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Federal Mine Safety and Health Review Commission
Office of Administrative Law Judges

WEST ELK COAL COMPANY, INC.,
CONTESTANT

v.

SECRETARY OF LABOR,
MINE SAFETY AND HEALTH
ADMINISTRATION (MSHA),
RESPONDENT

CONTEST PROCEEDINGS

Docket No. WEST 86-28-R
Citation No. 2336427; 10/23/85

Docket No. WEST 86-29-R
Citation No. 2336428; 10/23/85

Docket No. WEST 86-30-R
Citation No. 2336430; 10/24/85

Docket No. WEST 86-31-R
Citation No. 2833301; 10/30/85

Docket No. WEST 86-32-R
Citation No. 2833302; 10/30/85

Mt. Gunnison No. 1 Mine

SECRETARY OF LABOR,
MINE SAFETY AND HEALTH
ADMINISTRATION (MSHA),
PETITIONER

v.

WEST ELK COAL COMPANY, INC.,
RESPONDENT

CIVIL PENALTY PROCEEDING

Docket No. WEST 86-73
A.C. No. 05-03672-03542

Mt. Gunnison No. 1 Mine

DECISION

Appearances: Thomas F. Linn, Esq., Legal Department,
Anaconda Minerals Company, Denver, Colorado,
for Contestant/Respondent;
James H. Barkley, Esq., Office of the
Solicitor, U.S. Department of Labor, Denver,
Colorado, for Respondent/Petitioner.

Before: Judge Koutras

Statement of the Proceedings

These consolidated proceedings concern five Notices of Contest filed by the West Elk Coal Company, Inc., challenging the validity of five section 104(a) "non-S & S" citations issued pursuant to the Federal Mine Safety and Health Act of 1977, and civil penalty proposals filed by MSHA seeking civil penalty assessments for the citations.

The cases were heard by Commission Judge John A. Carlson, and the parties filed posthearing briefs. However, due to the untimely death of Judge Carlson, the cases were reassigned to me, and the parties agreed to my adjudication of the cases on the basis of the record made before Judge Carlson without any additional hearings. I have considered all of the arguments made by the parties in their respective briefs in the adjudication of these proceedings.

Issues

The issues presented in these proceedings are as follows:

1. Whether the respondent violated the cited mandatory safety standard, and if so, the appropriate civil penalties to be assessed for those violations based on the criteria found in section 110(i) of the Act.

2. Whether the inspector who issued the citations followed the appropriate test procedures in support of the alleged violations, and whether or not those procedures were proper and valid.

3. Additional issues raised by the parties are identified and disposed of in the course of these decisions.

Applicable Statutory and Regulatory Provisions

1. The Federal Mine Safety and Health Act of 1977, Pub.L. 95-164, 30 U.S.C. 801 et seq.

2. Section 110(i) of the 1977 Act, 30 U.S.C. 820(i).

3. Mandatory safety and health standard 30 C.F.R. 75.316.

4. Commission Rules, 20 C.F.R. 2700.1 et seq.

Discussion

These cases arise out of five citations issued by MSHA Inspector Matthew Biondich in connection with his permissibility inspection of the low water shutdown systems on five diesel operated shuttle cars used underground in West Elk's Mt. Gunnison No. 1 Mine. The citations were issued between October 23 and 30, 1985, and each allege a violation of the approved mine ventilation system and methane and dust-control plan requirements found in 30 C.F.R. 75.316. Each citation alleges that a violation of the ventilation plan occurred in that the cited equipment was not in compliance with the "manufacturer's operating specifications and maintenance manual in the care of use of diesel equipment * * * in that the low water shutdown * * * would not shut the engine off when the water was completely drained from the scrubber."

During the course of a regular inspection of the mine, Inspector Biondich tested 12 diesel shuttle cars to determine their compliance with the applicable permissibility standards. The ram cars are used to carry coal from the mine face area to a dump point. Since the cars work in the face area and passed the last open crosscut, they are required to be in compliance with the permissibility standards. These standards require that the hot exhaust from the car diesel engines be routed through a device known as a scrubber. The purpose of the scrubber is to cool the exhaust with water so that exhaust and any expelled carbon particles will not act as a source of dust or methane ignition. The water used in the system is contained in the scrubber tank, and the scrubber operates by routing the exhaust through a perforated pipe which is under water. As water is depleted from the scrubber tank, a float valve assembly attached to the side of the scrubber tank senses any depletion of water and allows water to enter the scrubber tank from another 90 gallon tank called variously the makeup, reserve, or supply tank. The scrubber is equipped with a device known as the low-level water shutoff device, and the purpose of that device is to shut off the car engine in the event the scrubber tank no longer has water in it to cool the exhaust. On 5 out of the 12 cars inspected by the inspector, the low-level water shutoff device, when tested, did not act to shut down the car engines, and they were cited. The citations in issue are as follows:

Citation No. 2336427 was issued at 9:40 a.m., on October 23, 1985, and it cites a violation of mandatory

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safety standard 30 C.F.R. 75.316. The cited condition or practice is as follows:

The approved ventilation plan was not being complied with according to manufacturer's operating specifications and maintenance manual in the care and use of diesel equipment in 1 South panel working section (005-C) in that the low water shut down on the R6 Jeffrey Ramcar serial No. 38272 would not shut the engine off when the water was completely drained from the scrubber.

The violation was abated at 12:40 p.m., the same day by installing a new float valve assembly.

The condition or practice cited in the four remaining citations are identical to Citation No. 2336427, and simply cite four additional ram cars. They are as follows:

Citation No. 2336428 was issued on October 23, 1985, at 10:50 a.m. for a violation on Jeffrey Ram Car No. R-11. The citation was abated at 11:30 on that same day by repairing the needle valve on the float valve assembly.

Citation No. 2336430 was issued on October 24, 1985, at 9:30 a.m. for a violation on ram car No. R-12. The violation was abated at 10:40 on that same day by installing a new air float valve on the float compartment.

Citation No. 2833301 was issued on October 30, 1985, at 9:00 a.m. for a violation on ram car No. R-4. The violation was abated at 10:25 on that same day by clearing rust flakes out of the float tank compartment.

Citation No. 2833302 was issued on October 30, 1985, at 11:00 a.m. on ram car No. R-5. The violation was abated at 1:30 on that same day. The abatement noted that the low water shut-down device on the ram car was restored to operating condition in that the engine would shut off before the water was drained from the scrubber.

MSHA's Testimony and Evidence

MSHA Inspector Matthew Biondich testified as to his mining experience and training, including training with respect to diesel equipment permissibility inspections. He confirmed that he conducted the inspections in question beginning on October 23, 1985, and that he inspected the diesel operated

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ram cars for permissibility compliance. He identified exhibit S-1 as a copy of the pertinent portion of the mine ventilation plan as it pertains to diesels. He confirmed that paragraph #2, pg. 28, of that plan applies to the cited ram cars, and that the cars were not being operated and maintained in accordance with the referenced manufacturer's manual specifications (Tr. 6-11).

Inspector Biondich stated that he inspected ram car #R-6 on October 23, 1985, for permissibility, and confirmed that it operated from the face areas to the dumping point past the last open crosscut. He stated that he has conducted over 100 permissibility inspections since 1977, and he described the procedures he follows in conducting these inspections. With respect to any required permissibility tests, such as diesel fuel, air, and water shut down systems, he confirmed that these tests are conducted by company personnel and that he simply acts as an observer. Equipment subject to the permissibility standards must be inspected weekly by the operator (Tr. 13-17).

With regard to the low water shut down systems test on the ram cars, Mr. Biondich stated that he requested the personnel conducting the test to shut the main water supply off to save time, and he believed the operator's personnel were familiar with the required test (Tr. 18).

Mr. Biondich explained that the purpose of the car scrubber is to cool the exhaust of the diesel car engine so as to prevent fire and explosion hazards caused by the heat generated by the exhaust system. The scrubber serves to cool the exhaust heat and flames generated by the car engine, and it does this by using water from the machine water supply. If there is no water in the scrubber, the machine will "kick out hot carbon and heat" into the mine atmosphere, and this would create a fire and explosion hazard. The tests were conducted to ascertain whether or not the low water shutoff device on the cars were working properly so as to shut down the engine in the event the available water from the scrubber water supply reached a certain level (Tr. 18-21).

Mr. Biondich identified exhibit S-2 as a schematic drawing of a scrubber and makeup tank and float valve illustrative of the kind used on ram car No. 6, and he explained how the low water shutoff device operates and how it is tested (Tr. 21-23). He explained that in the event the water in the scrubber falls below a certain level, the engine cutoff float valve operates to add water to the scrubber from a water makeup tank. In the event there is insufficient water in the makeup tank,

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or if the water falls below 5 or 6 inches in the scrubber and is not replaced, the valve is supposed to shut the car engine down (Tr. 24).

Mr. Biondich confirmed that company personnel tested the engine cutoff valve on the No. 6 car and that he observed the test. The main water supply from the reservoir was shut down so that the water level in the scrubber could be checked without using all of the water in the makeup tank. In addition to a needle valve used to shut off the makeup tank water supply, some of the cars were equipped with a regular water shutoff valve between the scrubber and makeup tank. Once the scrubber tank water supply was cut off, a plug on top of the scrubber was opened, and the individuals conducting the tests explained that this was done to prevent air locks in the scrubber tank. After all of the water drained from the scrubber and stopped running out of the scrubber tank, the engine kept running and the valve would not shut down the engine. Had the engine scrubber cutoff float valve been operating properly, the engine should have shut off. Since it did not, he concluded that the car was not being maintained properly (Tr. 24-28).

Mr. Biondich stated that the citation for the No. R-6 car was abated at 12:40 p.m., 3 hours after the machine was tested, and he confirmed that he was present "a majority of the time" during the abatement. Abatement was achieved by installing another float valve assembly, and a second test was conducted using the same procedure as previously described. Before the water stopped draining out of the scrubber tank, the car engine shut down, and this indicated to him that the shutoff valve was operating properly. The same test was used both during his initial inspection and the abatement of the violation (Tr. 29-31).

Mr. Biondich confirmed that after the No. R-6 car was tested, the same company mechanic tested the No. R-11 car, and the low water shutoff valve was tested in the same manner as the No. R-6 car was tested. He again asked the mechanic to shut down the main water supply to save time in draining the scrubber tank, and to prevent water from the 60-gallon tank spilling on the roadways. After the scrubber tank was completely drained, the engine continued to run with no water in the tank. The condition was abated within 40 minutes by cleaning and repairing the needle valve on the scrubber float valve assembly. After this was done, the car was tested again using the same test, and the engine shut off. This led him to conclude that the needle valve had been defective, and the mechanic told him that this was the case (Tr. 32-35).

Mr. Biondich stated that after the tests were completed he spoke with the Jeffrey Manufacturer's representative, a Mr. Murphy, and advised him that the cited conditions had been corrected. Mr. Biondich stated that he explained the test procedures which were used to Mr. Murphy, and Mr. Murphy did not criticize the test procedures (Tr. 38).

Mr. Biondich stated that he returned to the mine on October 24, 1985, and observed the test conducted on the No. R-12 ram car low water shutoff device. The test was conducted in the same manner as on the previous day, and the engine would not shut off when the scrubber was completely drained. The citation was abated within 40 minutes by installing a new float valve on the float compartment. The abatement work was conducted by the Jeffrey representative, Mr. Murphy, and Mr. Biondich observed him. After installing the new float valve, Mr. Murphy tested the machine. Mr. Murphy's test differed from the other tests conducted by the company mechanic in that he drained the scrubber tank by means of a 2-inch drain plug on the side of the rear of the scrubber rather than taking off the water supply hose for the float valve assembly. Mr. Biondich stated that he advised Mr. Murphy that the water hose had been removed when the previous tests were conducted, and that Mr. Murphy replied "you don't need to do it" (Tr. 42).

Mr. Biondich confirmed that the mechanics who tested the other cars the day before drained the scrubber tank by means of a front valve which drained all of the water out, while Mr. Murphy drained the tank by means of the other valve which left 5 to 6 inches of water in the scrubber. The first time Mr. Murphy tested it with 5 to 6 inches of water left in the tank, the engine would still not shut down (Tr. 43). In Mr. Biondich's view, Mr. Murphy's use of a different drain valve, and his leaving the float valve assembly hose intact, did not significantly effect the results of the prior tests conducted by the company mechanic (Tr. 44-46). After Mr. Murphy corrected the problem, he tested the car twice, and it worked properly. Mr. Biondich then terminated the citation (Tr. 47).

Mr. Biondich confirmed that he again returned to the mine on October 30, 1985, and observed a company mechanic test the No. R-4 ram car scrubber water shut down device. Mr. Murphy ordered the testing of that car, and the mechanic followed the same procedures used on the other cars, except that he did not disconnect the water supply hose from the main reservoir tank. In order to achieve uniformity in the

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test procedures, Mr. Biondich stated that he advised the mechanic that the other mechanics who tested the previously cited cars had disconnected the hose in question, but after the mechanic advised him that this was not necessary, Mr. Biondich allowed him to leave it intact. However, in each instance during all of the testing on all of the cars, the main water valve between the scrubber tank and the main water reservoir was shut off (Tr. 49).

Mr. Biondich stated that when the No. R-4 car was tested by the mechanic, the majority of the water had been drained, and when it trickled out, the engine ran for 15 minutes and did not shut down. Mr. Biondich concluded that the low water shutoff device was not functioning properly and he issued the citation. The violation was abated within an hour and a half (Tr. 50). The mechanic disconnected the float tank compartment from the side and the scrubber and removed the water supply hose. Mr. Biondich observed that the hose was filled with "hard water" or "rust flakes," and that the scrubber tank contained these flakes. Mr. Biondich helped to clean out the tank and the mechanic installed another hose. After this was done, the low water shutoff device was again tested, and it operated properly. Before the water was completely drained from the scrubber, the engine would shut down (Tr. 52-53).

