

## The Historic & Cultural Importance of the HAWKS NEST TUNNEL DISASTER

By Howard W. Spencer

**The Hawks Nest Tunnel disaster has been called one of the worst industrial disasters in U.S. history. In 1977, when I first viewed the Gauley River Dam and tunnel entrance from the overlook in Hawks Nest State Park, I distinctly remember the ethereal voice that beckoned me to not forget those who died digging this tunnel.**

**The disaster was created** by ethnological prejudice and employer indifference to workers dying. This article describes the historical events surrounding this disaster and its cultural significance today.

The Hawks Nest Tunnel was part of a hydroelectric project undertaken by Union Carbide near Gauley Bridge, WV. Beginning in 1927, nearly 3,000 men, three-fourths of whom were Black, endured prolonged exposure to silica dust—without respiratory protection—while mining sandstone. Many of these workers developed silicosis and eventually died from the disease. Although the exact number of deaths caused by the disaster is unknown, some sources say more than 1,000 workers died.

Gauley Bridge is a small town in Fayette County (population 72,050 in 1930) in the center of the state. During the Great Depression, people were desperate for work of any kind. The unemployment rate in most West Virginia counties was 30% to 40%, well above the national average (Lancianese, 2019). In 1929 the male population of Fayette County was 80% White.

Despite these statistics, most tunnel laborers were nonlocal Black immigrants from the south, where the typical agricultural wage rate was \$0.15 to \$0.30 per hour. When word spread of “good-paying jobs” in West Virginia, hundreds of Black migrants traveled north to the coal fields. But when they arrived, they found that these jobs were not mining coal. Instead, workers were needed to drill a tunnel. With extremely limited alternatives, laborers were forced to work at this job or face starvation.

### Project Background

With the emergence of innovative technology in the 1920s and 1930s, a new industrial powerhouse emerged: Union Carbide and Carbon Corp. (later shortened to Union Carbide), which resulted from the merger of

five companies that shared a need for carbon and calcium carbide in their products. Union Carbide acquired large tracts of land on either side of the river for a distance of 10 miles along the Kanawha River in South Charleston in 1925 (Hunter, 2013).

On Jan. 7, 1927, Union Carbide created the New Kanawha Power Co., a wholly owned subsidiary. Owen Jones was New Kanawha Power’s chief engineer, heading up the team that developed the plans for the Hawks Nest development. Jones had spent 7 years designing the Hawks Nest (Hunter, 2013). The West Virginia Public Service Commission granted a permit to New Kanawha Power in 1929 as a quasi-public utility.

### The Project

The 16,240-ft-long tunnel served to divert water from the New River through Gauley Mountain, a drop of 162 ft. Its sole purpose was to provide electricity only to the Electro Metallurgical Co., another Union Carbide subsidiary. Since the drilling of the tunnel was defined as a construction project and not technically mining, the workers were deprived of any protective provisions for underground mining.

Union Carbide received 35 bids and awarded a 2-year contract to Rinehart and Dennis, one of the few construction companies able to manage such a large project. During the bid process, Rinehart and Dennis reported having built 51 tunnels in the past 35 years. Engineers from New Kanawha Power were to design and oversee the operation.

The contract specified that Rinehart and Dennis would assume all liability, thus Union Carbide was shielded. The contract included a clause that allowed engineers for New Kanawha Power to force changes in the contractor’s procedures if injuries were caused by “negligence on the part of the contractor.” But

New Kanawha Power never intervened. The contract also called for Rinehart and Dennis to furnish and equip an on-site hospital. But only four first-aid stations were provided, one at each dig. Workers sustaining major injuries were transported to Coal Valley Hospital 14 miles away.

### The Location

Upstream, the New River is more than 1,000-ft wide, but it narrows to less than 100 ft as it descends to Gauley Bridge. The project consisted of the dam, intake and tunnel, surge basin, powerhouse, 10 miles of rail line, transmission lines, and the 243-acre impoundment behind the dam. The diverted water flow (10,800 cubic ft per second) was directed westward into four penstocks at 65 psi. The flow then went over four Westinghouse 30,000 kVA waterwheel turbine generators. The power they generated (140,000 HP) was then carried over 6 miles of cables strung on 23 towers. Power was ultimately delivered exclusively to the Union Carbide metals plant at Boncar, WV (which later became Alloy, WV).

