

CCASE:  
BETHENERGY MINES V. SOL (MSHA)  
DDATE:  
19940426  
TTEXT:

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES  
2 SKYLINE, 10th FLOOR  
5203 LEESBURG PIKE  
FALLS CHURCH, VIRGINIA 22041

BETHENERGY MINES, INC., : CONTEST PROCEEDING  
Contestant :  
v. : Docket No. PENN 93-247-R  
: Order No. 3708620; 3/11/93  
SECRETARY OF LABOR, :  
MINE SAFETY AND HEALTH : Cambria Slope #33 Mine  
ADMINISTRATION (MSHA), :  
Respondent :

DECISION

Appearances: R. Henry Moore, Esq., Kevin Burns, Esq.,  
Buchanan Ingersoll, P.C., Pittsburgh,  
Pennsylvania, for the Contestant;  
Mark V. Swirsky, Esq., Office of the Solicitor,  
U.S. Department of Labor, Philadelphia,  
Pennsylvania, for the Respondent.

Before: Judge Koutras

Statement of the Case

This proceeding concerns a Notice of Contest filed by the  
contestant (BethEnergy) pursuant to section 105(d) of the Federal  
Mine Safety and Health Act of 1977, 30 U.S.C. 815(d),  
challenging the legality of a section 107(a) imminent danger  
order. The respondent (MSHA) filed a timely answer asserting  
that the order was properly issued, and a hearing was held in  
Pittsburgh, Pennsylvania. The parties filed posthearing briefs,  
and I have considered their arguments in the course of my  
adjudication of this matter.

Issues

The principal issue in this case is whether or not the cited  
conditions or practices presented an imminent danger within the  
meaning of section 107(a) of the Act, warranting the withdrawal  
of miners from the mine.

Applicable Statutory and Regulatory Provisions

1. The Federal Mine Safety and Health Act of 1977,  
30 U.S.C. 301 et seq.
2. Sections 105(d) and 107(a) of the Act.
3. Commission rules, 29 C.F.R. 2700.1, et seq.

## Stipulations

The parties stipulated to the following (Tr. 8-12):

1. The No. 33 Mine in question is owned and operated by the contestant.
2. The presiding Judge has jurisdiction to hear and decide this matter.
3. The contested order was issued at 1:15 p.m. on March 11, 1993, as a result of a fire that occurred in a new airshaft that was in the process of being constructed by an independent contractor, Central Cambria Drilling Company. The order required the contestant to evacuate the entire underground workings of Mine 33. There were other Section 107(a) orders and a Section 103(k) order which were issued at this shaft site to Central Cambria Drilling. No other orders affected the underground workings at Mine 33. The subject order was lifted at 4:40 p.m., and it was in effect for three hours and twenty-five minutes.
4. Mine 33 produces coal from two seams, the Upper Kittanning (C Prime) and Lower Kittanning (B Seam) coal beds, which average 48 to 72 inches in thickness.
5. In March 1993 there were six continuous-mining machine sections and two longwall sections that produced an average of 8,965 tons of clean coal daily at Mine No. 33.
6. The D-East air shaft had been under construction since August 21, 1992, by Central Drilling Co., (ID No. 859).
7. The shaft measured approximately 30 feet, 2 inches by 18 feet, 4 inches and is projected to a depth of 1,035 feet to the Lower Kittanning (B Seam) coalbed. It was intended to be an intake air shaft for the D-East area of Mine 33. On March 11, 1993 the shaft had been driven to a depth of 841 feet.
8. At approximately 5:15 A.M. on March 11th, 1993, smoke was discovered in the D-East shaft by employees of Central Cambria. At 8:30 A.M. a fire in the shaft was observed. Throughout the day activities were conducted to ensure that any fire was extinguished, including the dumping of water into the shaft.
9. MSHA was notified of the incident at 9:05 A.M.
10. Ventilation of the D-East shaft construction site is essentially separate from the ventilation system for the underground workings of Mine 33. However, if the valve of

the deep water borehole connecting D-east shaft to the active workings of the mine was open and the borehole pipe was not filled with water, there could be limited air movement through the borehole into the D-East area of the mine. Such air would not travel to any working section of the mine.

11. The D-East shaft is connected to a deep watering borehole at the shaft's water ring located at approximately the 272 foot level and the 624 foot level. This borehole pipe extends into the lower Kittanning B seam.
12. The valve and the borehole pipe were closed by Bethenergy at 9:28 a.m.
13. At approximately 9:28 A.M. a BethEnergy employee observed a limited amount of smoke in the B seam in proximity to the bottom of the deep watering borehole. But once the valve on the borehole was closed the smoke dissipated and no further clear evidence of smoke was observed.
14. Prior to the issuance of the Section 107(a) order involved in this matter, at 10:15 A.M, an air sample was collected by an MSHA inspector in the B seam at the location of the D-East shaft eight-inch dewatering borehole.
15. This sample was collected to sample the air that might be entering the underground workings of Mine 33.
16. This air sample detected .010 percent methane present at the location where the borehole enters the B seam. This is not considered a significant amount of methane.
17. This air sample showed .0006 percent carbon monoxide present where the borehole enters the B seam. This is not considered a significant amount of carbon monoxide.
18. The valve on the borehole pipe was closed at the time the sample was taken. MSHA did not have the results of this air sample at the time the 107(a) Order was issued and did not base the 107(a) Order in any way on the results of the said air sample. At 9:45 A.M. MSHA inspector Nevin Davis used a hand-held detector to determine the level of methane in the area of the borehole in the D-East area B seam. He did not detect any methane in the area of the borehole. He was advised that a BethEnergy foreman was to monitor the area of the borehole in the B seam using a carbon monoxide detector. Such information was available to the MSHA personnel who directed that the Section 107(a) Order be issued.

### Discussion

The contested section 107(a) Order No. 3708620, was issued by MSHA Inspector Joseph E. Colton, on March 11, 1993, at 1:15 p.m., and the cited condition or practice states as follows:

A mine fire has occurred approximately 17 feet above the bottom of "D" East shaft currently under construction, the fire is of unknown origin and the extent of the fire cannot be determined. This shaft is connected to a borehole that extends into the "B" coal seam, which is interconnected with the "C" prime seam. This order requires all persons to be evacuated from the underground areas of these two coal seams until such time that a determination can be made that these underground areas are in fact safe and unaffected by the ongoing mine fire.

The order required the withdrawal of miners from the entire underground portions of both the "B" and "C" coal seams.

### Petitioner's Testimony and Evidence

MSHA Electrical Inspector Joseph E. Colton, testified that he has been so employed for 18 years, and has received training in conducting accident investigations, including methane ignitions and explosions. He stated that he was first notified of the fire at the D-East shaft at approximately 9:15 A.M., on March 11, 1993, by his supervisor James Biesinger who instructed him to proceed to the mine and start an investigation and to issue a section 103(k) order at the shaft site where the fire was reported. Mr. Colton confirmed that he arrived at the shaft at 9:50 A.M., and spoke with the superintendent or foreman of the shaft construction crew (Peterman) (Tr. 21-26).

Mr. Colton stated that Mr. Peterman informed him that he went part way down the shaft in a bucket to determine the source of the fire but had to come back to the surface because of heavy smoke and he did not know what was burning, but that flames were projecting "in a torch like fashion" from the concrete bulkhead or wall of the shaft which had reached to within 17 feet of the shaft bottom (Tr. 28). Mr. Colton then informed Bob Nelson, MSHA's acting subdistrict manager in Johnstown about the fire in the shaft and told him that he had issued a verbal section 103(k) order to Mr. Peterman, who informed him that on the previous shift methane was detected at .7 and .9 percent. Mr. Biesinger arrived at the scene at approximately 10:45 A.M., and took charge, and Mr. Colton briefed him on what he had done (Tr. 32).

Referring to his notes, Mr. Colton indicated that Mr. Peterman told him that the fire was reported to him at

5:45 A.M., by workers "reporting that the fan had burned up" (Tr. 33). Mr. Colton stated that after Mr. Biesinger arrived, a section 107(a) order was issued for the shaft area and he explained as follows at (Tr. 33-34):

A. Well, with all the activity and all the different agencies arriving and different people arriving up at the scene, it was decided for everyone's safety that an imminent danger be placed on the shaft area to more or less control the amount of people there. And because of the fact, like I said, we didn't really know what was burning or what was going to happen to our efforts of putting the fire out.

So we did determine that there was an imminent danger at this location at that point in time. So here, again, Mr. Peterman was verbally told of the imminent danger Order and Mr. Biesinger was left with Mr. Peterman as I went to my vehicle to issue the Orders in writing. And that's what I did at that point in time, I exited the trailer, went to my car and wrote out the necessary documents to inform Mr. Peterman in writing of what our intentions were.

Mr. Colton stated that once the water was put down the shaft, he was concerned about a void behind the bulkhead creating a methane explosion hazard from the efforts made to extinguish the fire. He did not believe that this hazard would have been totally eliminated after the fire was put out by the water in the shaft, and he believed that the water level had to be brought up from the bottom of the shaft and onto the cement bulkhead, and at least 10 feet higher in order to thoroughly extinguish the fire (Tr. 38-39). He believed the water reached that level after the imminent danger order was issued, and he expressed his concern as follows at (Tr. 39-41):

A. It was after the issuance of the Order when the water reached that level. That was the major concern of the Order because, like I said before, we had nobody hurt at this point in time. And the only way to guarantee or to assure that nobody else would be involved by our efforts to extinguish this fire. And I could say the only way to assure the fact that nobody else was hurt was to remove everybody from the mine because there was a possibility of entrapment of gas behind this area and there was a possibility that this gas could be ignited. And no one can really say with any certainty what's going to take place when an explosion occurs. The --- it's something that's uncontrolled and it's unpredictable and for anybody to say that it's going to do this or that would be ludicrous. You can't make a determination like that.

\* \* \* \* during our extinguishing process it was feared that we could have created a situation where an explosion could have occurred and to make --- take every step available to us to assure that nobody would get hurt. The only step we had available to us was to remove everybody from the mine.

Mr. Colton stated that if an explosion had occurred, no one could predict what would happen or its direction. He stated that he became aware of the borehole pipe connection between the shaft and the B coal seam at approximately 12:50 p.m., and that Mr. Biesinger may have informed him of this. Mr. Colton stated that he shared Mr. Biesinger's concern about a potential explosion "probably around the same time that we had a discussion about the borehole connection with the B seam" (Tr. 42). Mr. Colton stated that Mr. Biesinger was in communication with district manager Kuzar at this time, and that Mr. Biesinger instructed him (Colton) between 12:00 and 12:30 p.m. to go to the mine office at the main portal and issue an imminent danger order affecting both coal seams and to withdraw all persons from the mine (Tr. 43-44).

