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

SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), PETITIONER	CIVIL PENALTY PROCEEDING Docket No. WEST 83-43-M A.C. No. 05-00417-05505 Docket No. WEST 83-115-M A.C. No. 05-00417-05511
v.	
STANDARD METALS CORPORATION, RESPONDENT	Sunnyside Mine

DECISION

Appearances: James H. Barkley, Esq., Office of the Solicitor, U.S. Department of Labor, Denver, Colorado, for Petitioner;
Zach C. Miller, Esq., Davis, Graham & Stubbs, Denver, Colorado, for Respondent.

Before: Judge Carlson

This consolidated case, heard under the provisions of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. 801 et seq. (the Act), arose from federal safety and health inspections of respondent's underground precious metals mine and surface mill located near Silverton, Colorado. Docket No. WEST 83-115-M concerns the handling of explosives in the mine. Docket No. WEST 83-43-M concerns airborne dust concentrations emanating from the crusher at the mill.

The case was heard in Denver, Colorado. Following the hearing, representatives of both parties notified the judge that they did not wish to submit post-hearing briefs.

DOCKET NO. WEST 83-115-M

Citation No. 2096966

On June 1, 1983, Inspector Porfy C. Tafoya inspected the underground precious metals mine of Standard Metals Corporation (Standard Metals). In the course of that inspection, he discovered an open box of crystallized explosives at the rear of an underground magazine. The explosives had clearly deteriorated to a point where they were unsafe to handle. Standard Metals has admitted from the outset that the explosives were unsafe.

In his citation, the inspector charged Standard Metals with a violation of the mandatory standard published at 30 C.F.R. 57.6-7(a). That standard provides:

> Explosives, detonators, and related materials such as safety fuse and detonating cord shall be:
>
> (a) Stored in a manner to facilitate use of oldest stocks first.

Standard Metals, in its answer, confessed that the powder in question was crystallized, but denied that the cited standard was applicable. The operator alleged that the "correct standard" was 30 C.F.R. 57.6-92, which provides:

> Damaged or deteriorated explosives and blasting agents shall be destroyed in a safe manner under the instructions of the explosives or blasting agent manufacturer or its designated agent.

The Secretary ultimately moved to amend his petition to allege violation of the two standards in the alternative. The motion was granted since Standard Metals had raised the applicability of the other standard at the outset.

Additionally, the Secretary moved to increase the penalty from the $20 originally proposed to $500 and to reclassify the alleged violation to "significant and substantial" under the Act. These motions were likewise granted with the provision that should the amendments prove in any way to prejudice Standard Metals' ability to defend, a continuance would be granted to provide additional time.

David A. Moody, Standard Metals' production manager at the mine, testified that the magazine in question was at the end of a dead-end drift, some 1,000 to 1,200 feet away from all mining activity. He maintained that if all the explosives in the magazine were to have been detonated in place, the explosion would not have had a force sufficient to injure anyone where mining activity was in progress. These assertions were not contradicted by the Secretary.

Mr. Moody did not know how the unstable explosives came to be in the magazine. He testified that he was certain, however, that they had been there less than three days because a supervisor had inspected and inventoried the contents of the magazine on the Monday preceding the Wednesday of the inspection. Had the open box of crystallized dynamite been there, Moody claimed, the supervisor would have noticed it and taken proper steps to dispose of it.

Mr. Moody further testified that the explosives were destroyed by a foreman, the only person at the mine experienced in that task. Moody had no knowledge of whether the foreman was on duty when the explosives in question were first discovered, but acknowledged that if he was not working at the time he could have been called back (Tr. 47). The evidence shows that in the normal course of mine activity no one would have been in the drift where the magazine was located except for "nippers" who were sent for new supplies of explosives as they were needed in working areas of the mine.

