Secretary of Labor,	:	
Complainant,	:	
v.	:	OSHRC Docket No. 99-2240
	:	
The National Coal Museum,	:	
	:	
Respondent.	:	
	:	

APPEARANCES

Ruben R. Chapa, Esq.
Barbara M. Villalobos, Esq.
Office of the Solicitor
U. S. Department of Labor
Chicago, Illinois
For Complainant

Dr. Christopher T. Ledvina
Chairman of the Board
The National Coal Museum
Long Grove, Illinois
For Respondent

Before: Administrative Law Judge Ken S. Welsch

DECISION AND ORDER

The National Coal Museum (Museum), a nonprofit corporation, operated a mine museum for public tours in an abandoned underground coal mine in southern Illinois until January 14, 2000. Prior to its closing in January, 2000, the Museum received serious and willful citations on November 29, 1999, after an inspection by the Occupational Safety and Health Administration (OSHA). The Museum timely contested the citations.

The serious citation alleges that the Museum violated § 5(a)(1) (item 1) of the Occupational Safety and Health Act (Act) for failing to examine and inspect the underground intake air courses and seals in their entirety; § 5(a)(1) (item 2) of the Act for failing to equip the hoist skip with a safety catch or equivalent; and 29 C.F.R. § 1910.307(b) (item 3) for having unprotected incandescent light bulbs and electric circuits in the underground tour area. A penalty of $2,100 is proposed for each alleged violation.

The willful citation alleges that the Museum violated § 5(a)(1) (item 1) of the Act for failing to adequately support the roof at numerous locations in the underground travelways. A penalty of $21,000 is proposed.

The hearing was held in Chicago, Illinois, on November 15-17 and December 5-8, 2000. The Museum is represented *pro se* by its owner, Dr. Christopher Ledvina. At the hearing, the Secretary withdrew item 2 of serious Citation no. 1 (Tr. 31). Also, the parties stipulate that during the applicable period, the Museum employed employees and was in a business which affected commerce within the meaning of the Act (Tr. 20, 32). Jurisdiction and coverage is established.[1] The parties filed post-hearing briefs.

The Museum denies the alleged violations, their classifications and the reasonableness of the proposed penalties. The Museum argues that OSHA's jurisdiction was preempted by Federal and state mine laws, pursuant to § 4(b)(1) of the Act. Also, the Museum claims unreasonable inspection by OSHA, in violation of § 8(a) of the Act, and vindictive prosecution.

The Museum's preemption, vindictive prosecution, and unreasonable inspection defenses are rejected. However, based on the record, items 1 and 3 of serious Citation no. 1 are vacated. Item 1 of willful Citation no. 2 is affirmed as serious and a penalty of $5,000 is assessed.

Background

On May 7, 1996, the Museum obtained an abandoned underground coal mine in West Frankfort, Illinois. Mine #25 had been owned by the Old Ben Mine Company since 1978 and had produced coal for sale until October, 1994. After acquiring the property, the Museum[2] converted the underground coal mine into an exhibition and tourist attraction. The Museum re-opened the underground mine for public tours on August 15, 1996 (Tr. 551, 549, 1411, 1461). When it closed in January, 2000, there were four employees with underground duties and three employees in the office (Tr. 981, 1464).

---

[1]Although the Museum is no longer in business, the Secretary has jurisdiction to initiate civil enforcement action because the alleged violations occurred while the Museum was still in business and had employees. *Joel Yandell d/b/a Triple L. Tower*, 18 BNA OSHC 1623 (No. 94-3080, 1999).

[2]The Museum also owned the nearby Orient 2 mine which was an above-ground historical mine site (Tr. 121, 1454-1455).

The Museum's owner and chairman of the board was Dr. Christopher Ledvina.[3] Janet Howe, co-founder, was the secretary/treasurer (Tr. 1312). The Museum's superintendent was William Bullock, a former miner with 37 years of coal mine experience (Tr. 982, 984). The Museum employed other experienced miners to maintain the underground facilities, operate the hoist, and act as tour guides (Tr. 981, 1076, 1089, 1334, 1369). The former miners held certificates as hoist operators, mine examiners and mine managers (Tr. 1111). During its peak, the Museum employed approximately 22 employees (Tr. 1464).

Mine #25 covered approximately 18 square miles (Tr. 1141-1142). The Museum's above ground facilities included a parking lot, a large hoist capable of carrying 40 people below ground, and a large metal building which housed the hoist drive mechanism, an old miners' washroom, and a gift store (Exh. R-5; Tr. 65, 1092-1093). The hoist was located at "B" shaft, which also functioned as the air upcast and downcast for the underground mine's ventilation system. "A" shaft functioned as a downcast (Tr. 63, 129, 516-517, 780, 1119).

The underground mine, approximately 600 feet below ground, consisted of a maze of connecting tunnels referred to as passageways, travelways and crosscuts (Exh. C-2; Tr. 1093, 1410). Approximately 68 concrete seals[4] had been placed in tunnels around the perimeter to separate the unused areas of the abandoned mine from the Museum. The Museum comprised an area approximately 2,300 feet by 1,000 feet[5] (Tr. 503, 890-891, 1087). The public tour area covered approximately 400 feet by 800 feet (Tr. 1101). The tour area had displays showing an actual mine collapse and mine equipment such as the continuous miner (Exh. C-2; Tr. 248, 1095-1098). The tour area started at the hoist in "B" shaft and was identified by yellow ropes, hanging lights and a chainlink screen along the roof (Tr. 57, 248, 1046-1047). In three years of operation, over 70,000 visitors had toured the underground mine (Tr. 1002, 1409).

---

[3]Dr. Ledvina has a doctorate degree in philosophy and mining engineering. He had worked in the coal mines as a supervisor until a mine accident in 1978 left his lower body paralyzed. He is now in a wheelchair (Tr. 1145-1148). Dr. Ledvina used money received from his Workers' Compensation settlement to start the Museum (Tr. 1435).

[4]A seal is a wall erected from floor to roof in a tunnel to separate the worked out from the active area of the mine (Tr. 808).

[5]The Museum's underground area of operation was not large compared to an active coal mine (Tr. 807).