Mr. Colton estimated that the distance between the borehole pipe and the bottom of the shaft and the B coal seam was 200 feet. He stated that he went to the mine office to issue the order, rather than to the B seam itself, because he wanted to make sure that mine management was aware of what was taking place and that everyone needed to be evacuated from the mine. He stated that he met with Mr. Dick Stickler, Mr. DuDreucq, and Mr. Moyer, and instructed them to evacuate the mine. Mr. Colton confirmed that the 1:15 p.m., issuance time on the order reflects when he reduced it to writing, and that Mr. Biesinger had instructed him to issue it approximately one hour earlier (Tr. 48). He confirmed that he was not involved in terminating the order because he was relieved by another inspector (Tr. 49).

Mr. Colton stated that he formed his own opinion as to whether the imminent danger order should issue regardless of Mr. Biesinger's instructions to do so because he "felt strongly that there was a great potential for a disaster there", and that the only way to assure the safety of the people underground was to remove them from the mine. He confirmed that he would have issued the order himself if Mr. Biesinger had not instructed him to do so (Tr. 50). He confirmed that at the time he ordered people removed from the shaft, he did not know about the connection with the underground B seam (Tr. 53).

On cross-examination, Mr. Colton stated that during his 18 years with MSHA he has been involved in only one investigation of an underground explosion, and it was not a shaft explosion (Tr. 56). He stated that the borehole is in close proximity and next to the shaft and stands about one foot out of the ground.

He confirmed that during the fire, the carbon monoxide coming out of the shaft was being monitored by several people, including two or more state officials. Also present at the scene were employees of BethEnergy, the UMWA, the shaft contractor, Central Cambria Drilling Company, and members of the mine safety committee (Tr. 60-61).

Mr. Colton stated that there were no electrical lines behind the concrete shaft liner. He confirmed that he had previously inspected Mine 33, including the B seam, and that there are numerous boreholes used for degassing purposes. He confirmed that when he first arrived at the mine he did not ask Mr. Peterman if there were any connections between the mine workings and the shaft because "the thought didn't occur to me at that precise moment. I was more concerned with the people in the immediate area" (Tr. 65). He also confirmed that he was not aware that two other MSHA inspectors were at Mine 33, even though inspectors are usually present on any given morning, because it didn't occur to him at that time.

Mr. Colton stated that the borehole is connected to the shaft by two "water rings" that collect water that comes down inside the shaft walls and funnels it over the borehole so it can drain into the mine (Tr. 66). He did not know how big the connection was between the water rings and the borehole, or how big the hole was in the borehole pipe. He believed that the shaft and shaft ventilation would have to be approved by MSHA, but he did not know when it was started or how frequently it was inspected (Tr. 67).

Mr. Colton stated that after he issued the order, Mr. Stickler, Mr. DuBreucq and Mr. Moyer challenged it, and he called Mr. Biesinger from the mine office to advise him of this. He did not believe that he could have properly issued the order by telephoning those individuals "because there's certain procedures you must follow when you close a mine" and he did not want to give an advance warning to evacuate the mine. He confirmed that it took him 20 or 30 minutes to drive to the mine to issue the order (Tr. 68-70).

Mr. Colton confirmed that at the time he issued the order he knew that Mr. Peterman had observed that the fire was at the bottom of the concrete shaft, but did not know the location from where the flames were coming out (Tr. 71). He did not assume that methane was bleeding out of the E seam, did not know which way the air was flowing in the borehole, did not know whether there was water in the borehole, was certain that he was told that the valve at the bottom of the borehole had been closed, did not know what would happen if the valve were closed, and did not speak to anyone about this (Tr. 72-74).



Mr. Colton stated that the shaft was approximately 843 feet deep (Tr. 74), and in response to a question as to the direction of any explosion in the shaft, he stated as follows (Tr. 76):

A. It all depends where that explosion occurred. If it occurred behind the bulkhead of the shaft it could probably blow the shaft wall out, probably penetrate the pipe. It all depends on the magnitude of the explosion, the amount of gas, explosive gas, is contained behind the bulkhead. That was a fact that we didn't know.

Mr. Colton confirmed that while water was being dumped down the shaft to extinguish the fire, the ventilation and methane in the shaft continued to be monitored, but he did not know how high the water had risen when the order was terminated (Tr. 76-78).

In response to further questions, Mr. Colton stated that the borehole is close to the shaft wall, but does not touch it, and that it consists of a metal casing of steel pipe (Tr. 82). He confirmed that the contractor personnel working in the shaft were out of the shaft when the fire was detected, and that the imminent danger order issued for the shaft was still in effect when he issued the order for the underground mine area in question (Tr. 83-84).

Mr. Colton explained that the shaft "gaps" that concerned him were the spaces created between the outer corrugated metal lining next to the concrete shaft wall and the natural rock or terrain adjacent to the lining (Tr. 85-86). He confirmed that the shaft was still under construction at the time the order was issued (Tr. 87).

James E. Biesinger, MSHA supervisory mine inspector, testified that he holds a 1967 associate degree in engineering from the Penn State University, had previous experience as a mine surveyor, field engineer, and assistant safety director prior to his MSHA employment in February 1971 (Tr. 88-89). He confirmed his experience and training, including the investigation of an explosion at Bethlehem Mines Corporation Lehman mine shaft that killed one person. He recalled that the explosion in that incident "went two directions in the shaft. It went down and then it came back up" (Tr. 94). He confirmed that his experience with that explosion affected his decision making with respect to the shaft fire in this case (Tr. 94). He also confirmed that he was involved with the recovery of several mine fires and explosions during his career, and that he has reviewed numerous accident reports in this regard (Tr. 94).

Mr. Biesinger stated that he first learned of the fire in question when he received a phone call from construction foreman Ray Peterman at approximately 9:05 a.m., on March 11, 1993. Mr. Peterman informed him "that something was burning and he

suspected a fire in the shaft, and asked permission to dump water down the shaft and asked if we had any objections to him notifying local fire companies to provide water to put into the shaft" (Tr. 95). Mr. Biesiner informed Mr. Peterman that he was under a section 103(k) order, that he should immediately start putting water down the shaft, and that he was dispatching an inspector to the site to issue the formal order (Tr. 96). Mr. Biesinger stated that he could have issued a section 107(a) imminent danger order over the telephone at that time pursuant to MSHA policy, but he did not do so. He confirmed that the policy has since changed, and an inspector must travel to the site before issuing such an order (Tr. 96-97).

Mr. Biesinger confirmed that he assigned Mr. Colton to go to the mine and then called the acting MSHA Subdistrict Manager, Robert Nelson, and briefed him. Mr. Biesinger and trainee inspector Clark McElhoes then went to the site and Mr. McElhoes was assigned to assist in taking oxygen, methane, and carbon monoxide readings from the exhaust fan, and he explained the results as follows (Tr. 99-100):

A. We were getting readings as high as, I believe, 126 parts per million CO, carbon monoxide. Oxygen was somewhat less than 20.05 and methane, I believe, was .1 percent, 0.1 percent.

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A. Carbon monoxide, 126 parts per million is not a great amount, but it is above the DVL limits and it is an indicator of fire. You can use that as an indication that we have some kind of combustion taking place.

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A. The other was oxygen. It was 20. --- I believe it was less than 20.5 percent. Which means it was less than -- usually we have around 21 percent which means that you could have some of the oxygen being used up in combustion which is also an indicator that there is combustion going on in the shaft.

Mr. Biesinger stated that based on his discussions with Mr. Peterman, and his own observations at the shaft between 10:05 A.M. and 10:40 a.m., he could not conclude that methane was being burned. The record books reflected methane readings of .6 to .7 during the previous hours, and he concluded that something was burning in the E seam, and that it was possibly air and duct lines constructed of PVC or rubberized material, and possibly methane being liberated from the rock strata. He was concerned that the methane could build up behind the shaft wall and explode if ignited by the burning fire (Tr. 101-106).

Mr. Biesinger stated that he learned about the borehole pipe at 10:45 A.M. when MSHA inspector Sam Brunati called him from the surface of mine 33, where he was conducting an inspection, and informed him that mine officials had smelled smoke in the mine but shut a valve on the bottom of the borehole pipe. Mr. Brunati also informed him that MSHA inspector Nevin Davis, who was underground at the time, went to the borehole area and detected no methane, but did observe something that could have been residual smoke or steam. Mr. Brunati also reported that 2,178 cubic feet of air per minute was ventilating the entry directly below the bottom of the shaft in the B seam. Mr. Biesinger stated that it was most likely that the ventilation was in compliance with the mine plan and that no violations were issued in this regard (Tr. 107-109). Mr. Biesinger was told that the borehole valve was closed at approximately 9:28 a.m., and he assumed that the smoke that was reported was detected before the valve was shut (Tr. 110).

Mr. Biesinger confirmed that he was in communication with MSHA acting district manager Kuzar prior to his conversation with Inspector Brunati at 10:45 a.m., and they discussed the issuance of an imminent danger order to remove the underground miners from Mine 33, and that a "joint" decision was made at approximately 11:30 A.M. (Tr. 112). In concluding that the order was appropriate, he considered the fact that there was an active fire in the shaft, methane was detected coming out of the shaft fan, readings were recorded in the shaft record book, previous shift methane was detected as high as 1.0% at the shaft bottom around the end of the concrete the open borehole connection between the shaft and the underground B seam, and the borehole connection to both water rings at the 624 and 270 foot level. He confirmed that he knew that the valve had been shut, but believed that the force of a shaft explosion coming down the borehole would destroy the valve. He also confirmed that there was 200 feet of unexcavated rock between the bottom of the shaft and the B seam coal bed (Tr. 112-114).

Mr. Biesinger confirmed that the "connection" between the shaft and the B seam was the borehole that penetrated the seam 200 feet from the shaft bottom. If there were an explosion, he believed it "would be up and down the shaft, explosive forces to the right and left, enter the water ring and down the borehole" (Tr. 116). If there were no borehole, an explosion would be restricted to the shaft, would not affect the underground B and C coal seams where men were working, and he "would not expect it to travel that 200 feet through solid rock and affect the B seam" (Tr. 117).

Mr. Biesinger believed it was reasonably expected that any explosion would go down the six-inch borehole and over to the B seam for the following reasons (Tr. 118):

A. We had an open --- two open water rings which would allow for expansion of that explosion. We had a borehole that --- six or eight inch borehole, whatever it was that connected the two water rings with the B seam mine. I look at that as a very high potential for --- that if an explosion occurred that it could affect that B seam mine. Now, in the B seam mine some 1,200 feet from the bottom of that air shaft we got extensive mined out longwall gobs that contain methane gas. And it's anybody --- anyone's guess what could happen if that explosion entered into the B seam mine and affected the ventilation in the B seam and could cause methane to be drawn off of those longwall gobs. You could have significant explosions underground as a result of that. This is a highly gassy mine.

