concerned that even these less conservative investments would not increase equity at the rate needed to meet or exceed returns which family shareholders, whose numbers were growing with each passing generation, could achieve in the overall stock market. The more senior family representatives on the board looked again to Alfred Rankin Jr. for guidance about how to ensure successive generations' commitment to the coal company. Questions about the productivity of the company's investments had been pushed to the forefront again by the board's new long-range planning committee. In early January 1983 the committee had presented to the board its forecast that cash produced by mining operations could cumulatively amount to as much as $170 million by 1992.

In his role as executive assistant to the president of Eaton Corporation, Rankin had led general business consulting work and strategic activities for Eaton and been impressed with how that company, which began as a maker of axles, had become a global industry leader in a much broader array of businesses by diversifying through acquisitions. Believing that a similar strategy might now work for NACoal, Rankin had suggested that McKinsey & Company's Cleveland office be retained to help the board and the financial management team weigh additional investment options.

McKinsey presented its analysis to the board in March 1983 in a report titled "Building an Investment Strategy." Among the investment alternatives considered was a toe-in-the-water acquisition strategy. The board favored this approach, which combined "caution with opportunity" in recommending that NACoal purchase ownership stakes of up to 20 percent in undervalued, high-return corporations. That specific stake would take advantage of an equity accounting rule that permitted the owner of a minority position of 20 percent or less to report only dividend income from the investment, rather than having to incorporate the target company into its own financial statements. Such an acquisition strategy also had the advantage of avoiding bidding wars and protracted legal struggles.

In the summer of 1983 McKinsey returned to the boardroom with a list of 34 companies that might merit an investment. All of the candidates were in the energy, engineering/construction or environmental control sectors. While carefully

Opposite page: *A 72-inch-wide conveyor carried crushed lignite up 1,250 feet to a temporary storage silo at the Falkirk Mine's original coal-handling facility.*



NACoal's diversification initiative led to the purchase of a minority stake in the Yale Materials Handling Corporation in 1984. A year later the coal company acquired a majority interest in the lift truck manufacturing firm.

weighing these options, the board initiated a buyback of up to 150,000 NACoal shares, over and above the 100,000 shares that had been previously authorized. Board members also approved a year-over-year boost in the company's dividend, perpetuating a tradition of regular dividend payment that had been observed every year since 1956.

Finally, in November 1984, NACoal moved in on its chosen target, purchasing a 15 percent interest in the Yale Materials Handling Corporation, a domestic manufacturer and global marketer of a full line of forklift trucks and related service parts. Yale operated under the aegis of the Eaton Corporation's Materials Handling Group, of which Alfred Rankin Jr. was now president. Yale had not been on McKinsey's list, but Eaton's decision to begin the disposal of its interests in Yale, which was not a core business, had attracted NACoal's attention. Rankin did not participate in the discussions that led to the purchase of the $2.9 million minority stake.

Shortly thereafter, Eaton Corporation filed with the U.S. Securities and Exchange Commission a preliminary registration statement known colloquially as a "red herring prospectus"—in effect, an announcement of intent to issue shares at an undefined price at some point in the future. This was an indication that Eaton was now looking to sell the remainder of Yale. Just four months later, in March 1985, NACoal acquired majority control of the forklift company, raising its total investment to 85 percent at a cost of an additional $29.9 million.

The unraveling of the Trinity Mine project later that year would, ironically, serve to replenish North American Coal's cash accounts and support additional acquisitions in the manufacturing sector.

The Trinity project came apart as the result of a federal law passed in 1978 to promote greater use of domestic renewable energy by electric utility companies. Unexpectedly confronted with the requirement to purchase electricity generated by industrial companies in its service areas whenever the "co-generated" power would reduce costs to the consumer, the Houston Lighting & Power Company had tried to cancel its plans to build the lignite-fired Malakoff Generating Plant. But the Public Utility Commission of Texas denied HP&L's petition to have the plant's "certificate of convenience and necessity" revoked.

Subsequent attempts to delay the plant's construction ran counter to provisions in the coal sales agreement that had been negotiated with Utility Fuels. To gain control over the destiny of the Malakoff plant, HL&P had no alternative but to instruct its fuels acquisition subsidiary to buy out the joint venture partners. NACoal's buyout agreement contemplated the coal company's continued involvement as the designer and operator of the Trinity Mine should the Malakoff plant be built, but also provided for a stream of payments through 1996 should the plant be canceled. Malakoff was never built.

The buyout agreement, which called for North American Coal to receive $67 million in management fees and coal royalties in ten annual installments, contributed to NACoal's profit of $33.6 million in 1985. The record earnings also reflected significant reduction in the carrying costs of its western coal

reserves. The company had decided to terminate leases on 1.2 billion tons of lignite coal in North Dakota's Williston Basin. Although painstakingly assembled "one lease at a time"—as Jim Melchior, the company's Bismarck-based land agent, ruefully remembered—the reserves in the Dickinson, Bowman and New England Fields had proved to be unmarketable. Also helping to make 1985 a banner year was the strong performance of Yale Materials Handling Corporation, which produced 20 percent of consolidated net earnings in its first 10 months under the company's management.

While evaluating the ramifications of the acquisition of a second large operating unit, NACoal's board realized that the company needed a more flexible corporate structure. The task of conceiving a corporate reorganization plan was assigned to



Members of the executive team and board, outfitted for an underground inspection tour of Powhatan No. 6 Mine in the summer of 1986. The following year the directors approved a corporate reorganization plan conceived and executed by outside counsel and new board member Dennis W. LaBarre (fifth from the right) that saw North American Coal become a wholly owned subsidiary of a new holding company, NACCO Industries, Inc.

Dennis W. LaBarre, a Jones Day attorney who had served as outside counsel since 1977 and been appointed to NACoal's board in 1982 after Art Dougan had stepped down. LaBarre recommended the creation of a holding company, whose purpose would be to own and manage any number of operating units and determine how best to deploy or redeploy consolidated corporate earnings. The holding company would be governed by a board of directors identical to that of the coal company.

On February 18, 1986, NACCO Industries, Inc., was incorporated in Delaware as a subsidiary of The North American Coal Corporation. This was the first major step in a restructuring effort that would take more than two years to execute. In May North American Coal's public shareholders formally approved the reorganization plan, which effectively called for the new corporate entity and the coal company to exchange status. Along with Yale, North American Coal would become a wholly owned subsidiary, incorporated in Delaware, of NACCO Industries, Inc., which would function as a holding company. The coal company would no longer be listed on the New York Stock Exchange; NACCO Industries would, under the ticker symbol "NC."

The transfer of the coal company's assets and operations to the wholly owned subsidiary took place at the end of June 1988. At the same time, The Bellaire Corporation was formed to assume the assets and liabilities of the underground mining operations of the old North American Coal.

The Taplin-Rankin family, which owned close to 50 percent of North American Coal's stock and held four of the company's 10 board seats when the restructuring effort began, strengthened its ownership position. This was the intended result of LaBarre's innovative stock reassignment plan, which provided for North American Coal shareholders to receive two shares of NACCO Industries, Inc.'s publicly traded Class A common stock and one share of Class B common stock for each share of North American Coal stock previously held. Each of the Class A shares had one vote, while each of the Class B shares had 10 votes. In addition to serving as "raider repellent," the creation of a superclass of voting stock had the effect of perpetuating the family's control of NACCO Industries. As stockholders converted B shares to saleable A shares in order to permit disposal of the latter, the voting power of the family owners committed to long-term stewardship steadily grew. It would eventually amount to more than 75 percent.

The corporate reorganization was accompanied by changes in the executive management team. As planned, in June 1986 Otes Bennett stepped down from the presidency of North American Coal, and Bob Murray succeeded him. During Bennett's watch, North American Coal's revenues had grown from $27 million to $621 million, annual net earnings had increased from $1.1 million to $33.3 million, and stockholders' equity had risen from $23 million to $182 million. Perhaps most impressively, the five-year average return on equity of 18.1 percent that NACoal achieved at the end of 1986 would rank first among the ROEs of the country's top eight coal producers. But Bennett was not yet ready to rest on his laurels. To ensure that the leadership transition went smoothly, he

had agreed to the board's request that he stay on as CEO and chairman of the coal company and assume the chairmanship of NACCO Industries.

The board tapped Alfred Rankin Jr. to help the holding company find a chief executive, a non-coal manager who could help the parent company run what was intended to be a growing portfolio of subsidiaries. Rankin turned to NACCO Industries board member Ward Smith, who had served as president and chief executive officer of White Consolidated Industries, a diversified Cleveland-based manufacturer of sewing machines and household appliances, prior to the company's acquisition in early 1986 by AB Electrolux, the Swedish household goods giant. The 55-year-old Smith had come to know and respect the Rankin family because of their mutual service to the Cleveland Orchestra. Indeed, Smith had succeeded Alfred Rankin Sr. as president of the orchestra's board in 1983. Smith welcomed the opportunity to deepen his involvement with the Taplin-Rankin family business, and in September 1986 he became president and CEO of NACCO Industries.

Smith entrusted the day-to-day operation of the coal company to its executive team. His primary responsibility was to identify, evaluate and present to the NACCO Industries board attractive opportunities to advance the goal of diversification. Smith focused on the universe of household goods manufacturers, the industrial sector he knew best. He was particularly interested in companies whose products were "manufactured in an uncomplicated way and had a low rate of technological change and a leading market position—not tail-end Charlies," as he later explained to Forbes. "It was a philosophy," the magazine clarified,

> he had learned at White Consolidated: Be fanatical about holding down costs and get long production runs; that will make you a low cost producer and a low cost producer rarely fails.



Recruited by Rankin (left) to assume leadership of NACCO Industries, Ward Smith (right) concentrated on identifying attractive acquisition opportunities and entrusted the day-to-day operation of the coal company to its executive team.

NACoal's new president, Bob Murray, also devoted considerable time and energy to pursuing growth through acquisitions. Several NACoal competitors, including the Consolidation Coal Company, had built up positions in low-sulfur bituminous coal needed by aging or scrubber-less electrical power plants in order to comply with Clean Air Act standards. Murray began searching for mining companies with significant low-sulfur reserves in sections of Appalachia where it would be possible to establish an all-salaried workforce without opposition. To gain a clearer understanding of the nature of opportunities available to NACoal east of the Mississippi, the board concurrently retained McKinsey & Company's Cleveland office to prepare a market analysis in collaboration with an ad hoc management team.

Murray, who was not a member of the team, continued his search for low-sulfur reserves. The urgency of his quest intensified after CAPCO assigned its option to acquire The Quarto Mining Company to Consolidation Coal in March 1987.



Company directors and their spouses mixed business with pleasure at a barbecue hosted by the Western Division during a board visit to North Dakota in 1984. Everyone donned western garb for the occasion, including (opposite page) *Otes Bennett and his wife, Naomi, who would be fêted again when Bennett relinquished day-to-day management responsibility three years later.*

Quarto had permanently sealed the Powhatan No. 7 Mine the previous December. After the loss of Powhatan No. 4, NACoal would own and operate just one underground mine: Powhatan No. 6.

The coal company received more than $15 million from the April 1987 sale of Quarto's capital stock. By the first of June Murray had identified what he believed to be a strong acquisition candidate: a privately owned bituminous coal mining company that operated two surface and three deep mines along the Kanawah River in southwestern West Virginia. Murray was eager to exercise an option agreement that he had negotiated with the owner of the identified company. The board asked for further study of the proposed acquisition of "200 million recoverable tons of economically attractive, high quality, mostly compliance coal reserves."

In early July the board received its requested market analysis of the eastern coal industry. The McKinsey-led study concluded that "coal industry growth is limited and demand constrained in the East through 1995." (Beyond that timeframe, the outlook for coal brightened. "Technology advances . . . should enable high sulfur coal to become an environmentally acceptable base load fuel," the analysis team predicted.) Only the "low-sulfur play" held immediate promise, in the team's opinion. However, the period of high demand for low-sulfur coal would be brief, opening in late 1980s, when sweeping revisions of the Clean Air Act were expected, and gradually tapering out in the late 1990s, as the use of scrubbers became more widespread.



A target date of July 14, 1987, had been set for a decision on whether NACoal should enter the already crowded low-sulfur arena, but the board put that consideration on hold until after its scheduled visit to the Western Division at the end of the month. On July 31 Otes Bennett planned to step down from the chairmanship of NACCO Industries and hand over his responsibilities as CEO of the coal company to Bob Murray. Murray and his wife, Brenda, had planned a surprise tribute dinner for Bennett during the board's stay in North Dakota, and business matters had not been allowed to intrude on this special occasion.

Murray later acknowledged that he had not accepted with good grace the board's late-summer decision to suspend exploration of opportunities in low-sulfur coal. He expressed his keen frustration to board and staff members alike. Because of

their similar upbringing, complementary skills and shared passion for coal mining, Otes Bennett had always been able to work well with Murray. The relationship between Ward Smith, a lawyer by training, and Murray, was not as close.

By the time Murray realized the necessity of forging a "new beginning" with his superior, Smith had left the country to accompany the Cleveland Orchestra on an international tour. The two executives finally met behind closed doors on October 15. Before Murray could say a word—he had hoped to discuss how he and the CEO of NACCO Industries might establish a smoother working relationship—Smith informed Murray that he had been terminated. The following day NACCO Industries issued a press release announcing the appointment of Cliff Miercort, 47, to the presidency of North American Coal.

Opposite page: *Clifford Miercort (far right) became president and CEO of The North American Coal Corporation in October 1987. Also posing for this iconic photograph were (from left) Alfred Rankin Jr., Viki Rankin, Otes Bennett, Barbara Miercort and Naomi Bennett.*

On October 22 the NACCO Industries board formally ratified a decision to "reduce Eastern mining operations," in the words of Frank Taplin Jr., "in so far as possible in favor of Western surface mining." Even Otes Bennett, who would continue to serve as chairman of the coal company and a director of NACCO Industries until 1992,* had agreed that NACoal should concentrate its market development activities in the West. "He had had enough troubles with underground mining to last a lifetime," Tom Koza observed.

Within weeks of leaving North American Coal, the 47-year-old Murray had conceived a plan to purchase the Powhatan No. 6 Mine. CEI's willingness to sign a new long-term contract with Ohio Valley Coal, Murray's proposed enterprise, enabled him to marshal the financing needed to purchase the stock of The NACCO Mining Company. NACoal received $14.8 million in cash and a note for $3.4 million, to be paid in installments, for Powhatan No. 6. The mine is still operated under that name today by the Ohio Valley Coal subsidiary of the Murray Energy Corporation, built by its founder into America's largest privately owned producer of bituminous coal.

By the time ownership of No. 6 was transferred to Ohio Valley Coal in late May 1988, NACoal's corporate headquarters had been relocated to Dallas, the city in which Cliff Miercort resided. The division structure had been eliminated, and all the functions previously performed by the Western Division's headquarters staff in Bismarck, except for land management and governmental affairs, had been taken over by the Dallas office. Recognizing that NACoal's 75-year history in underground coal mining had come to an end too swiftly and painfully for some past and present employees, Miercort composed a forward-looking "Message from the Company President" that appeared in the summer 1988 issue of the Western Sun, NACoal's employee newsletter. Hoping to provide reassurance that better days lay ahead, the "Message" read in part:

> The reorganization and sale of the last of our Eastern operations solidifies the Company as a predominately Western and Southwestern surface mining company. Now it is time to sit back, take a very deep breath and concentrate our efforts on maximizing the return from our current operations and finding areas to grow in the West and Southwest.