Mr. Biondich confirmed that he next inspected the No. 5 ram car on October 30, and observed the test conducted on that car by company personnel. The test procedure for the No. R-4 car was again repeated for the No. 5 car, and when tested, the engine would not shut down when the water was drained from the scrubber tank. Mr. Biondich issued the citation, and returned the next day to abate it. Mr. Biondich confirmed that he was not present during the abatement, and did not know what was done to correct the condition. However, the No. 5 car was again tested using both test procedures, i.e., leaving the float tank hose on, and taking it off, and when tested both ways, the low water shutoff valve device was operable, and it shut down the machine. Mr. Biondich then abated the citation (Tr. 54-55).

Mr. Biondich confirmed that he conducted permissibility inspections on all 12 of the ram cars used in the mine, and observed company personnel test the emergency air shut off, the fuel shutoff, and the low water shutoff on each car. The five cited cars failed to meet the low water shutoff permissibility requirements (Tr. 58).

On cross-examination, Mr. Biondich confirmed that each of the citations were issued because of the operator's failure to maintain the ram car low water shut down devices in accordance with the manufacturer's operating specifications and maintenance manual as required by the mine ventilation plan (Tr. 64-65). He confirmed that while the plan requires the manuals to be available for inspection, he did not request a copy of the manual test procedures. He also confirmed that he came into possession of the manual test procedures for the first time in December after the citations were issued when he attended a training session conducted by MSHA diesel specialist Jerry Lemon (Tr. 65). Mr. Biondich denied that company supervisors George Moore, Gaylon McDaniel, and Dewey Walker, who accompanied him during his inspections, advised him that they did not know how to test the ram cars, and that he (Biondich) stated to them "Don't worry about it. I'll tell you how to do it" (Tr. 66-67).

Mr. Biondich confirmed that diesel equipment used in underground mines is a relatively new phenomenon, and that he has received training on the checking of diesel equipment from Mr. Lemon (Tr. 68). Mr. Biondich identified exhibit O-2 as a copy of the Jeffrey Manufacturer's Permissibility Checklist for the ram cars in question, and confirmed that the instructions are the same ones given to him in December after the citations were issued. He also confirmed that page four, entitled "Low Scrubber Water Shut Down" are the proper manufacturer's manual testing procedures for the testing of the cited ram car (Tr. 68-69).

Mr. Biondich confirmed that the manual test procedures set out in exhibit O-2, were not followed when the cited ram cars were tested (Tr. 69). He identified exhibit O-3, as a photograph of the ram car scrubber tank in question, and he located the drain valve with a handle used to drain the water out of the cars at the time the tests were conducted in the lower right-hand corner of the scrubber (circled on the exhibit). He identified the drain valve used by Mr. Murphy during his tests as the gray cylinder with a hole in it on the side of the scrubber tank in the left of the photograph. When asked whether the "black cylinder" shown in the photograph is the scrubber lower level tank, Mr. Biondich replied "I's say no." When asked what it was, he replied "I don't know" (Tr. 72). He confirmed that most of his permissibility inspections were electrical inspections, and that his experience with diesel inspections consists of approximately 12 regular mine inspections (Tr. 73).

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Mr. Biondich confirmed that during all of the tests, he instructed the company testing personnel to shut off the valve between the water supply tank and the scrubber tank. He conceded that this shut-off procedure is not specified in the Jeffrey testing manual, and admitted that the Jeffrey procedures were not followed in this regard (Tr. 73). He explained that all he checked was the low water shut down, and his instructions to shut down the valve between the water supply and scrubber tank were given "so we wouldn't be there a long time and also water running down through your entry where you have 60 gallons running down" (Tr. 74).

Mr. Biondich conceded that the test procedure in paragraph 2(b) concerning the disconnection of "the air supply line at the upper tank valve" was not performed or followed in any of the tests he observed. With regard to the test procedures found in paragraph 2(a), he stated that it was performed on some of the cars which were equipped with valves to relieve the main water tank pressure, but not on others because they were not equipped with such a valve. These cars had another pressure valve installed in the line, and in such cases MSHA's procedures do not require that the main water tank be completely drained, and he simply had the valve shut off. He conceded that this MSHA procedure is not part of Jeffrey's procedures which are in fact approved by MSHA as the procedures for testing the cars (Tr. 75).

Mr. Biondich identified the rear of "the lower level tank" referred to in test procedure 2(c) as the "white painted plug" on photograph O-3. He was not sure of the location of the 6 or 7 inch drain valves, and he confirmed that he never measured the lower water level with a tape during any of the tests because all of the water had been drained from the tank (Tr. 76-79). He conceded that in the event the cars are tested on uneven levels and the drain pipes are above the bottom of the tank, water could be trapped in the scrubber tank and upper float tank (Tr. 80).

Mr. Biondich confirmed that the Jeffrey ram car scrubber is equipped with a backup secondary heat sensor in the exhaust system, and in the event scrubber gases are not cooled because of a lack of water, the heat sensor will shut down the machine (Tr. 80-81).

With regard to the new float valve assembly installed to abate the citation for ram car No. R-6, Mr. Biondich denied that he was ever told that the float valve assembly removed from the machine was not defective. With regard to ram car

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No. R-11, he conceded that the machine was checked in different places through "trial and error," and that equipment changes were being made to try to determine the trouble. Mr. Biondich admitted that he met with company maintenance manager Richard Skvarch on October 31, after the citations were issued and that they discussed how the low water devices worked. He denied that Mr. Skvarch explained the proper test procedures to him or that he pointed out that draining the tank through the main drain valve was improper (Tr. 85). Mr. Biondich admitted that Mr. Skvarch informed him that the low water shut off device on the No. R-12 car had been checked by the Jeffrey procedures several times during the maintenance shift before his arrival and that it was functioning properly (Tr. 86).

Mr. Biondich confirmed that on December 12, 1985, MSHA requested permission from the company to conduct a school on low water shut down devices and other permissibility checks on the diesel cars at the mine. Mr. Biondich stated that the school was intended for the benefit of three newer MSHA inspectors, but that he was present. He further confirmed that Mr. Lemon conducted the classes of instruction and that copies of the Jeffrey procedures were passed out to the inspectors, and that Mr. Lemon "walked them through" the permissibility testing procedures (Tr. 90-91). Mr. Biondich conceded that the tests conducted on the cited ram cars did not follow the Jeffrey manual procedure, but he still believed that the tests were valid (Tr. 91). He denied hearing any statements by Mr. Lemon during the instruction classes that "if you don't follow these instructions * * * (Jeffrey Manual) you know what West Elk will do and I don't blame them." He also denied hearing Mr. Lemon state "if you don't follow those instructions, you don't have a leg to stand on" (Tr. 91-92).

Mr. Biondich identified exhibit O-4, as procedures for testing Jeffrey machines which are the "same type" as the one he cited but for different models. He described these procedures as a "general outline," and while he had them in his briefcase, he did not refer to them when he inspected the cited cars "because I'd done it before." He confirmed that he did not use these procedures when the cited cars were tested, and that they were not used by the company personnel performing the tests. His only participation in the actual testing was limited to instructing company personnel to shut off the water valve from the main tank (Tr. 101-105).

In response to further questions, Mr. Biondich confirmed that the tests conducted on the ram cars which were in compliance and not cited were the same tests conducted on the

cited cars, except for the fact that some of the mechanics disconnected the shut off valve, and others did not (Tr. 107-109). He described the location of the float valve device which shuts the car engine down when the water level gets too low as the "smaller white box" attached to the "bigger white box" identified as the scrubber in photographic exhibit O-3 (Tr. 108).

Jerry Lemon, MSHA Diesel Specialist Coordinator, testified as to his mining experience and duties, and he confirmed that he has served as an inspector conducting inspections on diesel equipment. He has a college BS degree in automotive and diesel engineering, and his duties include the training of inspectors in the inspection of diesel equipment, and the testing approval of diesel equipment field changes and modifications. He has also served on MSHA committees concerned with the regulations and guidelines for diesel equipment used in underground mines. He denied making the statements attributed to him by the operator's counsel during a diesel training session he conducted at the mine with respect to what would happen in the event MSHA inspectors did follow the Jeffrey testing manual guidelines (Tr. 110-113).

Mr. Lemon stated that he is familiar with the cited ram cars in question, and he identified the black hose shown in photographic exhibit O-3 as the hose which connects to the scrubber makeup tank. As water is used up through evaporation of the exhaust, water in the scrubber is made up by means of this hose from the makeup tank. He confirmed that several mechanics disconnected that hose during some of the car tests, and in his opinion this was not necessary. He explained that while disconnecting the hose would eliminate any air locks in the float tank, water may still be present in the float tank and the engine will still run and be nonpermissible. The disconnection of the hose will drain the water out of the float system and deactivate it and shut the machine down. In his opinion, the hose should not be disconnected, and he has reviewed no literature indicating that this hose should be disconnected (Tr. 114-116).

Mr. Lemon explained his reasons why the hose in question should not be disconnected. He indicated that should a malfunction occur in the scrubber, the hose would not be disconnected. The removal of the hose would overcome any design problem and would allow the scrubber to function under test conditions but not under actual mine operating conditions. He stated further that the true test would be to drain all of the water from the scrubber at the lowest point, and once drained, if the system does not shut down the engine, it would

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indicate that the shut-device is inoperable. The quickest way to isolate the makeup tank is by opening or closing the air pressure valve, thereby forcing all of the water into the scrubber.

Mr. Lemon confirmed that the test method used by the inspector to isolate the main water holding tank was proper and speeds up the test process. If the tank were not isolated in the manner instructed by the inspector, it may take 2 hours to drain all of the water out of the system. The whole purpose of the test is to remove all of the water from the scrubber to see whether it shuts off the machine, and simply turning off the water from the makeup tank will not effect the test of the low water shutoff device to determine whether it shuts down the machine (Tr. 119-120).

Mr. Lemon confirmed that he is familiar with the Jeffrey test procedure outlined in exhibit O-2, and he confirmed that he has not seen it as part of any maintenance manuals. He stated that it was sent out by separate letter by Jeffrey to mine operators using their equipment (Tr. 121).

Mr. Lemon confirmed that the inspector did not follow procedure 2(b), when the tests were conducted on the cited cars. He explained that the procedure in question is directed to mechanics for troubleshooting possible defective scrubber water float valves. Once that check is completed, if the makeup tank has been isolated pursuant to procedure 2(a), the next step would be to go to procedure 2(c). Even if step 2(b) is skipped, as long as all of the water is drained from the scrubber and the makeup tank is isolated, if the engine did not shut down, this would indicate a faulty system and a violation. The basic point of the test is to determine whether or not the scrubber will shut down when it reaches a water level below 7 inches (Tr. 122-123).

Mr. Lemon stated that the principal goal of the test is to determine whether the shutoff system works, and this is achieved by draining all of the water out of the scrubber and following test procedure 2(a) and 2(c). In his opinion, the inspector complied with these test procedures when the cited machines were tested (Tr. 123).

Mr. Lemon identified exhibit S-9 as an MSHA diesel "permissibility checklist" used to train MSHA inspectors. He indicated that this checklist was adopted by MSHA after its submission by Jeffrey, and it is used by MSHA inspectors in the field to check out the Jeffrey equipment. He confirmed that the checklist deals with "the same type of scrubber" at

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issue in these proceedings, and while there are two Jeffrey scrubber models, "Jeffrey equipment is basically the same" although one model uses an air system, while another model uses air and oil (Tr. 125). Mr. Lemon confirmed that the checklist (exhibit S-9) applies to a model 4110 scrubber, and stated "I'm almost positive it's the same scrubber" as those involved in the cited cars which are in issue in this case. However, upon further examination of photographic exhibit O-3, he stated "this picture of the scrubber . . . does not look the same. It looks to me there's been some modifications made on this" (Tr. 126).

Mr. Lemon explained the similarities and dissimilarities between the scrubber model shown in the photograph (Model 4114), and the checklist model referred to in exhibit S-9. He claimed ignorance of any modifications shown in the photograph, and speculated that they may not have been made by the Jeffrey Company (Tr. 128). Mr. Lemon confirmed that he was familiar with all ram cars manufactured by Jeffrey, including the scrubber systems on all of its models, but denied that he had ever previously seen a system as shown in the photograph as a system manufactured by the Jeffrey Company (Tr. 128). He confirmed that any diesel ram cars manufactured by Jeffrey must be certified and approved by MSHA, and that the cars manufactured by Jeffrey have been approved by MSHA. Once this is done, any changes or modifications must have MSHA's approval (Tr. 129). He would generally be involved in any such approval process, and only in a "remote instance" such as his being on leave, would he not be informed of any scrubber changes or modifications (Tr. 129-130).

West Elk's counsel asserted that there is no evidence in this case that the scrubber depicted in the photograph in question was used on any of the cited ram cars in question. In response to a question from the bench as to whether or not the scrubbers on the cited ram cars differ in some significant way from the scrubber shown in the photograph, counsel responded as follows (Tr. 131):

MR. LINN: I'm not altogether certain, frankly, Your Honor. I think some do differ and some may be the same. This is a new issue as far as I'm concerned. My understanding is that these modifications are Jeffrey modifications. They have been approved by MSHA and we'll have testimony to that effect. The point I'm getting at is that what is depicted in O-3 is not a unit that is on any of the ram cars at issue.

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MSHA's counsel confirmed that the question of whether any scrubber modifications or changes constitute separate violations of MSHA's standards is not an issue in these proceedings (Tr. 131).

