

UNPUBLISHED

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF VIRGINIA
BIG STONE GAP DIVISION**

ROBERT KEVIN FLEMING, ET AL.,)

Plaintiffs,)

v.)

UNITED STATES OF AMERICA,)

Defendant.)

Case No. 2:98CV00215(Lead)

OPINION

By: James P. Jones
United States District Judge

Counsel: Lori D. Thompson, Gentry Locke Rakes & Moore, Roanoke, Virginia, Leisa K. Ciaffone, Roanoke, Virginia, Thomas R. Scott, Jr., The Street Firm, Grundy, Virginia, for Plaintiffs; Robin D. Smith, Stephen L. Cohen, U.S. Department of Justice, Washington, D.C., for Defendant.

Decided: April 25, 2001

At approximately 6:15 a.m. on December 7, 1992, an explosion occurred within the Southmountain Coal Company's No. 3 Mine in Wise County, Virginia, killing six miners and seriously injuring one. The force of the explosion in the underground mine was so great that buildings, equipment, and vehicles as far as 150 feet away from the entrance of the mine were damaged in the blast.

Six years later, on December 7, 1998, suits were brought in this court on behalf of the six deceased miners, Palmer Sturgill, Claude Sturgill, Mikell Mullins, David

Carlton, Norman Vanover, and Brian Owens, and Robert Kevin Fleming, the injured miner, against the United States pursuant to the Federal Tort Claims Act (“FTCA”), 28 U.S.C.A. §§ 2671-2680 (West 1994 & Supp.2000), claiming that the negligent enforcement of the Mine Safety and Health Act by the Mine Safety and Health Administration (“MSHA”) caused the explosion. Jurisdiction of this court exists pursuant to 28 U.S.C.A. § 1346(b)(1) (West 1993 & Supp. 2000)

A bench trial was held on December 4, 5, 6 and 8, 2000.¹ Thereafter the parties briefed the issues, and the cases are now ripe for decision. As hereafter explained, and after careful consideration of the voluminous evidence, I find that any regulatory lapses by MSHA did not cause this tragic accident. Instead, the explosion was caused by the mine operator’s failures to adequately ventilate the mine and to strictly enforce the prohibition against smoking underground.

I

As required by Federal Rule of Civil Procedure 52(a), the following constitute my findings of fact and conclusions of law.

A

¹ The seven separate cases, numbered 2:9800CV00215, 2:98CV00216, 2:98CV00217, 2:98CV00218, 2:98CV00219, 2:98CV00220, and 2:98CV00221, were consolidated for trial.

1. As an initial matter, I find credible and accept the testimony of Clete Stephan, principal mining engineer in MSHA's ventilation division, who testified that three factors caused the explosion at Southmountain Coal Company's No. 3 Mine: (1) the accumulation of methane gas in the mine; (2) inadequate air flow through the ventilation or "bleeder" system due to a roof fall in the mine; and (3) the prohibited use of a cigarette lighter in the mine.

2. The remaining factual determination to be made is whether MSHA contributed to the explosion by: (1) failing to cite the mine operator for mining coal pillars ("bleeder blocks") near the work area; (2) failing to cite the mine for not conducting weekly examinations of the bleeder system; (3) not citing the mine for failing to record specific methane readings in the mine; (4) failing to conduct dust surveys to test combustibility levels; and (5) not arriving for inspections in a timely manner, all as alleged by the plaintiffs. Each of these issues will be addressed in turn, together with a determination of the proximate cause of the explosion.

COMPLIANCE WITH VENTILATION AND ROOF CONTROL PLANS.

3. Bleeder blocks are unmined sections of coal that serve both as support for the roof of a mine as well as a component in a mine's ventilation plan, due to the way in which their placement affects the flow of air. Pursuant to regulations at that time,

revisions to roof control and ventilation plans, including the removal of bleeder blocks, were required to be authorized by MSHA's district manager.²

4. Inspector Raymond Rogers of MSHA, who conducted the final quarterly inspection of the mine prior to the explosion, testified at trial that a bleeder block located between "one right" and "second right," (Tr. I at 91-92), two areas from which coal was being extracted within the mine, had been partially mined. When asked why he did not issue a citation for this violation of the ventilation plan, Rogers' explanation was two-fold. First, he stated that his interpretation of the ventilation plan led him to believe that the bleeder block in question was to be removed.³ This was because the mine had originally intended to connect one right and second right, thus turning two small "gobs" into a larger one.⁴

5. Perhaps more importantly, as explained by Rogers, the removal of the bleeder block resulted in an improvement in air flow through the mine, regardless of the intent of the mine operator to connect the two gobs. Rather than forcing it around the

² See 30 C.F.R. §§ 75.220(a)(2), 75.370(a)(2) (1992).