*After enjoying a long retirement with his wife in Florida, Bennett died four days before his 87th birthday in 2008.





Miercort and Cashion, who would soon join the corporate headquarters staff in Dallas, had already set the stage for the coal company's expansion from its new base in Texas into neighboring states.

The Phillips Coal Company, a subsidiary of the Phillips Petroleum Company of Bartlesville, Oklahoma, had offices near NACoal's new headquarters, and as a result the principal rainmakers of the two enterprises had opportunities to engage in friendly conversation. Soon they were contemplating a joint venture to develop lignite reserves controlled by Phillips Coal in Louisiana and Mississippi. Earlier in 1988 Phillips had invited NACoal to join its bid to provide supplemental fuel to the first lignite-fired power plant ever built in Louisiana. Miercort had readily obtained board approval of the prospective 50-50 partnership, which required a $25 million capital investment on NACoal's part.

The co-owners of the new Dolet Hills Power Plant in northwestern Louisiana were the Central Louisiana Electric Company (CLECO) and Southwestern Electric Power Company (SWEPCO), The Sabine Mining Company's longtime customer. SWEPCO's satisfaction with Sabine's operation likely factored into the decision to award the joint venture partners a 12-year supplemental fuel supply contract.

In September 1988 NACoal and Phillips Coal incorporated The Red River Mining Company in Texas. Under the leadership of former NACCO Mining president Fred Miller, Red River would build and operate a surface mine on reserves located about 20 miles from the Dolet Hills plant.

The development of Red River's Oxbow Mine near Coushatta, Louisiana, presented NACoal with a set of new challenges. Before mining could begin, a rural community of 40 or 50 families had to be relocated. Once operations were under way, mining crews had to cope with infestations of rattlesnakes, rainfall that averaged 49 inches annually and the presence of terrace sands deposited by the river for which the subsidiary mining company had been named. Yet the Oxbow Mine operated for 15 straight years following its opening in 1989 without incurring a lost-time accident. Mining crews logged more than one million accident-free man-hours in the achievement of that record.

No wonder Fred Miller likened the seven years he served as manager of the Oxbow Mine's dedicated, can-do workforce to "semi-retirement." In comparison with his years of experience supervising underground operations, surface mining seemed relatively easy.

The mine's contract, which called for annual deliveries of 300,000 tons of lignite coal, was subsequently extended for 10 years past the original end date and increased to 550,000 tons per year, with provisions for shipments of up to one million tons per year. Having navigated its third corporate reinvention, The North American Coal Corporation was on the rise once again.

Thanks to the proximity of their offices in Dallas, NACoal executives began talking on a regular basis with their counterparts at the Phillips Coal Company, leading to the formation of a joint venture called The Red River Mining Company that developed a surface mine (opposite page) *in Coushatta, Louisiana.*



1989–2013



CHAPTER FOURTEEN

Patient Parenting

NACCO Industries continued its pursuit of diversification through the early 1990s. As CEO Ward Smith explained in a March 1989 report to the corporation's stock owners, "Your management has one overriding objective, to increase value to the shareholders in real terms consistently over time."

Smith had personally evaluated a dozen companies in his search for an appropriate acquisition in the household goods sector. In 1988, with $146 million on hand in cash and cash equivalents, he settled on a candidate. That April the NACCO Industries board approved Smith's recommended purchase of WearEver/Proctor Silex, a major manufacturer of small electric household appliances and the WearEver brand of aluminum pots and pans for home and commercial use.

Formerly two independent companies, Proctor Silex and WearEver had been merged by the leveraged-buyout investment group that sold the units to NACCO Industries for $190 million (including the assumption of debt). The upside for unengineered products such as cookie sheets and bread loaf pans was not evident to the NACCO Industries board, and in January 1989 Smith sold that unit's assets for $51 million to the Newell Company, maker of Rubbermaid products.

NACCO Industries did, however, perceive significant potential in a small chain of factory outlet stores started by Proctor Silex to sell its seconds. That June Smith negotiated the $5 million acquisition of The Kitchen Collection, whose offerings now included discounted appliances by major manufacturers. The parent company immediately implemented a plan to grow the chain by ending the sale of seconds, continuing to improve the merchandise mix and increasing the number of stores operated by the former Proctor Silex subsidiary. As Smith explained in the corporation's 1988 annual report, "We are not financial investors, we are operating investors in the sense that we plan to live with our acquisitions unless circumstances unambiguously dictate otherwise."

No one had a stronger commitment to patient parenting than Alfred Rankin Jr. Rankin was an independent thinker who did not believe in allowing Wall Street's expectations of short-term profit to dictate business strategy. The wealth-producing capacity of corporate operating units could best be maximized, he believed, by identifying and building up competitive advantages that could be sustained over the long term. As NACoal had amply demonstrated, innovation, productivity and workforce training and development were among the means to this end. When Smith approached Rankin in early 1989 with two provocative proposals intended to boost the market standing and efficiency of the holding company's new business unit, Rankin listened receptively.

Smith had identified an acquisition that he believed would be a "lovely fit" with the Yale Materials Handling Corporation. If the envisioned merger were to achieve its full potential, however, it would require the managerial expertise of someone with an intimate knowledge of lift truck manufacturing and marketing that Smith lacked. Would Rankin, who knew the ins and outs of the global lift truck industry and possessed a

Opposite page: *NACCO Industries CEO Ward Smith (right) recruited Alfred Rankin (left) in 1989 as chief operating officer, recognizing that Rankin possessed the expertise and experience to help the holding company's business units achieve their full potential.*

Previous page: *As construction of new electric power plants declined in the early 1990s, North American Coal decided to seek opportunities to lend its technical expertise to other industries. The company now operates draglines on a contract basis for limerock producers in Florida.*

breadth of operating experience in a diversified manufacturing environment, be interested in joining NACCO Industries as president and chief operating officer? During his 15 years at Eaton Corporation, Rankin had risen to chief operating officer and vice chairman of the board of directors. At age 49, he was ready for new challenges.

That spring Smith welcomed Rankin aboard as the holding company's president, COO and his likely successor. Little more than a month later, the corporation made a move that matched in audacity Frank E. Taplin Sr.'s several rolls of the dice. In May 1989 NACCO Industries acquired the Hyster Company, a 60-year-old Portland, Oregon-based maker of lift trucks. Hyster had started modestly as a regional maker of winches and lifting equipment for the timber industry in the Pacific Northwest (the company's name is said to derive from the logger's instruction when a load of wood was ready to be moved: "Hoist 'er!"). It now had production facilities and distribution in the U.S., United Kingdom, Europe, Brazil and Australia.

Careful analysis had persuaded the holding company's top executives that Hyster could take advantage of Yale's existing partnerships with internal-combustion lift truck makers Sumitomo Heavy Industries in Japan and Jungheinrich in Germany, while Yale could benefit from Hyster's global production and marketing expertise. The combination promised to realize some $30 million in savings per year on design and manufacturing costs alone, and the Hyster-Yale combine would immediately make NACCO Industries the largest producer of lift trucks in the United States and among the top three worldwide. The parent company was able to overcome an antitrust challenge to the deal by persuading federal regulators to take into consideration the global competition that Hyster and Yale would still face after their merger.

But the operating and distribution synergies NACoal expected to realize would not come without significant investment. The price paid for Hyster was $620 million, plus the assumption of some $80 million of Hyster debt.

Smith and Rankin had a well-conceived financing plan that took advantage of both leverage and available cash. The holding company borrowed against its relatively debt-free balance sheet to make the purchase and planned to pay down its obligations as quickly as possible from consolidated cash flow. Even so, the total debt load was greater than the corporation's entire net worth at the time. "We bet the house," Rankin said, elaborating:

> I had restructured the Yale forklift business while I was at Eaton and I understood that it had to be bigger to take advantage of global economies of scale. Now that Yale was part of NACCO Industries, we realized we either had to buy Hyster or get out. While Yale was profitable, we knew it was going to be too small to be successful in the long term.

Even as the holding company embarked on a decade-long effort to coordinate and rationalize the manufacturing and marketing operations of Hyster and Yale, the search for additional acquisitions continued. Following the same logic

Opposite page: *Acquired by NACCO Industries in 1989, the Hyster Company had started modestly as a regional maker of hoisting equipment for the lumber industry and evolved into a leading global manufacturer of lift trucks. This marketing photograph from the 1960s promoted the comprehensiveness of the Hyster line of products.*


HYSTER
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that had propelled Hyster's purchase, Smith and Rankin now intended to strengthen Proctor Silex by merging it with a complementary kitchen appliance manufacturer.

At a housewares exhibition in Chicago in 1990, Rankin passed by a booth displaying Hamilton Beach (HB) products and immediately recognized HB's synergistic potential as a merger partner. Soon he had arranged to fly to Ireland, intending to make a cold call on Glen Dimplex, the Dublin-based corporation that owned HB, as well as a major British appliance maker. Glen Dimplex, which was on its way to becoming the world's largest manufacturer of electrical heating products, had been unable to realize appreciable benefits from its acquisition of Hamilton Beach, which since 1910 had been one of America's most successful producers of kitchen mixers, blenders, juicers and other electrical household appliances. Rankin's purchase proposal gave Glen Dimplex an attractive exit strategy.

Coming across a Hamilton Beach display at a housewares exhibition, COO Rankin immediately recognized that HB's expertise in motor-driven small kitchen appliances made it a synergistic merger partner for Proctor Silex, known for its heat-driven products. This post-merger lineup of each manufacturer's most popular appliances shows the complementary nature of the two brands.



In October 1990 NACCO Industries secured a 65 percent interest in a new subsidiary, Hamilton Beach/Proctor Silex Inc. Glen Dimplex's 35 percent minority stake would be bought out over time. Rankin and his board had been willing to think creatively about the deal's structure and accept partial ownership of the new subsidiary for a time in order to capitalize on the merged companies' synergy. With its focus on motor-driven products, Hamilton Beach was a perfect complement to Proctor Silex, whose expertise was in products that were primarily heat driven: toasters, coffeemakers and irons. Upon their merger, Hamilton Beach/Proctor Silex constituted one of the country's largest manufacturers of small kitchen appliances.

NACCO Industries was by now a far different corporation from the foundational enterprise that had fueled its growth. Indeed, coal—which generated the cash that had helped to fund the diversification initiative—now accounted for less



than 25 percent of the holding company's operating profits. At the same time, Ward Smith was approaching retirement age, and it was the right moment to relinquish the post of CEO to someone who could provide leadership for years to come. At the corporation's May 1991 annual meeting, Smith—while retaining his role as chairman—handed over his position as chief executive to Alfred Rankin.

As Rankin settled in to address his added responsibilities, he began to commit to writing his philosophy of management and explain how it would influence strategy and operations. The corporation's 1991 annual report included a letter to shareholders under the title "CEO Perspective." This was the first of what would be five yearly essays by Rankin (who succeeded Smith as NACCO's chairman in 1994) on the holding company's approach to corporate governance and management. Each "CEO Perspective" would open a window on the core values of NACCO Industries, illuminating for both employees and shareholders the goals of the holding company and the mechanisms put in place to safeguard their interests.



Rankin's annual essays on corporate management and governance, which were collected in a booklet entitled CEO Perspectives, *illuminated his innovative business philosophy.*

NACCO Industries' business units were structured as stand-alone entities, each with its own chief executive, independent board of directors and balance sheet. While each unit's CEO reported to his own board, each of those boards would draw "core" members from the holding company's board, whose directors, as of the end of the 1990s, would include two additional third-generation family representatives: Britton T. Taplin, a Denver-based real estate developer, who replaced his father Tom on the board in 1992, and David F. Taplin, a Vermont-based tree farmer, who replaced his father Frank on the board in 1997. The overlapping board structure allowed each unit's top executives to benefit from having the full attention of NACCO Industries directors at quarterly meetings dedicated exclusively to that unit's business.

The corporate headquarters staff would purposely be lean. Instead of fulfilling the traditional "review and approve" function, the Cleveland office would be responsible for only those duties that it could handle more efficiently or expertly than the operating units. Each unit would employ Cleveland's expertise

to handle the regulatory and other responsibilities inherent in publicly traded companies, as well as internal audits, bank-loan negotiations and management of acquisitions and divestitures. A small, McKinsey-style strategic consulting group would provide the subsidiaries with value-adding analytical studies of key strategic, operational and financial issues.

Financial performance was to be measured not only as a reflection of return on equity, but also with the yardstick of return on tangible assets. NACCO Industries discontinued earnings guidance to stock analysts, in the belief that quarterly results reported by other companies were, at times, manipulated to assure that Wall Street's "expectations" would be met and that short-term numbers were far less important than long-term strategic results. In addition, the holding company would focus on minimizing taxable dividends and deploying excess cash flow to strengthen operating units, whose enhanced performance would ultimately yield greater returns. Shareholders seeking added liquidity could sell shares.

The entire strategic edifice rested on what was arguably the most important philosophy delineated in the "CEO Perspective" essays: the concept of constructive change. Each subsidiary was expected to provide in-depth operational and financial information to the Cleveland office, both to ensure proper ongoing oversight and to facilitate the process of identifying those areas in which change efforts could or should be implemented. The corporation's internal consulting group, headed by senior vice president Lauren E. Miller, who had been a key member of Rankin's consulting team at Eaton, and the CEO himself would help business unit managers identify and act on opportunities for change that would lead to sustained competitive advantage.

As if to emphasize the change in both leadership and direction, in 1991 NACCO Industries had relocated the company's headquarters east from its old Shaker Boulevard location to a third-floor suite in a new but relatively anonymous office building tucked away in a corporate park in suburban Mayfield Heights, Ohio. This statement of corporate frugality and modesty was relatively rare for an enterprise that had climbed into the ranks of the Fortune 1000, a list of America's largest corporations published annually by the well-regarded business magazine *Fortune*.

The period of acquisitions was over for the foreseeable future. Now it was time to rationalize the operations and build the long-term competitive advantage of each unit in NACCO's diverse portfolio of subsidiaries. Frank Taplin Sr. and his descendants had always taken a long-term perspective in directing the business. Time would tell whether the teaming of this bedrock corporate philosophy with Rankin's innovative approach to governance and management would significantly increase shareholder value. However, the parent company seemed well positioned as a new millennium approached to pursue its goals of steady and sustainable growth. The process of assembling a high-powered management team for each unit was under way, and the teams' identification and execution of a project list to drive constructive change had begun.



CHAPTER FIFTEEN

Constructive Change

Al Rankin "sees the world from a different elevation," said Colin Wilson, who joined Yale Materials Handling as sales and marketing director for Europe in 1988, when the company was a $250 million operation. Twenty years later in 2008, when Wilson assumed the combined titles of vice president and chief operating officer of NACCO Materials Handling Group (NMHG), as the company was renamed after the Yale-Hyster merger, and president of the Americas division, NMHG was a $2.8 billion enterprise, with an estimated 9 percent market share worldwide, including a 23 percent share of the Americas markets.