Mr. Lemon stated further that while he could not determine the model number of the scrubber depicted in photographic exhibit O-3 from the photograph, he believed that the Jeffrey checklist, exhibit S-9, would nonetheless apply and that the model number makes no real difference since all scrubbers are basically constructed the same way (Tr. 132-133). He confirmed that the Jeffrey permissibility checklist procedures identified as "Exhaust System-Low Water shutdown test" on the back of the fourth page of exhibit S-9, as used in MSHA's Training School, coincide with the test methods used by Inspector Biondich in support of the citations issued in these proceedings, and basically contain procedures 2(a) and 2(c) of the Jeffrey procedures outlined in exhibit O-2 as followed by the inspector. He confirmed that the exhibit S-9 procedures do not include a procedure for testing the water supply line as stated in test procedure 2(b), exhibit O-2, and stated that step 2(b) is "just an additional test" to help a mechanic isolate any scrubber problem "from that valve on around to the block to the fuel shutoff and the air valve" (Tr. 135). Mr. Lemon concluded that the test procedures found in exhibit S-9 reflects that the inspector conducted the proper test (Tr. 135).

On cross-examination, Mr. Lemon confirmed that he conducted a school at the mine in December, 1985, for the purpose of instructing MSHA inspector's as to how to go about checking the permissibility of diesel ram cars, and that the instructions included the procedures outlined in exhibit O-2, as well as S-9, because "they coincide with each other" (Tr. 136). He confirmed that mine personnel were present at the school, but he could not recall telling Mr. Skvarch that unless the proper MSHA approved test procedures were used in issuing the citations they would be invalid (Tr. 138).

Mr. Lemon reiterated that the Jeffrey test procedure checklist, exhibit O-2, are not part of any maintenance manuals kept at the West Elk Mine or any other mine he has visited. He was never told that the procedures are from the manual and he assumed they are from Jeffrey because they are on Jeffrey's letterhead. He confirmed that the checklist is very thorough, and more so than the exhibit S-9 checklist (Tr. 140). Mr. Lemon stated that checklists O-2 and S-9 do not indicate whether they have MSHA's approval. However, checklist S-9 will be included with all new Jeffrey equipment

maintenance manuals for use by mine mechanics in making their equipment inspections (Tr. 140).

Mr. Lemon explained test procedures O-2, and he stated that the test is designed to drain the scrubber rather than the whole water supply tank, and the makeup tank has to be isolated (Tr. 144). Referring to photographic exhibit O-3, he stated that if he were to conduct the test, he would drain the water from the scrubber tank drain valve which is circled in the photograph, rather than from the grey cylinder marked "LL," or lower level tank. In his opinion, the grey cylinder is the water control valve cylinder and not the lower level tank (Tr. 144). If water is drained from that cylinder and there is an air lock in the float, even though the water is drained from the scrubber, water may still be in the float and the system will still run and be nonpermissible (Tr. 145). When asked to again identify the lower level tank, Mr. Lemon stated "I'm not positive because they're not that clear on their instructions (Tr. 145).

Mr. Lemon stated that the "lower level drain valve" does not appear on other specification drawings, and he confirmed that there are two different scrubber systems for the model 4114 scrubber, and different tank sizes. He also confirmed that Inspector Biondich never checked the scrubber water level in any of the tests performed on the ram cars in question (Tr. 146). He stated that the water level should be tested with the machine on level ground because water could be trapped in either the upper float tank or the lower level tank, and that the hose between the scrubber tank and the main water supply tank should not be disconnected (Tr. 147). He confirmed that closing the shutoff valve between the scrubber tank and the main water supply tank, as instructed by Inspector Biondich, could cause an air lock (Tr. 148).

In response to further questions concerning the testing procedures, Mr. Lemon stated as follows (Tr. 149-150):

Q. All right. If you accept that premise and take a shortcut, do a short version of O-2, and you find the system doesn't work properly, don't you think it's prudent, that is if you do what the inspector did and just drain out the main drain valve and it doesn't shut off, wouldn't you say or wouldn't you agree that it would be more prudent to go back, fill up the system, run through a detailed test procedure in order to determine whether, in fact, it was a failure on the one hand of the system, or

whether, for example, the scrubber might be tipped or -- or it might be air locked or some other malfunction unrelated to the test procedure or related solely to the test procedure, rather? Wouldn't you agree that'd be a prudent thing to do?

A. Yes.

Mr. Lemon stated that he used the permissibility test procedures in exhibit S-9 during the training classes he conducted at the mine after the citations were issued. He had previously seen the procedures detailed in exhibit O-2, and a copy was given to him by the operator during the training classes, and some of those procedures were covered during the classes, including the procedures detailed in paragraph 2(b) (Tr. 153-154). In his opinion, the test procedures in paragraph 2(b) need not be followed to determine whether or not the scrubber is working (Tr. 155). Testing the equipment on inclines makes a difference mechanically, since the shifting of water in the tank may allow the machine to continue working even though the water level was low, or it could shut the machine down prematurely if the water shifted in another direction (Tr. 156). He conceded that testing the machine on an incline "would make some difference but not a whole lot of difference" and that it could effect the test results in that an air lock could be present. If there was an air lock, and the water shifted to the opposite end of the tank away from the drain plug, 8 or 10 inches of water could be in the tank even though the plug were open and no water was coming out (Tr. 157). However, the equipment is required to operate on both level ground and inclines.

Mr. Lemon could not state whether Inspector Biondich instructed the person conducting the test to shut down a water valve which isolated the reserve water tank. He stated that he was not aware of any such water gate valve on the model 4114 scrubber, and the makeup tank on that model is isolated by isolating the air pressure going into the tank by means of a cap which is removed to bleed the air pressure off the makeup tank. However, a small amount of water will continue to gravitate or trickle from the scrubber (Tr. 159). If an impermissible gate valve was installed between the makeup tank and the scrubber, and that valve were closed to isolate the scrubber, the test results could be affected by a resulting air lock (Tr. 159). This may explain the absence of such a gate valve on the equipment as manufactured, but he could not state that this is the case (Tr. 160). Hypothetically, the addition of a nonpermissible gate valve could

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defeat the proper testing by creating a potential air lock (Tr. 160).

In response to further questions, Mr. Lemon explained the water level testing procedure stated in exhibit S-9, and confirmed that Inspector Biondich did not at any time measure the water level in the tank. Mr. Lemon stated that he personally always measures the water level as part of a test in order to determine the level at which the lower water device is shutting off. If it shuts off at 3 inches, rather than 7, then there is more risk involved. A determination must be made as to whether there is no water, or that the float mechanism is not adjusted at the proper level (Tr. 173). If the tank is emptied and the engine continues to run, this would be indicative of a bigger problem. The water measurement factor involved in both tests, S-9 and O-2, is designed to confirm whether the float is actually shutting down the machine engine when the water level reaches a certain level above an empty tank to provide a safety margin (Tr. 174).

Mr. Lemon stated that it was his understanding that during the tests conducted in Inspector Biondich's presence, all of the water was removed from the scrubber in two of the cited cars, and in the other cars there some dribble of water. If all of the water were removed, there was no need to measure the water level. However, if the cars were on an incline or unlevel surface, water may have been present in the other end of the tank if it were tipped (Tr. 177). Problems in measuring pursuant to test S-9 could be encountered because of the curled configuration of the scrubber exhaust pipe (Tr. 179). Testing on pitched mine surfaces do present some problems, but in the mine in question he could not recall any steep grades that would present a real serious problem (Tr. 180).

West Elk's Testimony and Evidence

Richard Skvarch, Surface Operation Maintenance Manager, testified as to his mining experience, and confirmed that he holds a BS Degree in Mechanical Engineering from Penn State University. He confirmed that he was at the mine on October 23, 1985, when Mr. Biondich cited ram cars No. 6 and No. 11 for improperly functioning scrubber shut down systems. Mr. Skvarch was concerned that production personnel accompanied Mr. Biondich since maintenance men are usually assigned to accompany inspectors on permissibility inspections. Mr. Skvarch confirmed that he spoke with several mechanics after the citations were abated and found that some parts were changed to place the machines back into service. He did not

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believe that the mechanics understood what was really wrong with the machines (Tr. 182-185).

Mr. Skvarch stated that the float and valve assemblies removed from the No. 6 and No. 11, were examined in the shop when they were brought in and he could find nothing wrong with them or any reason for their failure (Tr. 186). He stated that the low water level shutdown devices were normally checked each day, but after the citations were issued they are checked every 8-hour shift (Tr. 187). He confirmed that the low water shutdown device test procedures at page 4, exhibit O-2, were followed at the mine, and after the citations were issued, they are used on each shift (Tr. 187).

Mr. Skvarch stated that he was at the mine on October 24, when the No. R-12 car was cited. The company technician informed him that he had tested that car four times at 7:00 a.m., and that it had shut down in accordance with the test. The car was parked where it was tested, and it was not moved. After Mr. Biondich cited it at 9:00 a.m., Mr. Skvarch was alarmed and concerned because he could not determine what was wrong. It then became apparent to him that the manufacturer's recommended test procedures were not being followed and he spoke with Mr. Biondich on October 30, after the first citations were issued. Mr. Biondich informed him that "the test procedure he was using was doing the same thing or that it would work," and within the next 2 hours he cited two more cars (Tr. 190).

Mr. Skvarch identified exhibit O-1 as a schematic diagram of the water supply system and scrubber tank shutdown system for a Jeffrey ram car, and he confirmed that it was prepared under his direction. He described how the low water shutdown system operates, and he identified the component parts, including the lower level tank and upper float tank and the procedure for measuring the water level. He stated that the lower float tank "is the brains of the system" and it decides when the scrubber needs more water. The upper float tank is the mechanism which senses the absence of water coming from the water supply tank, and when this occurs, it activates an air pressure dump which shuts down the machine (Tr. 191-196).

Mr. Skvarch identified exhibit O-2 as a copy of the Jeffrey manufacturer's authorized test procedures, and referring to the schematic diagram, he explained each step of test procedures using the diagram as a "walk through" (Tr. 196-200). Mr. Skvarch stated that the test procedures detailed in exhibit S-9 are for a different 4110 scrubber system than the one depicted in his diagram. The shut off system is inside of the

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float tank and not on the outside, and a dip stick cannot be used to measure the water level because it would hit the exhaust pipe. He confirmed that the two scrubbers which have been described use different systems requiring different test procedures (Tr. 201).

With regard to the gate valve used to shut off the water between the water supply tank and the scrubber tank pursuant to Inspector Biondich's instructions, Mr. Skvarch stated that some of the cited cars were equipped with such a valve, but he was previously unaware of this. The car had been brought in from another mining operation and had only been in service for a couple of days prior to the inspection. He agreed that it takes a long time to drain the water tank, but insisted that the valve in question was not installed for test purposes. It was used as a "quick flush" for the scrubber so that the entire system need not be drained. He explained that while the approved testing requires the draining of the water tank, the "quick flush" is used to keep the scrubbers clean. He described the procedure as "We just come in, shut it off, break the line, flush the scrubber out, check it over, put it back together, fill it up, bring the water level back up and go right back into service" (Tr. 203).

Mr. Skvarch stated that test procedures O-2 are kept in the foreman's office at the mine in the parts books and in the parts books located in the mechanics lunch room, and he confirmed that they are part of the specifications and maintenance procedures for the machine in question (Tr. 203).

Mr. Skvarch confirmed that he took photographic exhibit O-3, and he identified and marked the component parts of the scrubber system depicted in the photograph (Tr. 203-205). He confirmed that there are differences in the test procedures found in O-2 and the test procedures conducted in the inspector's presence. He explained that during the company's tests, the entire water supply tank is drained, but in the inspector's test, the supply or makeup tank was not drained. A line was disconnected between the two tanks and it appeared that this was creating an air lock by shutting off a valve which removed the tank vent pressure. He believed that an air lock or water being trapped in one of the float tanks would not allow the system to work. He was also concerned that water would be trapped if the car were pitched, and any trapped water would hold the float up and it would never shut down the machine (Tr. 206).

Mr. Skvarch stated that Inspector Biondich did not check the water level in any of the cited cars, and that the draining of the scrubber tank from the drain used in the inspector's test was incorrect. He stated that the water must be drained from the lower level drain valve, which is a 6-inch level valve, so that when the car shuts off, one can verify that there is at least 6 inches of water remaining in the scrubber tank. Draining the water from this low level drain also ensures that all of the water is out of the upper float tank (Tr. 207). He also confirmed that step 2(b) of the O-2 procedures were completely ignored in all of the tests of the cited machines (Tr. 208).

Mr. Skvarch stated that after the citations were issued, he was advised by Mr. Misel, Jeffrey's chief engineer for its ram car division, that company test procedure O-2 was the correct procedure and that it had MSHA's approval, and that using shortcuts could cause problems such as air locking and water entrapment (Tr. 210). Mr. Skvarch confirmed that he attended an MSHA conference with Mr. Biondich and his supervisor, Mr. Turner, and they discussed the citations in question. Mr. Skvarch stated that he advised them that he suspected air or water entrapment during the tests supervised by Mr. Biondich, and that during the company's testing of the machines during each shift, using the company's test procedures, the machines shut down. Mr. Skvarch was informed that MSHA's testing could be used because it accomplished the same thing, and that the citations would stand. However, MSHA subsequently removed the "S & S" designations from the citations (Tr. 210-211).

Mr. Skvarch confirmed that Mr. Lemon conducted a class at the mine, and that he (Skvarch) gave everyone a copy of test procedures O-2, and they were reviewed and discussed. Mr. Skvarch stated that during an "off the record" discussion Mr. Lemon stated that unless the O-2 procedures were followed "you don't really have a case." Mr. Lemon held up the O-2 procedures, and stated further "and you know what this man's going to do with these citations if you don't" (Tr. 214). Mr. Skvarch stated that Mr. Turner was present when these statements were made. Mr. Skvarch also stated that Mr. Lemon told him that he had "no involvement" in the issuance of the citations, and was simply there to conduct a class (Tr. 214).