³ Rogers never stated that the mining of the bleeder block between one right and second right was, in fact, a violation of the ventilation plan. However, the United States has conceded that "the mining of the barrier was an unapproved deviation from the approved ventilation plan" (Def.'s Br. at 7.)

⁴ A "gob" is that part of the mine from which coal has been removed.

bleeder block, air was allowed to flow more directly towards the bleeder system once the bleeder block was removed.

6. Thus, had the mine operator applied for a change in the ventilation plan based on the proposed removal of the bleeder block, Rogers stated, it surely would have been authorized. I agree, and I find in accord with Rogers' testimony that the failure to cite the company for a violation of the ventilation plan did not contribute to cause the explosion.

RECORDS OF EXAMINATION OF BLEEDER SYSTEM.

7. MSHA was required, under internal regulations, to ensure that the mine operator was performing weekly examinations of the bleeder system.⁵ However, mine records indicated that these examinations had been conducted at intervals exceeding seven days on at least eighteen occasions during calendar year 1992 without being cited as violations by MSHA.

8. Additionally, MSHA learned that mine personnel had not traveled the bleeder system for several weeks prior to the accident because of a roof fall in the mine

⁵ Pursuant to 30 C.F.R. § 364(a)(2)(iii) (1992), the bleeder system was to be examined “[a]t least once each week”

that blocked the path around the bleeder system.⁶ John Urosek, chief of MSHA's ventilation division, testified that this roof fall should have raised concerns with the mine operator regarding potential blockage of the bleeder system. Yet, the mine operator did nothing to correct the problem.

9. Based upon this evidence, there is no reason to believe that more frequent inspections would have caused the mine operator to take any remedial action.

RECORDATION OF SPECIFIC METHANE LEVELS.

10. In the mine's weekly examination book, the mine superintendent usually recorded that he found either no methane or "trace" amounts in the mine, without providing a specific numeric reading. The applicable regulation at that time required that, "[a]t least every 7 days, . . . [m]easurements of methane . . . concentrations shall be made"⁷

11. When asked why no citation was issued for failure to give specific numeric readings as to methane levels, Thomas Slem, a retired MSHA inspector who also conducted inspections of the mine, testified that "a lot of times there's not

⁶ The evidence indicates that this roof fall had not occurred at the time of the October 1992 inspection. Rogers testified that, during that inspection, he traveled to the evaluation points along the bleeder system, assessed air quality and quantity, and found ventilation to be satisfactory.

⁷ 30 C.F.R. § 75.364(a)(2)(i) (1992).

numbers, just a trace” (Tr. I at 59.) However, when asked, “[D]oes [the mine’s] methane testing equipment actually have a numeric reading on it?” (*Id.* at 60), Slemph responded that it did.

12. Addressing the meaning of the term “trace,” Kevin Stricklin, an assistant district manager with MSHA, testified that it reflected a methane reading “slightly above zero” (Tr. IV at 162), and that it was unacceptable at that time to record “trace” amounts of methane. However, Stricklin also stated that this did not indicate a problem with methane concentration in the mine. Stricklin stated that, had the mine been cited for this violation, it would not have impacted the manner in which the mine was operated.

13. I find that Slemph’s testimony in this regard is unsupported by the evidence. Based upon the sophistication of the equipment, as testified to by Slemph, I believe that the superintendent was, in fact, able to obtain a specific methane reading but simply elected not to record it.

14. However, I also find credible Stricklin’s testimony that the failure to record those amounts was immaterial to the explosion in this case. I ascribe to the term “trace” its ordinary meaning and find, consistent with the testimony of Urosek, that methane levels in the mine prior to October 28, 1992, were negligible.

ADEQUACY OF ROCK DUST SAMPLING.

15. MSHA's handbook stated, "To evaluate compliance with the regulations the [MSHA] inspector shall . . . collect samples of dust for analysis to determine incombustible content" (Pl.'s Ex. A, Tab 1 at 27.) These samples are taken to determine whether or not mine operators are adequately rock dusting the floors, walls, and ceilings of a mine.⁸

16. No such samples were taken during the last six quarterly inspections because, according to Slemph, the mine was "sopping wet." (Tr. I at 18.) Upon questioning, however, Slemph did admit that "[e]very once in a while, you'd find a hump" from which dust surveys could be taken. (*Id.* at 17.) However, Slemph explained that he elected not to survey these humps because he did not feel that they fairly represented combustibility levels within the mine.

17. Stricklin, on the other hand, testified that samples could have been taken from the walls or the ceiling during those inspections. Rogers also acknowledged that the "[m]ine floor [was] mostly wet with some dry areas." (Tr. II at 3.)