Rankin's strategic overview has been indispensable to the success of the Hyster-Yale merger, Wilson affirmed. Speaking for his counterparts at the holding company's other business units, he elaborated, "Al has been deeply involved in the development of each business. He wants to make sure we are thinking strategically instead of tactically. His engagement has ensured that everyone stays focused—with their left brains and their right brains—on what we need to do to grow and reach appropriate, sustainable levels of profit."

From the start, Rankin believed that the Hyster-Yale combine could become a leading global designer, manufacturer and marketer of a comprehensive line of high-quality lift trucks. He harbored a similar vision of making Hamilton Beach/Proctor Silex *the* leading provider in the Americas of small electric household appliances sold worldwide under respected brand names. Perhaps most ambitiously, he envisioned the transformation of The Kitchen Collection®, a chain with only 39 locations in 1989, into the preferred retailer of American outlet shoppers who are passionate about cooking and entertaining at home.

To achieve national or global leadership in their respective fields, Rankin understood that each of the new subsidiaries would have to become ever more efficient and innovative organizations. NACCO Materials Handling Group and Hamilton Beach/Proctor Silex, in particular, must take full advantage of the synergy opportunities presented by their respective mergers. All of the units would have to stay on the offensive, finding creative ways to identify customers' changing needs and continually conceiving new or improved products to satisfy those needs. And each would require an exceptionally well-qualified CEO to spearhead the process of continuous improvement. Rankin's search for the right executives to lead the new subsidiaries would be an ongoing effort itself.

Even with inspirational, problem-solving managers in place, Rankin appreciated that the strategic vision for each subsidiary could not be achieved overnight. Restructuring on that order of magnitude must be broken down into a series of manageable programs. This realization gave birth to the "project list," an enumeration, at any given time, of up to 40 or 50 constructive change programs to be implemented by a subsidiary's management team. "In addition to identifying needed actions, the project list assigned responsibility for each task or program to a team leader and scheduled completion by a target date," explained NACCO Industries' consulting group head Lauren Miller, who had served since 1990 as the subsidiaries' go-to



As head of the internal consulting group at NACCO Industries since 1990, senior vice president Lauren E. Miller has helped the subsidiaries identify and implement change programs designed to create and enhance their competitive advantages.

Opposite page: *After two decades of intense effort, Hyster and Yale have been transformed from a pickup team of former rivals into a lean, strategically managed corporation producing attractive returns on capital employed.*

person for major change programs. "The role of the consulting group is to provide highly analytical, disciplined and dedicated resources that can help the subsidiaries achieve long-term, sustainable competitive advantage."

Capitalizing on economies of scale and potential synergies and eliminating unnecessary overhead was the initial focus of the project list for NACCO Materials Handling Group, the largest subsidiary, whose net sales had jumped to nearly $1 billion in the first full year after Hyster's acquisition in 1989. In the early 1990s all functional areas at Hyster and Yale were merged, with the exception of sales and marketing. A decision was made early on to maintain both brands' exclusive, independent dealer networks, which (analysis had revealed) did not, in the main, compete head-on in the United States. Anchor dealerships



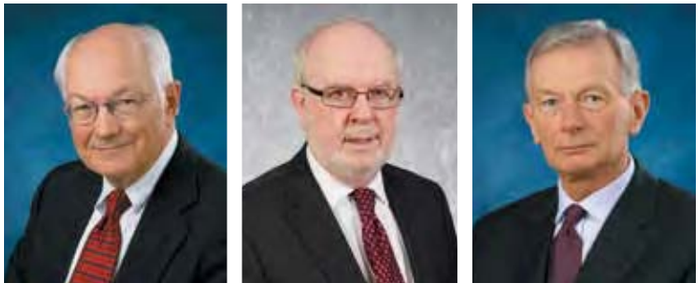


NACCO Materials Handling Group has achieved a unique position in the global market by offering a comprehensive range of products in all three types of lift trucks: (from left) *"counterbalanced," "warehouse," and "big trucks."*

were strengthened through information sharing about best practices and the implementation of sophisticated performance assessment tools. Redundant factories in Europe and the U.S. were closed, manufacturing was consolidated in NMHG's larger plants, and the synergies of creating common platforms and other components were realized without sacrificing essential features that differentiated the two brands in their customers' minds.

With the appointment of Reginald R. Eklund, a Yale veteran since 1966, as NMHG president and chief executive officer in 1992, the pace of change accelerated. NMHG engineers began to focus on the development of a comprehensive range of products that would make the subsidiary uniquely competitive in all three types of lift trucks: "warehouse," "counterbalanced" and "big trucks" (eight tons and up). In 1994 eight new product





Exceptional change agents: Reginald R. Eklund (left), *who led the materials handling group from 1992 to 2006; Eklund's successor and NMHG's current president and CEO, Michael P. Brogan* (center); *and Michael J. Morecoft* (right), *who served as president and CEO of Hamilton Beach/Proctor Silex from 2001 to 2009.*

families were introduced. At the same time the reengineering and upgrading of existing products continued, as NMHG sought to better align the fit of its products to specific applications.

To increase both its overseas market share and its penetration of the growing warehouse products market, the materials handling group seized an opportunity to acquire well-regarded European manufacturers with intimate knowledge of European customers. With an assist from the parent company's newly hired mergers and acquisitions specialist, J. C. Butler, two Italian makers of electric warehouse trucks were purchased in 1995. Later, NMHG would establish a supply relationship with a leading Chinese lift truck maker in order to tap the rapidly growing Asian market more effectively.

The success of these partnerships reinforced the positive lessons learned from Yale's long-standing joint venture with Japan's Sumitomo Heavy Industries, a joint venture formed in 1966 to manufacture lift trucks in Japan for the Japanese market and later for NMHG more generally. Over the course of the 2000s the materials handling group implemented a decision to assemble Hyster and Yale lift trucks whenever possible in the markets in which they were to be sold. This strategy enhanced NMHG's ability to satisfy customer desires for timely deliveries, competitive pricing and specification optimization.

Also in the 2000s, a lean manufacturing strategy called Demand Flow Technology (DFT) was rolled out under the supervision of Hyster veteran Michael P. Brogan to NMHG plants worldwide. A mathematically based system that sets production schedules in response to customer demand, rather than according to predetermined sales plans and forecasts, DFT had been introduced to NMHG in the mid-1990s by Victoria (Vickie) Rickey, the new managing director of the company's Europe, Middle East and Africa division. After intensive study, DFT was implemented at NMHG's factory in Craigavon, Northern Ireland, and then at its new plant in Modena, Italy, which Brogan, the former head of the company's aftermarket parts division in The Netherlands, had been asked to manage. The pilot DFT-certification programs demonstrably reduced inventory and manufacturing floor space while improving productivity, lead times and quality—prompting the company-wide adoption of this innovative manufacturing strategy.

NACCO Materials Handling Group realized economies of scale while lessening the length and complexity of its supply chain by setting up a centralized global procurement system capable of delivering quality parts to Hyster-Yale plants on time and at the right cost. The launch of a zero-defects campaign allowed NMHG to expand many of its warranties,

and a new emphasis on reducing the major drivers of the cost of lift truck ownership led to additional product innovations. For example, fuel consumption, a significant direct cost of ownership, was recently cut on certain lift truck models by up to 15 percent.

"Nothing is static," noted Michael Brogan, who succeeded Eklund as president and CEO of NACCO Materials Handling Group in 2006. "Our competitors are very aggressive, and as an avid reader of military history I know that no battle plan survives first contact with the enemy."

Under Brogan's leadership, NMHG dropped a long-standing policy that dealerships could not represent both Hyster and Yale products. Selectively permitting dual brand representation, Brogan had realized, would reward enterprising dealers by allowing them to take advantage of economies of scale. NMHG would also benefit from bringing specialized expertise to a broader group of customers. To support the sales efforts of all dealers, marketing campaigns began to refocus on brand differentiation messages and brand awareness building. Programs to help every dealership expand its aftermarket parts and service businesses were also implemented.

After two decades of intensive effort, Hyster and Yale had been transformed from a pickup team of former rivals into a lean, well-managed corporation producing attractive returns on capital employed through the global marketing and distribution of two internationally respected, complementary brands. Yet the project list continued to grow—albeit in different directions. Rankin and his executive team had begun to think creatively about the best means to give NMHG greater resources and flexibility to pursue new opportunities for enhancing growth.

Work to merge the Hamilton Beach and Proctor Silex acquisitions began with the rationalization of their administrative, engineering, manufacturing and sales functions to realize potential synergies. Distribution was centralized, and a marketing strategy aimed at earning vendor of choice recognition from America's leading retailers was developed. It called for Hamilton Beach/Proctor Silex (HBPS) to become a low-cost producer in each of its product categories. HBPS' management team eventually decided that further consolidation of manufacturing in low-cost locations was necessary. By the end of the 1990s all the company's plants in the United States had been closed, and two new factories were up and running in Mexico.

Michael J. Morecroft, who was appointed president and CEO of Hamilton Beach/Proctor Silex in 2001, reshaped the company's manufacturing strategies in response to the lower costs and competitive manufacturing technologies of household appliances produced in China. A Glen Dimplex recruit who had previously led the product development and engineering departments for Hamilton Beach, Dr. Morecroft spearheaded a transition to third-party manufacturing (primarily in China) for all HBPS consumer products and its enhanced line of commercial appliances. With the help of interpreters and



Hamilton Beach Brands' highly disciplined product development process has produced a series of innovative appliances, such as "The Scoop" (above), *a coffeemaker that brews individual portions from a single scoop of grounds, eliminating the expense and waste of throw-away "pods."*

Opposite page: *Other recently introduced products with ingenious features include* (clockwise from top) *a 12-cup coffeemaker with a removable reservoir; a juice extractor with an extra-wide mouth that eliminates the need to cut up fruits and vegetables; a four-quart slow cooker with an innovative latch to prevent spills when the cooker is taken to events away from home; a "smart" blender with an automatic pulsing action that makes perfect smoothies every time; and a rice cooker and steamer with preprogrammed settings and a digital readout.*

indigenous Chinese employees, the subsidiary assembled a select group of suppliers who could be trusted to provide reliable quality at the right price. HBPS later positioned a team of product quality and manufacturing engineers and supply chain experts in China to engage its suppliers in a process of continuous improvement.

Under Morecroft's leadership, HBPS largely exited the entry-level segment of the small appliance market to focus more intensely on the middle and higher ends, where competition was not centered so much on price and margins were better. Aided by in-depth consumer research, HBPS introduced a series of "pay more, get more" products with creative features that reflected a deep understanding of the needs of the appliances' users. Cross-functional teams, including specialists in marketing, engineering and project research, observed individuals at work in their home kitchens. These studies provided invaluable insights that led to such innovations as slow cookers equipped with latches to prevent spillage at cookouts and church dinners; wider chutes on food processors that reduced the need to chop up fruits and vegetables prior to processing; "the Scoop," a coffeemaker that brews individual portions from a single scoop of grounds, eliminating the expense and waste of throw-away "pods"; and, most recently, a breakfast sandwich maker that offers consumers the convenience of cooking this popular restaurant menu item quickly at home.

"Gee, that's good thinking" was often the response of retailers to these inventive new products. After repeatedly hearing this praise, HBPS decided to call its highly disciplined product development process "Good Thinking®." "We had always been a manufacturing-driven company," remembered HBPS' president and CEO Gregory H. Trepp, who had served as vice president of global marketing before the retirement of "Dr. Mike" in 2009. "Turning over manufacturing responsibility to qualified third parties freed us to blossom into a consumer-driven company." The result was higher margins; incremental improvements in product placements on the shelves of mass merchandisers, national department store chains and other leading sales outlets; and ongoing gains in market share in individual product categories.

The broad portfolio of products offered by Hamilton Beach Brands (as the subsidiary was renamed in 2008) also made notable inroads in foreign markets, especially in Canada, Mexico and Central America. In addition to focusing on enhancing sales in emerging markets, Hamilton Beach Brands subsequently planned to capitalize on the Internet as a sales channel and to add a potentially breakthrough line of commercial appliances for restaurant chains to its core products for bars, restaurants and hotels.

The fortunes of The Kitchen Collection, Inc. (KCI) retail chain had risen in tandem with the growing popularity of factory outlet malls as a recreational destination in the 1990s. NACCO Industries' decision to separate the kitchenware chain from its parent company, Proctor Silex, which had treated KCI as something of an afterthought, had been another important factor in unleashing the outlet stores' potential. By reorganizing The Kitchen Collection as an independent company with its

own board of directors and chief executive, the holding company enabled a greater focus on opportunities for growth. KCI's management moved quickly to centralize warehousing and distribution and establish a regional management organization to provide oversight and training for store managers. By 1992 KCI, which had been founded in Chillicothe, Ohio, had stretched its territory to the West Coast and now had stores in nearly one-third of the nation's outlet malls. Twenty years later, The Kitchen Collection chain had grown to 261 stores, some of them located in traditional malls as a test of that distribution channel.

Stores that came on line in the mid-1990s or later were as much as 25 percent larger. A complete line of Hamilton Beach appliances had been added to the merchandising mix, whose offerings also now included a private-label line of accessories and gifts for the entire home. These imported items, which could be offered at lower price points than competitor products, helped KCI enhance its reputation for reliable quality, variety and affordability. Operating under the slogan "All your kitchen needs . . . for less," The Kitchen Collection marked its 15th consecutive year of sales growth in 2000.

KCI responded to the slowing growth and patronage of outlet malls in the mid-2000s by implementing a disciplined cost-control program. At the same time, the NACCO Industries consulting group teamed with the chain's managers to develop a new analytical tool called "Economic Value Income." Using this proprietary model to optimize the store size and selection of products in order to produce the most revenue per cubic foot







Hamilton Beach Brands president and CEO Gregory H. Trepp (above left), who also serves as Kitchen Collection's chief executive officer, *and KCI president Richard Chene* (above right) *collaborated on a strategic vision for the Le Gourmet Chef chain of stores acquired by The Kitchen Collection in 2006. Le Gourmet Chef is now positioned as a place to discover housewares and specialty foods that can make meals a fun experience and home entertaining an event* (right).

of retail space, KCI scientifically strengthened the offerings, displays and appearance of its stores. Underperforming stores were closed.

In 2006 The Kitchen Collection successfully pursued a strategic combination with another kitchen store chain. KCI was able to purchase Le Gourmet Chef®, which had fallen into bankruptcy, essentially for the value of its working capital. The acquisition added 77 new locations to an already strong core of stores. More important, it offered KCI a second, more up-market retail platform on which to build.

KCI president Richard Chene, a veteran of the Petco animal supplies chain and the venerable mass merchandiser Sears, collaborated with Hamilton Beach Brands' Greg Trepp, who also serves as Kitchen Collection's chief executive officer, to formulate a strategic vision for Le Gourmet Chef (LGC). They reenvisioned LGC as place to discover specialty foods and cookware that can make meals a fun experience and home entertaining an event. The reformatting of all Le Gourmet Chef stores not slated for closure was the next item on KCI's project list.