From the Museum's inception, the State of Illinois, Division of Minerals and Mines, conducted regular inspections of the underground facilities under the Illinois Coal Mining Act (Exh. C-32). State mine inspector Jerry Odle conducted no less than 36 inspections prior to September 20, 1999. During his inspection, Odle prepared written inspection reports and gave copies to the Museum (Exh. R-10; Tr. 494, 536).

During the summer of 1999, the Museum began experiencing financial problems. In an attempt to raise money and awareness, Dr. Ledvina moved into the underground mine for thirty days in August, 1999. The Museum was also seeking financial assistance from the state (Exhs. C-41, C-42; Tr. 1415, 1464). According to Dr. Ledvina, the governor's office became interested and designated a task force to consider state funding. After the state declined, the Museum was visited by the state police, state fire marshals and state department of revenue (Tr. 1380, 1417-1418, 1465-1466).

After an underground inspection on September 20, 1999, state mine inspector Odle issued the Museum an Order to Comply requiring corrections by September 26 in the roof support system and the water pump (Exhs. C-1, C-9). On September 27, Odle issued the Museum a Notice closing the mine to the public until the corrections were made (Exh. C-17). The Museum began some repair work (Tr. 103, 105, 143, 688, 989).

OSHA received a referral on September 30, 1999, from the Illinois Division of Minerals and Mines (Tr. 1163, 1177-1178). On October 1, 1999, OSHA compliance officer (CO) Cynthia Wagner initiated an inspection of the Museum (Tr. 54). CO Wagner, who lacked coal mining experience, was accompanied by state mine inspector Odle (Tr. 55, 109, 113). Superintendent Bullock participated in the opening conference and a portion of the walkaround inspection (Tr. 56, 58). After spending approximately three hours underground, CO Wagner issued the Museum a Notice of Imminent Danger[6] identifying as hazards unsafe roof support and the Museum's failure to inspect seals. The Notice of Imminent Danger referenced the state's inspection and closure Notice (Exh. C-3; Tr. 68, 115).

CO Wagner attempted to continue the OSHA inspection on October 6, 1999, but the Museum refused entry to state mine inspector Odle (Tr. 69-70). CO Wagner re-entered the mine

[6]An imminent danger notice under § 13 of the Act is not a citation. It warns employees of unsafe conditions (Tr. 1216-1217).

on October 7 with OSHA compliance officer Greg Malone, who had previously been an inspector with the Federal Mine Safety and Health Administration (MSHA) (Tr. 71). On October 8, Dr. Ledvina called OSHA and refused entry to further OSHA inspections (Tr. 72). On October 12, the U. S. Magistrate granted OSHA an inspection warrant (Exhs. C-4, C-5). Other entries into the mine were made by OSHA on October 13, October 20, and November 5 (Tr. 75-76, 152, 275, 778). The underground inspections were delayed because of a problem with the hoist[7] (Exhs. C-6, C-7; Tr. 353).

OSHA's inspections involved at least three OSHA inspectors, the state mine inspector, and an MSHA inspector. Additionally, OSHA and MSHA inspectors observed activities of employees above ground from the gift store and parking lot during a three-week period when the hoist was not operating (Tr. 153, 474, 1302-1303).

As a result of OSHA's inspection, serious and willful citations were issued to the Museum on November 29, 1999, alleging in part a failure to inspect seals and air courses in their entirety, to protect light bulbs and conduit, and to adequately support the roof. The Museum went out of business on January 14, 2000 (Tr. 1377). During its operation, the Museum had no employees' lost time injuries or injuries to the public (Tr. 705, 1408).

Discussion

In addition to disputing the violations and proposed penalties, the Museum has asserted as affirmative defenses preemption under § 4(b)(1) of the Act, unreasonable OSHA inspection under § 8(a) of the Act, and vindictive prosecution.

A. Preemption under § 4(b)(1) of the Act

The Museum argues that it was exempt from the requirements of the Act because OSHA's jurisdiction was preempted by the Mine Safety and Health Administration (MSHA), who enforces the Federal Mine Safety and Health Act, 30 U.S.C. § 801, *et seq.*, and by the Illinois Division of Minerals and Mines' enforcement of the state Coal Mining Act (Museum's Closing Brief, pp. 14-34).

[7]OSHA had information that the hoist problem was rigged by Dr. Ledvina (Tr. 544-545).

There is no dispute that prior to the Museum obtaining mine #25, it was owned by the Old Ben Coal Company. Old Ben had extracted coal for sale from the mine from 1978 until October 14, 1994. When the mine was owned by Old Ben, it was regularly inspected by MSHA. After the Museum acquired mine #25 on May 7, 1996, it was inspected by Illinois Division of Minerals and Mines until October 20, 1999. The Museum was not inspected by MSHA (Exhs. R-6, R-10, Tr. 494, 549, 826, 891, 896).

OSHA's jurisdiction is limited by § 4(b)(1) of the Act, which provides:

> Nothing in this Act shall apply to working conditions of employees with respect to which other Federal agencies and State agencies acting under section 274 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2021), exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health.

In order to establish preemption under § 4(b)(1), the employer must show that an agency other than OSHA possesses the statutory authority to regulate the health and safety of workers and that the other agency has taken action to exercise the authority by promulgating regulations to exempt the particular working conditions. *Northwest Airlines, Inc*., 8 BNA OSHC 1982 (No. 13647, 1980). Even if another agency has exercised authority, OSHA's jurisdiction is preempted only as to those working conditions actually covered by the other agency's regulations. *Alaska Trawl Fisheries, Inc*., 15 BNA OSHC 1699, 1703-1704 (No. 89-1192, 1992).

To determine whether OSHA's jurisdiction is preempted, the analysis involves: (1) whether the federal or state agency has enforcement authority to regulate the working conditions of employees; (2) whether a regulation has been promulgated by the Federal or state agency; and (3) whether the regulation promulgated covers the specific "working conditions" at issue. *Bush & Burchett, Inc.*, 117 F.3d 932, 936 (6th Cir. 1996).