A new technique was employed to construct the tunnel. Instead of drilling completely from one side, a four-shaft method was used (headings indicated by red arrows in Figure 1). A ravine in the middle allowed drilling to proceed on four shafts simultaneously. Rinehart and Dennis broke through shafts 1 and 2 on Aug. 6, 1931, and were off by less than 1 in. Shafts 3 and 4 converged on Sept. 19, 1931, completing the tunnel 10 weeks ahead of schedule. More than 507,336 cubic yards of material were removed.

### Construction Process

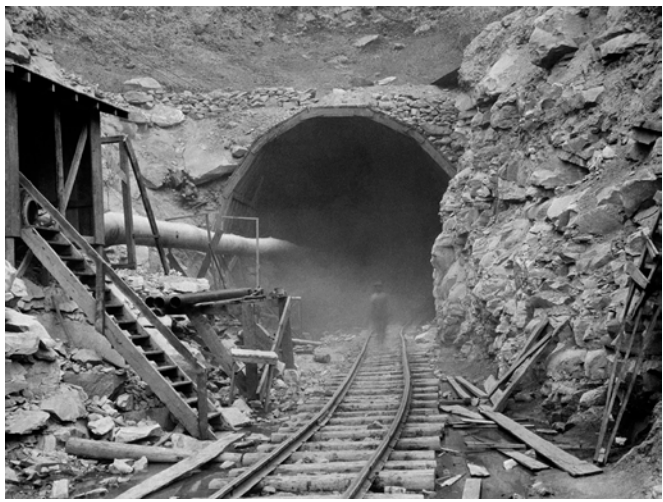
Beginning in 1927, Rinehart and Dennis began construction of the dam and later the tunnel carrying the river under Gauley Mountain. Construction of the tunnel began March 31, 1930, 18 days after the contract award. Workers moved forward from 250 to 300 ft per week.

The original plan called for the finished tunnel to be 32 to 36 ft in diameter. When high-grade silica (99.44% pure) was discovered, Union Carbide widened the unlined dig at Heading One to 46 ft in diameter, for 5,052 ft, to capture more silica,

### Vantage Point

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ELKEM METALS COLLECTION/WEST VIRGINIA STATE ARCHIVES



**Photo 1:** Under pressure from the West Virginia Department of Mines, Rinehart and Dennis eventually installed a ventilation duct, a 24-in. diameter canvas tube with an 18-in. fan, which the company reported supplied 7,000 CFM.

which was used in its smelting operation at Boncar, WV. For comparison, bituminous coal has between 2% and 3% silica. The tunneling project delivered 300,000 tons of valuable silica ore in 175 rail cars per day and was transported from the tunnel to the site at Boncar, WV.

The contract for the tunnel had built-in incentives and penalties regarding meeting the 2-year target date. Rinehart and Dennis would pay \$250 for each day it exceeded the target, and likewise, New Kanawha Power would pay the contractor \$250 for every day it beat the target.

Because the Hawks Nest Tunnel was licensed as a civil engineering project, the project was exempt from the mining safety rules. The West Virginia Department of Mines eventually pushed Rinehart and Dennis to install a ventilation duct. The company installed a 24-in. diameter canvas tube with an 18-in. fan, which the company reported supplied 7,000 CFM (Photo 1).

It was widely acknowledged that this small tube was ineffective because of holes caused by falling rocks. It was also exceptionally long, stretching from outside the tunnel nearly to the advancing face. Rinehart and Dennis also claimed that the approximately 20 air drills each provided an additional 150 CFM of air to the workers. Masks were sup-

plied only to inspectors and company men inside the tunnel, not to the workers.

The workers used a benched process in all four shafts. Four crews using wet drills would bore horizontally into the open face. Black workers were assigned to carry steel to the drillers and haul the debris (mucking) from the tunnel, which was the dirtiest and deadliest work. The horizontal drills needed water to remove the debris. Simultaneously, 16 crews would dry drill vertically 12 to 20 ft deep into the bench. The crew drilling horizontally on the bench was always 10 ft ahead of the workers drilling vertically. Dry drilling was much faster than wet drilling; four dry holes could be jack-hammered in the time it took to wet drill one hole (Stalnaker, 2006). Workers drilled holes, then stacked dynamite to blast through the sandstone.