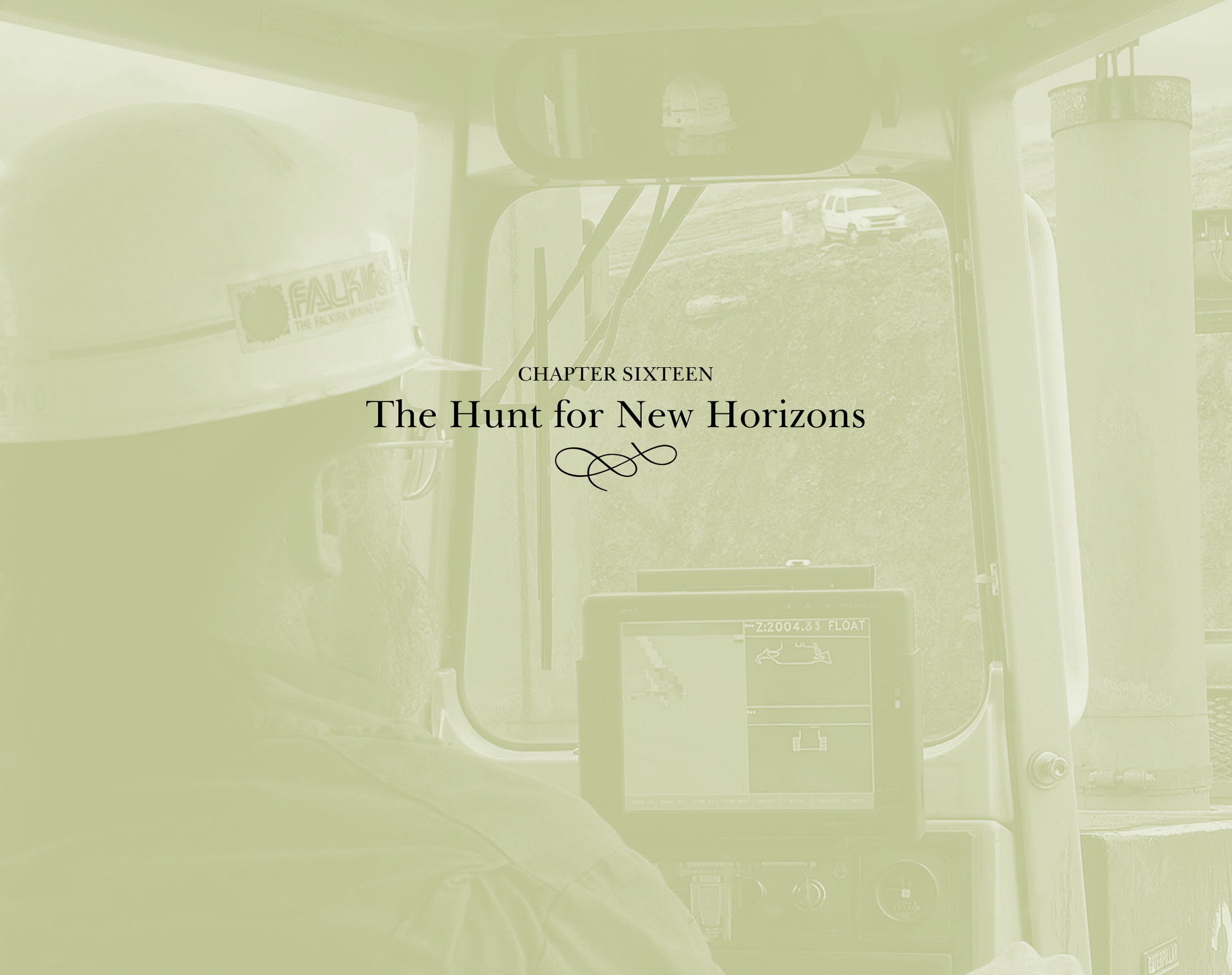
Assessing the status of NACCO's specialty retailers several years into the worst economic downturn since the Great Depression, Alfred Rankin remained cautiously optimistic. "We know we have one retail format that works quite well," he noted. "There are compelling aspects of Le Gourmet Chef that customers find appealing. The opportunity lies in figuring out how best to incorporate these strengths into our growth strategy ."

The achievement of Rankin's strategic vision for The North American Coal Corporation would require the leaders of the holding company's foundational business to overcome similarly stiff headwinds. But the effectiveness of the strategic oversight and resources offered by NACCO Industries had been clearly demonstrated. By the time the coal company would celebrate its 100th anniversary in business in early 2013, the combined operations of Hyster-Yale, Hamilton Beach Brands and The Kitchen Collection had added sales of $3.2 million, net income of $116 million and a return on total capital employed of 26.7 percent to total enterprise sales of $675.2 million recorded by North American Coal, which that year posted net income of $32.8 million and a return on total capital employed of 17.3 percent. In sum, NACCO Industries had added very significant value for shareholders by using free cash flow generated by North American Coal, and prudent leverage, to pursue a diversification strategy and develop, with its characteristic analytical approach and long-term view, the full potential of each of the additional businesses it had acquired.





Kitchen Collection has developed an analytical tool used to determine the optimal store size and selection of products that will produce the most revenue per cubic foot of retail space. The chain's newly redesigned Jeffersonville, Ohio, store is pictured at the left.



CHAPTER SIXTEEN

The Hunt for New Horizons

When Alfred Rankin became CEO of NACCO Industries in 1991, The North American Coal Corporation was the country's second largest lignite coal producer. With the encouragement of the Cleveland consulting group, NACoal had set its sights on becoming the largest lignite producer in the United States. In order to push ahead of the No. 1 producer, the Texas Utilities Mining Company, NACoal would have to boost its annual production from 23 million to 33 million tons—a formidable 40 percent increase.

In the past such exponential growth had been propelled by the keen business sense of the company's executives and board. Cliff Miercort, the first president since Frank E. Taplin Sr. to have learned the coal mining business in a corporate setting rather than in the trenches, did not believe in acting on experience and instinct alone. He shared Alfred Rankin's commitment to strategic analysis and planning. In 1991 Miercort led NACoal's subsidiary operations through a two-day envisioning process that set the aforementioned goal as the company's "Vision." Miercort and his subsidiary presidents and key managers also articulated a formal corporate mission, which stated: "We, The North American Coal Corporation companies, will provide exceptional service to our customers and maximum value to our shareholders. We will conduct our business in an ethical, professional, safe and environmentally sound manner." Finally, they codified the company's "Guiding Principles" (see sidebar).

When Rankin recommended that consultants from the Cleveland office of McKinsey & Company be retained to analyze the changing electric utility marketplace in order to pinpoint

Guiding Principles, 1991

1. *We will insist that all activities be performed in a safe and environmentally sound manner and with the highest ethical standards.*
2. *We will treat all people with dignity and respect. Communication will be open and honest.*
3. *We will operate with trust and encourage individual responsibility. All people are expected to ask questions about what they do not understand.*
4. *We will encourage involvement and participation in decision making and will support the final decision.*
5. *We will encourage and recognize initiative and creativity.*
6. *We will motivate and challenge each other.*
7. *We believe our success depends on satisfying our customers, both internal and external.*
8. *We will build relationships with our customers based on mutual respect and understanding.*
9. *We will provide the most cost effective product while optimizing quality and recovery.*
10. *We will seek to improve continually in all areas of our business.*
11. *We will maintain equipment and facilities in a safe, clean and orderly condition.*
12. *We will be involved as corporate and individual citizens in the communities and states in which we work and live.*

Opposite page: *NACoal pioneered in installing global positioning system (GPS) devices on mining equipment, in keeping with its historic roots as an early adopter of advanced technology.*



Investments in larger and more efficient equipment helped to boost production levels at most of the company's mines beyond the capacity of their original designs as of the early 1990s.

opportunities for growth, Miercort welcomed the strategic assistance. During his tenure, market analysis became a continuous and ever more sophisticated process. Eventually Dallas retained James L. Wright, a former utility company executive who had most recently worked as director of fuels for SWEPCO, to analyze power generation supply and demand in each of the areas where NACoal had reserves. Wright's 2002 dissection of the future energy requirements of individual power plants added exceptional detail to the baseline market analysis prepared ten years earlier by McKinsey & Company, which had examined the energy needs of large geographical regions and entire utility companies. Appreciating the value of having a team member who not only could talk the same technical language as NACoal's customers, but also had personal relationships with many electric utility industry executives and managers, Dallas subsequently asked "Butch" Wright to join the headquarters staff, where he now serves as manager of business development.

In the early 1990s it was not obvious where to find 10 million tons of new business. Another NACoal mine was scheduled to close, and annual production levels at the company's remaining surface operations met or surpassed the capacity of the mines' original design.

The Indian Head Mine shipped its last lignite coal on April 29, 1992, when its longstanding contract with the United Power Association expired due to the exhaustion of the mine's reserves. Thereafter, NACoal's Freedom Mine in nearby Beulah began to supply the million-plus tons of lignite coal needed by UPA's Stanton Station. Indian Head's workforce turned its attention to mothballing the facility (which was later successfully redeveloped by Mercer County) and reclaiming about 1,000 acres of recent workings.* Environmental engineer Donn R. Steffen, the self-described individual who "turned out the lights" at Indian Head before his transfer to the Freedom Mine, carried out Otes Bennett's suggestion that a diesel-powered loading shovel that Indian Head had purchased new in 1946 be donated to the city of Beulah for display in a public park.

While the Freedom Mine's assumption of the Stanton Station contract did not represent a net gain in sales for NACoal, another new contract secured by The Coteau Properties Company would boost NACoal's total annual production by about 13 percent. Beginning in 1993, the Freedom Mine was scheduled to deliver three million tons of coal per year to the Leland Olds Station, an Oliver County power plant owned by Coteau's primary customer, the Basin Electric Power Cooperative. At the time Basin Electric signed the new contract in 1991, the Freedom Mine was operating at 126 percent of its original design. In order to fulfill the Stanton Station and Leland Olds coal sales agreements, the mine's capacity would have to be stretched again.

*The U.S. Department of the Interior recognized the exceptional commitment made by North American Coal in reclaiming the entire Indian Head Mine site, including mined land left untouched by previous owners. In 2002 the Indian Head reclamation project was one of only three such efforts to receive the department's special "Twenty-Fifth Anniversary Silver Award," honoring the best examples of surface mine restoration since the enactment of the Surface Mining Control and Reclamation Act in 1977.

Within a decade of its opening, Coteau's Freedom Mine had become the largest lignite mining operation in America. The mine delivered its 400-millionth ton of coal in 2013, its 30th year in business.

The Freedom Mine accomplished this feat under the leadership of Bob Benson. The former general manager of the Indian Head Mine, Benson became Coteau's president in 1990. The year before his arrival, the Freedom Mine had produced 11.5 million tons of lignite coal. In 1994 it recorded sales of 15.7 million tons, making it the largest lignite mine in America. The mine has maintained its No. 1 ranking to this day. Spreading over the next two decades to 50,000 permitted acres over 200 square miles, the Freedom Mine would also lay claim to being one of the country's most expansive surface mining operations.

Coteau's phenomenal growth to the contrary, NACoal did not expect in the early years of the 1990s to obtain significantly higher sales volumes from its existing operations. As of 1992 annual production levels at Red River, Falkirk and Sabine



stood at 159 percent, 125 percent and 100 percent of their mines' original designs, respectively. McKinsey & Company's analysis of the electric utility marketplace had concluded that the coal company would not be able to count on increasing sales in its accustomed new-business arena, either.

Ready for discussion in early 1993, the McKinsey strategic analysis concluded that opportunities to supply coal under long-term contract to new mine-mouth electric power plants were likely to be rare or nonexistent through the planning horizon of 2005. ("Don't tell Cleveland," colleagues in the Dallas office jested with one another, "or they'll close us down.") Having encountered high inflation, high interest rates and high construction expenses during the previous two decades and still facing ever stricter environmental regulation and growing





pressure from consumer groups and public utility commissions to constrain rates, the majority of utility companies had lost their appetite for building massive, new coal-fired base-load power plants.

The strategic analysis went on to prescribe remedies for the anticipated drought. Even in an era of diminished opportunities NACoal should be able to sustain and build its sales volumes—*if* the company were once again nimble enough to modify its business model. In addition to keeping up the hunt for rare mine-mouth contracts, NACoal should concentrate on the exploration of contract mining opportunities in the U.S. and abroad, the pursuit of existing power plant contracts as they came up for renewal, and the extension of existing mining contracts to prevent their assignment to competitors.

Over the next several years NACoal diligently executed all the moves in its new playbook. Having proved themselves as reliable low-cost suppliers to their customers, by the end of 1995 The Coteau Properties Company and the Falkirk, Sabine and Red River Mining Companies had all extended their coal sales agreements well into the 21st century. The goal of applying its technical expertise to other mineral industries had also been realized. In November 1995, NACoal had begun providing mining services to the White Rock Quarries near Miami, Florida, under the provisions of a 10-year contract.

The quarries' owner, Vecellio & Grogan, Inc., a producer of limerock used in road and building construction, had contacted NACoal on the recommendation of a dragline manufacturer. Charged with the objective of increasing productivity, a

NACoal team brought in a used 50-cubic-yard Marion dragline to augment the efforts of the quarries' six-cubic-yard draglines and trained operators to use the larger dragline to mine and stack limerock. This marked the first time that the coal company had lent its operating expertise to a related industry, but it would not be the last.

In Florida, where the water table is only a few feet below the surface, limestone is literally mined under water. NACoal's dragline operators had to learn to work by feel rather than by sight. Even so, the White Rock Quarries saw its costs reduced and its yields increased under the coal company's management. In addition to receiving an expanded and extended contract from Vecillio & Grogan, NACoal went on to secure operating contracts with two other limerock producers in the Miami area.

NACoal began a serious exploration of opportunities to deploy its skills outside of the United States in the mid-1990s. The coal company had only twice before considered involvement in an international project, with disappointing results. In 1978 Otes Bennett, Harry Washburn and then Western Division vice president L. Dean Jacot had traveled to China to discuss the possibility of consulting on the engineering and construction of what they had been told were to be surface coal mines in Shanxi Province. Upon learning that the proposed mines were underground operations, NACoal withdrew from consideration. In the mid-1980s the government of Colombia had retained North American Consultants, Inc. (NACI), the coal company's consulting arm, to determine the feasibility of developing federal coal reserves in the province of Cordoba. Having experienced firsthand the difficult sociopolitical environment in Colombia, NACoal subsequently turned down an opportunity to assist with the reserves' development.

By 1996 the coal company was ready to try again to market its consulting and operating expertise abroad. The previous year Charles B. Friley, a Phillips Petroleum executive who had been a member of the Red River Mining subsidiary management team, had joined NACoal as chief financial officer. Friley had lived abroad and traveled extensively during his years with Phillips, giving NACoal sales chief Herschell Cashion an idea. Why not take advantage of Friley's international experience by sending him overseas with NACI's Mike Gregory to scout business opportunities?