MSHA Jurisdiction

MSHA's jurisdiction is governed by the Federal Mine Safety and Health Act (FMSHA). The purpose of FMSHA is to provide for the safe working conditions of miners in mines,

including underground coal mines. FMSHA at § 802(h)(1) defines a "coal or other mine" to mean:

> (A) an area of land from which minerals are extracted in nonliquid form or, if in liquid form, are extracted with workers underground, (B) private ways and roads appurtenant to such area, and (C) lands, excavations, underground passageways, shafts, slopes, tunnels and workings, structures, facilities, equipment, machines, tools, or other property including impoundments, retention dams, and tailings ponds, on the surface or underground, used in, or to be used in, or resulting from, the work of extracting such minerals from their natural deposits in nonliquid form, or if in liquid form, with workers underground, or used in, or to be used in, the milling of such minerals, or the work of preparing coal or other minerals, and includes custom coal preparation facilities.

To avoid confusion regarding any overlap in jurisdiction, OSHA and MSHA signed an Interagency Agreement on March 29, 1979. In accordance with the Interagency Agreement, OSHA also issued an Instruction CPL 2.42 on March 14, 1980 (Exh. R-8). As stated in the Instruction, the interagency agreement is "designed to clarify situations involving overlapping jurisdiction between MSHA and OSHA with respect to the health and safety of miners." The agreement describes MSHA jurisdiction as promulgating and enforcing "safety and health standards regarding working conditions of employees engaged in underground and surface mineral extraction (mining), related operations, and preparation and milling of the minerals extracted." FMSHA identifies three mining activities, including extracting, milling minerals, and preparing coal or other minerals. *Lancashire Coal Co. v. MSHA*, 968 F.2d 388, 390 (3rd Cir. 1992) (MSHA lacked jurisdiction over an abandoned coal silo).

The Museum did not operate mine #25 for coal extraction, milling, or preparation. The Museum's business did not involve mining coal or other minerals for commercial purposes (Tr. 550, 732, 826, 1100). The pieces of coal that were picked up by tourists from the mine floor or sold in the gift store were not from extraction or milling operations (Tr. 578, 913-914). Such pieces of coal were incidental to the Museum's purpose as a tourist attraction. The Museum's employees were not mining coal. The employees were tour guides (Tr. 250, 1076). The Museum's business was tourism (Tr. 577). The Museum was a non-profit business, and its funding did not come from the sale of coal (Tr. 19, 37). Its funding came from donations,

admissions, memberships, and the gift store (Tr. 1125). Its state permit was to operate a mine museum, not a coal mine (Tr. 1411).

Superintendent Bullock described the Museum as "in the tourism business." He testified that "[w]e were a museum. We would take people underground and show them the underground workings of an actual coal mine" (Tr. 982). The Museum did not refer to or try to comply with MSHA regulations (Tr. 1003).

From its inception, the Museum had been informed that MSHA lacked jurisdiction and would not make inspections (Tr. 6, 828, 878, 990, 1008, 1133-1134, 1332). On November 10, 1999, MSHA specifically wrote the Museum that it had no jurisdiction over mine #25 (Exh. R-7). MSHA had changed mine #25's status to permanently abandoned when the Museum took possession (Exh. R-6; Tr. 827, 898). The Museum was not given a new mine identification number by MSHA (Tr. 878, 1143).

Also, the initial reference to MSHA regulations in the OSHA citations issued to the Museum does not establish preemption. As described by assistant area director Janis Barrier, MSHA standards were identified as the basis for correcting the hazards (Tr. 1211).

OSHA's jurisdiction was not preempted by MSHA. The Museum was not mining coal; it was an exhibition facility for public tours (Tr. 555). The mining of coal had ceased when the Old Ben Mine Company closed its operation.

State Jurisdiction

OSHA's jurisdiction was also not preempted by the Illinois Division of Minerals and Mines' enforcement of the Coal Mining Act. Under § 4(b)(1), OSHA is preempted by state agencies acting under § 274 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2021). The Illinois Division of Minerals and Mines was not shown to be such a state agency.

Illinois is also not acting under OSHA's state planned system (Tr. 1301). Section 18 of the Act provides that states, if approved, have authority to conduct OSHA inspections. Illinois is within the Federal system and is not a state planned state (29 C.F.R. Part 1952). The state agency did not have authority to regulate employees' safety and health pursuant to § 18 of the Act.

Although the state agency made regular inspections, its state Coal Mining Act is similar to FMSHA in that coverage is limited to the extraction of coal. Section 103 of the Illinois Coal Mining Act defines a "mine and coal mine" to mean:

> any area of land and any structures, facilities, machinery, tools, equipment, shafts, slopes, tunnels, excavations, and other property, real or personal, placed upon, under or above the surface of such land by any person, used in, or to be used in, or resulting from, the work of extracting in such area bituminous coal, lignite, or anthracite, from its natural deposits in the earth by any means or method including the method known as carbon recovery, and the work of preparing the coal so extracted, and includes custom coal preparation facilities (Exh. C-32).

As stated, the Museum was not engaged in extracting coal (Tr. 732). The Museum did not record the sale of coal with the state (Tr. 740). As noted by state inspector Odle, Federal MSHA and the Illinois Division of Minerals and Mines inspect the same mines (Tr. 727, 993). When the state agency referred the matter to OSHA, Illinois had decided to stop inspecting the mine (Tr. 671, 683, 686). OSHA's jurisdiction was not preempted by the state agency (Tr. 1210, 1301).

B. Reasonableness of OSHA's Inspection under § 8(a) of the Act

The Museum alleges that OSHA's inspection was unreasonable because of the number of inspectors (OSHA, MSHA, and state) used and the number of days it took to complete the inspection. Such activity disrupted the Museum's business and eventually closed it. The Museum also argues that OSHA's inspection (1) forced Museum employees to enter dangerous areas of the mine, (2) diverted its employees during remediation efforts, (3) was conducted on weekends and overnight, and (4) took photographs underground without permission. The Museum seeks to dismiss the citations.

Section 8(a) of the Act directs that OSHA's inspection be conducted in a reasonable manner, at reasonable times, and within reasonable limits. To establish the affirmative defense, the employer must have evidence of unreasonable conduct by OSHA during the inspection. *Hamilton Fixture*, 16 BNA OSHC 1073, 1077 (No. 88-1720, 1993). The record must show that OSHA substantially failed to comply with the provisions of § 8(a), and such noncompliance substantially prejudiced the Museum. *Gem Industrial, Inc.*, 17 BNA OSHC 1185 (No. 93-1122,

1995). Evidence that an OSHA compliance officer conducted an inspection to harass an employer can be relevant to a § 8(a) defense. *See Quality Stamping Products Co.*, 7 BNA OSHC 1285, 1287, n. 6 (No. 78-235, 1979).