First, I must agree with Standard Metals that 30 C.F.R. 57.6-7(a) does not apply to the facts. The standard, by its plain language, regulates only the order of use of stocks of explosives when stored. Older stocks are to be used first to prevent deterioration in storage. The crystallized dynamite found by the inspector, however, can scarcely be considered a part of the stocks intended for use. I accept Standard Metals' contention that the box in question had not been in the magazine more than three days, and that someone put it there as the safest storage place available until it could be destroyed safely. The most plausible explanation for the deteriorated condition of the explosives was that a part of the contents of the box had been used somewhere in the large underground mine complex, probably long before the citation. The remainder of the box was then simply left there. At the time of the citation, however, or during any reasonable period before that, respondent's fault was not that it failed to put the explosives to use before newer stocks. The clear fault lay in failing to use the remaining stock when the box was first opened.

Upon the facts before me, I must conclude that Standard Metals did violate 20 C.F.R. 57.6-92, the standard relating to the destruction of damaged or deteriorated explosives. Given the remedial purposes of the Act, the standard must be read to imply that mine operators not only have a duty to know of the condition of all explosives in their possession, and to destroy damaged explosives, but that the destruction, once the condition of the explosives is known, must be carried out with dispatch. Otherwise, the standard would mean little. Once the box of deteriorating dynamite was discovered and placed in the magazine, it follows that the operator should have destroyed it immediately to eliminate the hazard. The evidence, however, indicates that no effort was made to locate the miner qualified to neutralize the explosives until after the box was discovered by the inspector.

We now turn to the matter of a proper penalty. Section 110(i) of the Act requires the Commission, in penalty assessments, to consider the operator's size, its negligence, its good faith in seeking rapid compliance, its history of prior violations, the effect of a monetary penalty on its ability to remain in business, and the gravity of the violation itself.

At the times here in question, the mine and mill complex were of average size, employing about 150 miners. The negligence was moderate-to-high since it is plain that the defective explosives should not have been left in the magazine without arrangements for their destruction having been made. Neither should they have been allowed to deteriorate no matter where they were before they were moved to the magazine.

The company did show good faith in achieving speedy abatement once the citation was issued. The history of prior violations as revealed by MSHA records was unfavorable. In the two years prior to the violations here, Standard Metals was charged with 128 violations for which it paid total penalties of $12,786.00. Although Standard Metals was in extensive financial difficulty at the time of the hearing, there was no evidence that the payment of substantial civil penalties in connection with the present case would in itself adversely affect its ability to remain in business. Finally, the gravity of the violation appears moderate. The evidence shows that there was no great danger that the defective explosives would detonate unless they were moved or handled.

The Secretary maintains that Standard Metals' prior record of job-related injuries should be considered as an adverse factor affecting penalty. To this end, counsel adduced testimony that respondent had been a part of MSHA's "PAR" program. Based on data for quarterly accident reports, MSHA rates all mines. At the times material here, the 60 mines with the worst records were placed on a PAR listing and received special attention from MSHA. From 1980 onward the Standard Metals operation ranked toward the top of the PAR list.

Counsel for Standard Metals correctly contends that section 110(i) of the Act makes no reference to injury records as a part of a mine operator's adverse prior history. The only reference is to the prior history of violations. Moreover, respondent contends that the Secretary's own regulation, published at 30 C.F.R. 100.3, which limits consideration of a history of previous violations to those violations finally adjudicated or paid within the 24 months preceding the violation in contest, must prevail.

Counsel for the Secretary suggests that the injury record was relevant to the issues of operator negligence and good faith, rather than prior history.

At the hearing Standard Metals was granted a continuing objection to the PAR evidence, and a ruling on its ultimate relevance was deferred. The parties shed no more light upon the matter since they declined to file post-hearing briefs.

I would first note that the Secretary's two-year limitation on records of prior history is not technically binding upon the Commission or its judges. It is a part of the Secretary's internal administrative scheme for weighing the various elements that go

into the determination of proposed penalty amounts. That scheme (a point system) has been repeatedly held to have no binding effect upon the Commission, which must make a de novo determination of penalty based upon the evidence brought forward during hearing.