Mr. Biesinger stated further that he specifically considered the fire burning in the shaft bottom, the methane being liberated, the void behind the shaft wall where methane could be accumulated, and the water rising in the shaft that could trap methane behind the concrete liner. He also considered the presence of burning PVC pipes and carbon monoxide (Tr. 123).

Mr. Biesinger stated that he did not specifically know that miners were working in the B and C seams at the time the order was issued, but he assumed they were because he had inspectors at the mine that day, and had no reason to believe that no one was underground. He stated that "knowing there were miners underground I wanted to issue the Order to remove those persons to make sure of their safety" (Tr. 128). He confirmed that the B and C seams are considered one mine because they are interconnected and have a common ventilation system. However, at the time the order was issued he did not calculate the available underground ventilation or ventilation air pressures (Tr. 130).

Mr. Biesinger stated that even though Inspector Brunati reported zero percentage methane readings in the B seam, and had sampled the air at the bottom of the borehole, this did not affect his decision to issue the order because "what he had down there didn't significantly change what was occurring in the shaft and it would not change the occurrence if the explosion propagated down that borehole into the underground mine" (Tr. 132). He also believed that toxic pvc fumes would come up the shaft and down the borehole through the valve, and since smoke was smelled in the mine this indicated to him that there was an open connection and that there was a transfer of air or gas between the shaft and the underground portion of the mine (Tr. 134). He did not, however, know the water level in the shaft at the time of the decision to issue the order, and he

confirmed that he was at the site for over an hour before making the decision (Tr. 138). Mr. Biesinger explained what was done before the order was lifted verbally at approximately 4:30 p.m. (Tr. 139-142).

On cross-examination, Mr. Biesinger confirmed that he was advised about the borehole connection at 10:45 a.m., when he spoke with Mr. Brunati, and shortly thereafter spoke with Mr. Kuzar. They made the decision to issue the order to Mine 33, but he could not recall the precise time when the decision was made and stated that "it might have been 11:30 A.M." (Tr. 146). He did not telephone the mine in advance of inspector Colton's arrival there, nor did he speak with Inspector Davis at Mine 33. He stated that Mr. Brunati informed him that the borehole valve had been shut and that someone was stationed at the bottom of the borehole with a CO detector (Tr. 149). He confirmed that the air coming by the bottom of the borehole in the mine was going to the returns and not to any working section (Tr. 150). He was aware that the mine had a CO monitor warning system in the active working sections, and confirmed that the air coming out of the shaft was being monitored for carbon monoxide, methane, and oxygen (Tr. 152).

Mr. Biesinger confirmed that an explosion would require methane, an ignition source, and sufficient oxygen, and he reviewed Mr. McElhoes notes with respect to the CO readings, and confirmed that they show "a trend downward in the CO", and that these recordings were made while water was being dumped down the shaft (Tr. 156). He confirmed that when the decision to issue the order was made the CO had declined from a high of 126 parts per million to 19 parts per million (Tr. 156).

Mr. Biesinger confirmed that the shaft construction plan was approved by MSHA. He stated that the Lanham Shaft also had water rings and that when the explosion occurred it came down the shaft, and when it encountered water, it went back up the shaft. He confirmed that the fatality in that incident occurred on the surface, that no one was near the bottom of the shaft, and it was possible that the B and C seams were working at that time (Tr. 158).

Mr. Biesinger stated that if there is no explosion any products of combustion would not go through the water and the borehole, and one can expect the main force of the explosion to go up the shaft. Although the force of an explosion dissipates as it travels, it will sometimes pick up speed and force if fuel is continually being added (Tr. 160). He confirmed that he did not know the methane percentages at any specific point in the shaft. He stated that when he went down the shaft to see if the fire was out he could not see the E seam because it was behind the concrete shaft wall and he could not tell what was happening in that seam (Tr. 161).

In response to further questions, Mr. Biesinger stated that the mine CO monitoring system had no bearing on the issuance of the order because that system does not prewarn anyone and only monitors the amount of CO in the mine after the fact (Tr. 163). He confirmed that he knew about the borehole connection before the decision was made to issue the order (Tr. 166).

John A. Kuzar, MSHA Johnstown Sub-District Manager, testified as to his mine experience and training, including the investigation of the Lehman shaft explosion, and a similar incident at Bethlehem's Revloc Shaft in 1979 or 1980 (Tr. 167-172). He stated that he was informed of the D-East shaft fire on March 11, 1993, by a telephone call from acting subdistrict manager Robert Nelson. Mr. Kuzar then telephoned Mr. Biesinger at the mine site, and was briefed on the efforts being made to address the fire. Mr. Kuzar assumed that a section 103(k) order was in place, but there was no discussion about a connection between the shaft and the mine. He stated that there were five or six subsequent telephone calls to Mr. Biesinger, and that the decision to issue the imminent danger order was made "on the second call after he had evaluated the area, knew more of what was going on, knew that there was a physical connection between that shaft and underground workings of the mine" (Tr. 176).

Mr. Kuzar stated that during his second telephone conversation with Mr. Biesinger he was informed of the connection of the borehole pipe into the B seam. There was no discussion about any valve at the bottom of the borehole pipe and he was not apprised that MSHA Inspector Nevin Davis was in the B seam in close proximity to the borehole pipe. At that point in time, the decision was made to remove the employees from the B and C mine seams, and Mr. Kuzar confirmed that it was basically a joint decision based on the facts presented to him by Mr. Biesinger, particularly the fire in the shaft, and the physical connection between the borehole pipe and the B seam (Tr. 178). Although Mr. Kuzar alluded to a concern about the shaft ventilation, petitioner's counsel asserted that there were no adverse ventilation conditions where the miners were working underground (Tr. 182-183).

Mr. Kuzar stated that the mine "was the gassiest in the State of Pennsylvania" and that this was considered when the decision to issue the order was made (Tr. 183). He stated that if he had known about the valve at the bottom of the borehole pipe it would not have changed his decision, and he explained as follows at (Tr. 185-186):

A. That valve, the way I understand it was a two-inch --  
- I don't know, it was a two-inch valve. That valve  
would probably have blown off that pipe and then there's  
no assurance that I have that there was not any gasses or

anything coming out around that pipe. I don't know. I wasn't there to see it. But as far as the valve in itself, it wasn't irrelevant to me.

Q. You said it would have come off, if what happened?

A. If I had an explosion in that shaft and the forces went into that mine, I don't think that little valve would stop those forces.

Q. And what type of explosion were you concerned about?

A. Methane.

Mr. Kuzar stated that the respondent's operations Manager Stickler called him and expressed his concern and belief that the order was not justified. After Mr. Stickler advised Mr. Kuzar that he could not guarantee that no one working underground would be affected by any explosion, Mr. Kuzar informed Mr. Stickler that "on the side of safety we need to pull your mine" and advised him that he would "try to get it back into production as fast as we can" (Tr. 191).

On Cross-examination, Mr. Kuzar confirmed that he was not told about the borehole valve, and he was not sure that he was aware of the borehole prior to March 11 (Tr. 203). He stated that the borehole is used to remove water from the mine when sinking a shaft, and this is done by water rings connected to the borehole. He assumed that the borehole will fill up with water if the valve is closed (Tr. 204). He confirmed that Mr. Biesinger did not inform him that Inspector Davis was underground, and that he first learned of this in preparation for the hearing in this case (Tr. 205).

Mr. Kuzar stated that the shaft was inspected every month while it was under construction, and the mine was on a five-day spot inspection cycle because of high methane liberation (Tr. 206-207). He confirmed that the injuries resulting from the Lehman and Revloc shaft explosions occurred on the surface (Tr. 208). He confirmed that in order for the underground mine gob area to be involved in any explosion from the shaft, the shaft explosion would have to travel from the shaft, down the borehole, into the mine and then propagate some distance in the mine (Tr. 209).

MSHA Inspector Nevin J. Davis, testified that he has held that position for 17 years, and previously worked as a miner and section foreman. He has also conducted seven or eight methane

ignition investigations, but has not investigated any shaft fires. He confirmed that he was at the No. 33 mine on March 11, 1993, conducting a five-day spot methane inspection. At approximately 9:15 A.M. he was contacted on the mine phone by mine foreman William Moyer who informed him that there was an ignition or a fire at the D-East shaft. He then spoke with MSHA Inspector Sam Brunati, who was on the surface, and he confirmed what Mr. Moyer had told him (Tr. 213-217).

Mr. Davis stated that Mr. Moyer informed him that he was going to send a foreman underground to close the borehole valve, and Mr. Davis then called Mr. Brunati and informed him that he was close to the borehole area and would go there to see what was going on. While on his way to the borehole area, Mr. Davis met two mine foremen, and they then met foreman Dan Horn approximately 300 feet from the borehole area. Mr. Horn informed him that when he first arrived at the borehole there was basically no methane but he had noticed or smelled what he thought was smoke, but it had dissipated and he closed the valve at 9:28 A.M. (Tr. 217-220).

Mr. Davis stated that he checked the borehole area for methane and oxygen levels and took some air bottle samples. He found no methane and the results of the bottle samples did not indicate any problems. He then reported the results of his borehole inspection to Mr. Brunati who then related them to "some of the people over the shaft area" and "to Mr. Biesinger probably" (Tr. 222). Mr. Davis then met foreman Ralph Naugle who was on his way to monitor the air with CO2 detectors, and mine inspector Steve Alexo who was bringing in the detectors. Mr. Davis then left the area and went to the surface, and since his inspection activities were completed, he left the mine (Tr. 223).

Mr. Davis stated that when he was close to the borehole pipe he did not smell smoke, but that "off to the corner or in the crosscut there where it was stripped off pretty heavy, it looked like it could have been smoke -- or it could have been humidity too but I couldn't tell", and that he reported this to Mr. Brunati (Tr. 224).

On cross examination, Mr. Davis stated that the mine area and floor at the location where the borehole penetrated the mine was wet and that the valve was closed when he got there and he observed no water or smoke coming out of the valve (Tr. 225). Mr. Davis identified Exhibit 0-1 as the results of the bottle samples that he took, and they show .010 percent methane and .0006 percent carbon monoxide. The oxygen reading of 20.91 percent was normal (Tr. 227-228).

Referring to his notes (Exhibit G-7), Mr. Davis read a notation "Both valves closed at this time, water filled the pipe



about one and a half hours at four gallons per minute", and he indicated that he received this information from engineer Larry Neff. He confirmed that Mr. Naugle was going to stay in the track entry and walk over to the borehole area every fifteen minutes to monitor for carbon monoxide (Tr. 229-230).