Based on many years of reviewing OSHA cases, OSHA's inspection of the Museum does at *first glance* appear excessive as compared to a "typical" OSHA inspection. For this inspection, OSHA used at least three OSHA inspectors, numerous (6-8) MSHA inspectors and a state mine inspector (Tr. 419, 1001). OSHA conducted approximately five underground inspections (October 1, 7, 13, 20 and November 5) and spent an additional three weeks above ground observing employees (Tr. 153, 474, 1302). Also, OSHA issued an imminent danger notice after its first visit to the mine and obtained an inspection warrant after the second underground inspection. Such extensive activity by OSHA is viewed in the context of a small nonprofit employer with less than ten employees operating a public tourist attraction. The Museum had never been previously inspected by OSHA. It had regularly been inspected by the state and was under a state closure Order when OSHA initiated its inspection. OSHA assistant area director Janis Barrier described it as a "unique inspection" (Tr. 1288-1289).

Despite this appearance, OSHA's inspection was not unreasonable under § 8(a) of the Act. OSHA had jurisdiction and had received a valid referral of unsafe conditions underground from the state. OSHA inspectors, who lacked mining experience, needed to rely upon mine inspectors from MSHA and the state for technical assistance (Tr. 1245). Such reliance was reasonable and justified. The delays in OSHA's inspection, in part, were due to the Museum's insistence on an inspection warrant and the failure of the mine hoist to operate. Also, the conditions underground and OSHA's safety concerns, not only for the Museum's employees but also for its own inspectors, made the inspection more complex. There is no showing that OSHA forced any person into dangerous areas. Superintendent Bullock testified that at no time was he told by OSHA to walk under unsupported roof. In fact, OSHA warned him not be expose himself to roof hazards (Tr. 304-305, 1025-1026). Assistant area director Janis Barrier explained that the need for additional inspection days underground was because of OSHA's attempt to ascertain proper abatement methods (Tr. 1245). The Act sets no limitation on the number of days an inspection can take. Also, the alleged violations for the most part were cited under the

General Duty Clause at § 5(a)(1) of the Act. These factors made the inspection more difficult, requiring more days and more personnel than other OSHA inspections.

With regard to photographs, the record fails to show that OSHA was advised not to take them. The Museum had no signs posted. Also, OSHA took precautions before taking photographs, including measuring methane levels (Tr. 291).

Any disruption to the Museum's business was not unreasonable. The Museum was already closed to public tours based on the state's closure notice. Other than superintendent Bullock, other Museum employees were not involved in the OSHA inspection. During the initial inspection, Bullock even chose not to participate in a portion of the walk around (Tr. 56).

OSHA's affect on the Museum's time was not unreasonable. Although the hoist operator was required to remain at the hoist while people were underground, OSHA's underground inspections were less than three hours (Tr. 110, 276). The repair work by Museum employees was not hindered. OSHA's inspection was during normal business hours.

Section 8(a) of the Act was not violated. The Museum's real problem was the lack of funds for materials and manpower and not the OSHA inspection (Tr. 439, 1064).

C. Vindictive Prosecution

The Museum alleges that OSHA's inspection was vindictive because it was based on an improperly motivated referral by the Illinois Division of Minerals and Mines. The Museum argues that OSHA's inspection was initiated before it had corrected the conditions noted in the state's Order to comply (Museum's Closing Brief, p. 10). The Museum seeks to dismiss the citations.

"Vindictive prosecution is a prosecution to deter or punish the exercise of a protected statutory or constitutional right." *United States v. Goodwin*, 457 U.S. 368, 372 (1982). There must be a showing that OSHA's action was taken in response to an exercise of a protected right. "If government misconduct is found, the court can dismiss the vindictively motivated charge or the entire action." *National Engineering & Contracting Co.*, 18 BNA OSHC 1075, 1077 (No. 94-2787, 1997) (vindictive prosecution not found despite evidence that OSHA had referred to the employer as a "bad actor" and that OSHA would "play hardball" to "get them"). "In

addition to evidence of animus or retaliatory motive," the party "must produce evidence tending to show that it would not have been cited absent that motive" *Id*. at 1078.

The record in this case does not support a vindictive prosecution defense. The Museum has not identified any protected right it exercised that caused OSHA to conduct its inspection and issue citations. OSHA received the referral from a state agency and it was obligated to investigate the allegations. The Museum's claim relates to the state's motivation in making the referral to OSHA, not OSHA's motivation to inspect. OSHA was required to inspect the Museum based on information of possible safety and health violations. Even an improperly motivated complaint is not in itself sufficient grounds for invalidating the inspection. *Quality Stamping Products*, 7 BNA 1285, 1287 (No. 78-235, 1979).

The Museum was repeatedly inspected by state mine inspectors and visited by state auditors, state police and the Governor's office. Such state activity was not caused by OSHA. Until the referral, there is no showing that OSHA was even aware of the Museum's activity. There had been no previous OSHA inspections.

OSHA's decision to inspect and prosecute was based upon normal factors ordinarily considered in determining the proper course to pursue. *National Engineering*, 18 BNA at 1079. For the most part, the conditions cited by OSHA, including the failure to inspect the seals in their entirety and inadequate roof support, are undisputed. The record from the inspection supports a *prima facie* showing of violative conditions.

Alleged Violations

Serious Citation No. 1

Item 1 - Inadequate Inspections of Seals and Air Course

The citation alleges that the Museum did not examine and inspect in their entirety the northeast, east, and west intake air courses and 57 of the concrete seals. The alleged violation is cited under § 5(a)(1) of the Act. Section 5(a)(1), referred to as the General Duty Clause, requires an employer to furnish employment and a place of employment which is free from recognized hazards that may cause or is likely to cause death or serious physical harm to employees.

To establish a violation of § 5(a)(1), the Secretary must prove that (1) there was an activity or condition in the employer's workplace that constituted a hazard to employees,

(2) either the cited employer or its industry recognized that the condition or activity was hazardous, (3) the hazard was causing or likely to cause death or serious physical harm, and (4) there were feasible means to eliminate the hazard or materially reduce it. *Waldon Healthcare Ctr*., 16 BNA OSHC 1052, 1058 (No. 89-2804, 1993).