One shift of workers would drill the holes, and they would clear out. A break between shifts was alleged to be 2 hours to allow the dust to settle, however, in as few as 30 minutes, supervisors often sent the next shift 300 to 400 ft down the tunnel into the swirling dust cloud with visibility restricted to 3 to 5 ft.

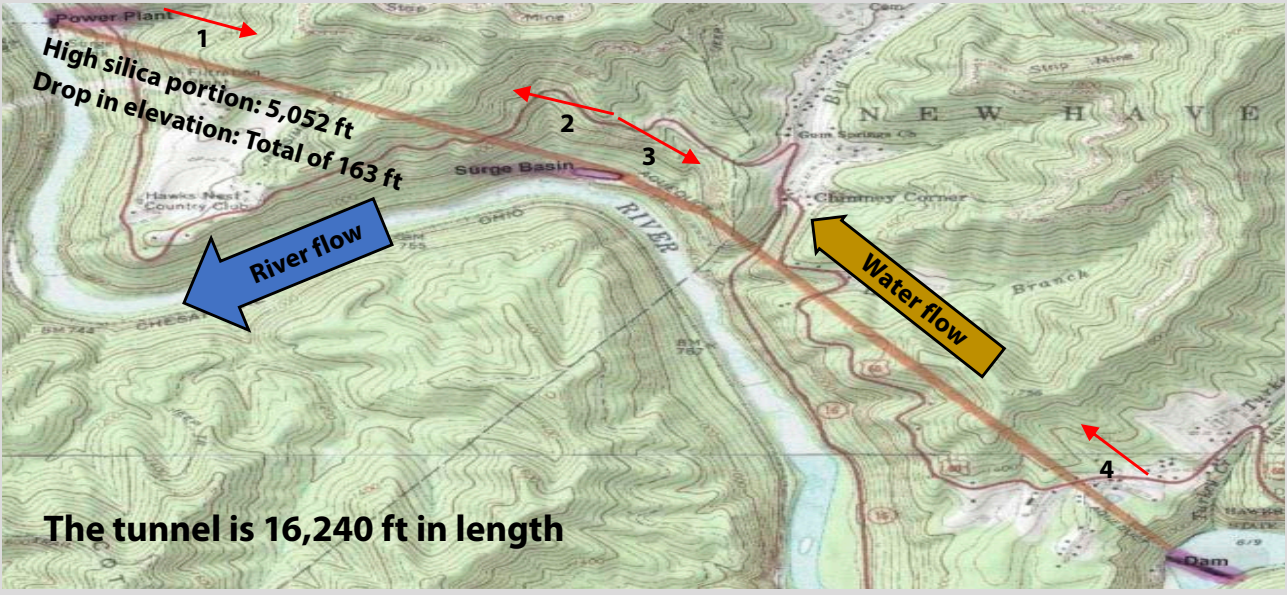
Tunneling work ceased in September 1931 and the entire project was completed in 1934. New Kanawha Power dissolved as soon as the tunnel was completed late in 1934.

**Erroneous Reporting of Accident Data**

Information published about accidents was erroneous and created confusion. The Engineering News-Record reported that in the 36 months of the project 65 fatalities occurred. Accidents accounted for 15 fatalities, manslaughter from fights accounted

**FIGURE 1  
HAWKS NEST TUNNEL DESIGN & CONSTRUCTION**

The Hawks Nest Tunnel is considered an engineering marvel. The design is an example of industrial architectural aesthetic drawing from various architectural movements, from pure functionality to Colonial Revival, adding a distractive architectural character to the fundamentally industrial project. A new technique was employed to construct the tunnel. Instead of drilling completely from one side, a four-shaft method was used (headings indicated by red arrows on the map below). A ravine in the middle allowed drilling to proceed on four shafts simultaneously.



for two, pneumonia for 35, tuberculosis for three, heart trouble for four, typhoid for one, and five were identified as “not otherwise classified.” Eleven of the fatalities were reported as resulting from work in the tunnel. Five men died later while pressure testing one of the four 14-ft diameter 40-ft-long penstocks when it fractured on Nov. 8, 1934.

Numbers from Rinehart and Dennis differ; in 1932 the company reported that 35 (32 Black, three White) workers died from pneumonia, three Black workers died from tuberculosis, four Black workers died from heart disease, and one Black worker died from typhoid.