Leaving Dallas in April 1996, Friley and Gregory spent 30 days calling on mining and utility companies in Europe, Asia and southeast Asia. Their reconnaissance mission planted seeds that blossomed into mine-development partnerships with electric utility companies in India and Turkey. The Turkish project principals had selected NACoal to participate as an equity partner over British and indigenous competitors after inspecting several NACoal operations in the States. "Extraordinary people at our mines, our low cost and high productivity, cleanliness, safety awareness, enthusiasm, etc. are what sell our Company to prospective partners," Miercort reported to NACoal's employees in 1999.

Lack of governmental support ultimately brought an end to both joint ventures, leaving North American Coal to ponder the lessons of its unsuccessful attempt to invest in a start-up

Opposite page: *The productivity of a Miami-area producer of limerock, which is used in road and building construction, increased significantly under North American Coal's supervision.*

business in a foreign country with unfamiliar laws, customs and politics. The experience had underscored the need to clarify the objectives of the international marketing effort. For Alfred Rankin, the central question was, as always, how to balance risk with prudence. "How do we participate in the growth that is occurring outside the United States on acceptable terms?" was the issue that he asked the coal company's executive leadership to consider. Ultimately, a decision was made to refocus the international marketing effort on consulting assignments rather than ownership opportunities and to accept assignments only from American multinational or westernized utility companies.

On the domestic front, the competition to take over existing fuel-supply contracts had intensified. Yet North American Coal had succeeded in obtaining new business through this means by the end of 1996. Earlier that year NACoal found itself pitted against 18 other companies, all contending to provide management services and equipment for a surface mine owned by the San Miguel Electric Cooperative 60 miles south of San Antonio, Texas. The field of candidates was narrowed to nine companies invited to present proposals and then to a short list of four asked to submit formal proposals. In December 1996 the Dallas headquarters staff learned that the San Miguel cooperative had accepted NACoal's fixed-price contract-mining proposal.

Operation of the San Miguel mine was turned over to NACoal in July 1997. Almost immediately, production began increasing at rates that bumped up against the capacity of the mining equipment, requiring the workforce to become extremely innovative. Dallas dispatched some of its most creative operations personnel at other mines to collaborate with San Miguel employees on boosting efficiency. The introduction of a motor-oil monitoring program nearly doubled truck engine life. And the mine's pioneering use of global positioning system (GPS) devices on mining equipment, which received cover treatment in *Coal Age* magazine, allowed for greater precision of overburden removal and land contouring, which increased productivity of the equipment fleet.

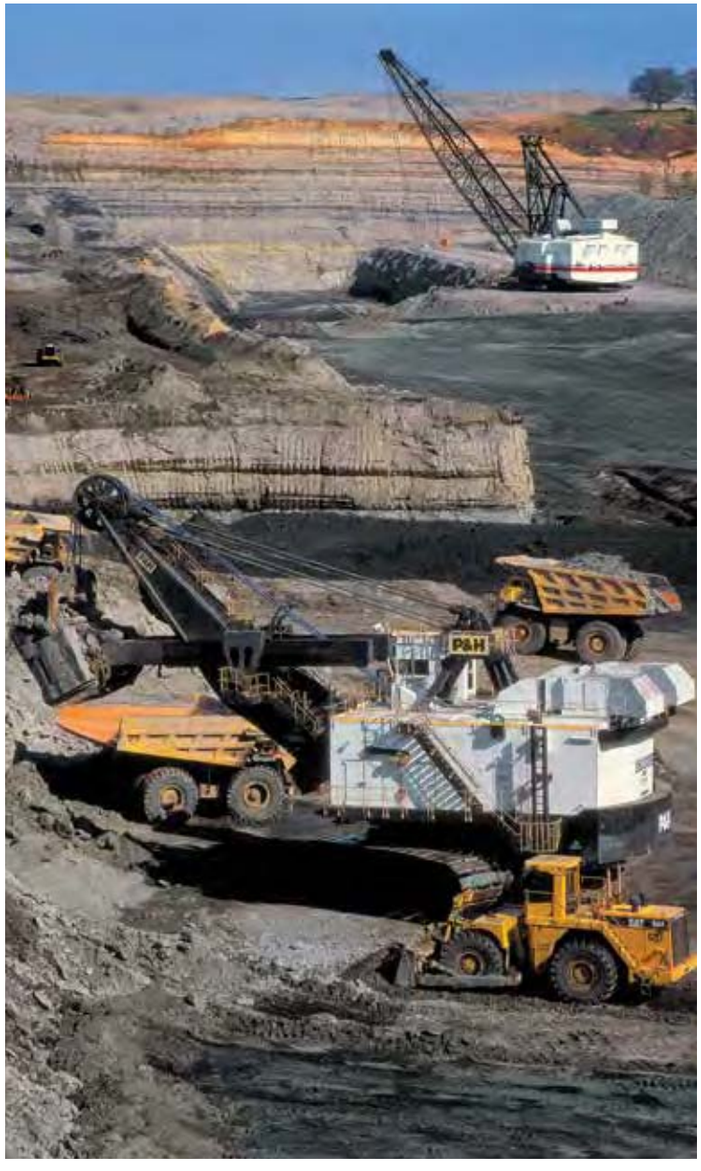
Mike Gregory was also sent over from Dallas to renegotiate the mine's contract with the San Miguel Electric Cooperative. Gregory suggested win-win amendments that protected NACoal against operating losses while lowering the cooperative's payments for management services. With the situation stabilized, the original 10-year contract was extended, and NACoal continued to operate the San Miguel Mine through the end of 2010. The success of the turnaround effort set a tactical precedent. Today NACoal routinely pulls together multidisciplinary teams from multiple locations to tackle particularly tough challenges encountered by its subsidiary operations.

Shortly after the Dallas headquarters staff began preparing the San Miguel contract proposal, the Phillips Coal Company announced its intention of seeking a joint venture partner to develop lignite coal reserves in Choctaw County, Mississippi. Phillips had a signed contract to supply fuel to a new power plant

under development there. NACoal responded with a proposal to provide management services and 25 percent of the equity needed to construct a new surface mine that would serve the Choctaw Power Generation Plant. Although the coal company had excess cash from operations and no debt at the time, the proposed minority stake still represented a significant investment. The presence of a majority partner allowed North American Coal to pursue this attractive business opportunity.

Shortly before Christmas 1996, Phillips accepted NACoal's proposal, and early in 1997 the joint venture partners formed Mississippi Lignite Mining Company to fulfill the terms of a long-term contract with the Choctaw Generation Limited Partnership, a supplier of power to the Tennessee Valley Authority. Cliff Miercort asked Coteau president Bob Benson to spearhead the development of the new Red Hills Mine. Although the production expected of the mine would be only one-fifth that of the 16-million-ton-per-year Freedom Mine, Coteau's president accepted the assignment to become Mississippi Lignite's general manager. Benson privately aspired to the future leadership of North American Coal. Even though he never really expected his dream to come true, he recognized the importance of broadening his managerial experiences, which had to date been confined to operations in North Dakota.

Upon moving to Ackerman, Mississippi, in 1997, Benson, who had grown up in Lakota, North Dakota, and earned his bachelor of science degree in civil engineering from the



In its second joint venture with Phillips, North American Coal built and operated Mississippi's first surface coal mine. It was called Red Hills because of the presence of red clay in the overburden.



Senate majority leader Trent Lott of Mississippi (to the immediate left of the podium) testified to the importance of the Choctaw County power project to his state by attending the dedication of the Red Hills Mine.

University of North Dakota in Grand Forks, experienced a bit of culture shock. Supervising the design and construction of the Red Hills Mine presented no unusual challenges for general manager Benson or his engineering manager, Harry B. (Tres) Tipton III, a Phillips Coal recruit. Other aspects of the mine's start-up had tested—and ultimately sharpened—Benson's interpersonal skills and communications abilities. Dallas and Cleveland took note of how the general manager had mastered the complexities of leading a large business enterprise in the rural South, assembling a racially integrated workforce and overcoming an initial turnover rate of 30 percent. To give the veteran mine manager additional preparation for a possible leadership role at the corporate level, NACoal sent Benson to Harvard Business School, where in 1999 he completed the intensive Advanced Management Program for senior managers from around the world.

Red Hills was the first surface coal mine ever built in Mississippi. Testifying to the mine's economic importance to the state, then Republican luminary Trent Lott, the majority leader of the U.S. Senate, spoke at the mine's dedication ceremony in November 2000. However, Phillips Coal had decided to exit the coal mining business before construction of the mine was completed. NACoal faced a tough decision. Should it enter the competition to buy its joint venture partner's assets?

On the plus side, NACoal's purchase of a 100 percent interest in the joint venture would avert the possibility of being saddled with a new equity partner. In addition, NACoal would acquire the undeveloped reserves associated with the joint venture mines, as well as potentially marketable reserves in Texas, Louisiana, Mississippi and Tennessee. A comprehensive database pinpointing lignite coal reserves throughout the Gulf Coast region would also be part of the purchase. On the sobering side, NACoal would probably have to pay more than $125 million for these assets, making this the biggest acquisition in the coal company's modern history.

The NACCO Industries board asked Dallas to perform a thorough analysis of the value of the Phillips Coal database and the development prospects of Phillips' 2.8 billion tons of undedicated reserves. Once assured of the importance of the proprietary database and the marketability of the reserves, the board approved the $129 million transaction. Fortuitously,

the holding company had acquired the services of a specialist in financing mergers and acquisitions (M&A). J. C. Butler Jr., a former investment banker, had joined NACCO Industries in 1995 as manager of corporate development.

Butler had deep roots in the Midwest. He had grown up in Indiana and, after earning bachelor's and master's degrees in agricultural economics at Purdue University, had helped to manage his family's farm for a time. Upon completing his MBA at Harvard Business School, Butler had gone into investment banking in New York City. He had moved to Cleveland because he and his wife, Helen, the daughter of Alfred and Viki Rankin, wanted their children to be reared in a smaller community and near their closest relatives.

Rankin had suggested that his son-in-law solicit career leads from Frank B. O'Brien, senior vice president of corporate development and chief financial officer at NACCO Industries. Having recently lost his M&A expert, O'Brien suggested that Butler interview for the position if he didn't find another job to his liking. Butler had never intended to go to work for his father-in-law, but he subsequently decided that he was again ready for a new career. He granted himself a two-year tryout at NACCO Industries—and never left. His assumption of an ever-widening portfolio of responsibilities perpetuated Taplin-Rankin family leadership into the fourth generation.

In collaboration with the finance team led by Chuck Friley in Dallas, Butler arranged for the Phillips deal to be financed entirely with debt leveraged by the joint venture subsidiaries' long-term coal sales agreements. At the 11th hour, the acquisition that NACoal believed would open up new horizons for growth hit a snag. How could the mines assume the dragline and rolling stock leases that had been extended by various banks based on guarantees signed by Phillips Coal? Neither Red River nor Red Hills had an established line of credit.

NACoal treasurer K. Donald Grischow, who had started his career with the coal company in 1972 in the accounting department in Cleveland, picked up the phone and personally called a contact at a major Cleveland bank that had previously extended credit to NACoal subsidiaries on the basis of guarantees by the subs' customers. The uncertain profitability of the still-to-be-opened Red Hills Mine presented a hurdle that Grischow surmounted with the characteristic display of confidence that he brought to his avocation of climbing the "Seven Summits," the tallest mountains on each of the world's continents. The bank agreed to provide a backup letter of credit for the equipment leases.

Completed in October 2000, the Phillips acquisition represented the final piece of new business NACoal needed to achieve its "Vision." After factoring in its additional 50 percent interest in the Oxbow Mine and its additional 75 percent interest in Red Hills, the company's annual production in 2000 totaled more than 31.5 million tons. Seventy-five years after Frank E. Taplin Sr. proclaimed North American Coal the largest producer of bituminous coal in America, the company could once again lay claim to being No. 1 in its respective field. As the 2000 annual report declared, NACoal was now the nation's largest miner of lignite coal.



CHAPTER SEVENTEEN

At the Cutting Edge

North American Coal's No. 1 ranking was still secure when Cliff Miercort retired in March 2006. No other lignite coal producer in the country had matched NACoal's deliveries of 34.7 million tons of lignite in 2005. NACoal's financial metrics were also sound. Profits had inched downward in 2005, but the return on capital employed had hit nearly 11 percent.

Having recently set a higher ROE target of 13 percent for the coal company, NACCO Industries' CEO had carefully considered the abilities that Miercort's successor must possess. The next president and CEO of North American Coal would be required not only to sharpen NACoal's strategic plan for growth, but also to make good on the plan's execution. Robert L. Benson, NACoal's executive vice president and chief operating officer, seemed uniquely qualified for the job. "No other candidate had Bob's strength and knowledge," Alfred Rankin explained. "In addition to being an experienced mine operator, he was quite perceptive about what needed to be done. We were running our active mines very well, but Bob clearly emerged as the person who could help us fine-tune the overall business."

In preparing for succession, the Miercort administration had commissioned a new NACoal logo and codified a new corporate vision. Incorporating colors that represented the company's historic and current businesses, as well as its commitment to environmental stewardship, the new logo had been unveiled in late 2005. The new vision reaffirmed the company's core business model, calling for NACoal to remain a leading low-cost provider of lignite coal used in electric power generation. "Coal must remain an integral part of the nation's total energy mix for the United States to continue to be competitive in a global economy," the company's board and executives believed. But they also envisioned a future in which NACoal would be a leading low-cost miner of lignite used in coal gasification to produce synthetic natural gas; in coal liquefaction to produce synthetic diesel fuel or jet fuel; and in the production of coal-based products such as activated carbon used in air and water filtration.

At age 58, Benson, who had begun his rise through the corporate ranks in Dallas with his appointment as vice president of southern and eastern operations in 2001, was eager to focus his considerable energies on new business development and new business directions. In the wake of the Phillips Coal buyout, NACoal possessed both enormous lignite reserves—some 2.3 billion tons, of which 1.2 billion were dedicated to current customers in the Great Plains and Gulf Coast region—and the most comprehensive and detailed geological database of lignite coal reserves known to exist. But the potential of these assets had yet to be fully realized. NACoal had been required to place the aggressive pursuit of new opportunities on hold for the past several years in order to use its excess cash to pay down the debt incurred for the Phillips acquisition.

With more than a billion tons of uncommitted lignite coal reserves to market as of 2006, Benson decided that steady but sustainable growth would be the chief priority of his administration. As Benson and his Dallas marketing team began to uncover various business leads, the company's new CEO took advantage of NACCO Industries consultants, calling

The company's long experience as the fuel supplier to the country's first coal gasification plant and an affiliated electric generating station in North Dakota (opposite page) *influenced strategic planning for NACoal's future.*

in particular on the services of J. C. Butler, who had been promoted to vice president of corporate development and treasurer of NACCO Industries in 1997. Benson valued the sharp "set of eyes" that the former investment banker brought to the evaluation of possible business propositions. He also recognized that Butler could fill gaps in the capabilities of the coal company's executive management team.