I reject the Secretary's suggestion that a general history of lost-time injuries is relevant to either negligence or a lack of good faith. Those considerations are customarily applied to the mine operator's conduct relating to the specific violation under adjudication, not its general conduct through the years. One must distinguish here between a general record of prior injuries, as the Secretary offers here, and a specific history of injuries arising out of prior violations of the same standard as the one in contest. In the latter instance, prior injuries would doubtless show the operator had a prior knowledge suggestive of negligence.

The real question raised, then, is whether the statutory penalty criteria set out in section 110(i) of the Act are exclusive, or whether other factors not mentioned in that section properly may be considered. Neither the Act nor its legislative history offers any helpful clues as to Congressional intent. Section 110(i) simply declares that the Commission "shall consider" six named criteria. Nothing in the language of the section, however, fairly implies that the Congress, while telling the Commission what it must consider, was also telling it that it could consider nothing else. Put another way, the words of 110(i) do not suggest that the Commission may not sometimes consider facts which fall outside the mandatory criteria but nevertheless appear to bear reasonably and significantly upon the issue of sanctions. In the present case, at any rate, I am not prepared to hold that Congress intended to imbue the six criteria in 110(i) with absolute exclusivity.

Having said this, however, I am not convinced that Standard Metals' PAR ratings should be given any weight in this case. By mentioning a prior history of violations in the statute, the Congress clearly bestowed a sort of primacy upon violations as a measurement of past conduct in the penalty assessment calculation. In the present case, we have a clear-cut showing that Standard Metals' history of violations was bad. That the injury rate per hours worked was also bad does not add greatly to an already unfavorable impression. Beyond that, the raw figures on injury do not relate as directly to improper mine operator conduct under the Act as does a record of actual paid or adjudicated violations. It does not necessarily follow that any particular employee injury in a mine involved a significant degree of operator dereliction, or indeed, resulted from a violation of the Act. In short, under the circumstances of this case, at least, I find the history of prior violations to be a more solidly reliable gauge of Standard Metals' conduct than its record of injuries. That being so, the PAR evidence is given scant weight in the assessment of this present penalty, or the penalties with respect to other violations in this consolidated case.

One more matter requires consideration. The Secretary urges that this violation be classified "significant and substantial"

within the meaning of the Act. The Commission in Cement Division, National Gypsum Co., 3 FMSHRC 822 (1981) set out the test to be used in determining whether a violation, in the words of the statute, "... could significantly and substantially contribute to the cause and effect of ... a mine safety or health hazard." The violation, the Commission held, must be one where there exists "... a reasonable likelihood that the hazard contributed to will result in an injury or illness of a reasonably serious nature." In the present case, I must hold that the violation was significant and substantial. The likelihood of an explosion was not great since it depended on the possibility of someone entering the magazine and moving the box of defective materials. There is at least a reasonable likelihood, however, that a miner sent to get dynamite could have handled the open box even though it was placed at the rear of the storage area. Had the box or the explosives been handled or moved, or had a miner carrying another box, for example, stumbled or tripped over the defective explosives, a large explosion could well have ensued. In the event of an explosion while a miner was in the magazine, serious injury or death would have been almost inevitable.

On balance, based upon the weighing of the evidence relating to the statutory penalty criteria, I conclude that a civil penalty of $150.00 is appropriate for Citation No. 2096966.

Citation No. 2096840

On June 2, 1983 a federal mine inspector issued a citation charging that Standard Metals had violated the standard published at 30 C.F.R. 57.6-27, which concerns the use of "box type" explosive magazines used for temporary storage near working faces. The standard provides:

> Box-type underground-distribution storage magazines used to store explosives or detonators near working faces shall be constructed with only nonsparking material inside and equipped with covers or doors and shall be located out of the line of blasts.