According to later congressional testimony, approximately 300 people died from silicosis. Crandall and Crandall (2002) state that an additional 1,500 workers had diagnosed silicosis.

## Worker Health Exposures

Rinehart and Dennis claimed to not know the hazards of silica, yet history indicates otherwise. Silicosis is considered the oldest occupational disease (see the “About Silicosis” sidebar). Bernardino Ramazzani, regarded as the father of occupational medicine, identified evidence of silicosis in 1700. He performed autopsies of stone workers and noticed a “sand-like” substance in their lungs.

In the early 1900s, Alice Hamilton found silicosis in granite workers in Vermont. In 1900, William Winthrop Betts of Salt Lake City, UT, published one of the first national reports describing the scourge of acute silicosis that sickened and killed workers months after exposure in various hard rock (silica) mining operations.

Wet drilling, a process in which fluids are used to help control airborne debris, was introduced in England in 1897. By 1911, 20 years before work started on the Hawks Nest Tunnel, the connection between airborne silica and death by silicosis had been established well enough to cause South Africa to compel gold mines to use water to suppress dust when drilling. A local doctor, Leroy Harless, conducted 12 autopsies on victims and realized that the scarring in the lungs was killing the laborers (Cherniack, 1986).

Yet, doctors who worked for Union Carbide lied to the workers and gave them useless pills, called “little black devils” (tablets of baking soda coated with raw sugar). The company doctors told workers that they had pneumonia, tuberculosis or “tunnelitis” (Lancianese, 2019) and incorrectly listed their cause of death on their death certificates. Rinehart and Dennis later used these incorrect death certifi-

cates to claim that there were few, if any, silicosis deaths at the tunnel.

At Hawks Nest, the combination of large work crews drilling and blasting underground, lack of dust suppression, exhaust from gasoline-fueled engines (dinkeys), inadequate ventilation, and no personal respiratory equipment were all significant contributory factors to elevated levels of exposure. There were also no end-of-shift shower facilities, so workers carried contamination back to their shacks. Nowhere in the record can any mention be found of privies or washing facilities. One can only imagine the personal hygiene issues created by the lack of sanitary facilities.

After reports of the deaths of Black workers reached Robert Lambie, director of the West Virginia Department of Mines, he inspected the tunnel and wrote a letter to New Kanawha Power warning of the hazards of silicosis and ordering respirators to be given to the laborers. However, workers received neither respirators nor warnings, which the law also required to be posted. Lambie later changed his testimony to state that he relied on misinformation from subordinates, not on personal inspection.

Employment totals differ among sources, but there is agreement that 1,700 White men and 3,100 Black men (two-thirds of the entire workforce) were employed on the total project. Only 738 White men ever worked underground. Workers reported that 12 to 16 workers were carried out during each shift after collapsing from carbon monoxide poisoning from the dinkey engine exhaust. Almost all the supervisors and operators of heavy equipment (68 men) were White. Workers labored in shifts of 10 or 15 hours. By 1934 more than 40 of the supervisors also had silicosis.

Underground workers began dying 2 months after they first entered the tunnel. Rinehart and Dennis decided the most cost-effective way to handle the crisis was not to acknowledge the dangers, stop work and provide safer conditions, but to deny the reality of the situation, keep hiring a steady stream of new workers and complete the tunnel as quickly as possible.

Many of the construction workers who were too weak to keep working were kicked out of company housing and stayed on to die in Gauley Bridge, earning the town its grim epithet “town of the living dead” (Steichen, 1986).

Significantly, for reasons discussed later, only 40% of the underground workforce worked more than 2 months and only 20% more than 6 months. Only 2% worked from the beginning of the project to its completion.

## Testing for Air Contaminants

Union Carbide had taken core samples along the course of the proposed tunnel before construction began, and knew the rock was extremely high in silica. Despite the generally well-understood relationship between exposure to airborne silica and death by silicosis, neither Union Carbide, New Kanawha Power, nor Rinehart and Dennis ever measured dust levels in the tunnel. Rinehart and Dennis only conducted two tests for carbon monoxide during the 17-month duration of the dig.