#### Respondent's Testimony and Evidence

Larry E. Neff, Field Engineer, Cambria Mine 33, testified that his duties include major surface and underground construction and emergency repair work. He stated that he is certified by MSHA to test for methane gas, and that he was one of two contact persons for the respondent in connection with the construction of the shaft on March 11, 1993. He stated that he returned a call from Ray Peterman at 8:30 A.M. that morning and was informed that there was an ignition in the shaft and that there was a fire at the bottom of the concrete. He advised Mr. Neff to dump water down the shaft and that he would calculate how much water would be needed to fill the 17 and one-half feet area from the shaft to the air seal. Mr. Neff then spoke to shift foreman Mike Curtis at the mine and asked him to send someone to close the borehole valve because it was the only connection between the shaft fire site and the underground mine (Tr. 232-238).

Mr. Neff described the borehole valve as a six-inch cast iron valve rated at 200 pounds for water, oil or gas. He stated that he proceeded to the borehole area with Mr. Davis and met Dan Horn who informed him that he had shut the valve at approximately 9:30 A.M. Mr. Horn advised him that he had smelled smoke upon his arrival, but not after he shut the valve (Tr. 241).

Mr. Neff stated that the borehole filled with water at the rate of three to four gallons a minute and that it would fill up to the water ring and then discharge and cascade down the shaft wall. He described the pipe and the water rings and explained their functions. In his opinion, the water in the borehole pipe would serve as a barrier to the passage of any fire or gases from the shaft, and it would also serve as an explosion barrier and would redirect it up the shaft and borehole (Tr. 243-248).

Mr. Neff stated that voids are intentionally left behind the concrete shaft lining in order to allow the water behind the shaft wall to travel down into the water rings. In his opinion, if methane accumulated between the concrete and shaft wall and it ignited and exploded, it would come in through the center of the shaft and would not destroy the wall (Tr. 250). He did not believe that there was any reasonable likelihood that an explosion in the shaft would propagate into the mine workings because "I know what we had ... it was like a fire in a 55-gallon drum. The fuel was outside it and the fire was outside it. As long as you keep the fuel away, what's the problem" (Tr. 252).

He explained that the only ignition source connection between the shaft and the underground mine was closed when the borehole valve was closed. He confirmed that he has experienced two prior shaft explosions, and in both cases the direction of force was up the shaft (Tr. 252). In the instant case, he believed that any fire or ignition source coming down the borehole would be extinguished by the water filling up the borehole and effectively sealing it (Tr. 255).

On cross-examination, Mr. Neff stated that he had two years of formal college education with an associate degree in surveying from Penn State and 15 years of field experience (Tr. 256). His opinion that the water in the borehole would redirect any explosion that met the water was based on "the path of least resistance" (Tr. 257). He believed that any methane going down the borehole pipe filled with water would come back up the pipe because it was lighter. According to his calculation, the water started filling up at approximately 9:30 a.m. at the rate of two feet a minute, or 120 feet within an hour (Tr. 258).

Mr. Neff stated that there was no problem with the methane liberating in the shaft before the fire, and it was less than one percent, but increased to more than two percent after the fire started. Although there was a potential for the coal in the E seam to burn during the fire, a post-fire inspection indicated that this did not happen. In his opinion, the only thing necessary to protect the miners in the B and C seams was to close the valve and crib it at the bottom of the borehole and allow it to fill with water (Tr. 259). He stated that there was no consideration given to leaving the active sections at the time of the fire because the section foremen were alerted and knew what was going on (Tr. 263). He could not speculate the magnitude of any explosion blowing through into the B seam if there were no water in the borehole, and commented that "I can't see how any of its going to go down that hole, this is a six-inch borehole" (Tr. 265). Even if there were no water in the pipe it would still be his opinion that it was not reasonably likely that a shaft explosion will travel over to and down the borehole into the mine. He based this on his experience with two prior shaft explosions, both of which went up the shaft (Tr. 273).

Daniel E. Horn, respondent's Head Mining Engineer, testified as to his mining and maintenance engineering experience, including ventilation, and he confirmed that he holds a 1982 B.S. degree in mining engineering from the University of Pittsburgh, and is a certified mine foreman and registered professional engineer. He has also received mine rescue training, has served on the mine rescue team, and is a current member of the state mine rescue team. He and Mr. Neff developed the specifications for the construction of the D-East shaft, and he served as the project engineer on a day-to-day basis (Tr. 273-280).

Mr. Horn stated that he was serving as the section foreman during the mining of the longwall on March 11, 1993, and he described the working areas shown on two mine maps, including the shafts, and explained the ventilation (Exhibits O-2 and O-3, Tr. 281-289).

Mr. Horn confirmed that shift foreman Mike Curtis called him and asked him to go to the D-East shaft and close the borehole valve because there was a problem, but Mr. Curtis did not explain his request further. Mr. Horn stated that he went to the borehole, checked for methane as he approached it, and noticed "a small amount of smoke at the borehole location," and closed the gate valve. The immediate vicinity of the borehole was heavily cribbed and he stated that "when I got right up to it there was a small amount of smoke right where the borehole pipe was discharged. It was discharging in a small amount of water" (Tr. 291). He tested zero percent methane, the floor and cribs were wet, and the borehole valve was "wet and cold to the touch" (Tr. 292). He initially believed that hoses were burning, and the negative pressure would draw air down the shaft and pipe into the mine. However, once the valve is shut, the air is stopped and the pipe will begin filling with water (Tr. 293).

Mr. Horn stated that after leaving the borehole area he met Mr. Davis and Mr. Curtis, and they returned to the area and took air readings at the regulator and checked for methane, and Mr. Ralph Naugle came to the area to stay and monitor the CO. Mr. Horn stated that he did not expect that an explosion in the shaft would propagate into the mine, and he went back to work with his crew. He did not believe that the mine needed to be evacuated based on what he knew at 10:00 a.m. when he left the borehole area (Tr. 299). After leaving the mine, he went to the shaft area and later went down the shaft in the bucket and observed that the water in the shaft had reached the edge of the concrete (Tr. 302). Once the borehole valve was closed and filled with water, he did not believe that any combustion products from the fire could travel through the borehole into the mine because of the air ventilation differential which would course any air and gas mixture up the shaft rather than down the water sealed borehole pipe (Tr. 302). He did not believe it reasonable to expect an explosion in the shaft to propagate down the borehole rings or into the mine itself because the shaft bottom was very wet and the nearest gob was 1,000 feet away (Tr. 302-304). He did not believe there was any reason to evacuate any miners from the B or C mine seams because they were not exposed to any hazards (Tr. 305).

On cross-examination, Mr. Horn confirmed that he has never worked in proximity to a methane explosion and that his opinions with respect to the explosion hazards are based on his familiarity with ventilation principles, mine gases, and the construction of the shaft. He confirmed that he was not present

on the surface immediately prior to the issuance of the imminent danger order (Tr. 306). He stated that the borehole pipe area between the lowest water ring and the valve was full of water and no air was moving. He believed the water was up to 30 feet in the pipe when he and Mr. Davis arrived there (Tr. 309).

Robert E. Roland, respondent's mine inspector and former section foreman and mine rescue team member for 21 years, testified that his experience includes fighting two mine fires in 1977 and approximately 1988, and the investigations of two shaft explosions. He has also received training on mine fire fighting (Tr. 313-319).

Mr. Roland stated that he was informed of the shaft fire at approximately 8:45 a.m. by a telephone call from Larry Neff. He went to the shaft area and observed the efforts made to extinguish the fire and he made notes concerning his observations and the CO readings that were taken at the top of the borehole. He confirmed that water was being dumped down the shaft to extinguish the fire and when he looked down the shaft at approximately 1:00 p.m. he thought the fire was out because of the decreased CO readings and the shaft was inundated with water. In his opinion "any flame that was down there would have never survived the first truck load of water" (Tr. 327, Exhibit O-5). He saw no flames when he looked down the shaft and he was surprised when he later learned that an imminent danger was issued because he did not believe there was an underground hazard and believed that the fire had been extinguished (Tr. 328).

Mr. Roland did not believe that any products of combustion would go down the borehole and reach the underground mine because the water in the borehole served as a seal and water is an acceptable and effective method of sealing off mine fires. He did not believe that it was reasonable to expect that an explosion in the shaft would propagate down the borehole because no flame could propagate through the water (Tr. 329).

Mr. Roland confirmed that after further discussions with Inspector Biesinger he went down the shaft after 3:30 p.m., with mine rescue team captain Gary Scott, and he saw no evidence of any fire until he reached the shaft bottom. He saw "two spots on the concrete wall where it had blackened," saw some partially burned material floating in the water, but saw no fire. CO readings were continuously being taken as he went down the shaft and no CO was present. The methane readings decreased as they reached the shaft bottom, and he noted measurements of three to four-tenths in his notes (Tr. 333). He confirmed that a methane reading of 3 percent was made as he went down the shaft, but he attributed this to the methane that was being flushed out of the shaft by the exhaust ventilation (Tr. 334, 340).

On cross-examination, Mr. Roland believed that methane was burning in the shaft during the fire. He estimated that the shaft excavation had reached 840 feet, and that the water reached the level at the bottom of the concrete at some point after he went down the shaft after 3:30 p.m. He believed the fire was at the bottom of the concrete but that it had been extinguished before the water reached that level (Tr. 340). He did not believe there was a hazard to underground miners because the only opening into that mine was water sealed (Tr. 341).

Robert DuBreucq, mine superintendent, testified that he has held that position for six years, and formerly served as superintendent, assistant superintendent, and section foreman engineer at several other mines. He holds a 1970 B.S. degree in mine engineering from Penn State University and is a certified first grade mine foreman (Tr. 347). He stated that he learned about the shaft fire while at an inspection close-out meeting with MSHA inspectors Sam Brunati and Bernie Kordish. Since he knew that the only access into the mine from the shaft was the borehole, he decided that the borehole valve should be closed so that it would fill with water and isolate the mine from anything happening in the shaft, and this was discussed with Mr. Brunati. At 8:45 a.m., foreman Mike Curtis was instructed to dispatch the closest foreman to the borehole to shut the valve, and Dan Horn was assigned that task. Another person was assigned to continuously monitor the borehole area with CO detectors (Tr. 349).

Mr. DuBreucq stated that Mr. Brunati had inspected the mine for a long time, and during their brief discussion, nothing was said to indicate that he believed the mine was at risk. After the valve was closed, Mr. Davis came out at noon and reported that he detected no methane or smoke and that someone was monitoring the borehole area. After Mr. Colton issued the order at 1:15 p.m., Mr. DuBreucq voiced his disagreement and informed Mr. Colton that there was 200 feet of solid rock between the bottom of the shaft and the mine, that the only opening in the mine was the borehole pipe that was filled with water and the valve was shut off, and that the mine was being monitored and there was no CO or smoke. Mr. DuBreucq stated that Mr. Colton told him that he was told to issue the order (Tr. 351). Mr. DuBreucq did not believe there was any danger and stated that "if I thought for a second there was any danger those men would be affected by that, I'd have yanked them long before 1:15" (Tr. 352). He did not believe that an explosion in the shaft would propagate down through the borehole pipe that was filled with water. According to his calculations, it would take a force capable of lifting a 47 million pound slab to knock the valve off the end of the borehole pipe (Tr. 353).