Specifically, the inspector alleged that the box was in direct line of secondary blasting on the grizzly, which was 20 feet away. The citation also asserted that the cover was seriously damaged, and that approximately one-half box of powder was in the magazine. Standard Metals, in its answer to the Secretary's petition, admits that the magazine "was in the wrong location," but suggests that the violation cannot be considered "significant and substantial" as the citation alleged. No testimony was produced by either party. Counsel for the Secretary asked that the citation be affirmed on the basis of Standard Metals' admission in the pleadings. He explained that the mine inspector who wrote the citation was unavailable for testimony.

I conclude that Standard Metals did admit the violation in terms of an improper location of the portable magazine. The words of the answer can scarcely be construed in any other way. The clear intent of the mine operator was to confess violation while denying the

"significant and substantial" classification in the citation and challenging the size of the penalty. (The Secretary proposes a penalty of $112.00.)

In view of the total lack of testimony or other evidence relating to the circumstances surrounding the violation, I must conclude that the government has made out no case for a "significant and substantial" finding under Section 104(d)(1) of the Act. Similarly, the lack of evidence concerning the particulars allows no informed findings as to the gravity of the violation or the degree of the mine operator's negligence. Without knowledge of these important elements, the reasonableness of the Secretary's penalty proposal cannot be fully weighed. Based upon the bare admission of violation contained in the pleadings, then, and those general statutory penalty factors such as the size of the mine and prior history of violation proved elsewhere in the record, I conclude the $35.00 is the appropriate penalty.

DOCKET NO. WEST 83-115-M

Citation Nos. 572109 and 572110

The two citations in this docket are virtually identical. Standard Metals was issued the citations for failure to comply with the harmful airborne contaminants standard published at 30 C.F.R. 57.5-5. (Footnote.1) More particularly, an MSHA inspector found, through sampling that the air in the crushing plant at the mill exceeded permissible limits of respirable silica dust. He issued Citation No. 572110 for unlawful exposure of the crusher operator and Citation No. 572109 for the crusher helper.

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Most of the facts are not in dispute. Standard Metals' crushing facility is located in a separate building. Normally, only two employees work in the building: the crusher operator and his helper.

Both workers are stationary while the crusher operates. The operator is at a control panel; the helper stands near the belt coming from the bin feeder.

On October 29, 1981 Collin R. Galloway, a mine inspector employed by the Secretary, inspected the crusher and took air samples. At the time of his visit he observed dust suspended in the air and significant accumulations on the floor and other surfaces.

The inspector issued the citations on December 11, 1981. The delay was occasioned by the time it took to analyze the samples. The testing showed the percentage of silica (quartz) in the operator's sample to be 15.1. The TWA (time weighted average) was calculated at 1.11 milligrams per cubic meter; the TLV (threshold limit value) was calculated at .58 milligrams per cubic meter. For the helper, the percent silica was 20.6 percent, the TWA .74 milligrams per cubic meter, and the TLV .44 milligrams per cubic meter. The TWA's for both workers considerably exceeded the TLV's. Consequently, both workers were considerably overexposed. Standard Metals has never questioned the validity of the Secretary's figures or the fact that the results showed impermissible concentrations of silica. On October 29, 1981 when the inspector was present he noted that both the operator and his helper were wearing respirators.

The inspector attributed the excessive dust concentrations to a failure to maintain the crusher's existing dust control system adequately. The citations therefore specified an abatement date of January 11, 1982 for abatement of the violations. The inspector believed it should take a month, in other words, to repair or restore the dust control system. Exhibit P-2 is a sketch of the system, which was installed in the late 1960's. The manufacturer designed the system to suppress dust in two principal ways: (1) by curtains over the points where the crushing operation generated dust, and (2) by an elaborate exhaust system which pulled dust from hoods located over dust generating points, then through individual ducts to a main duct and then into a "Multiclone" collector. A high-speed fan moved the exhaust air.