Mr. Skvarch stated that since the issuance of the citations, MSHA has tested the cars using the "proper test procedures," and they are worked properly (Tr. 215). He confirmed that during the abatement of the citations his maintenance personnel changed upper and lower float tanks and "everything

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on the system" but never found a defective part. He also confirmed that during the past week or two he tested a car while on a grade similar to the condition when Mr. Biondich's tests were conducted, and using his test procedures, the machine would not shut down. However, when the authorized O-2 test procedures were followed, the machine shut down (Tr. 217). In his opinion, the cited ram cars were operated and maintained in accordance with the manufacturer's applicable specifications and manuals (Tr. 217).

On cross-examination, Mr. Skvarch confirmed that when the parts were changed on ram cars No. R-6 and No. R-11, no defective parts were found, and the mechanic's reports were so noted. He confirmed that he was not present with Mr. Biondich on October 23, 24, or 30 when the cars were cited and the conditions abated. He also confirmed that he did not examine the hose which was removed and replaced on the No. R-4 car, but that he did observe the disassembly of the float valve assembly on the No. 6 car, and could find nothing wrong with it. He believed that the replacement of the parts to render the machine serviceable may have relieved air locks or water, and while he conceded that Mr. Biondich's test procedures "could work sometimes," but "most of the time it didn't" (Tr. 219-224).

Referring to photographic exhibit O-3, Mr. Skvarch stated that the purpose of the circled white valve is to flush the scrubber system during a maintenance cycle, and that it is a fast way to remove scale and corrosion and replace the water in the scrubber tank. If the valve were opened and there was no water flowing out of the tank while sitting level, and there were no blockage in the valve, he would "tend to agree" that the tank would be empty. He agreed that if the machine continued to operate, it may indicate that the low water cut-off device was not working, but indicated that he "would have to check other things to be sure" (Tr. 230). He confirmed that when he had his conferences with MSHA after the citations were issued, no one from MSHA advised him that the company test procedures O-2 had MSHA's approval (Tr. 233).

Mr. Skvarch stated that when the company tests the low water shutoff devices the water supply tank is isolated by venting it according to the test procedure by shutting the needle valve or disconnecting the hose. By shutting off the air pressure to the water, the water drains through the system by "gravity or atmospheric" (Tr. 235). He personally has tested the system a dozen times, and he conceded that sometimes all of the water is not forced out of the tank, and he explained why this was the case (Tr. 236-237). The estimated

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time for draining the tank ranged from 5 to 40 minutes (Tr. 238). Although the air line in step two of the test is disconnected during the test, no other lines are disconnected. However, the air line is reconnected before going to test step (c), and once this is done there is no difference in the two test procedures insofar as that air line is concerned. He believed that two of the cited cars were equipped with a gate valve between the water supply tank and the scrubber unit, and if this were the cause of the air lock, it would be limited to those two cars (Tr. 240-241). However, air locks could also have been present on the other cars, and the gate valves have since been removed from the cars (Tr. 242).

Mr. Skvarch agreed that step 2(b) of the O-2 procedures is a test to determine whether the shutdown system is working if the float valve trips it. He also agreed with Mr. Lemon's view that the test is valid even if step 2(b) were eliminated (Tr. 244).

Michael R. Murphy, Senior Serviceman, Jeffrey Mining and Machinery Company, testified that his duties include the checking of equipment upon delivery to a mine, general troubleshooting, and giving instructions to equipment operators as to how to maintain the equipment. He confirmed that he is familiar with the low water shutdown devices on the cited ram cars in question, and that he was at the mine on October 30, 1985. He was on the section 10 minutes after a car was cited, and Inspector Biondich informed him that he had shut off the little air valve going to the water tank, and after venting it, the big valve at the bottom of the scrubber tank drain was turned on, and after 5 minutes, the car would not shut down. The car in question was parked "kind of jackknifed in an entry and on a very bad angle." In this position, water could be trapped in the tank and the small float on the lower level tank, which holds just over a half-gallon of water, minus the float ball, would still be floating and indicating that the car still had water in the scrubber, when in fact, the scrubber tank may be empty. In this event, the water in the top float assembly would not allow the car to shut down (Tr. 250-251).

Mr. Murphy identified exhibit O-2 as the Jeffrey permissibility checklist submitted to MSHA's Tridelphia's Office, and he stated that Jeffrey has MSHA's approval to distribute these procedures as "an approved drawing" that is included in the equipment parts book. The drawing is distributed to Jeffrey customers utilizing the scrubber system as a means of checking the system to determine whether it is working (Tr. 251). He confirmed that page 4 of test procedures O-2 are

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the only proper procedures for testing the low water shutdown devices on the cars in question, but that they will need to be modified for the newer model 4114 cars at the mine (Tr. 252).

Mr. Murphy stated that using the inspector's test procedures, water could become trapped in the lower level tank, thereby giving invalid test results. He also stated that shutting off the gate valve shown on the schematic drawing, exhibit O-2, during the test, could cause an air lock and produce an invalid test result, particularly if the machine were not level (Tr. 255). With regard to the O-2 procedures, he reiterated that MSHA approved them and wanted to distribute them to its inspectors to inform them how to shut down the system properly.

Mr. Murphy stated that during the inspector's tests, test procedure 2(b) was omitted. Further, although the large drain valve at the bottom of the scrubber tank was opened, the failure to use the other drain valve from the lower level tank as required by step (c) of the O-2 procedures, would not have allowed water to completely drain from the small tank which allows the machine to shut down, particularly where the machine is parked at an angle. The draining of the small lower level tank would compensate for any machine angle or tilt (Tr. 256). In his opinion, there was no way the inspector could have checked the scrubber water level in the manner in which the machines were tested. Mr. Murphy stated that he used the proper test procedures the same day the car was cited, and it shut off, and no work had been done on that machine at that time (Tr. 257).

Mr. Murphy stated that test procedures S-9 are absolutely not the proper procedures for the cited ram cars in question. He explained that the S-9 procedures are for machines with a float and shutoff assembly located inside the scrubber tank, while the O-2 procedures relate to cars such as the cited cars which have remote float tanks or sensing devices affixed to the side of the tank. With regard to these remote assemblies, it is necessary to drain the lower level tank affixed to the scrubber tank in order to perform a valid test (Tr. 261).

Mr. Murphy identified exhibit O-4 as the Jeffrey test procedures for the model 410, HR150, and 411H ram cars, and stated that they do not apply to the cited ram cars or the 4114 model in question, and he explained why (Tr. 261-262). (The exhibit was never received in evidence). Mr. Murphy concluded that the O-2 Jeffrey procedure is the only way to

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be sure that the low water shutdown device on the cited cars is properly operated and maintained (Tr. 262).

On cross-examination, Mr. Murphy stated that he examined two cited cars on October 30, but was not sure of the numbers, and both were parked "on a pitch" in the drift. He believed that water could have been trapped in the lower level tank, and this would account for the cars continuing to run. He did not perform the O-2 test on car No. 4 and it shut down. The other car was being worked on by the mechanics. He tested for water in the lower level tank, and found water present. He did not check for water in the scrubber tank and the scrubber tank valve was open. This indicated that there was no water coming out of the valve, but water could have been trapped inside. The presence of water in the lower level tank would keep the machine running because the shutdown sensors are located there (Tr. 263-266).

Mr. Murphy confirmed that he personally has never received a letter from MSHA informing him that test procedures O-2 have MSHA's approval. However, since the print of the procedures are stamped as MSHA approved, it is his assumption that they have MSHA's approval (Tr. 270). He knows for a fact that procedures S-9 are not for the cited cars (Tr. 280). He also stated that the "MSHA stamp" cannot be used if it is not approved, and that Jeffrey engineering representative Paul Misel advised him that the O-2 procedures were submitted to MSHA (Tr. 277).

Mr. Murphy agreed that the elimination of step 2(b) of the O-2 procedures would not necessarily invalidate the inspector's test. However, it is necessary to test the water level in the scrubber tank, and the inspector did not do this. It is also necessary to find out whether there is water in the rest of the system because there is nothing on the car when it is at idle that will shut down the car if the scrubber tank is empty and there is water in the float valves. The float valve is the mechanism that determines whether the car will shut down, and not the level of water in the scrubber. In his opinion, the test method followed by the inspector might cause the machine to give false results or "lie to itself" because there may still be water in the lower level tank. Even though the scrubber tank is full, if the lower level float bowl is drained and the machine shuts off, he would consider the low water shutoff device to be operable. He concluded that the test by the inspector was improper because it did not include the draining of water from the lower level bowl, but only from the scrubber (Tr. 271-274; 283-285).

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George C. Moore, operations shift foreman, testified as to his experience, and he confirmed that he travelled with Inspector Biondich on October 23, 1985, when he issued the first two citations in these proceedings. Mr. Biondich informed him that he wanted to check the low water shutdown device on a ram car, and asked him to bring in a car so that he could check it. Mr. Moore advised Mr. Biondich that he needed a mechanic because he (Moore) did not know how to perform the test. Mr. Biondich responded "don't worry about it. I can tell you how the procedure can be done" (Tr. 295). Mr. Moore stopped the first available car travelling down the haulage entry, and after checking it for electrical permissibility, it was parked on a downhill grade, and Mr. Biondich instructed him to turn off the valve between the water supply tank and the scrubber system. Mr. Moore identified the car as the No. R-6 car, and referring to the schematic exhibit O-1, he confirmed that "two valves on top were shut off," and the water was drained by removing the bottom scrubber drain valve with a crescent wrench. After that car was cited, it was parked in the crosscut, and Mr. Moore called the maintenance department to begin work to abate the citation.

Mr. Moore stated that ram car No. R-11 was then checked using the same test procedure. The car was pulled into the entry, the scrubber was filled with water, and the valves were shut off and the tank was vented. The car did not have a drain plug similar to the No. R-6 car, and the water was drained by turning the valve at the bottom of the tank.

Mr. Moore stated that two or three valve assemblies were tried on the No. R-6 car, and the float valve assembly was changed. Using the inspector's test procedures, the car would shut down one time, and the next time it would not. When the water was drained from the No. R-11 car, the engine would not shut down and it was cited. A maintenance man then took the air line off the float valve assembly and the machine shut down. He did some work on the needle valve and after putting it back together, the engine shut down, and Mr. Biondich abated the citation. Both cars were parked on an incline when they were initially tested (Tr. 299-300).

Mr. Moore stated that at no time did Mr. Biondich request the manufacturer's test procedures, and he confirmed that Mr. Biondich did not ask to see them, nor did he have a copy with him (Tr. 300). Mr. Moore identified the hose removed from the No. R-11 car as the air dump shutdown hose shown on exhibit O-1, and he was not sure whether or not there is a needle valve in that hose which senses when the upper float

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tank is out of water, or whether or not that was the needle valve which was examined (Tr. 302).

Gaylen S. McDaniel, supervisory safety advisor, testified as to his mining experience, and he confirmed that he accompanied Inspector Biondich on October 24, 1985. Mr. Biondich informed him that he was going to check the low water shutdown devices on the remaining ram cars which were not checked the previous day. The No. R-12 car was brought to the service area and it was "parked on an angle" when it was tested. The air was turned off on the main water supply tank, it was then vented, and the valve between the supply tank and upper level float was shut off. The main scrubber drain valve was opened, and after the water was allowed to drain for approximately 10 to 15 minutes, the car would not shut down, and Mr. Biondich cited it. Water was still trickling out of the tank at the time it was cited. Mr. McDaniel informed Mr. Biondich that he did not know how to check the low water shutdown, and "Mr. Biondich told me he had taken the class on it and that he could tell me how to check it" (Tr. 305).

Mr. McDaniel confirmed that he followed Mr. Biondich's instructions when the car was tested, and when he pointed out that water was still coming from the scrubber tank, Mr. Biondich responded "it had drained long enough and most likely the tank was drained as far as it was going to drain" (Tr. 306). Mr. McDaniel confirmed that Mr. Biondich did not refer to any written test instructions while the test was conducted, and asked him for none (Tr. 306). Mr. McDaniel confirmed that he was later shown a copy of test procedures O-2, and that they differed from the tests instructions given by Mr. Biondich in that the air supply line at the upper tank as covered by procedure 2(b) was not disconnected, and that the water was not "slowly drained from the scrubber through the drain in the lower level tank" as provided for in procedure 2(c). In addition, the water level in the lower level tank was not checked after draining the water out of the main scrubber tank, as provided in procedure 2(c) (Tr. 307).

Dewey R. Walker, shift supervisor, testified as to his experience, and he confirmed that he was present on October 30, 1985, when the last two citations were issued by Inspector Biondich. Mr. Walker stated that prior to going underground, Mr. Skvarch held a meeting with Mr. Biondich, and they discussed the problems concerning the previously cited cars, and Mr. Skvarch expressed concern that the proper Jeffrey test procedures were not being followed in the testing of the cars for compliance. Mr. Skvarch believed there were problems with air locks or trapped water in the tanks.

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Mr. Biondich stated that he was going to test the remaining cars in the same manner as those previously tested "to keep everything uniform" (Tr. 309).

Mr. Walker stated that after the meeting, he and the inspector went underground and tested car Nos. R-4 and No. R-5, and they were both parked on "slight angles." The caps were removed from the top of the main water supply tank as shown on schematic exhibit O-2, to make sure water was in the tank. The water supply valve shown by the circled mark by a green line on the schematic, between the main tank and upper float tank was then shut off, and the bottom gate valve on the lower scrubber tank was opened to allow water to drain out. After approximately 10 minutes, water was still trickling out of this drain, but the machines failed to shut down, and Mr. Biondich cited them (Tr. 310-312). Mr. Walker stated that Mr. Biondich had no written test procedures with him, and he could not recall Mr. Biondich showing him a copy of his test procedures (Tr. 313). Mr. Walker confirmed that the exact same test procedures were followed on both cars (Tr. 314).