For his part, Butler had discovered a latent passion for coal mining, which shared many of the positive attributes that had compelled his earlier dedication to farming. Soon he was devoting part time to NACoal, helping to conceive marketing strategies, negotiate deals and coal sales agreements, assemble financing packages and coordinate the services provided by legal, tax and accounting experts at the Dallas headquarters.

Benson gradually assembled what became a crack project development team. In addition to J. C. Butler and vice president of engineering Tres Tipton, a past general manager of the Red Hills Mine, its members included business development expert Bob D. Carlton, NACoal's (recently retired) vice president and CFO; engineer and experienced mine manager Douglas L. Darby (also now retired); NACoal veteran Mike Gregory, vice president for international and special projects; M&A authority John D. Neumann, a former Jones Day attorney who became vice president, general counsel and secretary of NACoal; and reserve acquisition virtuoso Jim Melchior, the longtime head of the North American Coal Royalty Company, NACoal's mineral rights and royalty management arm.

When not working on coal company projects, J. C. Butler numbered among the key advisers with whom Alfred Rankin deliberated about the long-term strategic plans and goals of NACCO Industries. These discussions informed the holding company's determination that the time had come to spin off its Hyster-Yale Materials Handling subsidiary into an independent, publicly traded company. The transaction, which was completed in 2012, was a value-adding move for all concerned. NACCO Industries shareholders received an A share and a B share of Hyster-Yale common stock for each of their shares of the holding company's A or B common stock. Investors interested in the materials handling business gained a focused investment option that had not been previously available. Acquiring direct access to equity capital and debt capital markets and greater flexibility to pursue strategic growth opportunities enhanced Hyster-Yale's competitive advantage. And NACCO Industries enhanced its reputation for increasing long-term shareholder value.

Under Bob Benson's leadership, North American Coal ended its 99th year in business in 2012 by posting the strongest EBITDA (earnings before interest, taxes, depreciation and amortization) of all the remaining NACCO Industries subsidiaries. By recognizing that he alone did not possess all the answers and drawing broadly on the skills of employees throughout the organization, Benson had succeeded in reigniting the entrepreneurial spirit that had propelled the coal company's founding in 1913. A confirmed cross-pollinator who liked

to introduce new players into any given situation in order to stimulate out-of-the-box thinking, Benson had relied upon his multidisciplinary senior leadership team to help him enlarge the company's sense of future business opportunities. According to J. C. Butler, who continued to divide his time between coal company management and his post-spinoff responsibilities as senior vice president of finance, treasurer and chief administrative officer of NACCO Industries, "We talk a lot about what we can do to make sure that NACoal is thriving 100 years from now."

The latest iteration of the coal company's strategic plan was the most wide-ranging and visionary blueprint for growth to date. Benson and his senior leadership team agreed that NACoal must strive to sustain existing business by maintaining a laser-like focus on lowering customers' costs and continue to compete for new electric utility company projects and contract rollovers. It must also continue to seek out appropriate opportunities to participate in mine development projects in international markets. But they also envisioned a number of unprecedented initiatives that would allow the company to take full advantage of its core competencies. These included:

- establishment of a presence in the metallurgical coal arena, with the goal of developing an export business;
- pursuit of mining services contracts or acquisitions in the aggregate industry;
- pursuit of mining services contracts with producers of other minerals;
- pursuit of long-term supply relationships with companies that process coal to make new products;
- support for the development of technologies that enhance coal's value as a fuel;
- initiation of new mining projects by connecting investors, mineral reserves and customers.

At the dawn of NACoal's centennial, the Benson administration could point with a justifiable sense of accomplishment to an impressive number of new projects that were under development or had been launched during the previous five years. Some were long-proposed endeavors that the project development team had ably shepherded to fruition. Others represented the prompt execution of a creative new idea set forth in the updated strategic plan.

In Maverick County, Texas, NACoal's Camino Real Fuels subsidiary had obtained the permit for a new surface mine named after the nearby community of Eagle Pass. North American Coal had taken an equity position in 1994 in the Dos Republicas Coal Partnership, which controlled about 50 million tons of bituminous coal reserves on U.S. borderlands, and nurtured the development of the Eagle Pass Mine for nearly 20 years. Beginning in 2014, the mine was scheduled to begin delivery of up to 2.7 million tons of coal to power plants in Coahuila, Mexico, 15 miles south of Eagle Pass.

In the northeastern part of Texas, NACoal's Caddo Creek Resources subsidiary had secured permitting for the Marshall Mine, expected to deliver lignite coal to the Marshall, Texas-based plant of Norit, the world's largest producer of activated carbon. North American Coal was involved in a similar business venture in Coushatta, Louisiana (the former headquarters of



NACCO Industries senior vice president J. C. Butler, a fourth-generation member of the Taplin-Rankin family, confers on a regular basis with Bob Benson about "what we can do to make sure that NACoal is thriving 100 years from now."



NACoal consultants joined workforce employees at the 20-million-ton-per-year Sasan surface mine in central India, for which North American Coal provided the mining plan and other critical technical services, in celebrating the operation's start-up in 2012.

Opposite page: *The 2012 purchase of the Reed Minerals Company, whose mines supply steam coal to electric utilities and metallurgical coal to the steel industry, has opened up a new frontier—exporting coal to foreign steelmakers.*

The Red River Mining Company, which NACoal had sold in 2009 to the utility companies that Red River's mine had served). A new NACoal subsidiary, Demery Resources Company, L.L.C., had signed a mining services contract to build and operate the Five Forks Mine, which began supplying lignite to a Louisiana manufacturer of activated carbon in 2012.

In McLean County, North Dakota, another new subsidiary, NoDak Energy Services, L.L.C., had secured a contract to operate a new coal beneficiation, or drying, plant that Great River Energy (formerly the UPA-CPA utility consortium) had built at its Coal Creek Generating Station. The new facility used Great River Energy's proprietary technology to evaporate water from lignite coal using waste heat, thus increasing the energy density of the lignite burned by the power plant. Drying lignite enhanced its marketability by removing sulfur and mercury, the latter an emission that had recently come under EPA regulation. It also had the potential to extend the distances that lignite could be economically shipped.

In Mercer County, the utility consortium that owned and operated the Coyote Station power plant near Beulah had selected North American Coal to replace the plant's present lignite coal supplier when its existing fuel contract expired in 2016. NACoal's proposed reserves, as well as the performance and safety records of the company's nearby Freedom Mine, were well known to the plant's owners. A new NACoal subsidiary, Coyote Creek Mining Company, would develop and operate the Coyote Creek Mine four miles from the power plant. In adjoining Oliver County, the coal company's Otter Creek reserves had been identified as a potential supply of lignite coal for a variety of customers and uses, possibly including a technologically advanced coal-to-liquids plant.

Under Mike Gregory's dedicated leadership, North American Coal's international marketing effort had finally borne fruit. NACoal's former joint venture partner in India, Reliance Power, had learned from the financing and regulatory hurdles that had stymied its previous mine development efforts. In the late 2000s Reliance had reapproached the coal company to request technical assistance with a new mine-mouth electricity

generating facility referred to as the Sasan Project in central India. NACoal helped to prepare the mining plan for what was intended to grow into a 20-million-ton-per-year surface operation. The coal company went on to advise Reliance on the surface mine's design and construction and equipment selection. On September 1, 2012, NACoal received word that the mine had begun stockpiling coal for the new 4,000-megawatt Sasan power plant that would generate electricity to be transmitted to seven Indian states. "Another good day," Benson e-mailed Butler, typically understating the significance of the accomplishment. Guiding the development of an overseas coal mine to successful completion had been on the company's must-do list since 1978.

North American Coal opened another new frontier—in export—by returning to its historic roots. In late summer 2012 NACoal announced its bold purchase of the Reed Minerals Company, a producer of bituminous coal. The family-owned business, based in Jasper, Alabama, mined metallurgical coal, which was sold to domestic steel industry customers, and steam coal, which was sold primarily to a coal cooperative. For a purchase price of about $70 million, NACoal acquired a solid foundation of experienced employees, operating mines, customer relationships and reserves in a territory new to the coal company. Just as important, the acquisition presented an opportunity to enter the export market. Reed's steam-coal sales agreement, which had eight years to run, would provide consistent revenue, profit and cash flow while NACoal endeavored to expand Reed's metallurgical coal business in the U.S. and abroad.




BREAKING NEW GROUND
KEMPER COUNTY IGCC PLANT

Perhaps the most cutting edge of NACoal's new endeavors was a four-million-ton-per-year surface mine under development in rural Mississippi, which was scheduled to begin deliveries of lignite coal in May 2014 to a new power plant under construction in the central part of the state. North American Coal had used the Phillips database to good effect to identify coal reserves for the project. With the onset of planning for the new base-load generating plant, Mississippi Power had approached NACoal, the operator of the first and only lignite coal mine in the state, as a potential fuel supplier.

Mississippi Power proposed to build a 582-megawatt integrated gasification combined cycle (IGCC) plant—a technologically advanced power generating system. As the name implies, IGCC integrates the gasification of lignite coal with the generation of electrical power, linking two dedicated plants on a single site. The Mississippi Power facility would employ a new technology called transport integrated gasification (TRIG), which was developed by the Southern Company—the parent of Mississippi Power—and the engineering and construction firm Kellogg Brown & Root in association with the U.S. Department of Energy. TRIG converts lignite to synthetic natural gas, which then fuels the turbines that generate electricity.

In addition, Mississippi Power planned to minimize emissions of pollutants by installing carbon capture equipment at the plant and marketing the captured carbon dioxide for use in enhanced oil recovery in mature oil fields, a proven method of carbon sequestration. Also expected to remove 99 percent of sulfur dioxide, 92 percent of mercury and nearly 100 percent of the particulate matter associated with older coal-burning electric power plants, the new energy facility would rank among the cleanest in the country.

After studying the Phillips database, NACoal recommended that Mississippi Power locate its state-of-the-art power plant near a reserve comprising 31,000 acres of coal lands in rural Kemper County, Mississippi. The so-called Damascus reserve contained several hundred million tons of lignite coal, more than enough to meet the plant's estimated need of 160 million tons over its expected 40-year lifespan.

The Coteau Properties Company, the operator of NACoal's Freedom Mine in North Dakota, boasted two decades of experience as the lignite supplier to the country's first coal gasification plant. This expertise represented another compelling reason for Mississippi Power to award North American Coal a long-term fuel supply contract. Before making such a critical decision, the utility company performed extensive due diligence. NACoal point person Doug Darby tenaciously marshaled the information needed to answer all of Mississippi Power's far-ranging questions related to its decision to build a mine-mouth power plant in Kemper County near the small town of De Kalb.

Another factor in the success of the contract negotiations was Mississippi Power's inspection tour of the Freedom Mine and the electric generating station and coal gasification plant

Opposite page: *The 2010 groundbreaking for a new electric power plant in Kemper County, Mississippi, that will integrate coal gasification technologies and carbon capture processes was attended by the state's governor, Haley Barbour (in the red tie), and representatives of North American Coal, which will supply lignite to the state-of-the-art energy facility. The project development team included (from left) John Neumann, Tom Koza, Tres Tipton, J. C. Butler, Bob Benson, Jim Melchior, Doug Darby, Jack Pokorny and Michael B. Thomas.*



Perpetuating NACoal's tradition of civic support, Vern K. Lund (left), the president of the company's new Liberty Mine in Kemper County, Mississippi, and Bob Benson (second from left) presented a check sponsoring an early childhood literacy program for Kemper County to local United Way officials. Benson's wife, Eleanor (right), attended the ceremony celebrating the start-up of Dolly Parton's Imagination Library, a nonprofit organization that will mail an age-appropriate book to each preschool child in the county every month for five years.

it served. The latter facility had been renamed the Great Plains Synfuels Plant after its acquisition by the Basin Electric Power Cooperative, and Coteau and Basin had through years of dedicated effort made the coordination of the three operations virtually seamless. After hearing intercompany radio communications in which it was impossible to distinguish which party was employed by the Freedom Mine and which was employed by Basin Electric, a Mississippi Power official exclaimed, "I want your mine and my power plant to work together just like this."

NACoal's negotiating team finalized the details of a longterm coal sales agreement with Mississippi Power in 2010. It called for deliveries of up to 4.5 million tons of lignite per year. Groundbreaking ceremonies for the Kemper energy facility took place that December. When completed in 2014, the $2.88 billion facility would be one of the world's first large-scale carbon capture and sequestration projects devoted to electrical power generation and only the third IGCC power plant in America. As such, it was one of only two projects chosen for federal support in the second round of the DOE's Clean Coal Power Initiative. DOE officials believed that a successful commercial demonstration of the combined effectiveness of the IGCC technology and separate carbon capture processes might provide a key to the continued use of an energy resource so abundant it could power the country and the world well into the next century.

NACoal also wished to emphasize the project's contribution to national energy independence. Its new Mississippi mine would be named Liberty. To be operated by a wholly owned subsidiary called the Liberty Fuels Company, the Liberty Mine was the latest embodiment of a corporate philosophy that had always pushed NACoal toward the cutting edge of industry leadership. Bob Benson viewed the company's participation in the pioneering Kemper project as fundamental to the prospects of both the company and the country itself. "The United States needs a long-term policy to achieve energy independence, and coal gasification has to be one of the pieces," he contended. "This is the future of lignite."

One year before the scheduled start-up of the Liberty Mine, The North American Coal Corporation marked a milestone of its own. Celebrating the centennial of its founding on February 18, 2013, NACoal could look back over a century of accomplishment and look forward to building on that sturdy foundation. In addition to its impressive list of new mining ventures, the company had four legacy subsidiaries—Falkirk, Coteau, Sabine and Red Hills—dedicated to carrying out the corporate mission



The advanced coal gasification combustion technologies and separate carbon capture processes of the Kemper plant, which is scheduled to begin operations in 2014, may provide a key to the continued use of an energy resource so abundant it could power the country and the world well into the next century.

of providing reliable, low-cost fuel to customers. Its financial health was enviable. Indeed, NACoal had been awarded an investment-grade bond rating in recognition of its consistently strong performance. This was a rare achievement for a coal producer. It was hard to earn such a vote of confidence from the financial sector because of the volatility of the coal business.

No one could predict with certainty the nature of the challenges that NACoal would inevitably face in the years ahead. Yet, if the past were indeed prologue, the coal company would surely muster the determination and resources to overcome all obstacles. From Frank Taplin's daring gamble in 1913 to the farsighted initiatives set in motion by his successors over ensuing decades, the history of The North American Coal Corporation has been a continuum of bold strategies conceived by the company's leaders over time, supported by steadfast family owners and insightful directors, and executed by skilled managers and dedicated employees in service to a defining objective: getting the coal out.



EPILOGUE: 2013–2023

The First Decade of the Second Hundred Years

We decided to reprint "Getting the Coal Out" in connection with the company's 110th anniversary. This epilogue describes how the 10 years after the original printing played out.