The inspector did not return on the January 11 abatement date set in the citations. Rather, he returned March 18, 1982 and conducted more tests. On that visit he saw more dust than before, and his tests showed that, indeed, worker exposure remained high. The operator's sample showed 25.8 percent silica, the TWA was 2.47 milligrams per cubic meter, and the TLV was .35 milligrams per cubic meter. The helper's sample showed 21.9 percent silica, the TWA was 3.27 milligrams per cubic meter, and the TLV was .42 milligrams per cubic meter. None of these figures are disputed by Standard Metals.

Inspector Galloway questioned Mr. Al Thaxton, who at that time served as Standard Metals' safety director, about efforts which had been made toward abatement. Thaxton informed him that water sprays were tried on the screens, but that the wet ore

plugged the screens and the experiment was abandoned.

The inspector threatened to close down the crusher with a non-abatement withdrawal order under section 104(b) of the Act, but did not. Instead, he agreed with management (over Thaxton's initial objections) to invite experts from the Denver Safety and Health Technology Center ("Tech Support") to do a study of the dust control system. He extended the abatement times on the citations to July 10, 1982 to allow time for the study.

A team led by Mr. George W. Weems, an industrial hygienist specializing in dust control conducted the study on May 11 and 12, 1982. The report (Exhibit P-3) was presented to Standard Metals on June 10, 1982. Its authors made five specific recommendations aimed at solving the dust control problem. Found on page 5 of the report, these were as follows:

> 1. Remove dust accumulations from ducts, beams, pipes, floors, and equipment. This must be done as soon as possible and then done on a regularly scheduled basis. Suggest vacuum system or washing with sprays.
>
> 2. Repair leaks in ducts and chutes and maintain a regular repair and inspection program.
>
> 3. Install covers and skirting on tops of cone crushers. (Dust generation noted).
>
> 4. Consider the installation of covers and skirting on screens. (Dust will be generated at these points when material is dry).
>
> 5. Improve the efficiency of the dust collection system by:
>
> > a. Checking the "Multiclone" collector system for obstructions and removing debris that may be plugging this system.
> >
> > b. Repair leaks in the fan housing.
> >
> > c. Remove the portion of the intake pipe that extends into the fan housing.
> >
> > d. Increase the fan speed. This should be done only after contacting the Buffalo Forge Fan representatives. We would suggest the fan speed be increased to the maximum to exhaust at least 13,500 cubic feet of air per minute at a minimum of 9.0 inches static pressure. (This recommendation is based on the assumption that the "Multiclone" is offering a resistance of 6.0 inches static pressure).

Inspector Galloway next appeared at the crusher building on September 2, 1982. He found that Standard Metals had not carried out several of the Tech Support recommendations. He also took more air samples on that day. Those tests showed that the operator's percent silica was 24; that his TWA was 1.39 milligrams per cubic meter; and that his TLV was .3 milligrams per cubic meter. The helper's percent silica was 22.2; his TWA was 1.01 milligrams per cubic meter; and his TLV was .41 per cubic meter. Again, the silica dust exposure significantly exceeded the allowable limits. After these results became available, later in September, Inspector Galloway determined that Standard Metals' failure to bring the dust in the crusher building down to acceptable levels required more stringent government action. He therefore prepared a withdrawal order under section 104(b) of the Act. That section requires closure of parts of mines (or mills) affected by a violation which the operator has not abated by the time allowed. (Footnote.2) Galloway closed down the crushing plant. His order was served by Donald Lee Chadd, another mine inspector, on September 22, 1982. Chadd recommended the installation of a temporary booth to isolate the crusher operator and helper from the dust sources on the crusher. The quickly constructed booth, consisting of a framework covered by brattice cloth, was provided with a fan to bring in outdoor air. This arrangement worked well enough that Inspector Chadd was able to terminate the withdrawal order on September 23, 1982. In early 1983, Standard Metals built a permanent booth for the crusher workers.