Robert Moschetta, safety manager, testified as to his experience, and he confirmed that he holds a Masters Degree in safety management and a degree in environmental science from the West Virginia University. He confirmed that he attended a meeting at the mine on October 30, 1985, with Inspector Biondich, Mr. Skvarch, and company maintenance personnel to discuss the propriety of the tests conducted on the previously cited cars. Mr. Skvarch reviewed a diagram similar to the schematic, exhibit O-1, and discussed the manufacturer's test procedures with the inspector. During the meeting, Mr. Biondich stated that he was basically checking the machines in the same manner as shown in the Jeffrey procedures discussed by Mr. Skvarch, and that his (Biondich's) methods were the same (Tr. 316).

Mr. Moschetta confirmed that he attended an informal MSHA conference concerning the citations on November 15, 1985, and he identified exhibit O-5 as his notes taken during that conference. He stated that at this meeting, Mr. Biondich stated that he was using the proper test procedures, but that he did not say this during the October 30th meeting (Tr. 317). He identified exhibit O-6, as his notes taken during a subsequent meeting with Mr. Biondich and his supervisor, Bill Turner, on November 21, 1985, when they discussed the five citations and the proper test procedures. Copies of the O-2 procedures were given to Mr. Turner and Mr. Biondich, and Mr. Turner stated that he was sure that Mr. Biondich was

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following the proper test procedures. Mr. Turner stated that he would get in touch with Mr. Lemon, and that they would have another meeting to discuss and check the cars (Tr. 320).

Mr. Moschetta identified exhibit O-7, as his notes of a telephone conversation he had with Mr. Turner on November 22, 1985, and that during that conversation Mr. Turner advised him that Mr. Biondich took the position that he did not instruct company personnel as to what to do to check the low water shutdown devices, and that he simply told them that he would like to check the devices and observe the tests to determine whether the machines would shut down. Mr. Moschetta stated that he advised Mr. Turner that this was inconsistent with his past discussions, and he stated that during the October 30 meeting Mr. Biondich did in fact state that he instructed company personnel as to how to go about testing the cars (Tr. 322).

On cross-examination, Mr. Moschetta confirmed that during the meetings in question Mr. Biondich took the position that the tests methods he utilized during the tests performed on the cited machines were correct (Tr. 325). He also confirmed that between the October 30 and November 15, meetings, Mr. Biondich changed his story as to the test procedures he was using. He further confirmed that the test procedures detailed in O-2 were explained to Mr. Biondich by Mr. Skvarch on October 30, before the last two citations were issued, and that they were available at the mine before all of the citations were issued (Tr. 326-327).

MSHA's Rebuttal Testimony

Mr. Lemon was of the view that the inspector's test where the water was drained from the scrubber was more accurate than West Elk's suggested test because there is less room for error "where water is still trapped there because of various reasons," and because "it leaves less error for the machine to lie to itself" (Tr. 336). Based on his experience with the type of scrubber in question, he believed that under normal operating conditions the scrubber could be empty of water, yet the low water tank could still have water in it causing the machine "to lie to itself" (Tr. 337). He disagreed with Mr. Murphy's opinion that any test "quirks" during the testing of the machines would not appear in the normal operation of the cars (Tr 338). He confirmed that the mine has inclines, and he agreed that if tested on an incline, it could cause the machine to lie to itself indicating it had water when it did not (Tr. 339).

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Mr. Lemon was of the opinion that Inspector Biondich complied with steps 2(a) and 2(c) as outlined in the Jeffrey O-2 test procedures, and that following those steps, he effectively tested whether or not the machine would shut itself down when there was insufficient water to cover the exhaust (Tr. 343).

On cross-examination, Mr. Lemon stated that the best method for determining whether there is water in the scrubber is by draining the tank. Assuming the machine was not on a level when tested, this is done by opening the lower right-hand valve on the scrubber. He also identified the "seven inch level" plug on the left lower side of schematic O-1, marked "mechanic" on photographic exhibit O-3, and stated that if the machine is on an incline, prudence would dictate that this plug should be pulled to determine whether there was any water in the scrubber tank, and that one could stick his finger "in and around in the tank and see if the water is there at the seven inch level" (Tr. 344). He conceded that this plug was not pulled during the testing of the cited machines (Tr. 345).

Mr. Lemon stated that at the school he conducted on December 5, he covered the S-9 test procedures, and also covered the O-2 procedures "as a courtesy of the company because they handed it to me." He stated that three or four tests were conducted during the school using both test methods (Tr. 346). He agreed that in the event the scrubber tank drain is elevated relative to the rest of the tank, it is possible that water may be trapped in the lower and upper tanks, and water may be in the scrubber tank. He also agreed that if the gate valve between the water supply tank and the scrubber tank is turned off, it could cause an air lock and give invalid test results (Tr. 346-347).

With regard to the test procedures, Mr. Lemon stated as follows (Tr. 347-349):

Q. Is it your testimony that the O-2 procedure should not be utilized in connection with testing these ram cars?

A. No, because on the 4114's -- well, just like the maintenance book the company gave me themselves, a lot of the units we have running out here in the west still have the old system. Then we have the newer system which is similar to the old system on these cars. And then we have basically this system which I've been familiarized during this hearing, which is a

little bit new to me. I picked this up. So I'm going to be doing some more checking on this stuff, but we have the same instructions for the 4110 in that 4114 maintenance manual that's right there on the table. That's why we go over there.

Q. You then learned quite a bit about this system with this hearing.

A. I have, yes.

Q. And you do agree, do you not, that the O-2 procedure is for the shut down system shown in O-1?

A. I agree with that, but in my agreement, I also see some problems that need addressing.

* * * * *

Q. It's not your view, is it that these O-2 procedures are improper or inapplicable to this machine, is it?

A. No. With the exception of -- I have a problem with the low level tank -- I have a problem with water being in that tank and all the water being out of the scrubber and the system lying and still not shutting the diesel down. That's where I have my problem.

Q. You agree, though, that that can happen if this valve is closed shown in O-1, that can also happen if the machine is not level. Isn't that true?

A. Yes.

In response to further questions from the bench, Mr. Lemon stated as follows (Tr. 363-365):

Q. All right. Witnesses for the operator have maintained that if you don't drain the main tank, you're liable to get a spurious result. May I take it that you don't agree with that?

A. No. After this testimony today, you know, we will change our testing procedure and we'll go along with that because by -- according to the previous instructions, specially with the 4110 scrubber, states to isolate the area. You turn the air off. That that, in fact -- and you open the cab to the reserve tank. That that, in fact, stops the flow of the water. But there seems to be a problem there that the company's come up with and possibly Jeffrey, so we need to drain these completely out and take the full amount of time.

* * * * *

Q. And that you indicated, as I understood your testimony, that in actual operation, there's a possibility where these particular ram cars that were cited, that the system could lie in that the scrubber could be emptied and yet there could be enough water in the lower tank not to trigger the shut down system. Is that correct?

A. Yes, sir, that's correct.

Q. Isn't that really just another way of saying that there's a design deficiency in the system?

A. Yes, Your Honor, there is.

Q. But it's your position that the Mine Safety and Health Administration has actually approved this particular design?

A. That could very well be the problem. I could have overlooked something, Your Honor, in Tridelphia that could have missed us, but that's why I say this needs to be brought to the attention of appropriate people and I will do that.

MSHA's Arguments

MSHA argues that Inspector Biondich followed the normal inspection routine by having West Elk's mechanics conduct the test on each of the cited cars. MSHA asserts that the tests

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generally were conducted by isolating the scrubber tank so that water would not continue to run into the scrubber tank from the reserve tank and then by draining all of the water from the scrubber tank through a 1 inch valve located on the bottom of the scrubber tank. By removing all of the water from the scrubber tank with the car diesel engine running, MSHA maintains that the inspector was able to determine whether the low-level water shutoff device worked properly. When it did not shut down the engines with the water removed from the scrubber, the device did not shut down the engine, and the citations followed. After repairs were made to the equipment, the low water shutoff device operated correctly.

MSHA asserts that there does not appear to be any factual dispute as to the testing procedure used by the inspector, but there is a dispute as to whether the test procedure in O-2 or S-9 represents the manufacturer's suggested test. MSHA maintains that test procedures S-9 represent the proper testing methods, and that other than draining the scrubber tank rather than the low water tank, there is little difference between the inspector's test and the O-2 test procedures.

MSHA states that the specific areas in which the inspector's test and the O-2 test differed are as follows: (1) The float assembly which senses whether or not the scrubber tank needs additional water is contained in the low-level water tank, an additional water tank which is attached to the scrubber tank and is ported to the scrubber tank so that water can flow between the two tanks. The company procedure recommends that the low-level tank rather than the scrubber tank be drained. The inspector's method involved draining the scrubber tank since that is the tank which cools the exhaust. (2) A second difference between the two procedures is that the company recommends that once the low-level water device has shut off the machine after the float tank has been drained, the water level in the scrubber tank should be measured. However, having drained the scrubber tank the inspector did not take the unnecessary step of measuring the absence of water in that tank. (3) The third distinction between the two test procedures was that the inspector omitted all of the steps set forth in subparagraph 2(b) of the manufacturer's suggested testing procedure. All parties agreed that part of the procedure did not affect the results of the test but is only a diagnostic step to help isolate particular problems in order to facilitate repair.

MSHA suggest that a fourth distinction apparently raised by West Elk is that the reserve tank should not be isolated during the test (Tr. 279), and that the inspector's method

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which isolated the reserve tank was faulty. MSHA asserts that the isolation of the reserve tank by the inspector is consistent with the manufacturer's suggested test (See Ex. O-2 where the first step in the test isolates the water tank by closing the needle valve between it and the low pressure air regulator) and the practice used by other operators. MSHA further asserts that while West Elk's evidence is contradictory on this point, if it means to suggest the two tests differ in this respect, MSHA believe the inspector's test was consistent with the manufacturer's test.

MSHA disputes the notion that the manufacturer's suggested O-2 test procedures were somehow "approved by MSHA." It points out that the only evidence of such an "approval" came from the manufacturer's mine mechanic, Michael Murphy, who testified that he called a supervisor who told him he thought the O-2 test procedure had been "approved" by MSHA. MSHA discounts Mr. Murphy's reliance on the fact that the O-2 procedure had a stamp at the bottom saying that prints were not to be altered without approval by MSHA, and points to the fact that the page did not contain prints. MSHA points out further that Mr. Murphy was a mechanic and that he had little contact with his own national organization and was not familiar with the dealings between his organization and MSHA. On the other hand, Mr. Jerry Lemon from MSHA works closely with the Certification and Approval Division, and has reason to know what machines and what modifications are approved. He testified that the operator is required to submit a test procedure to MSHA and that procedure which was submitted by the manufacturer is contained on the last two pages of S-9. Further, that test procedure was made the subject of a short training course for inspectors which is contained in S-9, and it was the procedure set forth in S-9 which was used to test the twelve shuttle cars.

MSHA believes that the inspector's test is the best test under all circumstances because it tests whether the machine will shut itself off when there is no water in the scrubber tank to cool the exhaust, while the manufacturer's tests only determine whether the machine will shut itself off when the water is drained from the auxiliary lower level tank which contains the float assembly. MSHA further believes that the inspector's test is more accurate because he is concerned with whether or not the machine will shut itself off when there is no water in the scrubber tank and not whether or not it will shut itself off when there is no water in the float tank. MSHA views this difference as critical, and suggests that there are several factors where water could be drained from the scrubber tank, allowing the exhaust to escape to the

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hostile environment without draining the low-level tank. The valve to the scrubber tank could be inadvertently left open, it could be accidentally knocked open while the machine is in transit, or the scrubber tank could become ruptured, all of which would allow water to escape from the scrubber tank and allow the machine to run while water was retained in a low water tank.

In response to the testimony by the manufacturer's representative Murphy that the inspector's test should be discounted because of test "quirks" which cause the machine to "lie to itself" because of testing on inclines and the possibility of air locks, MSHA asserts that it is reasonable to conclude that if the machine would not shut itself off on an incline during testing, it would also fail to shut itself off on an incline under normal operating procedures. As for the air lock theory, MSHA concludes that Mr. Murphy's opinion is more speculation, and not based on any "hard evidence."

MSHA concludes that the evidence fully supports the inspector's citations. Twelve cars were tested by draining the scrubber tank; five failed to shut themselves down; after short periods of repair all five worked properly using the same test that discovered the defective condition. The operator's defenses that the inspector used an improper test and that the results were inaccurate do not stand up under close scrutiny. The ventilation plan requires the operator to operate and maintain equipment according to manufacturer's specification. The ventilation plan does not bind MSHA to test the equipment as suggested by the manufacturer. MSHA may use the most accurate test. In any event, the S-9 test used by MSHA is the test submitted by the manufacturer for certification and approval. West Elk's testimony that the inspector's test was inaccurate is based on pure speculation and a twist of logic that the conditions of the test could never be duplicated in actual operations. West Elk's position defies logic and is contrary to the evidence.

West Elk's Arguments

West Elk asserts that no less than four test procedures of the low water shutdown devices were described at the hearing in these cases: First, there was the test procedure utilized in connection with issuing the citations. Second, there was a separate test procedure which the inspector had with him during the inspections but which played no role in the issuance of the citations (Tr. 100, 104). A third test procedure described was that employed for a different series of Jeffrey ram cars as discussed by MSHA's expert, Mr. Lemon (Tr. 125-126;

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Exhibit S-9). Finally, there was described at the hearing the test procedure authorized by the manufacturer as contained in Exhibit O-2. This test procedure is part of the manufacturer's specifications and maintenance procedures (Tr. 203).