Mr. DuBreucq believed that the hazard was only at the shaft and he agreed with the imminent danger order issued for the shaft

and shaft surface, but not the one issued for the underground mine (Tr. 355-356).

On cross-examination, Mr. DuBreucq explained how he calculated the amount of force necessary to dislodge the borehole valve (Tr. 356-358).

#### MSHA's Arguments

Citing *Old Ben Coal Corp. v. Interior Board of Mine Operations Appeals*, 523 F.2d 25 (7th Cir. 1975); *Rochester and Pittsburgh Coal Co.*, 11 FMSHRC 2159, 2164 (November 1989); *Utah Power and Light Co.*, 13 FMSHRC 1617, 1627 (October 1991); and *Island Creek Coal Company*, 15 FMSHRC 339, 345 (March 1993), MSHA argues that the courts and the Commission have recognized that an inspector must act quickly when confronted with dangerous conditions, that he must have considerable discretion in determining whether an imminent danger exists, and that his decision must be supported unless he has abused his discretion.

In support of its case, MSHA asserts that the circumstances faced by the inspectors at 11:00 A.M., on March 11, 1993, justified the issuance of the contested imminent danger order. MSHA maintains that there was an active shaft fire and other ignition sources, and an ample source of liberated methane, and that it was reasonable to believe that a methane explosion was imminent or impending.

MSHA asserts that the shaft had been liberating significant amounts of methane during its development and excavation, that the contractor had experienced problems in implementing ventilation controls sufficient to render the methane harmless, and that on the shift prior to the fire, significant methane readings had been taken at the shaft. MSHA concludes that in all likelihood, there was methane being liberated both from the rock strata which was cut through during the shaft excavation and from the E coal seam, and points out that carbon monoxide and methane readings taken by MSHA Inspector McElhoes and state inspectors indicated that significant amounts of methane were present. MSHA states that in order to extinguish the fire, large quantities of water were dumped into the shaft, and that the inspectors were concerned that as the water level rose, methane would get trapped in the void between the excavation periphery and the tin paning which was installed behind the concrete bulkhead of the shaft.

MSHA asserts that the active fire in the shaft was burning both methane and the PVC in the dust collection hose line, and there was a clear potential for the fire to ignite the coal in the nearby E coal seam, and that there may have also been other combustibles in the shaft which were not definitely known at the time and could not be accurately evaluated from the surface, given the 800 foot depth of the shaft. MSHA also points to

Inspector Biesinger's testimony that he was concerned that the total combustibles (hydrogen, carbon monoxide, and methane) in the shaft would reduce the lower explosive limit for combustible gas in the shaft. (In other words, the gases which were burning and being produced as byproducts of the fire in the shaft reduced the threshold for additional gas combustion). Given all of these factors, MSHA concludes that there was clearly an impending danger of a methane explosion.

MSHA further points out that there was a connection between the shaft and the B coal seam through the dewatering borehole pipe, and that this connection provided a means for transmission of the explosion into the active workings of the mine. Conceding the fact that the valve on the borehole pipe had been closed prior to the issuance of the imminent danger order, MSHA concludes that the inspectors could hardly rely on the valve to withstand a massive methane explosion, and that Bethenergy acknowledged that it did not know how much force the valve on the dewatering borehole pipe could withstand.

MSHA asserts that although Mr. Biesinger realized that once the borehole valve was closed it would start filling up with water, he did not know the exact amount of water in the pipe, and the flow of water into the pipe fluctuated according to the season. Given "the emergency circumstances" facing him at the time, MSHA concludes that it was not reasonable for Mr. Biesinger to take time out to calculate how much water was in the borehole pipe prior to directing that the imminent danger order be issued. Further, even if there were water in the borehole pipe, MSHA asserts that an explosion could have been propelled through it.

MSHA argues that with the potential for fatal injury to miners in the B and C seams, an inspector must act quickly and he cannot rely on computations made in laboratory-like conditions. MSHA points out that there were "worrisome conditions" in the B seam itself in that there was a working section reasonably close to the borehole pipe and the mine was extremely gassy "with vast gob areas giving off large amounts of methane".

MSHA acknowledges that in order for an explosion to affect the B seam, it would have had to travel through the water ring, then down the borehole pipe and through the valve into the mine. However, MSHA asserts that the force vectors of a methane explosion cannot be precisely predicted, and that in an emergency situation, the inspectors cannot rely on uncertain theoretical predictions of what direction an explosion should travel.

With regard to Bethenergy's reliance upon the mine's carbon monoxide detection system, MSHA maintains that this system would only have indicated the byproduct of an ignition after it had already occurred, and does not provide a valid reason for not issuing the order.

MSHA states that the inspectors were concerned about the transmission of noxious gases, fumes, and combustion byproducts into the active working areas, and it points out that carbon monoxide was being produced by combustion and PVC in the dust collection lines was being burned. MSHA maintains that this reasonable concern provided another piece of the inspectors' rationale for issuing the imminent danger order.

MSHA argues that Inspectors Kuzar and Biesinger, the individuals who made the imminent danger decision, were not novices, and that they have impressive backgrounds and knowledge regarding mine ventilation and mine explosions, and extensive experience with Mine 33 and with prior shaft explosions. MSHA concludes that they did not act precipitously, and it points out that when mine manager Stickler was asked by Mr. Kuzar whether, given the ongoing shaft fire, he could guarantee the safety of the miners in the mine, Mr. Stickler replied he could not (Tr. 191). Under the circumstances, MSHA concludes that Mr. Kuzar could not take the chance of leaving the miners in the mine.

MSHA asserts that the decision by Mr. Kuzar and Mr. Biesinger to issue the imminent danger order was reasonable given the information available to them at the time and the circumstances which were presented, and that they did not abuse their discretion. MSHA further asserts that they acted responsibly in keeping with the weighty mandate given to them by Congress -- to assure the safety and health of the miners.

Citing *Island Creek Coal Company, supra*, and *Wyoming Fuel Co.*, 14 FMSHRC 1282, 1291 (August 1992), MSHA concludes that it has clearly met its burden of proof to show by a preponderance of the evidence that "the conditions or practices, as observed by the inspectors, could reasonably be expected to cause death or serious physical harm, before the conditions or practices could be eliminated." 15 FMSHRC at 346, 14 FMSHRC at 1291. MSHA further concludes that the imminent danger order was appropriately issued.

#### Bethenergy's Arguments

Citing the statutory language of section 107(a) of the Act, and the legislative history, Bethenergy argues that there must be some degree of imminence to support an imminent danger order. In support of its conclusion that the hazard to be protected against by such a withdrawal order must be impending so as to require the immediate withdrawal of miners, Bethenergy provides the following quotes from the legislative history to support its arguments as to when an imminent danger is present:



" ... the situation is so serious that the miners must be removed from the danger forthwith when the danger is discovered without waiting for any formal proceeding or notice."

" ... the seriousness of the situation demands such immediate action because delays, even for a few minutes, may be critical or disastrous."

Imminent danger orders are concerned with "any condition or practice ... which may lead to sudden death or injury before the danger can be abated."

Imminent danger orders deal with "situations where there is an immediate danger of death or serious physical harm."

Bethenergy argues that the issuance of an imminent danger order in the statutory scheme of enforcement is an extraordinary power that is available only when the "seriousness of the situation demands such immediate action". Bethenergy asserts that an inspector must determine whether the hazardous conditions presents a danger of death or serious injury that is imminent or presents an impending threat to life and limb without considering the "percentage of probability that an accident will happen." Bethenergy concludes that only by limiting imminent danger orders to such impending threats does the imminent danger provision assume its proper function under the Act. Bethenergy suggests that if the section 107(a) imminent danger provisions of the Act are interpreted to include any hazard that has the potential to cause a serious accident at some future time, the distinction is lost between a hazard that creates an imminent danger and a violative condition that "is of such nature as could significantly and substantially contribute to the cause and effect" of a mine safety hazard, pursuant to section 104(d)(1) of the Act.

In support of its argument that Congress intended that there be some degree of imminence to support a section 107(a) imminent danger order, Bethenergy cites the following commonly accepted dictionary definition of the word "imminent": "ready to take place: near at hand: impending: hanging threateningly over one's head: menacingly near." Webster's Third New International Dictionary (Unabridged) at 1130 (1986). Bethenergy also cites the Commission's decisions in Utah Power and Light Company, 13 FMSHRC 1617, 1622-23 (October 1991), and Wyoming Fuel Company, 14 FMSHRC 1282, 1290-91, (August 1992), in support of the necessity of the imminence of the danger associated with section 107(a) orders.

Applying the aforesaid legal criteria to the facts of this case, Bethenergy argues that it cannot properly be concluded that

an imminent danger existed for the miners working in the B and C coal seams at the time the contested order was issued. In support of its argument, Bethenergy relies on a number of factors including the physical structure of the shaft and the borehole, the fact that the borehole was filled with water, the fact that the fire in the shaft was effectively extinguished by the time the order was issued, the mechanics and physics of shaft explosions, and the distance from the working sections in each seam.

Bethenergy maintains that the structure of the shaft and borehole precluded the transfer of any shaft explosion into the underground B seam through the 6 inch pipe that extended into the mine where it was closed off by a valve which was supported by crib blocks. Bethenergy asserts that it was unlikely that an explosion would travel up the shaft from the area of the fire, the only source of ignition in the shaft, then turn more than 90 degrees to enter the downward sloping pipe connection, travel to the borehole, enter it through the 4-5 inch opening, and make another turn to travel down the borehole. Bethenergy maintains that such a scenario directly contravenes a fundamental fact that explosion forces follow the path of least resistance and would go up the shaft that was open to the sky, and not up the shaft, across to the borehole and down the borehole, as explained by the credible testimony of Mr. DuBreucq, Mr. Horn, and Mr. Neff.

With regard to MSHA's reliance on two previous shaft incidents at Bethenergy's Lehman and Jones Portal Shafts, Bethenergy points out that both shafts were opened to the atmosphere, both were restricted at the bottom of the shaft, both had dewatering boreholes and the explosion forces traveled up the shaft in both cases because this path offered practically no resistance to the explosion forces. In the Lehman shaft explosion there was no damage to the water rings doors, water rings or the borehole.

Bethenergy further points out that the closed valve at the end of the borehole was an additional factor that precluded an explosion propagating into the mine, and that in order for this to occur, the valve would have to be destroyed. However, Bethenergy asserts that the valve was rated at 200 psi with a safety factor of 3, and it was held in place by crib blocks. Further, Mr. DuBreucq testified that in order to impact the valve with a force of 600 psi, it would take 47 million pounds of force being generated in the shaft, and the top of the shaft would have to be capped with a substantial amount of concrete in order to direct this much force into the borehole. Mr. DuBreucq concluded that an explosion of this magnitude would be unlikely given the amount of methane in the shaft.