A proven technology existed to measure clouds of dust. The Impinger was developed in 1916 by the U.S. Public Health Service. Impingers, also known as bubblers, are small bottles used with an air pump to collect airborne contaminants into designated collection liquids for later laboratory analysis. Impingers were extensively used by the U.S. Bureau of Mines.

## Housing at the Labor Camps

The workers primarily lived in three camps constructed by the contractor. Camp 1 housed 250 to 275 workers constructing the powerhouse and Heading 1. The Black workers were in a segregated portion of Camp 1. Camp 2 housed 150 workers on Shafts 2 and 3. Camp 3 was designated for White workers only and housed 350 who worked on the dam and Heading 4. The commissary was located at Camp 3.

The workers were housed in small side-gable 12 x 14 ft wooden frame shacks. These were three building units wide, one room deep, and one story in height, resting on stone piers and covered with a low-pitched roof and tarpaper-wrapped sides and without windows.

Shacks occupied by White workers were wired for electricity, a single naked bulb hanging from the unfinished ceiling, and housed four men. Black workers’ shacks did not have electricity but had two levels of two-person wide bunks with as many as eight to 15 men in a room. Imagine the stench of body odor in such cramped quarters. All the shacks were provided empty, so occupants had to buy bed linens, coal and, if wanted, a stove, from the company commissary. To drive out any remaining workers, the shacks were burned down at the end of the project.

Black workers faced armed “shack rousters” who policed the camps and work site for the contractor. One infamous rouster named Delbert McCloud had two pistols and a blackjack. McCloud ran an illegal supply of “moonshine” (high-proof liquor). He also sponsored and profited from his “sanctioned” gambling operations (Skidmore, 2004).

## ABOUT SILICOSIS

### Payroll System

About 5,000 men worked underground in two shifts, working 60 hours a week and off on Sunday. In the beginning, workers were paid \$0.50/hour, which was lowered to \$0.40 and later to \$0.30. White workers earned \$0.05 more per hour and were paid in cash. For comparison, workers who had a job in the nearby coal mines earned about \$1.80 a day but \$0.80 was withheld for rent.

Black workers were paid in “scrip” of \$3 at the end of each shift, which could only be “cashed” at the company’s commissary for a 10% charge (Wills, 2020). The commissary did not offer any credit system, so often workers and their family’s survival required that they cash their pay daily rather than wait until Saturday when there was no surcharge. Black workers paid \$0.75 per week for the use of a company doctor and local hospital, while White workers paid just \$0.50. These charges were deducted from the workers’ pay or when cashing the scrip. All workers paid \$0.25 per week for coal whether they used it or not.

### Workers’ Compensation Laws

The industrial age initiated an increase in work injuries. Wisconsin was the first state in America to pass a workers’ compensation law in 1911. The workers’ compensation laws removed a worker’s right to sue in return for quick, reliable benefits. Unlike an injury caused by trauma, an occupational disease can be more difficult to prove. An occupational disease is associated as more prevalent in one group of workers than in other worker populations.

Coverage for diseases varies between states. One system used is the list system. This system covers only a particular number of diseases and has the advantage of listing diseases for which there is a presumption that they are of occupational origin. By the end of 1937, 46 states had passed workers’ compensation laws relevant to silicosis.

The West Virginia workers’ compensation law originally did not list silicosis as an occupational disease. When it was upgraded in 1935 to include silicosis, it had a unique statute of limitations. West Virginia Senator Rush Dew Holt cited it during the Congressional hearings in January 1936. “This article provides that if a worker has worked for 2 years in the same employment, if he presents his claim within 1 year after leaving his job, if he has given his life’s history in all detail to the employer, and if he has never broken any safety rules, he may recover \$500, perhaps \$1,000, but no more though he should later be dying of silicosis” (House of Representatives

**Silicosis is an interstitial lung disease caused by inhaling pulverized silica, a mineral found in many types of rock. Throughout history, it has had names such as miner’s phtthisis (tī’sis), grinder’s asthma and potter’s rot. There are three types:**

- Acute:** Symptoms appear a few weeks to 2 years after large exposures to silica.
- Chronic:** Problems may not manifest until decades after exposure to low or moderate amounts of silica. It is the most common type of silicosis. Symptoms may be mild at first and slowly worsen.
- Accelerated:** Signs will be noticed about 5 to 10 years after heavy exposure to silica. They will worsen quickly.