The facts related up to this point are not in controversy. Standard Metals defends against the citations on several grounds. First, it maintains that the Secretary failed to establish that the violations occurred since he made no showing that "feasible" engineering controls existed as required by the standard. Thus, according to respondent, it was justified in having the crusher operator and helper use respiratory protective equipment as an alternative to dust suppression measures. Second, it maintains that even if the violations occurred, the proposed penalties of $690.00 for each of the two citations are excessive in that neither the operator nor his helper was truly exposed to a substantial hazard since both wore their respirators on the job. A lesser argument bearing on penalty is that during the times surrounding the citations and abatement Standard Metals experienced a large turnover in management personnel, and that the Secretary's enforcement agents should have gone beyond Mr. Thaxton, the safety director, in discussing abatement problems. Finally, respondent showed that at the time of the hearing it was in a Chapter 11 bankruptcy proceeding, a status which would impair its ability to pay large penalties.

We will examine each of these defenses in turn, together with the details of Standard Metals compliance efforts including those few factual matters which were in dispute.

The parties were in agreement that between the time that Inspector Galloway issued the original citations and the time that he extended the abatement date to allow for the technical support study, Standard Metals had done nothing other than some unsuccessful experimentation with water sprays. Witnesses were not in full accord, however, about the steps the company took to comply with the recommendations of the Tech Support group.

Mr. George Weems, the industrial hygienist with 14 years' experience in conducting studies of dust control systems for MSHA, was the government's chief witness on his own technical study of the Standard Metals' crusher. He believed that dust levels could be reduced to permissible or near-permissible limits by restoring the 15-year-old control system to its original specifications. He believed the old system was of an "excellent" design, and similar to many others used successfully for crushers. His recommendations are found in the excerpt from the formal study report set out earlier in this decision. He found these deficiencies in the system in May of 1982: holes in the ducts caused air leaks; skirts were missing from hoods; the fan vibrated "violently" and was moving only about one-half the 10,000 cubic feet of air per minute for which it was designed; and housekeeping had been neglected. Weems explained that his recommendations did not include curtains, skirts or covers over the crusher conveyors, but did call for them around the primary crusher and cone crusher.

Weems himself did not make a subsequent visit to find how well his recommendations had been carried out. He acknowledged, however, that his study recommendations, when implemented, do not always achieve the desired result. Were that so in the case of the Standard Metals' system, however, he was certain that the addition of more exhaust hoods and ducts and another fan would have brought dust levels down to the desired limits.

Mr. Weems testified that he recognized a number of drawbacks with booths, and therefore would not recommend them except as a final resort. A booth, he asserted, could actually collect respirable dust "and create more exposure than the ambient air inside the crusher building" (Tr. 192). This is so because booths require pressurization, and if there is either a fan or filter failure, workers in the enclosure can suffer extraordinarily high exposures. In March of 1984, according to Weems, he saw the two permanent booths in Standard Metals' crusher plant. The one booth was drawing nearly all of the available air, while the other drew but 200 cubic feet per minute (Tr. 193). The dust in the poorly ventilated booth was above permissible limits. In Weems' opinion, this situation illustrated the problem with booths. He was certain, however, that the dust problem could have been solved without resort to booths by simply "fine tuning" his original recommendations. He also indicated Mr. Olin, the mill supervisor during the time of the study, cooperated well, and that he had

advised Olin that if more measures were necessary, that Olin should contact him.

Weems testified that he does not ordinarily consider costs in his studies, but that the costs at Standard Metals "didn't appear to be that great."

Eric Olin, Standard Metals' mill superintendent at the time of the Tech Support study and report, maintained that the company had made a bona fide effort to comply with Weems' recommendations. Olin indicated that the company believed that implementation of those recommendations would bring dust levels down to an acceptable level. He testified that Standard Metals implemented all the numbered recommendations in the report except for numbers 3, 4 and 5(c). More specifically, he testified that company personnel had closed and hosed down the plant to remove dust accumulations (recommendation 1). They had also "repaired as many of the leaks in the ducts and the chutes as [they] could" (recommendation 2). They installed skirts over the crushers but found them unsatisfactory because the operator could not see the crusher load. This resulted in hourly shutdowns owing to "stuck crushers." Hence, the skirts were removed and there was no compliance with recommendation 3. No skirts and covers were placed over the screens for fear the same vision problem would be experienced there (recommendation 4). All of the four-part recommendation number 5 for the fan and collector were accomplished except for removal of the intake pipe or shroud. This was not done, Olin testified, because the fan manufacturer recommended against it.