West Elk points out that the test procedures employed by Inspector Biondich to support the citations were not the manufacturer's approved procedures found in O-2, and that he had not even seen a copy until he attended a school conducted by Mr. Lemon at the mine in December, 1985, several weeks after the citations were issued. West Elk asserts that Mr. Biondich's test procedure was a shortcut method which may or may not produce valid results, and that this accounts for the fact that several other cars tested by Mr. Biondich showed the low water shutdown devices on those cars to be working properly. West Elk further points out that Mr. Lemon indicated that prudence requires that in the event a shortcut procedure does not show the system to be functioning properly, a detailed test should be conducted, and that he agreed that the O-2 test procedures are proper and more thorough than the S-9 procedures relied on by the inspector.

West Elk asserts that the testimony of manufacturer's representative Murphy demonstrated that a shortcut testing method can produce invalid results when the machines are parked on an incline while testing because of air locking, water locking, and the closing of the gate valve between the water supply tank and scrubber tank. West Elk asserts further that the parties are in agreement that the test results may be invalid, and that an apparent flaw in the inspector's test procedure was the closing of the gate valve on some of the cars. West Elk maintains that during the tests the inspector required the closing of this valve, and that Mr. Lemon admitted that this could result in air locking and produce invalid test results, and that he finally concluded that the design of the scrubber may itself be flawed.

West Elk maintains that other significant flaws in the test employed by Inspector Biondich include the fact that in at least two cases the scrubber was not allowed sufficient time to drain fully and that water was still trickling out when the citations were issued. If not given sufficient time to drain, air locks can be created. West Elk points out further that no defective parts were found on any of the cited cars, and that after suspecting that the test procedures employed by the inspector led to inconsistent results, Mr. Skvarch compared both test procedures after the citations were issued and found that procedures O-2 worked, while the inspector's test did not. In one case, Mr. Murphy tested a

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cited car utilizing procedure O-2 before any abatement work was done, and the engine shut down, thus showing that there was no malfunction in the system.

West Elk argues that when called in rebuttal near the end of the hearing, Mr. Lemon admitted that the entire scrubber system in question was "a little bit" new to him, and that in view of the evidence adduced during the hearing stated that "we will change our testing procedure." West Elk maintains that since the issuance of the citations, MSHA now uses test procedures O-2 to conduct tests of the low water shutdown systems, and that since these procedures are the only ones approved by MSHA, they are the only proper procedures, and the tests used to support the citations were not authorized.

West Elk maintains that MSHA has not established that the cited scrubber systems were not functioning properly because the inspector's shortcut test procedures were flawed, and were not the proper tests recommended by the manufacturer. West Elk maintains that since the manufacturer has specified a specific test procedure for the testing of the scrubber system, MSHA's use of another procedure not approved by the manufacturer cannot be used as a basis for establishing a violation of the MSHA approved mine ventilation plan which requires that the equipment be maintained in accordance with the manufacturer's (not MSHA's) specifications. West Elk concludes that the MSHA test procedure is simply not a valid one, and that MSHA has not sustained its burden of showing by a preponderance of the evidence that any of the alleged violations occurred.

West Elk argues that even assuming the validity of the test procedure followed by the inspector, under the circumstances presented in these proceedings, the procedure did not produce reliable results. In support of this conclusion, West Elk points out that the inspector required that a gate valve which existed on some, but not all of the cars, be shut off between the main water supply tank and the scrubber tank. According to the testimony of Mr. Lemon and Mr. Murphy, the shutting of this gate valve could cause an air lock to form. Further, since the scrubber tank in each cited instance was not parked in such a fashion as to assure complete draining of the scrubber tank, and because the scrubber tank was drained through the main drain valve rather than the lower level tank as required by the manufacturer's O-2 procedures, the angle at which the cars were tested played a role in the outcome of the tests. In each instance, the lower drain plug from which water in the scrubber tank was drained was elevated

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relative to the remainder of the tank thereby possibly trapping water both within the tank and the lower level tank. It is the lower level tank which senses the presence or absence of water needed to cool the hot diesel exhaust gases. Thus, when the cars were tested, water may have been trapped in the lower level tank, thereby producing an invalid result. In essence, because the machines were parked at an angle, water trapped in the lower level tank lead the sensors to conclude that sufficient water was in the scrubber tank thereby misleading the device into the false belief that sufficient water was in the scrubber tank. The manufacturer's O-2 procedures compensates for the effects resulting from the equipment being parked at an angle or on an incline.

Thus, even assuming that the test employed is reasonably calculated to produce a reliable result, West Elk asserts that there is a reasonable likelihood that the results of the test were not valid because of air locks on the one hand and/or the angle on which the machines were sitting at the time the test was conducted. Since the test results are not reliable, West Elk concludes that MSHA has not sustained its burden of proving the alleged violations.

West Elk points out that in reply to an inquiry from Judge Carlson during the course of the hearing, MSHA distilled its case to a single concept: that the shutoff devices did not work, but should have (Tr. 163-164). West Elk asserts that MSHA apparently believes that any test procedure is appropriate so long as it is reasonably calculated to produce a reliable result. However, West Elk insists that MSHA's theory does an injustice to the plain words of the ventilation plan that the equipment be maintained in accordance with the manufacturer's specifications rather than some specifications chosen by MSHA, and suggests that MSHA is not bound by the same requirements as the mine operator. West Elk maintains that MSHA should not be allowed to use an unapproved, arbitrary test procedure to support a violation of the ventilation plan requirement which is related solely to manufacturer's specifications and requirements, and that to do otherwise violates fundamental notions of due process and fairness. West Elk concludes that the same rules must apply to both the mine operator and MSHA, and that Mr. Lemon acknowledged as much when he stated that, in view of the evidence presented, "we will change our testing procedures" (Tr. 363).

West Elk advances an ancillary issue as to whether the test procedure actually employed in testing the cited shutoff devices was a shortcut methodology selected by West Elk or whether it was a procedure dictated by the inspector. If the

former, West Elk acknowledges that one might arguably assert that West Elk is bound by its own procedures and may be estopped to deny the appropriateness as such test procedures in establishing the violations. However, West Elk believes that the entire test procedure employed was that mandated by the inspector, and he admitted that he required a valve to be closed and that this did affect the test results. Notwithstanding the inspector's denial that he directed the tests, West Elk relies on the testimony of its witnesses who accompanied the inspector that in each and every instance they told the inspector that they did not know of the appropriate test procedure, to which the inspector responded he would tell them how to conduct the test. West Elk submits that the testimony of these witnesses, and the testimony of Mr. Murphy, who witnessed one of the tests and confirmed that it was at the direction of the inspector, is much more credible. In any event, West Elk further concludes that it is clear that the manufacturer's test must be employed to determine whether the manufacturer's equipment is being properly operated and maintained, and that any other test procedure used by MSHA would result in de facto rulemaking with respect to those procedures.

West Elk argues that as a matter of law, the citations issued by the inspector state no violation because there is no requirement in its ventilation plan that low water shutdown devices shut off the car engine when water is drained from the scrubber tank. West Elk points out that the sole evidence of its alleged failure to meet its responsibilities under the ventilation plan is the failure of the machine to shut down when water was drained from the scrubber tank. West Elk asserts that MSHA points to no provision of any maintenance manual or operating specifications to support this allegation, and that it seeks to impose by fiat a new requirement that engines on diesel equipment shut down when water is drained from the scrubber tank even though this asserted requirement is not part of the ventilation plan.

West Elk asserts that it has long been held that ventilation plan requirements are enforceable in the same manner as mandatory standards. *Ziegler Coal Company v. Kleppe*, 536 F.2d 398, 1 MSHC 1424 (D.C.Ct.App.1976). Mandatory standards must be reasonably precise in order that the operator be given fair warning of the conduct which is proscribed. *Secretary of Labor v. Missouri Gravel Company*, 2 MSHC 2223 (ALJ, 1983). Since the ventilation plan contains no requirement that the engine shut down when water is drained from the scrubber tank, MSHA cannot maintain that such a requirement exists in view of the holdings of *Ziegler* and *Missouri Gravel*. West Elk concludes that no violation is properly stated in

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the citations as a matter of law in that neither 30 C.F.R. 75.316 nor the ventilation plan requires that diesel equipment shut down "when water is drained from the scrubber tank."

West Elk asserts further that the failure of an engine to shut down when a low water shutdown device is properly tested may be some evidence of a failure to achieve the ventilation plan's mandate for proper maintenance and operation, standing alone, test results using proper test procedures do not show by a preponderance of the evidence that the ventilation plan requirements have not been achieved. When it is considered that the test actually employed was wholly invalid, it cannot be said that MSHA has met its burden of proving a violation of 30 C.F.R. 75.316

Findings and Conclusions

West Elk is charged with violating the mandatory ventilation system and methane and dust control requirements of 30 C.F.R. 75.316, because it allegedly failed to maintain the low water shut down devices on the cited shuttle cars in accordance with the manufacturer's operating maintenance specifications. MSHA's theory is that tests conducted by West Elk at the direction of the inspector, for the purpose of determining whether the shut down devices were functioning properly, indicated that the devices were not performing as required, and support the inspector's findings. West Elk's defense is that the citations are not supportable because the test procedures mandated by the inspector in support of the citations were not the proper test procedures, were flawed, and were in fact unauthorized "shortcut" procedures which provided unreliable and invalid results.

The ventilation plan requirements found in 30 C.F.R. 75.316, provide as follows:

A ventilation system and methane and dust-control plan and revisions thereof suitable to the conditions and the mining system of the coal mine and approved by the Secretary shall be adopted by the operator and set out in printed form on or before June 28, 1970. The plan shall show the type and location of mechanical ventilation equipment installed and operated in the mine, such additional or improved equipment as the Secretary may require, the quantity and velocity of air reaching each working face, and such other information as the Secretary may require. Such plan shall be

reviewed by the operator and the Secretary at least every 6 months.

It is well-settled that once a mine operator adopts an approved ventilation plan, the operator is required to comply with its provisions, Ziegler Coal Company, 4 IBMA 30, aff'd 536 F2d 398, 409 (D.C.Cir.) (April 22, 1976); Mid-Continent Coal and Coke Company, 3 FMSHRC 2502 (1981). In short, a violation of an operator's ventilation plan constitutes a violation of 30 C.F.R. 75.316

The parties agree that the applicable approved ventilation plan requirements are those which appear in exhibit S-1, and the inspector confirmed that the specific plan requirement he relied on is found in numbered paragraph A.2., page 28. The plan requirements for diesel equipment states as follows:

A. Diesel Equipment

1. Any diesel equipment used in by the last open crosscut will comply with Title 30, Part 36 of the Code of Federal Regulations.
2. All diesel equipment will be operated and maintained in accordance with the manufacturer's operating specifications and maintenance manual. These manuals and specifications will be made available for reference.
3. Each diesel face equipment unit will be examined on a daily basis to insure that the engine and scrubber system are operating properly to minimize poisonous exhaust gases. Additionally, the exhaust of each unit will be examined to insure compliance with Section 75.301-2, 30 C.F.R., regarding current threshold limit values for carbon monoxide and oxides of nitrogen. On working sections using diesel equipment an examination will be made for carbon monoxide and oxides of nitrogen in the immediate return of each split to determine compliance of Section 75.301-2, 30 C.F.R. The examination will be made after normal operations have begun but no longer than 4 hours after start up.

Any other non-face diesel equipment operating in an outby area will have an examination made for carbon monoxide and oxides of nitrogen gases immediately down wind from the working area on a weekly basis.

A record of each examination and maintenance check will be kept in a book for that purpose which shall include the date, time, examination or maintenance check results, and samplers initials.

4. The minimum quantity of air to be maintained over each piece of diesel equipment during operation shall be 10,000 CFM, and the minimum quantity of air passing through the last open crosscut where diesel equipment is used shall be 20,000 CFM. (Emphasis added).

One basic issue which needs to be addressed is whether or not the citations issued by the inspector sufficiently describe a condition or practice which allegedly violates West Elk's approved ventilation plan. In each of the citations, the inspector alleges that West Elk failed to comply with its approved plan because it failed to follow the manufacturer's specifications in the care and use of diesel equipment . . . in that the low water shut down . . . would not shut the engine off when the water was completely drained from the scrubber. West Elk argues that the sole evidence of its alleged failure to comply with the plan is the failure of the cited machine engines to shut down when water was drained from the scrubber tank. West Elk points out that since there is nothing in the plan mandating that the engine shuts off when water is drained from the scrubber tank, no violations of its plan have been established.

I take note of the fact that the inspector failed to include in the citations any specific references to the applicable ventilation plan provisions, manufacturer's specifications, or permissibility standards which he believed were violated. Section 104(a) of the Act requires that a citation describe with particularity the nature of the violation, including a reference to the provision of the Act, standard, rule, regulation, . . . alleged to have been violated. Although the citations do include a specific reference to the general ventilation plan requirements of section 75.316, the inspector's failure to pinpoint the particular permissibility standard, plan provision, or manufacturer's specifications allegedly violated puts the presiding judge in the untenable

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position of fishing through the record and standards to identify the applicable requirements.

I have reviewed the transcript of Inspector Biondich's testimony, and find that it is devoid of any references to any specific applicable permissibility standards or manufacturer's specifications allegedly violated. The inspector identified the ventilation plan, quoted paragraph 2, and concluded that "They weren't being operated, maintained, in accordance with the manual" (Tr. 11). He also identified a diagram of a low water shutoff device, and confirmed that it was "illustrative" and "on the order of this type of equipment we were checking." He also confirmed that it was "illustrative" and "on that order" of the scrubber on the No. 6 car which he cited on October 25, 1985 (Tr. 21). However, the schematic was not offered or received as part of the record, and was withdrawn.