**Exposure to silica fragments over time can cause permanent lung scarring, called pulmonary fibrosis. When silica dust gets in the lungs, it causes inflammation and difficulty breathing. Cigarette smoking adds to the lung damage caused by silicosis. Complications from silicosis can include tuberculosis, lung cancer, chronic bronchitis, autoimmune disorders and kidney disease.**

**There is no cure for silicosis. Treatment is available, and employers and workers can take steps to prevent it.**

Committee on Labor, 1936). This provision alone effectively blocked most claimants.

Between 1936 and 1940, only 79 West Virginia workers received compensation for silicosis. Rinehart and Dennis claimed to have paid \$166,000 into the West Virginia Compensation Fund even before silicosis disease was compensable. The small number of claims along with other actions by the industry to limit the visibility of silicosis enabled the disease to fade from the public eye in the 1940s and 1950s.

### Regulatory Oversight

Concern over the waste of both human and natural resources was reflected in President Theodore Roosevelt’s recommendation in 1907 to establish a U.S. Bureau of Mines (Lancianese, 2019). It was established in 1910, prompted by 3,243 coal mine deaths in 1907.

The initial mission of the U.S. Bureau of Mines was to deliver information on blasting materials and procedures to the mining industry that companies could use to safely work in the presence of flammable mine gases and dust. As originally established, the agency had no power of enforcement but rather was primarily educational. Its principal vehicle of enforcement was shaming. In 1926, the U.S. Bureau of Mines published recommendations for specific Type A respirators to protect against mechanically generated pneumoconiosis-producing dusts. This was 5 years before Hawks Nest.

### Death Counts

As the congressional subcommittee investigating the disaster noted, silicosis was not a new and unfamiliar disease; it was “well known to the medical profession and all properly qualified civil engineers.” The count of the number of workers who died varies because Union Carbide destroyed or hid the historical record and because the tunnel workers were dismissed at the end of 1931 and scattered throughout the South. The Hawks Nest Tunnel was constructed before Social Security was enacted,

which now helps track employment. Many workers become sick later (silicosis is primarily a chronic disease), so their deaths outside West Virginia rarely became a part of the official numbers.

As noted, the first semi-official death count stated that approximately 300 people died from silicosis and that an additional 1,500 workers had diagnosed silicosis. Most known deaths were from acute silicosis.

Martin Cherniack (1986), an epidemiologist who wrote a book about the tunnel, estimated the number of deaths to be at least 764 workers, representing a 20% mortality rate, four times the average rate for Fayette County. A NIOSH review in 2002 raised the estimate to 1,000 deaths, (Stalnaker, 2006).

The tunnel project was scheduled for completion in 2 years but digging was completed in just 18 months. Of the approximately 1,213 employees who worked at least 2 months digging the Hawks Nest Tunnel, 764 (63%) died within 7 years of silicosis.

### Burials

Black workers who died were not buried in local cemeteries designated as “Whites only.” At first, the recently deceased were unceremoniously dumped in the riverbed and covered with tunnel rock. Records show that the remains of only 10 Black men were shipped to homes in North Carolina and Tennessee.

Then, Rinehart and Dennis surreptitiously hired a local undertaker, Hadley White, paying him \$55 for each body he buried (Steichen, 1986). When the undertaker ran out of room in an old slave cemetery behind a local church, he hauled the bodies 40 miles to Summersville, WV. Witnesses described the transport as “stacked like cordwood” in an open stake body truck. The men were buried in the clothes they died in. Bodies were dumped into the graves, each in a canvas bag and mostly without coffins on the same day, often within hours of death. There were no grave markers, and no attempt was made to notify victims’ families. The congressional report said 169 men were

buried in Summersville “with cornstalks as their only gravestones.” Each of the graves was said to contain more than one body. Death certificates were rarely submitted, and the cause of death was often not accurate on the ones that were submitted.

In 1972, Martha White’s (Hadley’s mother) farm was excavated to make way for the expansion of West Virginia State Road 19, and the bodies of the workers were discovered where there were indentations in the earth. The bodies were exhumed by a contractor and moved to a new field, called Whippoorwill (Lancianese, 2019).

Whippoorwill was forgotten for more than 40 years and was used as a dumping ground for old appliances and roadkill until Charlotte Yeager, a local newspaper publisher, found and restored the cemetery, locating each grave with radar equipment. On Sept. 7, 2012, the known names of the buried were read and the ground was consecrated in a service performed by three ministers.