Olin did not tell Inspector Galloway of the reasons for failure to carry out all of the recommendations when Galloway found that some of the study recommendations had not been followed. He did not do so, Olin testified, because he believed that the Tech Support personnel were to follow up on their report. Inspector Galloway's assessment of what Standard Metals had accomplished differed in several respects from Mr. Olin's account, but the chief difference was about the patching of holes in the ducts. Galloway insisted he saw no leak repairs. Ultimately, Olin acknowledged that there may not have been "100% coverage" (Tr. 266).

After Galloway issued the 104(b) withdrawal order, Olin believed that the solution to the dust problem lay in the use of isolation booths for the crusher crew, as recommended by Inspector Chadd.

In deciding whether the Secretary has made out a case for violation of the dust standard, we must bear in mind that the citations were issued based upon conditions existing on October 29, 1981. Standard Metals concedes that the dusty conditions were as the inspector described them, and that air samples showed silica dust levels significantly above permissible levels.

As best I can determine, the Commission has never engaged in an extensive analysis of 30 C.F.R. 57.5-5 with regard to the requirement that airborne contaminants shall be removed "insofar as feasible." The concept of "feasibility" has been examined exhaustively, however, in connection with the health standard

relating to excessive noise exposure.

The noise standard, 30 C.F.R. 57.5-50, requires that employee exposure to noise be kept within certain limits by feasible engineering controls unless such controls fail to reduce exposure to those limits. Personal protective equipment may then be used.

In Todilto Exploration and Development Corporation, 5 FMSHRC 1894 (1983), the Commission held "that an engineering control may be "feasible even though it fails to reduce a miner's exposure to noise to permissible levels contained in the standard." In Callanan Industries, Inc., 5 FMSHRC 1900 (1983), the Commission adopted the Supreme Court's definition of "feasible" as a thing "capable of being done, executed, or effected." With respect to the noise standard, the Commission held that to be feasible, the engineering control must be technologically and economically achievable. The burden of proof was outlined thusly:

> We hold that in order to establish his case the Secretary must provide: (1) sufficient credible evidence of a miner's exposure to noise levels in excess of the limits specified in the standard; (2) sufficient credible evidence of a technologically achievable engineering control that could be applied to the noise source; (3) sufficient credible evidence of the reduction in the noise level that would be obtained through implementation of the engineering control; (4) sufficient credible evidence supporting a reasoned estimate of the expected economic costs of the implementation of the control; and (5) a reasoned demonstration that, in view of elements 1 through 4 above, the costs of the control are not wholly out of proportion to the expected benefits.

The Callanan rule was later followed in A.H. Smith, 6 FMSHRC 199 (1984).

The regulatory schemes set out in the airborne contaminates standard and the noise standard differ in no significant respect. The assumption must be, then, that the concept of "feasibility" is the same for both.

Standard Metals contends that because the implementation of the Tech Support recommendations did not result in a reduction of dust levels to permissible limits, it follows that engineering controls were not feasible and that the company could thus rely on personal protective equipment (respirators) without violating the standard. I disagree. As established in Todilto, a "feasible" engineering control need not reduce a health hazard to a fully safe level. Put another way, the Act gives a preference to engineering controls because they address the hazard at its source.

In Standard Metals' case, the original dust control system had been allowed to deteriorate markedly over the many years it had been in place. Witnesses for both parties professed that the original system was "good" or even "excellent." Yet, in October of 1981, the exhaust hoods and ducts had multiple leaks, the covers and skirts around the cones had

disappeared, and the fan, which vibrated violently, was moving only half the volume of air which the design specifications required. None of this is disputed by Standard Metals, and I find it to be true.