Bethenergy argues that the fact that the borehole was filling with water is particularly significant since the presence of water in the borehole would prevent the propagation of an explosion and would direct any forces to the open end of the borehole at the surface, just as it did at the Lehman shaft. Bethenergy cites Mr. Neff's calculation that the borehole would have been filled to the first water ring at the time the order was issued. Bethenergy concludes that the propagation of an explosion through the water was not possible since there would be no fuel to sustain the explosion.

With regard to MSHA's theory that methane might have accumulated in the void behind the shaft liner, Bethenergy maintains that Mr. Neff's analysis of an explosion in this void is more credible than MSHA's witnesses, and he explained that if any of the three confining structures were to fail it would be the concrete shaft liner since there is nothing to displace in the other two directions because the strata is solid, whereas the concrete liner has open air on the other side. Although Mr. Biesinger testified that the potential ignition source behind the liner would be the fire, Bethenergy points out that if the water rose to the level of the bottom of the liner, the fire would be extinguished.

Bethenergy asserts that MSHA has produced no credible evidence to support any conclusion that an explosion would involve the borehole and that its theory defies common sense as shown by the prior two shaft explosions that went up the shaft and did not result in damage to the water ring doors, water rings, or borehole.

Bethenergy argues that Inspectors Kuzar and Biesinger were aware of the structure of the shaft, and their claims that they decided to issue the order when they learned of the borehole connection between the shaft and the mine must be discounted. Bethenergy states that the shaft was being constructed in a standard method, and Mr. Kuzar conceded he would or should have known of the existence of the borehole prior to March 11, 1993. Further, he knew that such boreholes were used to de-water the shafts, and that they normally had valves on them, and knew that closing the valve causes the borehole to fill with water, yet he and Mr. Biesinger clearly did not consider this information in making their evaluation of the potential hazard.

Bethenergy states that the evidence shows that at the time the order was issued, any explosion hazard posed by the shaft fire was decreasing, if not non-existent, because the fire was the only source of ignition in the shaft, and it was effectively extinguished by the time the order was issued. In support of its conclusions, Bethenergy states that the carbon monoxide measurements at the top of the shaft, the only tangible information

concerning the status of the fire, showed that by the time the order was issued, the fire was in all likelihood extinguished and no threat to the miners in mine 33 could have existed. Bethenergy suggests that even with a fire burning in the shaft, MSHA did not show that an explosion was imminent.

In response to MSHA's assertions concerning the backgrounds and experience of Mr. Kuzar and Mr. Biesinger, Bethenergy takes the position that they did not apply their knowledge and training to evaluate and analyze the situation at hand, and did not evaluate the carbon monoxide readings or consider the fact that they were not real time measurements of the status of the fire. Relying on the CO readings that were being made, and the testimony of its mine inspector Roland, an experienced fire fighter and member of the mine rescue team, Bethenergy concludes that the fire was extinguished very early on in the process of dumping water down the shaft.

Discussing the elements necessary for a methane explosion, which include an explosive mixture of methane and oxygen, Bethenergy points out that the methane measurements from the time MSHA arrived at the shaft to the time the order was issued were well below the explosive range of 5-15 percent at all times; that all methane measurements recorded in the inspector's notes during the relevant time period were below 1 percent; and that the highest concentration of methane actually measured by MSHA from the time Inspector Colton arrived at 9:50 a.m., to the time the order was issued at 1:15 p.m. was 0.2 percent.

Bethenergy concludes that all of the information available to MSHA indicated that an explosive mixture was not present, and that the inspectors speculated that methane might be contained or trapped in the space between the shaft liner and the natural wall of the shaft, ignored the information available to them at the time, and relied solely on their speculation that an explosive mixture of methane might exist. Bethenergy states that the "speculative potential for a remote possibility does not warrant the issuance of an imminent danger order", and citing Utah Power and Light Co., supra, concludes that the conditions in the shaft did not present an "impending" or "menacingly near" hazard requiring the immediate withdrawal of miners.

Bethenergy states that the closest working section to the borehole was approximately 2,000 feet away, that the closest section in the C seam was at least 25,000 feet away, 8,000 of which was solid rock. Bethenergy notes the absence of any MSHA evidence that an explosion would likely propagate even to the closest section, let alone to those in another seam of coal approximately 4 miles away. It also notes the lack of any explanation by MSHA's witnesses as to how an explosion could propagate through the water in the borehole, through the closed valve and through the B-seam mine. Although Mr. Kuzar testified

that an explosion could conceivably propagate to the longwall gob, Bethenergy points out that he did not provide any credible evidence of how this would occur without additional fuel, particularly since there was no methane in the B seam borehole area that would propagate any explosion. Bethenergy further points out that the borehole area was extremely wet, the entries were rock dusted, and there is no evidence that any other areas of the mine were not properly rock dusted.

Bethenergy discounts MSHA's argument that the B and C seam ventilation were interconnected, and it points out that MSHA's witnesses failed to explain how this would affect the potential of a hazard from an explosion in the shaft. Moreover, Bethenergy asserts that the interconnections are not simple and that the working sections in the C seam are ventilated by different air shafts than those that serve the shaft area of the B seam as are the other mine sections and areas.

Bethenergy concludes that the MSHA personnel failed to consider the actual conditions in the mine at and near the borehole location. Inspector Davis had directly observed the conditions that morning, and his information was relayed to Mr. Biesinger. Mr. Biesinger and Mr. Kuzar were more than aware of the general conditions in Mine 33, including the generally wet conditions, and it was clear that there could be no reasonable expectation that the shaft fire would cause an explosion in the shaft, that it would propagate up the shaft, across to the borehole, down through the water in the borehole, through the closed valve, and then through the mine. Bethenergy concludes that based on the available information, no imminent danger order could properly be issued.

Bethenergy concludes that the lack of urgency by MSHA's personnel demonstrate the absence of an imminent danger. Bethenergy notes that Mr. Biesinger testified that he and Mr. Kuzar had decided to issue the order some time between 11:00 a.m. and 11:30 a.m., after his telephone discussion with Mr. Brunatti at 10:45 a.m., and that Mr. Colton was told to go to the mine to issue the order at approximately 12:15 p.m., approximately one hour before he wrote the order at 1:15 p.m., Mr. Colton drove to the mine office rather than using the telephone to call the mine office, and Mr. Biesinger did not try to call mine personnel to tell them that Mr. Colton would be coming to the mine to issue an order requiring withdrawal of all of the miners underground.

Bethenergy argues that MSHA's lack of urgency and leisurely pace may be contrasted with the actions of the MSHA personnel in issuing withdrawal orders at the shaft itself. When MSHA personnel learned of the fire, a 103(k) order was issued over the telephone, and when the 107(a) order was issued at the shaft, it

was issued orally and then reduced to writing. In both situations the construction crew at the shaft had already exited the shaft, yet MSHA acted with some sense of urgency. However, when it came to removing the miners at Mine 33 from MSHA's perceived imminent danger, the process changed. Rather than issuing an immediate verbal order, the order was delivered orally in person, almost two hours after the determination to issue the order was made, and when MSHA purportedly decided that an explosion could occur at any moment and that such an explosion could reasonably be expected to cause death or serious physical harm to the miners underground.

Bethenergy asserts that the lack of imminence is further confirmed by the actions of the two inspectors who were at the No. 33 mine. Bethenergy points out that Inspector Davis inspected the borehole and knew full well that it connected the mine to the shaft, and he was aware that a limited amount of smoke had been observed in the area of the borehole by Mr. Horn before the valve was closed. He was also aware that there was a fire in the shaft and that miners were working underground, yet, he did not issue any imminent danger order.

Bethenergy further points out that Inspector Brunati was aware of the same facts as Mr. Davis because Mr. Davis had reported them to him, and he discussed the situation with Mr. DuBreucq. Yet Mr. Brunati did not issue any imminent danger order. Bethenergy concludes that the actions of two experienced inspectors substantially undermines any argument that an imminent danger existed, as does the lack of urgency of the MSHA personnel at the shaft.

Bethenergy argues that the witnesses agreed that any explosion forces from a shaft explosion would go to the surface, but disagreed on whether or not such forces would also go down the borehole. Although access to the shaft area was supposedly restricted, Bethenergy points out that there were numerous people near and right at the opening during the period that MSHA determined that an explosion was imminent. The air quality measurements were not obtained remotely, and the trucks dumped their water at the edge of the shaft. Given the fact that the two shaft explosions mentioned by the MSHA witnesses both involved injuries to persons on the surface, and not underground, Bethenergy argues that the relative absence of precautions on the surface clearly suggest that an explosion was not considered to be imminent.

Bethenergy concludes that MSHA failed to show that the event the MSHA personnel were concerned with was even possible, let alone reasonable, and also failed to show that based on the information available to the MSHA personnel that an imminent danger order could properly be issued. Even if the circumstances of the shaft fire are evaluated from the perspective of

Messrs. Biesinger and Kuzar, Bethenergy believes it is clear that the conclusion that the shaft fire presented an imminent danger to the miners underground was not reasonable because they knew the borehole was connected at only two locations to the shaft, that the shaft fire was 200 feet below the lowest connection, that shaft explosions would go up the shaft to the open, and that the working sections were some distance from the bottom of the borehole. Further, Mr. Biesinger knew the valve connection was closed and Mr. Kuzar knew that there was probably a valve in the borehole, but did not inquire as to its status. They both knew if the valve was closed that the borehole would fill with water, that there was no fuel in the borehole to propagate an explosion since their monitoring of the borehole indicated 0.1 percent methane in the borehole between 11:00 A.M. and 12:30 P.M. They also knew that Inspector Davis had visited the borehole and found no methane that could propagate an explosion, that remedial efforts to put out the fire were occurring, and more importantly, they had information available to them that the CO readings had been steadily and significantly declining.

Finally, in anticipation of any claim by MSHA that some of the information, particularly concerning the CO readings, was not available when Mr. Biesinger and Mr. Kuzar decided to issue the order, Bethenergy takes the position that they cannot take advantage of their own delay, and that MSHA personnel had sufficient information available to them that would have enabled them to make a reasoned, rational and timely decision. Since they did not utilize it and Mine 33 was evacuated for no justifiable reason, Bethenergy concludes that the order should be vacated.

#### Findings and Conclusions

Section 107(a) of the Mine Act, 30 U.S.C. 817, provides as follows:

If, upon any inspection or investigation of a coal or other mine which is subject to this Act, an authorized representative of the Secretary finds that an imminent danger exists, such representative shall determine the extent of the area of such mine throughout which the danger exists and issue an order requiring the operator of such mine to cause all persons, except those referred to in section 104(c), to be withdrawn from, and to be prohibited from entering, such area until an authorized representative of the Secretary determines that such imminent danger and the conditions or practices which caused such imminent danger no longer exists. The issuance of an order under this subsection shall not preclude the issuance of a citation under section 104 or the proposing of a penalty under section 110.