18. The plaintiffs' expert, Samuel Johnson, testified that if a rock dust sample had been taken during the October 1992 inspection, MSHA regulators would have

⁸ Rock dusting is the process of coating a coal mine with powdered limestone. The purpose is to dilute potentially unhealthy or dangerous concentrations of coal dust and to help minimize explosion hazards.

discovered that the incombustible content “did not meet” MSHA standards. (*Id.* at 162.)

19. According to Stephan, however, MSHA’s failure to conduct dust surveys did not contribute to the cause of the explosion. Stephan testified that had rock dusting been performed, even as a result of an October 1992 dust survey by inspectors, the amount of coal that settled after that date would have been sufficient to fuel the explosion.

20. As to his testimony regarding testing conditions, I find Slempp’s account not supported by the evidence. In addition to not providing a sufficient explanation for why the “humps” could not have rendered a meaningful methane reading to him, the testimony from Stricklin and Rogers clearly indicates that dust surveys could have been performed during those inspections.

21. As for Johnson’s testimony regarding what surveys of the mine would have shown had they been conducted, however, I find his credibility impaired based in part upon the cross examination regarding his qualifications and experience.⁹

⁹ For example, Johnson testified that he had “co-authored” a report on deep mine safety to the Governor of Kentucky (Tr. II at 176), when in fact he was one of many who had merely contributed certain revisions to the report. Additionally, Johnson testified that he had participated in rescue and recovery operations at the well-known Scotia mine explosion, when cross examination revealed that he had simply contributed “voice overs” for a videotape produced by the state on the accident. (*Id.* at 169.)

22. Nevertheless, even assuming Johnson's testimony was correct, I find that Stephan's testimony was credible with regards to the amount of coal needed to fuel the explosion's travel through the mine. Even if rock dusting had been performed during the October 1992 exam, the coal dust that had settled in the mine after that date was sufficient to propagate the explosion.

ADVANCE NOTICE OF INSPECTIONS.

23. The MSHA handbook also required that, on the first day of an inspection, "inspectors . . . arrive at the mine well in advance of starting time" so that they may travel underground with the "mantrip." (Pl.'s Ex. 3, Tab 2 at 13.)¹⁰ The evidence reflects that for the last five quarterly inspections before the accident, the inspectors did not comply with this requirement, thus providing advance notice to the miners of their arrival.

24. Joseph Steele, Paul Ramey, and Roger Combs, coal miners who worked in the mine, all testified that they had advanced notice of MSHA's arrival. Once notified, miners had approximately ten to twenty-five minutes before the inspectors

¹⁰ A mantrip is a vehicle that carries miners to their work stations at the beginning of each shift.

arrived during which they would hang wind curtains that had fallen and spread rock dust.

25. I find that the number and quality of alterations that could be made during this relatively short period of time did not materially alter the appearance of the mine such that Rogers and Slemph could not have fairly surmised its condition. For example, as stated by Slemph, had rock dust been suddenly spread on the floors before his arrival, he would have been able to tell because of its pristine nature.

CAUSE OF THE EXPLOSION.

26. Stephan testified credibly that the explosion occurred when methane was prevented from escaping through the bleeder system due to a roof fall that occurred after the final quarterly MSHA inspection in October of that year. This accumulation of methane was ignited when a miner, attempting to smoke underground, lit his cigarette lighter. Had the mine operator complied with the ventilation plan by maintaining required ventilation controls, methane would not have accumulated in the mine. The methane that produced this explosion accumulated over as few as five or six days or as long as the time period during which the bleeder system was not being examined, which was approximately one month.

27. In explaining his conclusions, Stephan, who had been with MSHA for twenty-four years and participated in fifty-five explosion investigations, employed what he called the “explosion pentagon.” (Tr. IV at 96.) The explosion pentagon requires, in part, the simultaneous presence of fuel, heat, oxygen, and suspension in order to create the type of explosion at issue in this case.

28. As explained by Stephan, what fueled the explosion was the accumulation of methane in the gob. While coal dust could also initially fuel an explosion, it is not as volatile as methane and was not the initial source in this case.

29. However, while coal dust did not ignite the explosion, the coal dust that had settled on the floor of the mine did propagate the explosion’s travel up the mine, because the force of the explosion caused the coal dust to be suspended in the air. It was then consumed by the flames, greatly magnifying the ultimate force of the explosion.

30. As stated by Stephan, there were three possible ignition sources found in the “transition zone” (Tr. IV at 104): a helmet lamp, a “scoop,”¹¹ and the lighter in question. The helmet lamp was tested by MSHA and found to be working properly. The scoop, upon examination, was found with its power switch in the “off” position, and thus likely could not have caused the ignition. The cigarette lighter, on the other

¹¹ A scoop is a piece of equipment designed for moving coal and hauling supplies.

hand, was found to be functioning upon testing after the explosion and is the most likely ignition source.