## Litigation

Cora Jones was the first to file suit in circuit court in 1932 against Rinehart and Dennis after she lost her husband, brother and three sons as a result of their work in the tunnel. About 300 survivors and relatives of those who died filed lawsuits. Eventually, there would be 538 lawsuits filed against Rinehart and Dennis and New Kanawha Power requesting \$4 million in damages.

The largest trial ended, after 20 hours of deliberation, on April 20, 1933, with a hung jury. At 41 days, it was the longest trial in Fayette County history. The jury had heard 169 witnesses. In the end, the out-of-court settlement was a modest \$130,000, and the lawyers received their 50% contingency.

Rinehart and Dennis vice president E.J. Perkins paid \$20,000 to the plaintiffs’ attorneys personally so they would not file any more cases. Out of the 538 lawsuits filed, only two highlighted Union Carbide’s involvement.

## Settlements

The settlement awards were not based on the severity of illness but rather on ethnicity and marital status. Judge J.W. Eary heard the consolidated cases and determined that survivors of an unmarried Black man would receive \$400 and those of a married Black man \$600. While survivors of an unmarried White man received \$800 and those of a married White man \$1,000. For comparison, \$100 in 1930 was equivalent in purchasing power to about \$1,669 today.

During this process, there is considerable evidence that the contractor worked to bribe witnesses and tamper with juries. However,

accuracy is difficult because Rinehart and Dennis and New Kanawha Power reportedly destroyed some of the medical records, including any information about the afflicted workers. The total dollar amount of damages represented just over 1% of the project cost. Rinehart and Dennis did not admit wrongdoing, but its owners quietly dissolved the firm 3 years later.

## Relief for Widows & Orphans

After the meager death settlements, widows were often compelled to petition for relief. Those who were successful were granted a payment of \$2 per week by the state. Because there was no rural mail delivery, outgoing mail was sent by train to the nearest post office and widows were forced to walk or hitchhike in some cases 18 miles each Friday to collect their checks from the nearest state office.

## Press Coverage

West Virginia’s newspapers took little notice of the dying workers and the construction project itself. When workers started getting sick, local newspapers published deliberately racist articles, attributing their lung problems to poor nutrition, late nights gambling and drinking, and an unusual susceptibility of Blacks to pneumonia. Government officials, newspapers and others conspired to keep this story from the public knowing that soon the witnesses would all be dispersed or dead.

On May 20, 1931, The Fayette Tribune broke the story about the sick and dying tunnel workers, and the inhumane and unsafe working conditions. The newspaper tried to dig deeper into why so many workers were ill and dying but claimed it could not verify facts at the construction site. “Rumors of various conditions known to exist at the tunnel and dam project are discussed by residents,” but little firsthand information could be obtained because of a gag order issued by a judge.

## Getting the Story Out

For Americans outside of West Virginia, on Jan. 25, 1936, a *Newsweek* article was the first they heard of the tunnel deaths that took place years before. News of this ruthless disregard for the lives of workers came to the editors of the radical newspaper *People’s Press*, which was influential in fostering the congressional investigation (American Social History Productions, n.d.).

In the 1980s, a cache of documents that had been covertly gathered and stored in a room in the bowels of the powerhouse was discovered and copies were given to a nearby museum.

## The Book of the Dead

After a visit to Hawks Nest, Muriel Rukeyser authored a book of poems in 1938 called *The Book of the Dead* about miners in West Virginia who sued their employer for the deadly conditions they worked in. Here is a meaningful quote: “the Black workers literally turned white, inside, and out, by the fine crystal dust until it kills them, slashing their lungs like tiny pieces of glass. Seeking to increase profit, the White managers of Rinehart and Dennis have not provided any protection to the Black workers, not even face masks.”

*The Book of the Dead* contains seven pages of a simple table of raw data listing the names, ages, races and burial places of the dead, perhaps the best accounting available at the time (Lancianese, 2019). A partial list of the names of the dead can be found at <https://hawksnestnames.org/names>.