"The general duty clause, while intended to protect employees from hazards that have yet to be addressed by standards, is not intended to replace standards as an enforcement mechanism." *Waldon Healthcare Ctr*., 16 BNA OSHC at 1060. There are no specific OSHA standards involving inspections and examinations of air intake courses and concrete seals in an underground mine (Tr. 1208). Citing the General Duty Clause was appropriate in this case.

The Museum's underground ventilation involved dual intake air courses. Fresh air from outside the mine was drawn through a predetermined course of tunnels in the mine and then returned to the outside (Tr. 256, 515-516). One air course ventilated the perimeter tunnels in front of the concrete seals. A separate air course circulated air through the interior tour area (Tr. 102, 625, 813, 1065).

Fresh air was drawn in through "A" and "B" shafts and exhausted out the "B" shaft (Tr. 129, 1119). A wall in the middle of the "B" shaft allowed fresh air to be drawn down one side and bad air to be exhausted from the other side (Tr. 517). A large exhaust fan, located above "B" shaft, was used to draw fresh air down "A" shaft and the other side of "B" shaft (Tr. 815, 865). For perimeter ventilation, fresh air was drawn down the "A" shaft,[8] circulated through the tunnels in front of the concrete seals, and exhausted out the "B" shaft (Tr. 92, 132, 256-257, 516, 521, 637, 1087). For interior ventilation, fresh air was drawn down the intake side of "B" shaft, circulated throughout the tour area, and exhausted through the upcast side of "B" shaft (Tr. 521, 813).

The Museum agrees that at the time of OSHA's inspection, it was not inspecting in its entirety the perimeter air course and all of the concrete seals. Employees were unable to visually inspect at least 40 seals and could not walk the perimeter air course (Tr. 1086). Such inspections and examinations were not possible because of the inadequate roof support in many of the passageways. Instead, the Museum performed air monitoring at designated checkpoints to verify the proper functioning of the air course (Tr. 640, 1024). The Museum's air monitoring results

---

[8] "A" shaft also had a skip hoist and was the emergency escape route (Tr. 57-58).

were maintained in a logbook at the facility and were available to OSHA (Tr. 100, 256). Eventually, the Museum contemplated placing new seals in closer to the tour area; thus reducing the ventilation area it had to examine (Tr. 103, 958, 1027).

By failing to physically inspect all of the seals and the perimeter air course, the Secretary is concerned that disruptions in air circulation and unexpected accumulations of water, methane gas or bad air (oxygen deficient atmosphere) around the seals could not be detected and corrected (Tr. 814-815). The purpose of a ventilation system is to allow fresh air to dilute and replace accumulations of bad air and gases such as methane (Tr. 811). The Secretary argues that physical examinations are necessary to verify the adequacy of the ventilation system and the integrity of the seals.

The potential for disruptions in the perimeter air course existed. Dr. Ledvina testified that there had been at least one major roof fall during the Museum's operation and 19 other major roof falls during the history of the mine (Tr. 1487-1488). The underground map identifies the location of 22 roof falls (Exh. C-2; Tr. 895). Superintendent Bullock testified that there were 30 roof falls[9] (Tr. 1057). In addition to actual roof falls, the record indicates numerous areas of unsupported or inadequately supported roof.

The record also shows that there was a potential for problems around the seals, including accumulations of methane gas and water. Mines in Illinois, including mine #25, are generally considered "gassy mines" (Tr. 548, 1138). Dr. Ledvina considered "mine #25 above average" in methane gas (Tr. 1142-1143). According to state inspector Odle, the concentration of methane gas behind the seals could be approximately as high as 45 percent, which is not uncommon in old coal mines (Tr. 545). The explosive level of methane gas is between 5 and 15 percent (Tr. 547, 1141). Dr. Ledvina testified that any time the methane level approached 1 percent in front of the seals, "it's time to take immediate corrective action" (Tr. 1141). He stated that during the three years as a museum, there were 3, "possibly 5," occasions when the concentration of methane gas was near or above one percent inside the Museum area. The problem occurred generally when there was low outside barometric pressure (Tr. 1141). State mine inspector Odle testified that in

[9]According to MSHA inspector Gary Odum, 10 roof falls is a considerable amount but "probably not unlikely. Thirty [roof falls] is probably too many. It's an excessive amount" (Tr. 892).

1998 he detected a level of methane gas exceeding 1 percent at the northeast seal (Tr. 546). He described another incident when the level exceeded 5 percent (Tr. 546-547).

In addition to methane gas, the record reflects accumulations of water in the mine. Water can affect the integrity of the concrete seals. State mine inspector Odle first reported water at the seals on October 21, 1998 (Exh. R-10). In his report dated December 1, 1998, he found water accumulations in front of the #17 and #18 seals in the north which prevented visual examinations of the seals. He noted that the water was possibly destroying the seals. The Museum was directed to pump out the water by January 2, 1999 (Exh. C-33). He also noted water accumulations on September 14, 1999, and October 1, 1999 (Exh. R-10).

A hazard may be recognized by either the individual employer itself or its industry. A hazard is deemed "recognized" when the potential danger of a condition or activity is either actually known to the particular employer or generally known in the industry. *Pepperidge Farm Inc*., 17 BNA OSHC 1993 (No. 89-0265, 1997). In this case, the Museum knew of the hazards associated with accumulations of methane gas and water and the need to visually inspect the air course and seals. Based on their previous coal mining experience, Dr. Ledvina and superintendent Bullock acknowledged the need to inspect the seals and air courses (Tr. 1087, 1136). The Museum's own plan noted that inspections were required (Exh. C-38).

The hazards were also recognized by the coal mining industry. MSHA and state mining regulations direct mine operators to examine seals and air courses (Tr. 808-809).

MSHA regulations at 30 C.F.R. § 75.364(b) requires examinations for hazardous conditions at least every 7 days in at least one entry of each intake air course, return air course, and seal. Section 75.364(b)(4) provides for examinations "[a]t each seal along return and bleeder air courses[10] and at each seal along intake air courses not examined under § 75.360(b)(5)."