Section 3(j) of the Mine Act, 30 U.S.C. 802(j), defines an "imminent danger" as "the existence of any condition or practice in a coal or other mine which could reasonable be expected to cause death or serious physical harm before such condition or practice can be abated."

In *Old Ben Coal Corp. v. Interior Board of Mine Operations Appeals*, 523 F.2d 25, 32 (7th Cir. 1975) (quoting *Freeman Coal Mining Corp.*, 2 IBMA 197, 212 (1973), aff'd sub nom. *Freeman Coal Mining Co. v. Interior Board of Mine Operations Appeals*, 504 F.2d, 741, 743 (7th Cir. 1974), the determining test of whether an imminent danger exists was stated as follows:

[E]ach case must be decided on its own peculiar facts. The question in every case is essentially the proximity of the peril to life and limb. Put another way: Would a reasonable man, given a qualified inspector's education and experience, conclude that the facts indicate an impending accident or disaster, threatening to kill or to cause serious physical harm, likely to occur at any moment, but not necessarily immediately? The uncertainty must be of a nature that would induce a reasonable man to estimate that, if normal operations designed to extract coal in the disputed area proceeded, it is at least just as probable as not that the feared accident or disaster would occur before elimination of the danger.

In *Rochester & Pittsburgh Coal Company v. Secretary of Labor*, 11 FMSHRC 2159, 2163 (November 1989), the Commission adopted the position of the Fourth and Seventh Circuits in *Eastern Associated Coal Corporation v. Interior Board of Mine Operations Appeals*, 491 F.2d 277, 278 (4th Cir. 1974), and *Old Ben Coal Corp. v. Interior Board of Mine Operations Appeals*, 523 F.2d 25, 33 (7th Cir. 1975), holding that "an imminent danger exists when the condition or practice observed could reasonably be expected to cause death or serious physical harm if normal mining operations were permitted to proceed in the area before the dangerous condition is eliminated." *Canterbury Coal Co.*, 5 IBMA 51 (1975), held that "speculative potential for a remote possibility does not warrant the issuance of an imminent danger withdrawal order."

In affirming the imminent danger order issued in the 1989 *Rochester & Pittsburgh Company* case, supra, at 11 FMSHRC 2164, the Commission rejected an argument based on the "relative likelihood" of injury resulting from the cited conditions, and stated as follows at 11 FMSHRC 2164:

R & P's argument also fails to recognize the role played by MSHA inspectors in eliminating dangerous conditions. Since he must act immediately, an inspector must have considerable discretion in determining whether an



imminent danger exists. The Seventh Circuit recognized the importance of the inspector's judgment:

Clearly, the inspector is in a precarious position. He is entrusted with the safety of miners' lives, and he must ensure that the statute is enforced for the protection of these lives. His total concern is the safety of life and limb ... We must support the findings and the decisions of the inspector unless there is evidence that he has abused his discretion or authority. (Emphasis added).

Old Ben, *supra*, 523 F.2d at 31.

In Utah Power & Light Co., 13 FMSHRC 1617, 1621 (October 1991), the Commission held that there must be some degree of imminence to support a section 107(a) order and noted that the word "imminent" is defined as "ready to take place: near at hand: impending ...: hanging threateningly over one's head: menacingly near." 13 FMSHRC at 1621. The Commission determined that the legislative history of the imminent danger provision supported a conclusion that "the hazard to be protected against by the withdrawal order must be impending so as to require the immediate withdrawal of miners." *Id.* Finally, the Commission stated that the inspector must determine whether an imminent danger exists without considering the "percentage of probability that an accident will happen." *Id.*

The facts in this case establish that at the time the order was issued Bethenergy's No. 33 Mine consisted of two working coal seams, the B seam and the C prime seam. Each seam had a longwall section and continuous miner sections, and on March 11, 1993, the B seam longwall was not operating, but was in the process of being moved. On that day, Bethenergy's contractor was performing work constructing the D East air shaft which was projected to intersect the B seam mine workings at approximately 1,030 feet, but not the C prime seam. The shaft measured approximately 30 feet 2 inches by 18 feet 4 inches, and it was to provide ventilation to the D East area of the B seam. The shaft had been constructed to a depth of 841 feet on March 11, and there was 200 feet of strata between the bottom of the shaft and the B seam. The shaft was constructed with a concrete liner with a corrugated metal liner between it and the rock shaft walls.

A dewatering borehole was located parallel to the shaft approximately eight feet away, separated from the shaft by rock and soil, and it was constructed with a 6 inch schedule 40 steel pipe, which was grouted into the borehole with pure Portland cement. The borehole was connected to the shaft at two water ring locations at the approximate 270 foot and 620 foot shaft levels. The water rings are designed to collect water from

behind the shaft liner, and the water flows by gravity through a pipe into the 6 inch borehole pipe through a 4 or 5 inch opening. The water rings may be reached from inside the shaft by metal doors through the concrete shaft liner. The borehole extended into the B coal seam and the borehole was equipped with a valve at the end of the borehole where it entered the B seam, and the valve had a pressure rating of 200 psi, for oil, water, or gas. The location of the borehole pipe where it entered the B seam was approximately 200 feet from the shaft bottom and it was separated by rock strata.

At approximately 5:15 a.m., on March 11, 1993, smoke was detected in the shaft by employees of the shaft contractor. At 8:30 a.m., the construction superintendent entered the shaft and observed a fire near the bottom of the concrete shaft lining. MSHA was notified of the incident at 9:00 a.m., and water was dumped down the shaft to extinguish the fire, and these activities were ongoing during the day until the fire was extinguished and the order lifted at 4:40 p.m.

At approximately 9:15 a.m., MSHA Supervisory Inspector Biesinger instructed Inspector Colton to go to the mine to investigate the reported fire and to issue a section 103(k) order on the shaft site. Inspector Colton arrived at the shaft area at 9:50 a.m, and he issued the order to control the fire scene. He also issued an imminent danger order on the shaft, but did not at this time know about the connection between the shaft and the borehole and underground mine areas. Mr. Biesinger arrived at the scene at approximately 10:45 a.m., with trainee Inspector McElhoes. Mr. Elhoes was assigned to assist in the taking of oxygen, methane, and carbon monoxide readings from the shaft exhaust fan while fire fighting efforts continued.

At approximately 9:15 a.m., MSHA Inspector Davis, who was underground in the B seam conducting a spot methane inspection, was contacted by the mine foreman by phone and informed of the shaft fire. Mr. Davis also spoke with MSHA Inspector Sam Brunati, who was on the mine surface, and Mr. Brunati confirmed that there was a shaft fire. The mine foreman arranged for an underground foreman to go to the borehole location and section foreman Horn went to the area and closed the borehole valve at approximately 9:28 a.m. Mr. Horn testified that when he reached the area, he observed "a small amount of smoke" at the borehole and that it was discharging "a small amount of water". The area was "well cribbed" and wet, and the borehole valve was "wet and cold to the touch". He tested for methane, and found none.

Mr. Horn, who is a mining engineer, assumed that some air hoses were burning in the shaft, and he confirmed that any smoke from the fire would travel through the borehole pipe and into the underground mine. However, once the borehole valve was closed, he believed that the pipe would begin filling up and backing up

with water, and no more air or smoke would enter the mine through the borehole because the valve was closed.

Inspector Davis testified that after speaking with Mr. Brunati about the shaft fire, he went to the borehole location, met with Mr. Horn and two other foreman. Mr. Davis tested the borehole area for methane and found none. He also took air bottle samples, and the results did not reflect any oxygen problems. Mr. Davis confirmed that the borehole valve was closed and he observed no smoke or water coming out of the valve. He also noted in his notes that the borehole valves were closed and that the pipe was filling up with water at the rate of four gallons per minute, and that he had received this information from mine field engineer Neff who was with him at the borehole location. Mr. Neff calculated that the borehole pipe started filling up at 9:30 a.m., and would rise to a level of 120 feet within an hour. Mr. Davis confirmed that a foreman was assigned to monitor the borehole location for carbon monoxide every fifteen minutes. Mr. Davis reported the results of his inspection of the borehole area to Inspector Brunati, who was still on the surface, and since his inspection duties had ended, Mr. Davis left the mine. He assumed that Mr. Brunati communicated his findings to Mr. Biesinger, and neither Mr. Davis or Mr. Brunati issued any orders requiring the withdrawal of miners from the underground mine areas.

Inspector Biesinger confirmed that he first learned about the connection between the shaft and the borehole pipe at 10:45 a.m. when Mr. Brunati called him to inform him of Mr. Davis' findings. Mr. Biesinger confirmed that he was made aware of the fact that mine officials had smelled smoke in the mine, but shut the borehole pipe valve. Mr. Biesinger assumed that the smoke was detected before the valve was closed at 9:28 a.m., and he also assumed that the reported 2,178 cubic feet of air per minute ventilating the entry below the bottom of the shaft in the B seam was in compliance with the mine ventilation plan. Mr. Biesinger also knew that Mr. Davis tested the underground borehole area and detected no methane and that someone was stationed at the borehole location with a CO detector.

Mr. Biesinger confirmed that after his 10:45 a.m. discussion with Mr. Brunati, he telephoned MSHA subdistrict manager Kuzar, and they discussed the issuance of the imminent danger order to remove the miners from the underground mine areas. Although Mr. Biesinger testified that he did not specifically know that miners were in the underground B and C seam areas, he assumed they were because they normally are, and he had inspectors at the mine conducting inspections that day. He confirmed that he and Mr. Kuzar "jointly" decided to issue the imminent danger order at approximately 11:30 a.m.

Mr. Kuzar confirmed that he was in telephone contact with Mr. Biesinger after he learned about the shaft fire, and that he had five or six telephone discussions with him in the course of the morning. Mr. Kuzar testified that the decision to issue the imminent danger order was made during his second conversation with Mr. Biesinger. Mr. Kuzar confirmed that he was informed about the connection of the borehole pipe into the underground B seam, but he did not know about the valve at the end of the borehole, nor was he informed of the fact that Inspector Davis was in the B seam in close proximity to the borehole pipe, and he only learned about Mr. Davis' presence underground while preparing for the hearing in this case.

Inspector Colton testified that sometime between 12:00 and 12:30 p.m., Mr. Biesinger instructed him to go to the main mine portal and issue the imminent danger order withdrawing miners from the underground B and C seams. It took Mr. Colton 20 to 30 minutes to reach the mine office by automobile, and after arriving at the office and meeting with management, Mr. Colton orally instructed them to evacuate the miners from the underground mine areas, and he reduced the order to writing at 1:15 p.m. The management officials with whom he met voiced their objections to the order, and Mr. Colton telephoned Mr. Biesinger and informed him of this. Mr. Kuzar confirmed that mine operations manager Stickler called him and expressed his belief and concern that the order was not justified. After Mr. Stickler informed him that he could not guarantee that everyone working underground would not be affected by any explosion, Mr. Kuzar advised Mr. Stickler that the miners needed to be evacuated and that the mine would be back in production as soon as possible.