I have also reviewed the transcript of Mr. Lemon's testimony, and find no reference to any specific permissibility standards allegedly violated in this case. Mr. Lemon referred to a diesel equipment permissibility "checklist" used by MSHA for training purposes (exhibit S-9), and stated that he is involved in conducting training for "diesel inspection of permissible schedule 31 equipment and underground coal mines for all electrical inspectors" (Tr. 125). Assuming that Mr. Lemon was alluding to the permissibility requirements found in Part 31, Title 30, Code of Federal Regulations, I take note of the fact that they pertain to standards dealing with diesel locomotives.

MSHA's posthearing brief contains no discussion with respect to any applicable permissibility standards for the cited cars in question. The only reference to any permissibility requirements is found at page 2 of the brief which states in pertinent part as follows:

The 12 ram shuttle cars are used to carry the coal from the face area to a dump point. Since the cars work in the face and passed the last open crosscut they are required to be in compliance with the permissibility standards. Those permissibility standards require the hot exhaust from the diesel engine to be routed through a device known as the scrubber. The purpose of the scrubber is to cool the exhaust so that exhaust and expelled carbon particles will not act as sources of ignition.

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The only clue in the transcripts as to the applicable permissibility standards appears at page 167 where MSHA's counsel makes reference to "part 36" (Tr. 167). During a colloquy with the Court, counsel stated as follows (Tr. 167-169):

* * * * *

But here, Your Honor, the case, what we have simply said is that the shutoff devices do not work. Didn't say why they don't work. Whether they were inspected or inspected regularly or inspected properly. Obviously, they wouldn't be put on there if the manufacturer didn't intend for them to work. Ventilation plan says that what is on there, what's required to be on there, has to work.

JUDGE CARLSON: Okay. Fine. Where does it say that? I'd like to know. It should say that certainly, but --

MR. BARKLEY: It's in the first exhibit which, I believe, is S-1.

JUDGE CARLSON: Okay. I have not seen that. (Pause.)

MR. BARKLEY: The first two paragraphs of that deals with this question. First of all, part 36 requires that all these be maintained and permissible equipment and we feel that the scrubbers weren't working. Obviously, they weren't being maintained in permissible condition. Also, paragraph two says generally you have to operate this equipment in accordance with manufacturer's specifications. And there's a scrubber on there that's meant to work. It should work.

JUDGE CARLSON: Where does it say that? It certainly makes good sense to me, but does it say that somewhere in the operator's manual?

MR. BARKLEY: Your Honor, I think that's one of the things that's so basic, nobody says it. I have looked at the manual since I've been here and there are pages devoted to the maintenance of this particular system. Obviously,

with the intent to maintain it, you expect it to work, but it doesn't say the obvious fact, chapter 2, we've equipped with machine with a scrubber, it should work. Here's how you make it work. I don't have the permissibility standards. I believe I've got some. The standards that you referred -- but you referred to the permissibility standards. Here's a general catch-all there that says face equipment operator -- last open crosscut has to be maintained in a permissible condition. We have evidence that the fact equipment operator passed the last open crosscut. Permissible diesel equipment has to have a scrubber on it. The standard says it has to be maintained in a permissible operating order. Our theory is that the tests show this was not maintained in a permissible operating order. Just didn't work. Just didn't shut the machine off.

Paragraph 1 of the ventilation plan requires that all diesel equipment used in by the last open crosscut comply with Title 30, Part 36, Code of Federal Regulations. I take note of the fact that Part 36 are the MSHA regulatory construction and design requirements for approval and certification of diesel powered equipment used in noncoal mines. Since West Elk is a coal mine operator, my assumption is that it has agreed to abide by these regulations since they have been incorporated as part of the approved ventilation plan. Under the circumstances, it would appear that these are the permissibility standards applicable to the cited cars in question. Section 36.25 covers the requirements for engine exhaust systems, and subsection (b) and (c) deals with exhaust flame arresters and "exhaust-gas cooling boxes." I assume that the scrubbers in question fall within these requirements, and take note of the fact that subsection 36.25(b)(1), (3), and (c) provide in pertinent part as follows:

(b)(1) The exhaust system of the engine shall be provided with a flame arrester to prevent propagation of flame or discharge of heated particles to a surrounding flammable mixture.

(b)(3) In lieu of a space-place flame arrester, an exhaust-gas cooling box or conditioner may be used as the exhaust flame arrester. . . . When used as a flame arrester the cooling box shall be equipped

with a device to shut off automatically the fuel supply to the engine at a safe minimum water level.

(c) A device shall be provided that will automatically shut off the fuel supply to the engine immediately if the temperature of the exhaust gas exceeds 185 degrees F. at the point of discharge from the cooling system.

The general permissibility test procedures for engine exhaust-gas cooling systems is found in section 36.47. Aside from general statements that tests should be made to determine the performance of the cooling system, "and low water level when the cooling system fails" (subsection (b)), and the adequacy of the temperature actuated automatic fuel shut-off device, there is nothing in the procedures detailing the specific test procedures which the parties believe are applicable to the cited cars.

Although I agree that the narrative description of the alleged violative conditions cited by the inspector may be inartfully stated, after review of the entire record, including the answer filed by West Elk, its motion for summary judgment, and the testimony of all of its witnesses, I am not convinced that West Elk was unaware of what it was being charged with.

West Elk's suggestion that an allegation that it violated its ventilation plan because the car engines would not shut down when water was drained from the scrubber tanks cannot be sustained because the plan contains no such specific requirement is rejected. In my view, the inspector's conclusions that the engines would not shut down when the cars were tested simply reflect the inspector's opinion and belief that West Elk did not maintain the low water shutoff devices in an operable condition so as to permit them to do what they were intended to do, i.e., shut down the engine when the water in the scrubber reached a certain level. MSHA still has the burden of proving by a preponderance of the credible evidence that this was in fact the case. MSHA also has the burden of establishing that the test procedures relied on by the inspector in support of the alleged violations were proper, valid, and probative.

There is a dispute as to whether the test procedures followed by the inspector to support the citations were proper and valid. West Elk believes that the O-2 test procedures are the approved manufacturer's test procedures which apply to the

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cited cars, and are the procedures which should have been followed. MSHA believes that the S-9 procedures represent the manufacturer's suggested test procedures, and it sees "little difference" in the two. However, at page 4-5 of its brief, it goes into some detail in describing three, and possibly four, differences between the two procedures. At pages 2-3 of its brief, West Elk points out that no less than four different test procedures were described during the hearing.

I take note of the fact that the approved ventilation plan does not specifically include any reference or guidance with respect to the proper test procedures for insuring that once placed in operation, the approved diesel equipment is in fact being maintained in accordance with the permissibility requirements of 30 C.F.R. Part 36, as required by paragraph 1 of the plan. Although I enjoy the benefit of hindsight, it seems to me that during the ventilation plan approval process, the specific testing requirements for all diesel equipment used in the mine to insure continued compliance with MSHA's permissibility requirements should have been addressed and incorporated as part of the plan. Only in this way can the parties clearly know what the ground rules are. In my view, this case is a classic example of how a broadly drawn and ill-defined ventilation plan can generate litigation and enforcement issues such as those presented in these proceedings.

MSHA's threshold suggestion that the ventilation plan language found in paragraph 2 is only limited to equipment operational and maintenance requirements, and does not speak to the manner in which the cited equipment is to be tested is precisely the point raised above. MSHA's suggestion that it is not bound by the approved ventilation plan, or the suggested manufacturer's testing procedures, and may "use the most accurate test," are not well taken.

On the facts of this case, the inspector issued the citations because he concluded that the cited equipment low water shutdown devices were not being maintained in accordance with the manufacturer's operating specifications. The only evidence available to the inspector to support this conclusion are the results of the tests administered by the operator following the inspector's directions and instructions. Since the operator is required to follow the manufacturer's specifications to insure compliance with MSHA's permissibility requirements, and exposes himself to liability if he does not, I do not find it unreasonable to expect an operator to use the testing requirements suggested by the manufacturer to insure that the equipment is maintained properly. I believe

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it is basically inconsistent and unfair for MSHA to insist on the one hand that a mine operator follow the manufacturer's specifications to stay in compliance, and on the other hand argue that when it is found out of compliance, MSHA can use any test it chooses to support violations and civil penalty assessments for those violations. In these circumstances, I agree with West Elk's position that the use of arbitrary, unapproved or invalid testing methods to support a violation of its ventilation plan violates fundamental notions of due process and fairness.

MSHA's assertions that the ventilation plan language relied on by the inspector as the underpinning for the citations is limited to operational and maintenance specifications, and not to the methods used for testing the equipment to insure compliance with those specifications, ARE REJECTED. I conclude and find that a reasonable interpretation of the plan and its intended purpose to insure continued compliance with MSHA's permissibility requirements, supports a conclusion that West Elk was not only required to rely on the manufacturer's specifications to insure compliance with MSHA's requirements, but was also required to follow the manufacturer's test procedures to insure that it stays in compliance. If West Elk decides to use some other testing methods, and the equipment is subsequently found to be out of compliance, it does so at its peril, and assumes the risk of being cited. Conversely, since MSHA bears the burden of proof in establishing a violation by a preponderance of the credible evidence, I further conclude and find that MSHA must play by the same rules, and any alleged violations of its permissibility requirements must be established by the same testing requirements imposed on West Elk pursuant to its approved plan. Of course, if MSHA can establish that an approved testing procedure other than that of the manufacturer is part of the plan requirement, and that the procedure has in fact been adopted as part of the plan after fair notice to the operator, then both parties would be bound by that test procedure.

The S-9 test procedures which MSHA claims are the only MSHA-approved procedures applicable to the cited cars state as follows:

* * * * *

3. Low water shutdown test.

With the water tank air pressure turned off and the engine running at idle, slowly drain the water from the scrubber at the drain. Continue to drain the water until the low water shut-down system activates the safety system and shuts down the engine. Quickly close the drain so as not to lose (sic) any more water. Remove the cap on top of the scrubber and measure the water depth. This measurement must be 8 1/2 ± 1/2 inches.

The O-2 test procedures which West Elk claims are the MSHA-approved procedures applicable to the cited cars state as follows:

2. Low Scrubber Water Shut Down

- a. With supply water tank full and scrubber water at running level, close needle valve between low-air pressure regulator and water supply tank. Vent water tank by pushing red button on top of fill cap. Rotate cap counter-clockwise to first safety catch, thus allowing water tank to remain vented during test.
- b. With engine running, disconnect the air supply line at the upper tank vent valve. Loss of air should shut down the engine. After engine shuts down, reconnect the air line, reset the trip indicator, and restart the engine.
- c. Slowly drain the water from the scrubber through the drain valve in lower level tank until the engine shuts down. Immediately close the drain valve. Check the scrubber water level by removing first the top pipe plug on the rear of the lower tank (7" level) and if no water is visible, then reopen the valve (6" level). If no water flows from the bottom valve the system is not functioning properly.

The introductory language which appears on page 1 of the O-2 test procedures states in pertinent part as follows: "Listed below are the items and functions that must be maintained at all times in order to keep approval status of this vehicle. This checklist should be posted for easy reference by the personnel that have been assigned this responsibility."

MSHA takes the position that the Jeffrey manufacturer's O-2 test procedures do not have MSHA's approval, and that the only test procedures submitted by Jeffrey are those found in S-9. MSHA discounts Mr. Murphy's reference to the MSHA "stamp of approval" which appears on the face of O-2 as an indicia of MSHA approval. MSHA asserts that this printed information refers to "prints," and that the procedures are not "prints."

Mr. Murphy believed that the O-2 procedures have been approved by MSHA, and stated that he was so advised by a Jeffrey manufacturer's representative. Mr. Skvarch agreed (Tr. 210). In describing the procedures, Mr. Murphy characterized them as follows at (Tr. 251):

* * * * *

This is the permissibility checklist that we have submitted to MSHA in Tridelfia and have their approval to distribute as an approved piece of drawing. It's an approved drawing. In other words, it's not just a piece that goes in the maintenance manual. It goes in the parts book as an approved drawing. Something that I understood is not to be deviated from and it has been sent out to customers that have this type of a system to show that that is how the system has to be checked to see if it is working.

Mr. Lemon referred to the very same printed information appearing on O-2 as did Mr. Murphy, and Mr. Lemon believed this information evidenced the fact that the cited Jeffrey cars are MSHA certified and approved, and he confirmed that the O-2 permissibility checklist submitted by Jeffrey is applicable to the model 4114 ram cars (Tr. 129, 133). Mr. Lemon confirmed that he was previously aware of the O-2 checklist even though he never saw it in any manuals, and stated that "it may have come along with the prints, . . . sent out to the different coal operators that have this type of machinery on their property" (Tr. 121).

The term "print" is defined by Webster's New Collegiate Dictionary as "printed matter" or "a reproduction." Although one may speculate that the term "print" refers to the car specifications, I also note that the document contains the word "Drawing No. 532A329," and it is altogether possible that this refers to the car specifications. However, none of these contradictions in terminology is explained or clarified by MSHA's expert witness Lemon.

Mr. Lemon and Mr. Murphy are in agreement that the O-2 permissibility test procedures are included among the materials shipped by Jeffrey as the manufacturer's test procedures. Since the equipment is MSHA certified and approved, and absent any evidence to the contrary, I conclude and find that the O-2 procedures are part and parcel of the Jeffrey manufacturer's specifications, and that the term "print" appearing on each page of O-2 refers to the printed material appearing therein, including the scrubber shutdown test procedures.

MSHA's suggestion that the testing procedures followed by the individuals who tested the cited cars were their responsibility, and that Inspector Biondich was merely a "casual observer" are not well taken. I believe the testimony of the three company representatives who accompanied Mr. Biondich, and conclude that he dictated the test procedures and gave instructions as to how the tests were to be performed.