## Congressional Investigation

On Jan. 16, 1936, the U.S. House of Representatives Committee on Labor convened a hearing on the Hawks Nest Tunnel disaster. Management representatives from the tunnel companies declined to attend. Rinehart and Dennis submitted a letter stating that witness testimony was “slandering rumors and hearsay.” During the hearings, it came to light that a representative of Rinehart and Dennis was overheard as having said, “I knew they was going to kill these [racial slur] . . . but I didn’t know they was going to kill them so quick” (House of Representatives Committee on Labor, 1936).

Following is an excerpt from the summary statement of the committee’s findings:

That the whole driving of the tunnel was begun, continued, and completed with grave and inhumane disregard of all consideration for the health, lives, and future of the employees. That as a result many workmen became infected with silicosis; that many have died of the disease and many not yet dead are doomed to die from the ravages of the disease as a result of their employment and the negligence of the employing contractor. (House of Representatives Committee on Labor, 1936)

Union Carbide produced an indexed response to the House Labor Committee’s 10-day hearing on Hawks Nest in January 1936 defending against the claims made by victims and witnesses (Union Carbide and Carbon Corp., 1936). The response was later refuted by Cherniack (1986).

Despite the clear proof of negligence, no action was taken against the tunnel companies. Congress passed a law that year demanding the use of respirators in dusty conditions.

## Historical Markers

In 1986, 55 years after the incident, West Virginia finally agreed to place a marker at the site, a 3-ft square sign with a mere 11 lines of text dedicated to the memory of the men who died there.

In August 2009, an additional memorial to the Hawks Nest Tunnel victims who were buried in Summersville, WV, was placed. The inscription reads “This memorial honors an estimated 764 tunnel workers who died from mining a 3.8-mile tunnel through Gauley Mountain to divert water from the New River to a hydroelectric plant near Gauley Bridge in 1930-31. The tunnel cut through almost pure silica in some areas and exposed the unprotected workers to silica dust that quickly caused acute silicosis, a fatal lung disease.”

## The Tunnel Today

This Depression-era project remains an engineering marvel. It still generates 107 megawatts of electricity like it did in the 1930s. The property was to revert ownership to the state in the 1980s. However, in 1991 West Virginia exchanged it for land that was not worth the acknowledged \$11.2 million value of the Hawks Nest complex. But as a West Virginia historian, Chuck Keeney, says, “Nobody gets punished for Hawk’s Nest. Nobody goes to jail. And nobody even knows about it” (Ajohnstone, 2015).

The relentless destruction of records coupled with a campaign to silence workers in the 1930s has prevented meaningful scholarship on this disaster. Catherine Moore, a West Virginia author, sums up the history in this poignant quote from her introduction to the reprint of *The Book of the Dead*: “Collective trauma like this never really goes away, but the process of recovering is so much slower if we continue to deny its full truth” (Rukeyser, 2018).

## Conclusion

On Feb. 26, 1936, President Franklin Roosevelt heard the blues song “Silicosis is Killin’ Me” by Josh White. Later, in 1936, he helped pass the Walsh-Healey Act, a forerunner of OSHA, which required companies working for the government to maintain safe and healthful working conditions. Frances Perkins, Roosevelt’s labor secretary, declared “war” on silicosis in 1936 in response to the Hawks Nest disaster. After a 40-year strug-

gle, the Obama administration issued an updated silicosis standard on Oct. 25, 2017. The new limit is significantly lower than that set in 1971 at the formation of OSHA.

Ethnological prejudice and employer indifference still exist today, perhaps to a less blatant extent. As OSH professionals, we must continue to resist such bias in every instance.

Perhaps there are emerging occupational diseases that are not yet covered by law or hazards for which insufficient controls exist. The technology of PPE is also progressing rapidly, providing improved protection against historical hazards such as silica. At present, about 2 million construction workers are exposed to respirable crystalline silica in more than 600,000 workplaces.

Hawks Nest is an extreme in a class of extremes—the disaster where truly nothing seemed to survive, not even in memory. We live in a six-degrees-of-separation world. The six-degree separation theory holds that upon a keen evaluation, all people and events are closely related. Recognizing the way blues music impacted OSH history is one example. In the closing pages of her book on the Hawks Nest Tunnel, Patricia Spangler (2008) writes, “It is not a lack of knowledge that perpetuates occupational problems but a lack of commitment to change on the part of those with the power to do so.” How are you related to or affected by this travesty? **PSJ**

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