Building a Met Coal Business – Lessons Learned

Entering the metallurgical coal business with the 2012 purchase of Reed Minerals proved to be an event that would shape the course of the company, but not as expected. Once the acquisition closed, North American Coal went to work dissecting this new business venture and developing plans to improve operating efficiencies and better serve customers. Historically, maintaining a high level of customer service while controlling costs were hallmarks of the company's success. CEO Bob Benson and his team directed some of the company's brightest and best employees to focus on bringing Reed Minerals into the company fold. West Virginia native and experienced miner David White was brought in early on to assess the situation and build an operating bridge between North American Coal and the legacy team at Reed Minerals. Accounting specialists from the North American Coal Dallas headquarters were enlisted to implement needed upgrades to financial processes and enhance internal controls. Dallas-based engineering experts, led by Vice President of Engineering Tres Tipton, refined mine plans and charted strategies to produce the highest value blend of coal at the lowest possible cost.

Everyone quickly realized that the met coal business in Alabama differed substantially from the company's other coal mining operations. Met coal was sold at fluctuating market prices, subject to local, national and global economics and trends; that much was expected. The extent of the volatility, and steepness of the market downturn in those early years, exceeded anything predicted by market experts. Coal sales were often executed via complex arrangements with coal aggregators, who would blend coal from different seams and different producers to meet changing market demands. Market coal prices that seemed to drop with increasing speed each day intensified the already-identified need to improve efficiencies and reduce costs. More help was needed.

The company brought in two of North American Coal's best operating experts and problem solvers, Justin Burggraff and Butch Davis, to lead the charge. The mining and management skills Burggraff developed during his years at Coteau's Freedom Mine in North Dakota were sharpened by experiences pursuing potential mining projects both domestically and internationally for the company. Davis emerged as an insightful and thoughtful leader as he rose through the ranks at the company's Red Hills Mine in Mississippi. These two paired up to bring in-the-trenches expertise to the challenges at Reed Minerals. No efforts were spared in trying to right this ship. In fact, even the name of Reed Minerals was changed to Centennial Natural Resources in connection with the Company's 100-year anniversary and legacy of success.

In many ways, the efforts contributed by so many were successful. The safety record at Centennial improved tremendously. The North American Coal approach to employee relations – treating everyone with dignity and respect – promoted a team atmosphere that fostered individual success. Efficiencies improved and costs were, in fact, reduced. Unfortunately, market prices continued to decline faster than costs could be reduced. Losses mounted, and in early 2015, it became clear that prospects were grim for achieving acceptable financial returns on this investment.



Above: *Reed Minerals was changed to Centennial in 2012 in hopes of changing the trajectory of the project. The met coal business in Alabama differed from the company's other coal mining operations in unexpected ways. .*

Opposite page: *Employees from Sabine Mining Company and Mitigation Resources of North America tour a reclamation area. As Mitigation Resources was established, internal transfers and external hires propelled its expansion. This business leveraged the company's passion for environmental stewardship to become one of the largest mitigation banking companies in the southeastern United States.*

In early July 2015, the collective team gathered in Cleveland with Alfred Rankin, who was, at the time, NACCO's Chairman, President and CEO, to assess the situation and discuss the outlook. With no clear indication of a near-term recovery in met coal prices and losses mounting, each person in the group provided an affirmative response to Rankin's question of "should we wind this down?" It was official – the company's attempt to grow by establishing a met coal business platform had failed. But there was a silver lining to this painful experiment. The company had learned valuable lessons that would shape strategic direction and decision-making long into the future: Know where the company's expertise lies and where it does not; Consider unknown risks with great care; Fire bullets before cannonballs; Grow organically, building on core skills, rather than by acquisition, especially when leverage is involved; Recognize the importance culture has on a business's potential for success and failure; Above all, carefully consider the costs of chasing success because these costs can become overwhelming.



Under the watch of Bob Benson, the company added five new coal mines between 2009 and 2012, including the Five Forks Mine in Louisiana, operated by Demery Resources, LLC.

The company's short-lived venture in the met coal market coincided with a period of tremendous upheaval in the global coal industry. Many of the world's largest mining companies also executed large, defining acquisitions during this timeframe in pursuit of new and larger markets. Many of those companies ended up with bankruptcy as their only option in years to follow. In comparison, the gambles made by those other companies were bolder and larger than North American Coal's bet. Those other companies bit off more than they could chew, while North American Coal emerged from this endeavor bruised, but not beaten, with important lessons learned along the way.

What Comes Next?

These lessons were still fresh as a new management team formed in mid-2015 after Bob Benson opted to retire for personal reasons. Benson had led the company through a period of tremendous growth in the company's legacy coal mining business – under his watch, five new contracts were signed between 2009 and 2012 to build coal mines in Louisiana, Mississippi, North Dakota and Texas. Camino Real Fuels, Caddo Creek Resources, Coyote Creek Mining, Demery Resources and Liberty Fuels were added to the North American Coal roster, and in 2015 negotiations were underway to take over operation of an existing coal mine owned by the Navajo Nation in New Mexico. This pace and level of growth was unprecedented.



Between 2009 and 2012, North American Coal experienced an unprecedented level of growth. Coyote Creek Mine was added to the roster of coal mines during this time and severed its first coal in 2016.

The core of the new executive team included North Dakota native, civil engineer and life-long coal miner Carroll Dewing, who brought decades of experience in engineering, production, maintenance and leadership to his role. Dewing started in 1979 at the Falkirk Mine just as coal deliveries began. He rose to become President of Falkirk before becoming President of Coteau Properties and currently serves as Senior Vice President and Chief Operating Officer of NACCO Natural Resources. The heart of Dewing's role is to protect the core of the company's coal mining operations while helping to identify key skills that can be leveraged to grow the company.

John Neumann mastered the nuances of the company's management fee coal mining contracts as outside legal counsel for several years before coming in-house in 2009 as the company was accelerating its journey to add new coal mining projects to its portfolio. Neumann became General Counsel of publicly traded NACCO Industries in 2012 following NACCO's spin off of Hyster Yale, and now serves as NACCO's Senior Vice President and General Counsel.

J. Patrick Sullivan joined the company as CFO in 2013, spending his first day on the job at the company's 100th anniversary celebration in Cleveland. Sullivan brought a

highly entrepreneurial spark to the executive team, born of his engineering and financial roots and broad range of skills and diverse experiences in multiple industries that included refineries, utilities and pipelines. Sullivan now serves as Senior Vice President and Chief Financial Officer for NACCO Natural Resources.

President and CEO J.C. Butler joined the company in 1995, serving mostly in business development and financial roles at NACCO Industries until being recruited by Benson in 2006 to help grow North American Coal. These four leaders feel fortunate to be part of a company with great people, a proud legacy, a long-term perspective and an abundance of strengths to build on. They are steadfastly committed to upholding the core principles and values that built the company – safety first, dignity and respect for everyone, environmental stewardship and community engagement.

The executive leadership team had lived through the Alabama met coal experience and were deeply affected by it. The company had a long and successful legacy of innovation and expansion, including addition of the newer coal mines, but the attempt to establish a met coal business had failed, and the new team questioned where to focus efforts going forward. They turned to Jim Collin's seminal strategy book "Good to Great" for inspiration.

A group of senior managers from across the company gathered together in San Antonio in August 2015 to contemplate what direction to take the company. Each had read Jim Collins' famous red book and came prepared to engage in meaningful conversation. Spirited discussion ensued around the book's primary principles of disciplined people, disciplined thought and disciplined action. Collins urges companies to confront the brutal facts that they face, so the group delved into the political headwinds facing the coal industry and held an honest and transparent discussion of what went wrong in Alabama.

The discussions in San Antonio were focused on identifying what sets the company apart from competitors and what provides its competitive advantages. The group sought to clarify, in a Venn diagram sort of way, what fuels the company's passions, what drives the company's economic engine, and what the company can do better than anyone else.

The assembled group threw themselves at these questions with dogged determination to help chart the right course for the company's next phase. They knew their work would help identify and prioritize strategic areas of focus that would shape the future direction of the company. Each action taken, if successful, would build the company into more than it was before.

At the end of the week, dozens of poster-sized sheets covering the conference room walls summarized key truths for the company: Excellent people are at the core of the company's success; The company's employees have a passion for customer service, which also drives the company's economic engine; The company's core skills are derived from expertise in surface mining, and those skills are broad and wide ranging; A culture of excellence in employee safety, environmental stewardship, employee relations, equipment

maintenance, operating efficiency and customer service are key skills that can be leveraged for growth.

Two key themes emerged from that meeting that would become the rallying cry for the next decade. While specific monikers for these two strategies wouldn't take shape for another year or more, those leaving the meeting in San Antonio had a clearer view of what needed to be done to drive the company forward: Every employee needed to work as hard as possible to protect the legacy coal contracts, since they formed the lifeblood of the company, while building upon core skills to expand the scope of the company's operations. **Protect the Core** and **Grow and Diversify** captured where the company would focus its work.

Executing on those two strategies would be aided by the fact that the company itself was more focused than before. The company spun off Hyster-Yale to shareholders in late 2012 (NYSE: HY), and Hamilton Beach Brands was similarly spun off in 2017 to create another independent public company (NYSE: HBB). These two transactions clearly validated prior company strategies to **Grow and Diversify** that began in the early 1980s. Preceding chapters of this book explain how North American Coal invested in the forklift business and later created NACCO Industries, which would also have an investment in small kitchen appliances. Spinning off these two businesses created significant shareholder value, and publicly traded NACCO Industries became solely dedicated to North American Coal. But that also meant that all bets were on coal, which faced stiff political and regulatory headwinds.

Protect the Core

Concerns about the long-term viability of the company's core business – mining coal, largely via a fee-based service model – were well-founded. Fossil fuels, particularly coal, faced increasing regulatory pressures that, at times, led to the premature closure of power plants. This put the company's legacy business model at risk.

Protect the Core was fought on two fronts – operationally and legally. At the mines, work focused on improving efficiencies, driving down costs and delivering the optimum quality and quantity of coal required by customers. This is how the coal mines had operated for decades. The company believed a sharp focus on doing things that would make customers successful in a competitive marketplace

Below: *During a strategic planning session in 2015, the company identified key skills and areas of focus that could be leveraged for growth: employee safety, environmental stewardship, employee relations, equipment maintenance, operating efficiency, and customer service, along with a culture of excellence. Here, a North American Coal employee collects environmental data in North Dakota.*



The company was the lead industry petitioner in the 2022 U.S. Supreme Court case that struck down the U.S. Environmental Protection Agency's greenhouse gas emissions rule. This case, West Virginia v. EPA, is notable for its broad prohibition on federal regulatory action that has a broad impact on U.S. industry and economy absent specific direction from Congress.



"All the News That's Fit to Print"

The New York Times

Late Edition

NEW YORK, FRIDAY, JULY 1, 2022

JUSTICES CURB E.P.A. POWER OVER EMISSIONS

Ruling on Final Day of Court's Term Solidifies a Lurch to the Right

Major Victory in Long Game to Dismantle Business Regulations

Opens Door to Hobbling of Federal Agencies

would help keep the power plants operating. With coal costs being the single greatest determinate of electricity costs, innovation and continuous improvement in mining operations were leveraged to deliver results.

On the legal front, the company was extremely vigilant in monitoring, assessing, and often attacking, burdensome regulations designed to destroy the coal business. The company was the lead industry petitioner in the 2022 U.S. Supreme Court case that struck down the U.S. Environmental Protection Agency's greenhouse gas emissions rule. This case, *West Virginia v. EPA*, is notable for its broad prohibition on federal regulatory action that has a broad impact on U.S. industry and economy absent specific direction from Congress. Beyond the headlines of the Supreme Court victory, the company's regulatory team diligently worked through other proposed regulations that could impact the business, most notably under the Clean Air Act, but also rules relating to the Clean Water Act, SEC disclosures, coal combustion residuals and other waste management issues, and oil and gas extraction and emission rules.

The company's work to **Protect the Core** delivered many important victories, protecting families and local communities from the loss of hundreds of good, well-paying jobs tied to the power plants and coal mines that underpin the local economies. While much of the work done must remain confidential, one shining example can be described below.

The company played a very key role in recruiting and securing a buyer for the power plant served by the Falkirk Mine in North Dakota. Rainbow Energy, based in Bismarck, North Dakota, acted on what it saw as tremendous opportunity to own and operate the Coal Creek Station power plant and the direct current transmission line that carries electricity from the power plant to Minnesota. Rainbow's 2022 acquisition of these assets has spawned a range of new projects capitalizing on one of the nation's most efficient coal-fired power plants. The earliest projects involved constructing and hosting multiple data processing facilities adjacent to the power plant and assessing the viability of an

on-site carbon capture separation and sequestration facility. The entrepreneurial and innovative team at Rainbow Energy Center views the power plant as a vitally important asset to provide low-cost dependable electricity and advocates for the local grid operators to provide a market value for the capacity and backup power that the power plant provides. Meanwhile, public comments by the North American Electric Reliability Council, the Federal Energy Regulatory Commission, and local grid operators warned of a possible energy reliability crisis if remaining dispatchable facilities cannot keep up with growing demand. Hot summers and cold winters require a steady supply of electrons that fossil fuel power plants can readily provide, and the Rainbow Energy Center and the Falkirk Mine aim to be an important part of that mix.

In spite of the many efforts to **Protect the Core**, a vast majority of which were successful, unique circumstances led to the closure of some customer facilities and the coal mines that served them. Camino Real's customer was informed that the Mexican government would no longer buy coal from them, causing a sudden closure of the mine in 2020. Caddo Creek's customer was sold to a competitor, who consolidated coal sourcing from another mine; fortunately, Demery Resources operated that mine. Liberty Fuels' customer shut down its Kemper County coal gasification facility before reaching commercial operations, terminating the project after extensive cost overruns and delays during construction. One customer employee commented that the Liberty Fuels coal mine was the only part of the project that came in on time and on budget. That gave little consolation to the closure of that mine, but it did highlight the company's skills at planning and execution, which would be put to use in other ways. In addition, after seven years of improving virtually every aspect of operations at the company's Bisti Fuels coal mining project in New Mexico, the Navajo Nation took over operations and terminated the company's mining contract, paying a significant termination fee as required under the contract. In what is hoped to be the final early closure of a power plant supplied by North American Coal, the Sabine Mining Company's customer prematurely closed its power plant in 2023.

Grow and Diversify

One of the more interesting moments of the August 2015 strategy meeting in San Antonio came when the group realized that what was then known as the Florida Dragline Operations (FDO) presented the beginnings of a new business growth platform. This part of the business had been operating draglines to extract limestone from underwater quarries on behalf of local aggregates producers in south Florida since 1995. This was a niche business, but one that demonstrated the company's ability to apply its core mining skills outside surface coal mining. In that "aha" moment, a growth platform was born and the **Grow and Diversify** strategy took off.

Eventually, what had been known as FDO was renamed North American Mining, and FDO's General Manager, Phil Berry, was named president of this important growth platform. Berry would go on to combine his experience with





In 2022, the company played a very key role in recruiting and securing a buyer for the power plant served by the Falkirk Mine in North Dakota. Rainbow Energy, based in Bismarck, North Dakota, acted on what it saw as tremendous opportunity to own and operate the Coal Creek Station power plant and the direct current transmission line that carries electricity from the power plant to Minnesota.









the legacy business and his strong selling skills to build a team that expanded this business tremendously. As a first step, this business sought and secured opportunities to expand outside of south Florida, operate equipment other than draglines and produce minerals other than limestone. Of course, new projects that fit the historical business model were added as well since these opportunities for growth were squarely in the company's wheelhouse. North American Mining would come to include all of the company's mining activities for producers of industrial minerals.