The Illinois Coal Mining Act requires at § 6.04 examinations of working places in gassy mines:

> When the mine is to be operated he [examiner] shall examine the prescribed working places of such mine within 4 hours before any workers in such shift, other than the examiner or the examiners designated by the Mine Manager to make the examination, enter

[10]Witnesses described the Museum's ventilation system as a bleeder air course which is used to ventilate worked out mine areas (Tr. 638, 876, 1121).

> the underground areas of the mine. Examine every working place in the mine and make test therein with a permissible flame safety lamp for accumulation of methane and oxygen deficiency in the air therein; examine seals and doors to determine whether they are functioning properly; inspect and test the roof, face and rib conditions in the working areas and on active roadways and travelways; inspect active roadways, travelways, approaches to abandoned working and accessible falls in active sections for explosive gas and other hazards; and inspect to determine whether the air in each split is traveling in its proper course and in normal volume (Exh. C-32).

The same examination is expected for non-coal producing shifts, except if the work is expected to be done on the immediate shaft bottom. *See* § 6.04(A)(2).

Regulations applicable to operating coal mines are also indicative of the hazards in a mine museum (Tr. 477, 968-969). Dr. Ledvina recognized that the dangers of a coal mine were also present at the Museum (Tr. 38). The hazards caused by disruptions in air flow and the affects on seal integrity are the same whether in an operating coal mine or in a mine used for public tours. The hazards are recognized.

In order to prevail with a § 5(a)(1) violation, the Secretary must also show that the hazards were causing or likely to cause death or serious physical harm, and there were feasible means to eliminate the hazards or materially reduce them. *See Fluor Constructors International, Inc*., 17 BNA OSHC 1947 (No. 92-2342, 1997). The Secretary must show that the abatement measure would reduce the risk of severe injury from the hazard. The proposed abatement is judged by what a reasonable person familiar with the conditions of the industry would have instituted. *Pratt & Whitney Aircraft v. Secretary of Labor*, 649 F.2d 96, 106 (2d Cir. 1980).

As recommended abatement, the Secretary's citation directs the Museum to perform the inspections and examinations in their entirety. However, the Secretary acknowledges that such inspections could not be performed until the Museum corrected the inadequate roof support throughout the mine, which is the basis for the Secretary's willful citation (Secretary's Post-Hearing Brief, pp. 33, 35; Tr. 90, 107, 253). By allowing the Museum to first support the roof, the Secretary recognizes that the abatement of making complete inspections was not feasible

under the circumstances of this case. Otherwise, the Museum was placed in a "Catch-22" situation.[11]

According to the Museum, the seals were not checked after September 30, 1999, because of the state's Order to comply (Tr. 1022, 1492). Pursuant to agreement with state mine inspector Odle, the Museum was permitted to inspect as close as possible to the seals and do air monitoring at checkpoints to ensure no disruptions and proper ventilation (Tr. 511, 640). The Secretary does not dispute that the Museum was performing spot air monitoring. There is no evidence of actual disruptions in air flow or damage to the seals. To reduce the hazard, vent pipes in the seals were opened to relieve water build-up behind the seals and equalize the gas pressure (Tr. 623-624, 1061). The Illinois Coal Mine Act provides exceptions for inspections of less than the entirety (Tr. 508, 727, 728, 732). State inspector Odle testified that exception to such inspections was provided as common practice by Illinois in cases where a seal becomes inaccessible (Tr. 508-509). Odle authorized the exception to the Museum in order to repair the roof support. MSHA inspector Odum testified that MSHA also recognized exceptions to visually examining seals on rare occasions (Tr. 809-810).

State mine inspector Odle testified that based on his air monitoring, he detected no problems with the Museum's ventilation system (Tr. 729). He found the air courses functioning properly from September 1, 1999, through November 29, 1999 (Tr. 524). On September 14, 1999, inspector Odle did cite in his monthly inspection report the Museum's failure to examine the seals and air courses (Exh. R-10). However, Dr. Ledvina immediately responded to Odle that the examinations were conducted but not recorded. State inspector Odle testified that he never found explosive levels of methane around the seals and was not aware of a seal rupture or failure (Tr. 645). Also, OSHA's air monitoring failed to record any level of methane gas or detect disruptions in the air flow (Tr. 260).

The alleged violation of § 5(a)(1) is not established.

Item 3 - Unprotected Light Bulbs in Tour Area

[11]The Museum could not perform complete inspections because of the roof and it could not fix the roof because of the lack of complete inspections.

The citation alleges that unprotected incandescent light bulbs and electrical circuits in the tour area were not safe for Class II, Division 2, hazardous locations. Section 1910.307(b)[12] provides that:

> Equipment, wiring methods, and installations of equipment in hazardous (classified) locations are to be intrinsically safe or approved for the hazardous (classified) location, or safe for the hazardous (classified) location.

Under § 1910.399 definitions, Class II, Division 2, is a location in which:

> (a) combustible dust will not normally be in suspension in the air in quantities sufficient to produce explosive or ignitible mixtures, and dust accumulations are normally insufficient to interfere with the normal operation of electrical equipment or other apparatus; or (b) dust may be in suspension in the air as a result of infrequent malfunctioning of handling or processing equipment, and dust accumulations resulting therefrom may be ignitible by abnormal operation or failure of electrical equipment or other apparatus.

Throughout the tour area and along the travelway to "A" shaft, the walkway for tourists was a 4-foot wide mat on the ground. Chain link or wire mesh was secured to the roof to prevent falling dirt or rocks. On both sides of the walkway, rope mesh was used as hand rails. Lights consisting of incandescent 100-watt light bulbs were hung outside the walkway along one side. The light bulbs were spaced approximately 12 feet apart and hung one foot below the roof. There were hundreds of light bulbs in the tour area. The light bulbs were not enclosed or otherwise protected. Flexible romax cable which was not inside metal conduit connected the light bulbs (Exhs. C-29, C-30; Tr. 57, 262, 340, 345-346, 380, 475, 500, 951, 967-968, 1043-1044, 1046, 1049).

---

[12]The Secretary has the burden of proving a violation.

> In order to establish a violation of an occupational safety or health standard, the Secretary has the burden of proving: (a) the applicability of the cited standard, (b) the employer's noncompliance with the standard's terms, (c) employee access to the violative conditions, and (d) the employer's actual or constructive knowledge of the violation (*i.e.*, the employer either knew or, with the exercise of reasonable diligence could have known, of the violative conditions).