At approximately 4:00 p.m., members of the mine rescue team went down the shaft and reported that the fire appeared to be extinguished. The company safety director, Inspector Biesinger, a state inspector, and the construction foreman subsequently went down the shaft and confirmed that the fire was extinguished. At approximately 4:30 p.m., Mr. Biesinger orally advised mine management that the imminent danger order was lifted, and it was terminated in writing at 4:30 p.m. The order was in effect for three hours and twenty-five minutes.

In this case, an imminent danger order was in effect at the shaft and the shaft surface area, and all construction workers had been removed from those areas while efforts to bring the fire under control continued. Bethenergy does not dispute the issuance of this imminent order. Its dispute is with the imminent danger order withdrawing miners from the underground B and C coal seams. The critical issue is whether the six-inch borehole pipe connection between the shaft and the underground

mine areas provided an imminently ready path for the propagation and acceleration of a shaft explosion into the underground mine areas if that event were to occur.

While it may be true that the presence of ignition sources and methane in the shaft presented a potentially hazardous situation at the shaft location at the time of the fire, the existence of those conditions, standing alone, is insufficient to support an imminent danger order withdrawing miners from the underground mine workings in question. In short, the fact that certain fire conditions created circumstances in which subsequent hazards may occur does not make the conditions imminently dangerous.

MSHA has the burden of proving more than a speculative possibility that the underground miners were endangered or at risk because of the borehole connection between the shaft and underground mine workings. In order to support the order, it must be established that any shaft explosion resulting from the ongoing fire could reasonably be expected to cause death or serious harm to the underground miners if normal operations were permitted to proceed in the underground mine areas before the threat of any impending explosion could be eliminated. It must also be shown that the hazard presented had a reasonable potential for coming to fruition within a short period of time.

MSHA's assertion that the methane and carbon monoxide readings taken by Inspector McElhoes at the mine shaft during the fire indicated that significant amounts of methane were present is not supported by the record. Although the record shows that a fire was ongoing, Inspector Biesinger testified that the methane, oxygen, and carbon monoxide readings taken by Mr. Elhoes and the state inspector reflected one-tenth of one percent methane (0.1), which he acknowledged was "not too much"; 126 parts per million of carbon monoxide, which he also acknowledged "is not a great amount", but is an indicator that "some kind of combustion is taking place"; and less than 20.5 percent oxygen, which he characterized as "less than the usual 21 percent," but also an indicator that there is combustion in the shaft (Tr. 99-100). Further, Mr. Biesinger confirmed "a trend downward in the CO," at the time water was being dumped down the shaft, and that when the imminent danger decision was made, the CO had declined from a high of 126 parts per million to 19 parts per million (Tr. 156).

MSHA cites the testimony of Inspector Biesinger at transcript page 159, in support of its assertion that even if there were water in the borehole pipe, an explosion could have been propelled through it (posthearing brief, pg. 12). However, Mr. Biesinger was asked if the products of any combustion would go through the water in the borehole if there were no explosion, and he replied "It's not likely, no" (Tr. 159). The next question asked was whether the main force of an explosion would

go up the shaft, and he responded "one would expect it to do that, yes" (Tr. 159). Mr. Biesinger confirmed that in the Lehman shaft explosion incident the explosion went down the shaft, and when it came up against the water it went back up the shaft (Tr. 157, 158).

Bethenergy's witnesses Horn and DuBreucq, both experienced professional mining engineers, and field engineer Neff, who along with Mr. Horn developed the specifications for the construction of the shaft, were of the opinion that if a shaft explosion had occurred, the force of the explosion would go up the shaft and to the surface, as it did in the two past shaft explosion incidents, rather than up the shaft, through the water rings, and down a six inch borehole pipe into the underground B and C mine seam areas. They testified credibly in some detail as to their reasons for their opinions, and I credit their opinions in this regard over those of the inspector's speculative conclusions with respect to the reasonable likelihood that an explosion in the shaft would propagate down the borehole, through the water in the borehole pipe, blow out the valve and enter the underground mine areas in question after passing through 200 feet of rock strata.

Although I recognize the fact that faced with the emergency situation presented by the fire, any judgment call by Inspector Biesinger with respect to the existence of an imminent danger in the underground workings, when balanced against the safety of miners, must be made quickly and without delay. However, when the order is subsequently challenged, any imminently dangerous situation which an inspector believed may have existed at the time the order is issued must be proven by a preponderance of the available credible and probative evidence. On the facts and evidence adduced in this case, I cannot conclude that MSHA has proven that it was reasonably likely that a shaft explosion would travel up the shaft, through the shaft water rings and down the borehole pipe through the accumulated water, blowing out the valve on its way, and then entering the underground mine workings after passing through 200 feet of rock strata.

Although Mr. Biesinger expressed his concern about noxious gases and fumes being transmitted through the borehole pipe into the B seam working areas, he stated that his concern was based on Mr. Brunati's information that someone had smelled smoke in the mine, and Mr. Biesinger's assumption that there was "an open connection and we had the transfer of air or gas between the shaft and the underground portion of the mine" (Tr. 133-134). Mr. Biesinger indicated that this was an additional factor that influenced his decision to issue an imminent danger order. However, the credible and un rebutted evidence adduced by Bethenergy establishes that the borehole valve had been closed for nearly four hours before the order was issued and that an

"open connection" no longer existed. Further, according to Mr. Neff's un rebutted calculations, the water in the pipe had risen 120 feet by 10:30 A.M., MSHA Inspector Davis had inspected the underground borehole area and detected no smoke or methane, Bethenergy's engineers and foremen had also inspected the area and detected no smoke or methane after the valve was closed, the area was continuously being monitored for carbon monoxide, and there is no credible evidence of any ready sources of ignition.

Although Inspector Kuzar alluded to "the vast gobs in that mine" (Tr. 180, 183), he did not know how far these areas were from the borehole location in the B seam (Tr. 184). Further, his testimony that there have been "problems with methane in the gobs", was based on the amount of methane drainage holes that are required "at times" to remove a panel (Tr. 183), and there is no evidence of the nature of the problem, other than the fact that the mine is a gassy mine, and probably the gassiest mine in the state. However, the fact that the mine is gassy, and that drainage holes are required to bleed off the methane do not ipso facto, establish a hazardous condition. I take particular note of the fact that MSHA stipulated that there were no adverse ventilation conditions where miners were working underground, (Tr. 182-183).

MSHA presented no evidence of any existing hazardous or adverse mining conditions in the underground B and C seams in question. Indeed, MSHA Inspector Davis, who along with Inspector Brunati were at the mine conducting inspections, was aware of the underground conditions, went to the location of the borehole and confirmed that the valve had been closed, detected no smoke or methane at the borehole location, and confirmed that someone was assigned to the borehole location to monitor the CO. After reporting his findings to Mr. Brunati, who was on the surface Inspector Davis left the mine, and there is no evidence that he detected any hazards or issued any citations or orders.

The parties stipulated that at 10:15 A.M., an air sample taken by Inspector Davis at the B seam borehole location reflected .010 percent methane, and .006 percent carbon monoxide, and that these amounts were insignificant. The parties also stipulated that with the borehole valve closed there would be a limited amount of air movement through the borehole and it would not travel to any working section. Mr. Biesinger testified that any air passing by the borehole would not go to any working section and it would go to the returns.

With regard to MSHA's argument that Mr. Kuzar could not take the chance of leaving the miners in the mine in light of mine manager Stickler's statement that he could not guarantee the safety of miners "given the ongoing shaft fire," I take note of the fact that Mr. Kuzar testified that he asked Mr. Stickler if he could guarantee the safety of the miners if there was an

explosion in the shaft (Tr. 191), rather than a fire as argued by MSHA at page 14 of its brief. I find a distinction between the hazardous nature of a shaft fire that is being addressed and an explosion, and I would venture a guess that Mr. Stickler may have answered differently if the question were asked in the context of a shaft fire, particularly since the miners in the shaft were withdrawn by the issuance of the section 103(k) and 107(a) orders affecting the shaft and the fire was being brought under control and efforts were being made to extinguish it.

The principal concern expressed by Mr. Kuzar and Mr. Biesinger at the time they decided that an imminent danger order should issue focused on the connection between the shaft and the mine by means of the six inch borehole pipe. However, Mr. Biesinger knew that the borehole valve had been closed at 9:28 a.m., and there is no evidence to dispel his assumption that the smoke that was reported around the borehole was detected before the valve was closed. Mr. Kuzar testified that he and Mr. Biesinger did not discuss the valve, and Mr. Kuzar considered the valve to be irrelevant and he had an unsupported opinion that it would not stop any shaft explosion forces coming through the pipe.

In view of the foregoing, and based on all of the evidence adduced in this case, I cannot conclude that the conditions in the underground B and C mine seam working areas, particularly at the borehole location, posed a hazard to miners. Further, I conclude and find that MSHA has not established the existence of any hazardous conditions that presented an imminent danger of a shaft explosion, or propagation of an explosion from the shaft through the borehole, and into the underground workings, before the shaft fire was brought under control and extinguished. I agree with Bethenergy's assertion that little consideration was given to the existing mine conditions in the B and C seams at the time the decision to issue the imminent danger order was made.

Although I recognize the fact that an inspector has considerable discretion in determining whether an imminent danger exists, there must nonetheless be some reasonable degree of imminence to support such a finding. In the instant case, while Mr. Biesinger was informed of the borehole connection at 10:45 a.m., the order withdrawing miners from the mine was not issued until 1:15 p.m., two and one-half hours later. This delayed reaction to the perceived imminent danger undercuts MSHA's argument that an explosion was imminent and that the inspectors needed to act quickly to remove the miners from the mine.

I believe that Inspectors Kuzar and Biesinger acted out of an abundance of caution in the interest of safety, and rightly so, and I have no reason to believe that they were less than



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well-intentioned when they decided to issue the imminent danger order evacuating the miners from the underground areas of the mine. However, I nonetheless conclude and find that the evidence adduced in this case does not support their unsupported speculative conclusion that a shaft explosion was near at hand, impending, or ready to take place. Nor does it support a conclusion that if such an explosion were to occur, it would have spread into the underground workings of the B and C mine seams. Under the circumstances, the contested imminent danger order IS VACATED.

ORDER

On the basis of the foregoing findings and conclusions, Bethenergy's contest is GRANTED, and the contested section 107(a) Imminent Danger Order No. 3708620, issued on March 11, 1993, IS VACATED.

George A. Koutras  
Administrative Law Judge

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