Over time, a second warehouse and satellite headquarters facility was established in central Florida, near Lakeland, to serve an expanding network of customers and quarries in this rapidly growing part of the state. Existing customers made introductions to new customers and provided strong references for the company, accelerating growth and expansion. New customers and quarries were added in Arizona, Arkansas, Indiana, Nebraska, Texas and Virginia, including, in some instances, opportunities to expand into new areas with established customers.

North American Mining began operating truck shovel fleets and a rope shovel and acquired a Wirtgen surface miner specially designed to mine limestone. The hypothesis was that a surface miner would allow mining in areas sensitive to blasting and reduce costs and logistical issues associated with non-mobile limestone crushing facilities. That theory proved to be true, leading to an order for a second Wirtgen machine and a crusher to add further value to the extracted

limestone. In 2023, North American Mining discovered a niche application for the Wirtgen with cement producers, as the Wirtgen was able to effectively mine the high-quality material needed for cement production.

Not everything about this rapid expansion went as planned. Unfamiliar customer practices, inconsistent quarry operating conditions and ebbs and flows in customer demand would cause unexpected swings in profitability, at least initially. Management decisions to add expert staff recruited from the company's coal mining operations would inflate costs at an inopportune time, and contract terms were evolving as the team experimented to find the right balance of risk and opportunity in its contractual relationships.

Importantly, as North American Mining expanded into new states, operating a wider range of equipment, the list of industrial minerals produced grew as well. A single focus on mining limestone grew to include quarry operations producing beach sand, traditional sand and gravel and phosphate. In what might prove to be a transformational move, the company entered into a long-term agreement to provide contract mining services for Lithium Americas' Thacker Pass Project in northern Nevada. The company was contracted to extract lithium-rich clay material for conversion into lithium products in the customer's adjacent lithium processing plant. By all accounts, this project will capitalize on what is believed to be the largest lithium reserve in North America to create America's largest lithium production facility. In 2023, General Motors invested in the project and secured a long-term off-take agreement, ensuring a domestic source for electric vehicle battery production and linking the company to the expanding electric vehicle industry.

The 2015 San Antonio strategy meetings also identified employees' passion for environmental stewardship, where the company's record proves world-class environmental capabilities and skills. This led to the development of a business focused on protecting and enhancing streams and wetlands to be used as environmental offsets for others whose local projects might disturb streams or wetlands, as designated by the U.S. Army Corps of Engineers. Mitigation Resources of North America was formed in 2017 by recruiting environmental experts from the company's coal mining operations. Eric Anderson transferred from the Sabine Mine to serve as the president of this business, building on his strong technical skills and entrepreneurial inclination.

Mitigation Resources quickly established a strong reputation by being professional, thorough, transparent and honest in its work with the Army Corps, land owner partners and those who buy the company's stream and wetland credits. North American Coal's well-established customer service mindset and a strategic focus on analytical firepower proved to be significant competitive advantages in the emerging mitigation banking industry. The strength of its business model allowed Mitigation Resources to rapidly expand into Alabama, Florida, Mississippi, Pennsylvania, Tennessee and Texas and become a key player in reclamation work on land mined before mining companies were required to restore land



Above*: In 2023, North American Mining discovered a niche application for the Wirtgen with cement producers, as the Wirtgen is able to effectively mine the high-quality material needed for cement production.*

Opposite page, top pictures: *Employees across North American Mining facilitate a culture of excellence in employee safety, operating efficiency and customer service.*

Opposite page, bottom picture: *North American Mining began its business by operating draglines to extract limestone from underwater quarries on behalf of aggregates producers in south Florida.*



to its prior condition. Internal transfers and external hires propelled this expansion. Several years after its formation as an idea to leverage the company's passion for environmental stewardship, Mitigation Resources had become one of the largest mitigation banking companies in the southeastern United States.

From the 1920s through the mid-1980s, the company had acquired rights to "all minerals" as part of its legacy underground Ohio coal mining operations in Belmont, Harrison, Jefferson and Monroe counties. In many instances the company mined the coal, but retained ownership of rights to natural gas and oil even after the company had sold the last of its underground coal mining operations by 1988. This proved to be fortuitous. Advancements in horizontal drilling and fracking in the early 2000s showed that the Marcellus and Utica formations within the Appalachian Basin, where the company owned gas reserves, were among the largest and most productive natural gas fields in the U.S. Income from royalty payments, received when a third-party drills and extracts natural gas from reserves owned by the company, began to grow, commensurate with development of these formations. When the company learned that major natural gas pipelines were being installed to export large amounts of gas from this area, it became clear that this would be a growing source of income for the company.

The decision was made to develop a business based on the company's ownership of mineral reserves, building off of the vast natural gas reserves in southern Ohio. The goal was to diversify by acquiring ownership of reserves in other areas, increasing ownership of oil reserves and working with a broader range of producers who would develop the company's oil and gas reserves. The company selected Brian Larson, a petroleum engineer who served in the U.S. Army as an infantry officer, to build the newly formed Catapult Mineral Partners into a significant part of the company's efforts to **Grow and Diversify**. As of the end of 2023, Catapult had invested over $60 million in new reserves located in the Eagle Ford, Haynesville, Permian and Powder River basins and made two smaller investments in third-party mineral companies, one publicly owned and one private. Many of the acquired assets are proved, undeveloped reserves underlying excellent operators, which should provide significant income for decades into the future as development continues. This platform for growth and diversification has been extremely successful.

Like Catapult Mineral Partners, ReGen Resources was created to reinvigorate legacy assets of the coal mining business. The initial strategies that led to ReGen began with the leadership of long-term North American Coal employee and former Red Hills Mine President David Liffrig, who saw opportunity to use solar development as a way to bolster the company's investments in coal mining. ReGen's initial purpose was to reuse the company's legacy surface properties to develop power generating facilities and other new income streams. ReGen's first two projects utilized reclaimed mining property for solar development, with a



Strategy sessions identified environmental stewardship as an area where the company excels and employees are passionate, kick-starting the beginning of Mitigation Resources of North America.

Above: *The Smoky Run Mitigation Bank was established to restore, enhance, and preserve self-sustaining functional streams and wetlands to provide compensatory mitigation for unavoidable federal and state stream impacts.*

Opposite page: *The Tobaksákola Mitigation Site incorporated two phases serving as permittee-responsible mitigation (PRM) for the company's Mississippi Lignite Mining Company.*

220-megawatt development at the company's former Caddo Creek Mine site in Texas and a 70-megawatt development at a previously mined area of the Red Hills Mine in Mississippi. In 2023, then-external project finance and solar development consultant Steve Clevett was hired to lead ReGen, partnering with Liffrig to identify high potential solar projects. Although formed only recently at the time of this writing, ReGen's team is voraciously exploring new business approaches, such as interconnecting solar projects to the electric grid, while more deeply utilizing its expertise in areas such as land, leasing, project development and power purchase agreements. ReGen's expanded purpose has sparked consideration of other uses for legacy property and new Mitigation Resources sites, such as developing natural gas peaking plants, data centers, housing developments and nature preserves.

Branding for The Future

Amidst all of this change, the company was, in fact, growing and becoming more diverse, all within the historical structure in place since 1986. In 2019, NACCO Industries still served as the public parent company and all other activities and businesses operated under the North American Coal banner. As newer businesses flourished, those leading the growth and diversification efforts were finding it increasingly complicated to explain the NACCO story to outsiders, many of whom were biased against anything related to coal. At times, the connection to North American Coal became a hurdle to overcome. For example, when the business development teams pursued non-coal mining endeavors, the connection to the coal industry sometimes excluded them from consideration, until they were allowed to explain how



Right: *The Red Hills Mine's R1 Lake, formerly a sedimentation pond but now a managed trophy bass lake open to the public.*

Left: *Reclamation at the Red Hills Mine continues to return land back to suitable uses.*

the company's strengths were built on skills acquired in the past 110 years of mining. In a highly competitive market, the company learned the value of explaining its history, skillset and expertise in a meaningful and impactful way – capitalizing on things such as logos, domain names and website presence to clearly tell the story. The complexities were multiplying as the company became more diverse. Company leaders sought to develop a public storyline that answered the questions: What is our business? Are we a coal mining company with side businesses, or are we a thoughtfully diverse company in the natural resources industry?

Fortunately, communications professional Amanda Miller joined the Dallas team in 2019. Miller led a robust discussion and review of branding strategies, engaging a broad range of employees and two expert consulting firms. The objective was clear: Tell NACCO's story in a way that protected the strong legacy of the North American Coal brand while allowing the newer businesses to build unique identities and thrive.



After much discussion, analysis and debate, NACCO Natural Resources® was adopted as the new umbrella brand for the company's portfolio of natural resources-related businesses. While NACCO Industries remained the public company, each of the operating businesses became peers underneath NACCO Natural Resources, each branded as "A NACCO Company" to indicate shared capabilities and combined strength. Those in the Dallas and Bismarck offices became NACCO Natural Resources employees, reflecting the fact that they supported all of the businesses without specific association to any single operating business. While NACCO Industries continued to be the identity for the public company, NACCO Natural Resources became the external face of the business.

A single purpose – *Bringing Natural Resource to Life* – became the tagline and rallying cry for the collective team. As NACCO embarks on the second decade in our second 100 years, every business shares the goal to deliver a natural resource product that improves the overall state of affairs for local communities, regions and for the nation. This tagline reflects that objective.

Company logos were updated in order to provide a more cohesive and consistent visual identity, individually and as a group, and an entirely new set of websites was

NACCO INDUSTRIES | NATURAL RESOURCES

North American® COAL

North® American MINING

Mitigation® Resources OF NORTH AMERICA

Catapult MINERAL PARTNERS

ReGen RESOURCES

Great people are the key are the key to the company's success, focusing on safety first. Shown here, employees from North American Mining and Mitigation Resources, donning personal protective equipment and demonstrating a strong safety culture.





developed, one for each business. Each company's website stood on its own, telling the unique value proposition for that business, but with common themes and links to tie them together. The NACCO Natural Resources website, intentionally presented simply as www.nacco.com, served as host to public company information and a launching point to connect to each business.

This new approach allowed each business to stand on its own and customize how employees could describe the company to others. To answer the question of "tell me about your business", employees could start by explaining what their business does and later mentioning that they are part of NACCO Natural Resources and NYSE-traded NACCO Industries. In other instances, it might be more appropriate to lead with an explanation that the business grew out of a 110-year-old coal mining business called North American Coal. The many ways to explain this collection of related but separate businesses effectively told the story. Mission accomplished.

All of this came together in a July 2020 launch that revealed a new way to think about NACCO and its collection of businesses. NACCO Natural Resources was introduced through a high-quality video on the website home page, featuring dozens of company employees hard at work bringing natural resources to life. Rebranding was a resounding success on every level.

Positioned for a Bright Future

Great people – collaborative, creative, hard-working people – are the key to the company's success. Mindset is more important than experience or pedigree in every position

throughout the company. A humble team player who will volunteer to take out the trash fits well with the company's culture and work ethic. The typical mode of operation is to hire great people, explain to them how their job fits in the bigger picture, and then get out of their way. Letting each and every person use their talents each and every day is far superior to a command-and-control approach. In addition, the most important roles are those directly delivering success to customers, typically workforce employees and their direct supervisors. Everyone in management, and on the Board of Directors, is in a support role, creating the ideal environment and conditions for our employees to deliver consistent customer success.

NACCO is now over 110 years old, and coal mining continues to be at the very core of the company's business model. The skills and capabilities developed and refined in the company's coal mining operations continue to fuel a significant part of the company's growth and diversification activities. The newer businesses – mining industrial minerals, owning oil and natural gas reserves, providing environmental mitigation and reclamation services, and developing alternative sources of power generation – are born of the decades of people and hard work that came before any of these businesses were imagined.

It is clear that the company faces risks, some political and regulatory in nature and others related to startup entrepreneurial risk. To offset these risks, the company maintains what it calls a bullet-proof balance sheet, with a small amount of debt and a large cash reserve. A bullet-proof balance sheet allows risks to be taken without worry that they will jeopardize the survival of the company. Any risks taken are measured risks, with careful study of what unknowns might appear.

So, what comes next for NACCO? Additional strategy meetings have put the company on course to achieve real growth and diversification in its mix of businesses, while protecting its core coal mining business. At 110 years old, the company has become incredibly entrepreneurial, incredibly fast. Employees routinely dissect industry models to discover new opportunities to leverage the company's unique set of skills and capabilities to establish new businesses. With the nation focused on rebuilding its industrial base through significant infrastructure and other spending, electricity is in short supply and domestically produced critical minerals are in high demand. Opportunities abound. Coal, industrial minerals, oil and natural gas, environmental solutions and a growing need for power generation provide the framework on which the next generation of businesses will be built, each with a focus on driving customer success. The businesses in place today are well positioned to make NACCO a highly diversified and successful company over the next decade, and longer.

Yet, that is not enough. More opportunities to create new businesses and pursue success will be discovered and pursued. The next chapter of this great story is yet to be written.

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Source Notes

Biographical information about Frank E. Taplin Sr. and his family has primarily been drawn from Frank E. Taplin Jr.'s biography of his mother, *A Spirit on the Wing: Edith Smith Taplin 1883–1963* (West Brattleboro, VT: Old Farm Press, 1997). Unless otherwise noted, the biography is also the source of direct quotes of Taplin family statements. Only information derived from other sources is cited below. When it is the source of information about subjects other than the Taplin family, the biography is cited in the source notes as: *Spirit*.

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Abbreviations used in citations of specific corporate records of The North American Coal Corporation or NACCO Industries:

AM	Minutes of annual shareholders meetings
AR	Annual report
BA	Agenda of board of directors meetings
BM	Minutes of board of directors meetings
CON	*Conveyor* magazine
FS	*Falkirk Sun* employee newsletter
MB	Minute books
SM	Minutes of staff meetings
WS	*Western Sun* employee newsletter

Citations of correspondence indicate the name of the writer, the recipient and the date. All correspondence cited is from the corporate records of The North American Coal Corporation or NACCO Industries or from the private papers of Alfred M. Rankin Sr., Clara Taplin Rankin, Frank E. Taplin Jr. or Thomas E. Taplin.

Abbreviations of correspondents' names:

APK	A. P. King
ARS	Alfred M. Rankin Sr.
ARJ	Alfred M. Rankin Jr.
ESK	E. S. Kendrick
FTS	Frank E. Taplin Sr.
FTJ	Frank E. Taplin Jr.
HGS	Henry G. Schmidt
JLL	John L. Lewis

Other abbreviations used in the source notes:

BDL	*Bellaire* (OH) *Daily Leader*
CP	*Cleveland* (OH) *Press*
NYT	*New York Times*
PD	*Plain Dealer* (Cleveland, OH)
PFP	Private family papers

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