Atlantic Battery Co., 16 BNA OSHC 2131, 2138 (No. 90-1747, 1994).

OSHA classified the tour area as Class II, Division 2, because of the potential for combustible methane gas or coal dust (Tr. 260, 340, 342). As discussed, coal mines in Illinois are considered "gassy" and methane gas has been detected at mine #25. However, there is no showing that methane gas was ever detected in the tour area (Tr. 1053, 1149). The methane gas detected by state inspector Odle in 1998 was at the northeast seal (Tr. 545-546). The Museum also has never detected methane gas in the tour area (Tr. 1066). During its inspection, OSHA did not find methane gas (Tr. 260, 263, 944).

The Secretary also was concerned for combustible levels of coal dust if there was a roof fall (Tr. 340-341). The record shows that roof falls have occurred at mine #25. Dr. Ledvina acknowledged at least one major roof fall during the Museum's operation (Tr. 1487-1488). Where the roof fall occurred was not identified. Although coal was all around the tour area, OSHA did not monitor for coal dust (Tr, 261, 373).

A Class II, Division 2, hazardous location is based on the potential suspension of combustible dust, not gases such as methane. Also, with the Museum's dual ventilation system, there is no showing of potential methane gas in the tour area. The perimeter air course was designed to remove the methane gas without affecting the tour area (Tr. 582, 639). There was no showing of methane gas or the potential in the tour area.

With regard to coal dust, the record also does not show the potential for the suspension of coal dust in the tour area. The Secretary failed to establish the combustible level of coal dust and show that it was potentially explosive because of unprotected light bulbs. As described by OSHA, coal dust may be ignitable but is not a source of ignition (Tr. 261). The coal dust in mine #25 was not airborne (Tr. 340). OSHA and state mine inspector Odle performed no air monitoring for coal dust (Tr. 261, 373, 622).

The Museum's lighting system was approved by state inspector Odle (Tr. 1063). He did not consider the light bulbs a hazard after at least 36 inspections of the mine. The lights complied with the Illinois Coal Mining Act (Tr. 587, 727). Odle, who has 16 years of coal mining experience, has worked as a state coal mine inspector for 11 years enforcing mine safety standards. He has made over 2,000 mine safety inspections in Illinois (Tr. 489, 490, 492). Based on his experience, Odle opined that "coal dust ignitions were not likely" (Tr. 622). He never detected any problems with the lights (Exh. R-10; Tr. 1063). Because of dampness in the mine,

there was an absence of "float dust" (Tr. 622). Superintendent Bullock testified that "mine 25 did not produce float dust" (Tr. 1052). Also, according to MSHA inspector Odum, FMSHA allows bare light bulbs in track mines. *See* 30 C.F.R. § 75.522.1(a) (Tr. 940-941).

OSHA inspector Leland Darrow, who recommended the citation, was in the mine for less than three hours, which was his total underground coal mine experience (Tr. 274, 350-351). CO Darrow did not know if coal dust would explode if subjected to an ignition source. He performed no tests or sampling to determine if sufficient suspended coal dust was potentially present in the mine (Tr. 373).

MSHA inspector Odum, who accompanied OSHA, identified the hazard of light bulbs was from an employee or machinery inadvertently hitting bulbs and damaging them (Tr. 828-829). He did not identify as a hazard the potential suspension of coal dust. Also, the lights were not subject to employee activity. The lights were located several feet off the walkway. There is no showing that the light bulbs were broken by employees or equipment.

A violation of § 1910.307(b) is not established.

Willful Citation No. 2

Item 1 - Unsupported/Inadequate Roof Support

The citation alleges that the roof was unsupported or inadequately supported along the Main East Travel Way and the Main East Entry. The Secretary alleges a violation of the General Duty Clause at § 5(a)(1) of the Act.

The roof support system at mine #25 was primarily by roof bolts.[13] The steel bolts are approximately six feet long. Using a roof bolting machine, the bolts with a 6-inch square bearing plate are screwed tight up against the roof. There were thousands of bolt installations at the mine, many dating to the opening of the mine (Tr. 527-528, 707, 787, 1033, 1082).

There is no dispute that the mine roof in many areas was unsupported (no bolts or other support) or inadequately supported (bearing plate not tight against roof or missing). The Museum recognized that in many locations the roof support system was inadequate (Tr. 67, 84). The Museum's map of the underground mine identifies 17 areas of unsupported roof (Exh. C-2;

[13]In addition to roof bolts, other roof support systems included placing timbers or a crib (Exhs. C-25, C-28; Tr. 90, 283, 312-313, 793, 797, 803).

Tr. 895). Also, the map identifies 22 locations of roof falls (Exh. C-2; Tr. 895). Superintendent Bullock testified that there was one "massive roof fall right before we shut down" and one smaller fall (Tr. 1055). He estimated that there were a total of 30 roof falls (Tr. 1057). Most of the roof falls occurred prior to the Museum's acquisition (Tr. 1487-1488). MSHA inspector Mark Odum testified that on October 20, 1999, the inspection team was unable to examine the seals because of a roof fall in the travelway (Tr. 782).

The record establishes that the inadequate roof support in various areas of the mine was a recognized hazard. State inspector Odle first noted the problem with unsupported roof in his inspection of August 7, 1998 (Exh. R-10). Also, he found during his inspection of September 20, 1999, that the Museum had not corrected the roof support problem in the tour area cited in a July 9 inspection (Exhs. C-9, C-10). On August 7, 1998, October 2, 1998, and November 19, 1998, Odle noted that additional roof support was needed in various locations (Exhs. C-12, C-13, C-14). Copies of Odle's inspection reports were given to the Museum. Superintendent Bullock admitted that if the Museum had the money, it would have re-bolted "every bit of the mine" (Tr. 1063-1064).