Mr. Skvarch testified that the O-2 procedures are kept at the mine and that they are part of the equipment specifications and maintenance procedures (Tr. 203). Even though the ventilation plan requires that they be made available for reference, Inspector Biondich admitted that he never asked to see them at the time of his inspections. He conceded that the O-2 procedures are the proper ones for testing the cited cars, and admitted that he did not follow them when he issued the citations (Tr. 65, 69, 91), and that the instructions he gave for shutting the water supply between the supply tank and scrubber tank were not part of the O-2 procedures (Tr. 73). Mr. Biondich also agreed that the O-2 procedures appeared to be approved by MSHA (Tr. 75).

Although Inspector Biondich alluded to several other test procedures which were in his briefcase at the time of his inspections, he conceded that they pertained to scrubber models 410, HR 150, and 411 H, which are different from the ones he cited, and that he did not use them (Tr. 100-101).

As a matter of fact, there is no evidence that Mr. Biondich relied on any written test procedures at the time he inspected the cars and issued the citations, and simply relied on his own notions as to the test procedures which should be used. The three West Elk representatives who accompanied Mr. Biondich during his inspections all confirmed that he did not refer to any written test procedures during his inspections, and maintenance manager Skvarch expressed concern that Mr. Biondich was using the wrong test procedures.

Mr. Murphy testified that the S-9 test procedures are not the proper procedures for testing the cited cars because they pertain to a different type of low water shutdown devices than those on the cited cars (Tr. 261). Mr. Skvarch was of the same opinion (Tr. 201). Although Mr. Lemon believed that the S-9 procedures deal with the "same type of scrubbers" as those cited by the inspector, and identified a diagram of a cylindrical type 4110 flame arrestor which appears at page 4 of S-9, as one of these which was cited, he conceded that it was not the same type scrubber which the inspector said he cited (Tr. 70, 125-127).

MSHA suggests that since Mr. Murphy is "a mechanic" with little contacts with Jeffrey and no familiarity with the dealings between Jeffrey and MSHA, his testimony is less credible than Mr. Lemon, who works closely with MSHA's Certification and Approval Division, and has reason to know what machines and modifications are approved. MSHA's position is not well taken. Mr. Murphy is an experienced senior equipment serviceman whose duties include troubleshooting and instructions as to how to maintain and service the equipment. The fact that he is not directly involved in the certification and approval process, and all of the paperwork that goes with that process, is no basis for concluding that he is ignorant of the test procedures which apply to the equipment in question. Since testing is an integral part of maintaining and servicing the equipment, and since Mr. Murphy is an experienced serviceman, I conclude that he is just as competent as Mr. Lemon, and that his testimony regarding the O-2 test procedures is credible.

There is nothing in S-9 that reflects that the procedures detailed therein are approved by MSHA. S-9 was characterized by Mr. Lemon as a "training outline" he uses to train inspectors, and he claimed that the outline was adopted from procedures submitted by Jeffrey "to make it basic and easy for the mine inspectors in the field to check out Jeffrey equipment" (Tr. 125). Mr. Lemon stated that he conducts training "for diesel inspection of permissible schedule 31 equipment and underground coal mines for all electrical inspectors." I take

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note of the fact that Part 31 of MSHA's regulations deals with diesel mine locomotives, and not the type of equipment cited by Inspector Biondich.

Mr. Lemon agreed that the O-2 checklist test procedures are the proper procedures for testing the cited scrubber low-water shutdown devices, and that they are more thorough than the S-9 procedures (Tr. 139-140). He confirmed that he used the O-2 procedures as part of the training course he conducted at the mine after the citations were issued (Tr. 136, 346, 348). He also confirmed that the car manufacturer is required to submit such checklists with the equipment when it is submitted to MSHA for certification and approval, and that such a checklist was submitted for the equipment in question.

Mr. Lemon confirmed that he was aware of the O-2 test procedures some 5-months prior to the issuance of the citations, and was shown a copy by a service representative at a mine in Utah (Tr. 357). He has since requested a copy from another mine operator in Colorado (Tr. 359). When asked why he did not request a copy from "his people" at any time prior to the issuance of the citations, he explained that he "never had a need" for them because the diesel equipment under his jurisdiction was equipped with older model 4110 scrubbers, rather than the newer model 4114, and that "90% of ours in the Utah area still have the old scrubbers on them" (Tr. 358). He conceded that the new models "are a little bit new to me," and that based on his familiarization with the newer models during the course of the hearing, "we will change our testing procedures" (Tr. 363). Further, Mr. Lemon confirmed that since the issuance of the citations, MSHA has tested the very same cited cars using "the proper test procedures" and that "they all shut down and operated properly." He also confirmed that he has never determined why the test procedures mandated by Inspector Biondich to support the citations did not work (Tr. 215).

Inspector Biondich made no mention of the S-9 test procedures as such, and after review of his testimony I take note of the fact that he was never asked about them. However, with respect to the O-2 test procedures, and in response to West Elk's questions on cross-examination, Mr. Biondich referred to them as the proper test procedures that are part of the maintenance manual test procedures (Tr. 65). In a later reference to O-2 test procedures, Mr. Biondich again confirmed that the O-2 test procedures are the proper procedures contained in the maintenance manual for the testing of the cited Jeffrey cars (Tr. 69). In responding to a question

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from West Elk's counsel who was quoting from the O-2 procedures, Mr. Biondich affirmed that the instructions are "approved" (Tr. 77). Still later, he confirmed that the O-2 procedures distributed to him and the other MSHA inspectors during the training session conducted by Mr. Lemon were instructions out of the West Elk maintenance manual for Jeffrey ram cars (Tr. 90).

The only evidence suggesting that the O-2 test procedures were not approved by MSHA is the testimony of Mr. Lemon that he never saw them in any manuals, that he relied primarily on the S-9 procedures while conducting his training courses, and that the O-2 procedures do not contain the signature or initials of any MSHA approving official.

I have carefully reviewed Mr. Lemon's testimony regarding the O-2 and S-9 test procedures, and I find it rather equivocal and contradictory with respect to the question of any MSHA approvals. For example, while confirming that Jeffrey is required to submit permissibility checklists for each piece of equipment submitted to MSHA's Tridelpia Office for approval and certification, Mr. Lemon confirmed that such a checklist was submitted. However, he did not specify which one he had in mind. When asked about the S-9 procedures which he used as part of his training outline, Mr. Lemon stated that it was prepared from a checklist submitted by Jeffrey and that the checklist dealt with the same type of scrubbers cited by the inspector. Since the cited scrubbers were approved by MSHA, I believe one can reasonably conclude that the O-2 procedures were also approved by MSHA. Further, I find it highly unlikely that a large and well-known manufacturer such as Jeffrey would expose itself to liability by disseminating permissibility test procedures which on their face clearly imply that they are approved by MSHA if this were not the case.

In confirming that the cited Jeffrey cars have MSHA's approval, Mr. Lemon referred to the same information which appears on each page of the O-2 test procedures implying MSHA's approval, as evidence of that approval (Tr. 129). Under the circumstances, I see no reason why West Elk cannot rely on that very same information to support its assertion that the O-2 procedures likewise have MSHA's approval.

At one point during the hearing, Mr. Lemon was asked whether the O-2 test procedures were the approved Jeffrey permissibility procedures. He responded "I can't answer that," and he explained that he had never seen them as part of any maintenance manuals (Tr. 138-139). However, he also "assumed that they came from Jeffrey," and he believed that

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they were "separate from the maintenance manual" (Tr. 139). If this is true, then I fail to understand why Mr. Lemon would have expected to find them in any manuals. Although West Elk's ventilation plan requires that equipment manuals and specifications be made available for reference, I find nothing in the plan requiring the permissibility test procedures to be physically kept in the manuals.

In confirming that his prior knowledge of the O-2 test procedures came about as the result of his visits to two other mines, Mr. Lemon did not state that he requested to review the maintenance manuals or that he made any effort to do so. This may also explain why he did not find them in any manuals. In explaining why he had not previously requested a copy of those procedures from his own MSHA people, Mr. Lemon stated that he never had a need for them because 90 percent of the scrubbers under his jurisdiction were older 4110 models. Since the scrubber diagram included as part of the S-9 procedures is an older 4110 model, and since those procedures applied to the older model, one can reasonably conclude that Mr. Lemon did not consider the O-2 procedures particularly important or relevant. However, this is hardly a basis for concluding that the O-2 procedures are not the approved procedures for testing the cars cited by the inspector. Likewise, the fact that Mr. Lemon may not have seen the O-2 procedures in any manuals is no basis for concluding that they were not approved by MSHA.

Mr. Lemon is one of three diesel "coordinators" working out of the MSHA district office which considers equipment approvals and certifications. He conceded that there are occasions when equipment approvals are made while he is on leave, and that he may not be totally aware of all of these approvals. When testifying about the possible design deficiencies in some of the cited cars, even though the cars have been approved by MSHA, Mr. Lemon conceded that it was possible that he "could have overlooked something" (Tr. 365). In my view, the same could be said about the O-2 test procedures.

In view of the foregoing, and after a careful weighing of all of the testimony, I cannot conclude that MSHA has established through any credible testimony that the O-2 test procedures were not approved by MSHA. To the contrary, I conclude and find that the preponderance of the evidence supports a conclusion that the O-2 test procedures have MSHA's blessing and approval, and that they were the proper procedures which should have been followed by the inspector at the time of his inspections.

The thrust of MSHA's case is that the cited low water shutdown devices were not functioning properly, and that the test administered by Inspector Biondich established this as a fact. I disagree. On the facts of this case, it seems clear to me that Inspector Biondich failed to follow the proper manufacturer's O-2 test procedures. MSHA's suggestion that the S-9 test procedures followed by the inspector are basically the same as those found in O-2 are rejected. There are differences in the two test procedures. For example, the first sentence of test procedure 2.a. of O-2 requires the closing of a needle valve with the supply water tank full and the scrubber water at running level. S-9 makes no reference to any needle valve, nor does it mention the water supply levels in the tanks. The first sentence of test procedure 2.c. of O-2 requires that water be slowly drained from the scrubber through a drain valve in the lower level tank until the engine shuts down. The second sentence requires that the scrubber water level be checked at the lower tank 7 and 6-inch levels. The S-9 procedure simply requires that the water level be tested by measuring the water depth through a cap on the top of the scrubber. Further, MSHA acknowledges that there are differences in the two test procedures, and it details those differences at page 4 of its brief.

Inspector Biondich admitted that he failed to follow the O-2 procedures in issuing the citations. He admitted that he did not check the water level as required by procedure 2.c., even though water could be trapped in the scrubber tank and upper float tank. He admitted that he instructed the test personnel to shut off the water between the water supply tank and the scrubber by means of a valve not specified in the O-2 procedures, and that the procedures in O-2 for the draining of the water from the low level tank at the 7 and 6-inch levels were not followed. Mr. Lemon conceded that at no time during the testing of the cited cars did the inspector measure the water tank level. He confirmed that he always checks the water level "because that's part of the check" (Tr. 173).

Mr. Lemon and Mr. Murphy agreed that if a "shortcut" version of the O-2 test procedures were done, and the low water shutdown devices did not work properly, a prudent thing to do would be to run through the entire detailed O-2 procedures in order to determine whether the device itself was defective or whether the malfunction might be caused by an air lock or something unconnected with the test procedure itself (Tr. 150; 258-259). Mr. Lemon also conceded that testing the cars on inclines, and other aspects of the test procedures followed by the inspector could produce invalid results because of air

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locking and water locking, and he also concluded that the design of the scrubber system itself may be flawed.

MSHA's assertions that the test procedures followed by Inspector Biondich were properly calculated to give reliable results and support the violations are rejected. I agree with West Elk's arguments that the tests used by the inspector were "shortcut methods" which did not produce reliable results in that they failed to take into account the possibility of air locks and trapped water resulting from testing the cars on inclines, the presence of gate valves on some of the cars, and the draining of water through the scrubber main valve, rather than the scrubber lower level tank. I also take note of the fact that in each of the cited cars, the scrubber parts which were replaced as part of the abatement process were not found to be defective, and that subsequent testing following the O-2 procedures, rather than those followed by the inspector, indicated that the devices were operating properly. Further, MSHA's own expert (Lemon) agreed that part of the test procedures dictated by the inspector, i.e., closing of a gate valve, testing the cars on inclines, and failure to drain the main tank and low level tank, could result in air locks and trapped water, and produce invalid test results. As a matter of fact, at the conclusion of the hearing, Mr. Lemon candidly stated that based upon the testimony and evidence, "we will change our testing procedures" (Tr. 363). Although Mr. Lemon acknowledged that the cited scrubbers are MSHA approved, as stated earlier, he admitted that possible design deficiencies may cause the low water shutdown devices "to lie," and that this is something that he could have overlooked or missed by MSHA, and that it "needs to be brought to the attention of appropriate people" (Tr. 365).

In view of the foregoing findings and conclusions, I cannot conclude that MSHA has established by any credible or probative evidence that the cited low water shutdown devices were in violation of the ventilation plan or out of compliance with the manufacturer's permissibility specifications. I further conclude and find that the testing procedures mandated by the inspector were improper, that he failed to follow the approved manufacturer's O-2 test procedures, and that the test methods he did employ were unreliable and invalid, and do not support the alleged violations. Under the circumstances, the citations ARE VACATED.

ORDER

In view of the foregoing findings and conclusions, IT IS ORDERED THAT:

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1. West Elk's Contests ARE GRANTED.
2. Section 104(a) Citation Nos. 2336427, 2336428, 2336430, 2833301, and 2833302, ARE VACATED.
3. MSHA's proposals for assessment of civil penalties for the alleged violations, Civil Penalty Docket No. WEST 68-73, ARE DENIED, and the civil penalty matter IS DISMISSED.

George A. Koutras
Administrative Law Judge