32. The cigarette lighter was not destroyed in the explosion because, as Stephan described, the transition zone, where it was found, is the point of origin of an explosion where the flame has the greatest power but where the force generated has the least. The effects from the force of an explosion are found in the explosion zone, the area to which the fireball travels. Because the force had little effect at the ignition point, the lighter would not have been destroyed.

31. Stephan's testimony regarding smoking underground is supported by that of Combs, Cleary France, and Billy Ray Davis, miners who all testified that they frequently observed smoking in the mine. Moreover, I find credible Davis's testimony that mine supervisors were aware of prohibited smoking underground, due to the fact that they had warned miners on numerous occasions to stop doing so. 32.

Additionally, while the mine had in place an approved smoking prevention program which called for dinner buckets and clothing pockets to be searched before allowing workers to enter the mine, such inspections were not regularly performed. Miners were thus able to introduce cigarettes and lighters into the mine, with the result that this explosion was ignited by an unsuspecting miner attempting to light a cigarette in an

atmosphere of odorless and invisible methane, made unsafe by the mine operator's failure to adequately ventilate the mine.

B

The plaintiffs contend that MSHA proximately caused the explosion and resulting injuries in this case through its acts or omissions.

The defendant counters that, not only have the plaintiffs failed to establish proximate cause in this case, but also that the conduct at issue constituted a "discretionary function" for which the defendant maintained sovereign immunity from suit under the FTCA. *See* 28 U.S.C.A. § 2680 (West 1994 & Supp. 2000).

As an initial matter, claims of negligence under the FTCA are governed by state law principles. *See Williams v. United States*, 242 F.3d 169, 173 (4th Cir. 2001). Virginia law places the burden of proof upon a plaintiff to establish proximate cause. *See Myers v. Sutton*, 189 S.E.2d 336, 338 (Va. 1972).

Under Virginia law, "[t]he proximate cause of an event is that act or omission which, in natural and continuous sequence, unbroken by an efficient intervening cause, produces the event, and without which that event would not have occurred." *Banks v. City of Richmond*, 348 S.E.2d 280, 282 (Va. 1986). Accordingly, the issue here is whether, without MSHA's failure to issue citations, arrive for inspections on time, and

conduct dust surveys, all as urged by the plaintiffs, the December 7, 1992, explosion would have nevertheless occurred.

I find that, based upon the facts, it would have. What caused the explosion was the methane that accumulated in the mine after the last quarterly MSHA inspection before the explosion, because of a roof fall. Had MSHA issued the citations as sought by the plaintiffs, the roof fall nevertheless may still have happened. It certainly cannot be said that the roof fall would not have happened but for the failure of MSHA to cite the mine operator for the violations in question. Nor can it be said that MSHA's failure to survey rock dust or arrive to the mines earlier would have prevented the explosion from occurring.

Furthermore, it was the mine operator, not MSHA, who owed a "high degree of care" to their miners and were "required to be on the alert for conditions and hazards in the mine which affect[ed] the safety or health of the employees and to take the steps necessary to correct or prevent such conditions or practices." 30 C.F.R. § 100.3(d) (2000). Under Virginia law, these violations by the mine operator constituted negligence per se. *See Cooper v. Ingersoll Rand Co.*, 628 F. Supp. 1488, 1493 (W.D. Va. 1986). Even assuming that MSHA's acts or omissions constituted a cause in fact of the explosion, if such negligence per se on the part of the mine operator was an independent, intervening wrongful act, then the chain of causation was broken as to the

government and the mine operator's negligence became the sole proximate cause of the accident. *See id.*

The court finds that the evidence in this case demonstrates that the direct and proximate cause of the December 7, 1992, explosion at Southmountain Coal Company's No. 3 Mine was the failure of mine personnel to adequately maintain the bleeder system as required by the approved ventilation plan, coupled with the failure of mine supervisors to inspect for and prohibit the use of smoking devices underground. To this extent, such negligence was an entirely independent act that the defendant neither brought about nor had control over. *See Cooper*, 628 F. Supp. at 1494.¹²

II

A separate final judgment will be entered in each case pursuant to Federal Rule of Civil Procedure 58 in accord with the foregoing findings of fact and conclusions of law.

DATED: April 25, 2001

United States District Judge

¹² Although the doctrines of assumption of the risk and contributory negligence, both relied upon by the defendant, may have operated to relieve the defendant of liability, I find it unnecessary to address these defenses due to the plaintiffs' failure to establish a prima facie case of negligence. For the same reason, it is also unnecessary for me to address the defendant's sovereign immunity defense.