The photographs taken during OSHA's inspection show areas of missing bolts, missing plates and where the roof had sloughed[14] from under the plate, eliminating contact with the roof (Exhs. C-18 through C-30; Tr. 77, 83-84, 709-710). When the bearing plate is missing or not in contact with the roof, the roof is not adequately supported (Tr. 286, 295, 789). The photographs show bearing plates more than one foot below the roof (Exh. C-18; Tr. 288-289). Also, the roof bolts are shown spaced more than 5 feet apart (Tr. 301, 306). Although providing some support, it is undisputed that such bolts no longer provided adequate roof support (Tr. 77, 715, 729, 786). MSHA inspector Odum opined that the roof bolts had become ineffective or had been dislodged from the roof because of deterioration of the roof over time (Tr. 783-784, 786).

MSHA regulations at 30 C.F.R. § 75.202 provide:

> (a) The roof, face and ribs of areas where persons work or travel shall be supported or otherwise controlled to protect persons from hazards related to falls of the roof, face or ribs and coal or rock bursts.

[14]This condition is also referred to as "rib rashing" or "spalling" (Tr. 301, 529).

> (b) No person shall work or travel under unsupported roof unless in accordance with this subpart.

Employees' exposure to the inadequate roof support was likely to cause serious injury or death. During OSHA's inspection, Museum employees were underground attempting to repair the water pump and the roof bolter (Tr. 146-147, 403, 543). Although the Museum had employees underground to repair the roof support system, employees were observed working or passing through areas where the roof support was inadequate (Tr. 83, 146-147). Also, the areas of unsupported or inadequately supported roof were located where employees had to travel on a routine basis as part of their remediation activity (Tr. 67, 76, 971). In one instance, superintendent Bullock was observed under an area of unsupported roof (Exh. C-22; Tr. 303-305, 783).

Also, the Museum's roof control plan was the plan approved for the Old Ben Mine Company (Exh. C-38; Tr. 1002). The plan required roof bolts to be placed at 5-foot intervals (Tr. 283, 526-527, 533, 786). The Society of Mining Engineering handbook recommends that roof bolts not be installed any further than 5 feet apart (Tr. 785).

The Museum does not argue that the bolts could not be replaced or tightened. Abatement was feasible.

The record establishes a violation of § 5(a)(1).

Willful Classification for Citation No. 2

The Secretary alleges the lack of adequate roof support in violation of § 5(a)(1) is willful. In order to be considered a willful violation, the violation must be shown to be "one committed with intentional knowing or voluntary disregard for the requirements of the Act, or with plain indifference to employee safety." *Conie Construction, Inc.*, 16 BNA OSHC 1870, 1872 (No. 92-264, 1994). Willful violations require a "heightened awareness" of the relevant standard that demonstrates a voluntary or conscious disregard of its requirements or a plain indifference to employee safety. A showing of "malicious intent" or "venal motive" is not necessary. An employer's intentional disregard or plain indifference to its safety obligations can be established in various ways, including proof of prior citations or showing that an employer harbored a state of mind such that, if he were informed of the applicable requirements, he would not care.

Morrison-Knudsen Co./Yonkers Contracting Co., 16 BNA OSHC 1105, 1123 (No. 88-572, 1993).

In this case, the Museum's failure to adequately support the mine roof was not willful. It is undisputed that the Museum was aware the mine's roof was not adequately supported. However, the Museum had not previously been inspected by OSHA. By the time of OSHA's inspection four days later, the Museum was under a state closure Order dated September 27, 1999, and attempting to comply with the order's requirements, including adequately supporting the roof (Tr. 144).

Although previous state inspections had noted areas of inadequate roof support, the Museum was permitted to continue to operate, and it appears that the conditions noted were corrected. There is no showing prior to the state's closure action that the Museum refused to correct the conditions (Exhs. C-9 through C-16). Inspector Odle testified that he had discussed the roof support with the Museum on several occasions. However, he did not consider the lack of adequate roof support as intentional disregard by the Museum (Tr. 713). The Museum was attempting to make the corrections in good faith with the hope of reopening to the public.

Based on the record, the Museum's failure to adequately support the roof was due more to the lack of money and the Museum's confusion regarding the requirements of the various state and federal agencies rather than the Museum's intentional disregard or plain indifference toward employees' safety. Such circumstances in this case do not rise to the level of willful.

A violation is not willful if the employer has made a good faith attempt to correct the condition. The test of good faith for these purposes is objective--whether the employer's belief concerning a factual matter was reasonable under the circumstances. *General Motors Corp., Electro-Motive Div.*, 14 BNA OSHC 2064 (Nos. 82-630, 84-731, 84-816, 1991). The Museum was attempting to comply with the state's Order when OSHA arrived. An employer can make a good faith effort to eliminate a hazard even though its efforts are not entirely effective or complete. *Valdak Corp*, 17 BNA OSHC 1135, 1139 (No. 93-239, 1995), *aff'd*. 73 F.3d 1455 (8th Cir. 1996).

Penalty Consideration for Citation No. 2

The Commission is the final arbiter of penalties in all contested cases. In determining an appropriate penalty, the Commission is required to consider the size of the employer's business, history of previous violations, the employer's good faith, and the gravity of the violation. Gravity is the principal factor to be considered.

The Museum was a small employer with less than 10 employees. At the time of OSHA's inspection, the Museum had four employees working in the mine exposed to the unsupported roof. There was also three employees in the office (Tr. 1464). The Museum has no history of prior OSHA violations. The Museum is also entitled to good faith credit in that it was attempting to comply with the state's closure order.

A penalty of $5,000 is reasonable for failing to adequately support the mine roof as required by § 5(a)(1). There were four employees exposed to the condition who were experienced miners (Tr. 725-726). The employees' exposure was incidental to their attempt to correct the inadequate roof support. During its existence, the Museum had no lost time injuries (Tr. 705).

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The foregoing decision constitutes the findings of fact and conclusions of law in accordance with Rule 52(a) of the Federal Rules of Civil Procedure.

ORDER

Based upon the foregoing decision, it is ORDERED that:

Citation No. 1

Item 1, alleged serious violation of § 5(a)(1) of the Act, is vacated and no penalty is assessed.

Item 2, alleged serious violation of § 5(a)(1) of the Act, is withdrawn by the Secretary.

Item 3, alleged serious violation of § 1910.307(b), is vacated and no penalty is assessed.

Citation No. 2

Item 1, alleged willful violation of § 5(a)(1), is affirmed as serious and a penalty of $5,000 is assessed.

/s/
KEN S. WELSCH
Judge

Date: August 17, 2001