I accept Standard Metals' view that implementation of all Tech Support's study recommendations may not have fully resolved the dust problem. Be that as it may, given the mutual endorsement of the general efficacy of the original system, it must be assumed that if the system were restored to full working order, significant reductions would result.

Tech Support did not invent the notion of the skirts or curtains around the primary and cone crushers. Skirts were a part of the original design installed by the respondent many years before. It may well be that material clogging was more frequent and bothersome with skirts and covers in place. That merely demonstrates the proposition that in mining, implementation of desirable safety or health measures may sometimes interfere with optimal production.

While full implementation (Footnote.3) of Tech Support's plan may not have achieved a full solution to the dust problem, I generally give much credence to the expert opinion of Mr. Weems, whose 30 years with MSHA and its predecessors and 14 years as a dust control specialist gave him by far the best credentials. He made no guarantees that the suggested Tech Support program would bring the dust down to permissible limits. I found wholly credible, however, his assertion that a "fine tuning" of those recommendations with the possible addition of more hoods, ducts, and another fan would achieve compliance. It must be remembered that the evidence showed that the original dust control system at the crusher was of a type that was common and effective in the industry over a period of years. Weems and his colleagues were not suggesting any novel techniques, nor were they pushing any "technology forcing" or experimental solutions. The credible evidence convinces me that an effective exhaust system would, as Weems contends, achieve substantial reduction in silica dust levels.

I also conclude that the Secretary sustained his burden of proof as outlined in Callanan, supra. The crusher workers were subject to excessive respirable silica dust levels. No one disputes that. The engineering controls in terms of exhaust mechanisms, skirting, etc., were time-tested and were clearly "technologically achievable." Expert testimony demonstrated that with adequate exhausting and skirts around the primary and cone crushers, dust levels could not only be reduced, but could be brought into compliance with the standard. With regard to the elements regarding cost, no specific cash figures were introduced. In the context of this case, however, none were necessary. Mr. Weems was only suggesting that an existing system be

restored to its former condition and, if necessary after that, improved in small ways. None of the proposals could have involved large outlays of money and surely no outlays "wholly out of proportion to expected benefits."

As of the time of the inspection resulting in the two citations, Standard Metals was in clear violation of that part of the standard requiring control of dust through feasible engineering control measures.

We must now decide whether the violation was "significant and substantial" under 104(d)(1) as the citations allege. The Commission's holding on the nature of a "significant and substantial violation" has been set forth earlier in this decision. Cement Division, National Gypsum Company, supra. That case involved a series of safety violations. Some have questioned whether the National Gypsum test is truly applicable to health cases where the hazard is chronic exposure to harmful substances which may eventually lead to severe deterioration of health or to death. In such cases, where the deleterious effect insidiously builds in small increments, each exposure, or each series of exposures, may not "cause" or even "significantly contribute" to a health hazard in the most literal sense.

In the present case Mr. Richard L. Durand, an industrial hygienist with a degree in chemical engineering, testified for the Secretary. His uncontradicted testimony showed that repeated inhalation of low concentrations of silica-bearing dusts will tend to build fibrotic tissue in the lungs, a condition known as chronic silicosis. Simple chronic silicosis is characterized by discrete fibrotic nodules which replace normal lung tissue. With repeated exposure, progressive, massive fibrosis occurs over large areas of the lung. At some point, the fibrosis will progress spontaneously without further exposure to silica particles. Advanced silicosis results in severe respiratory disfunction and may result in death. Victims of silicosis are also highly susceptible to tuberculosis.

Acute (as opposed to chronic) silicosis results from short-term inhalation of high concentrations of silica dusts. A few weeks or months of such exposure may lead to death in as few as two years. A concentration of as much as 25 percent silica may trigger the acute disease.

Mr. Durand testified that any silica concentration exceeding one percent silica is considered hazardous in some individuals (sus-ceptibilities differ somewhat); and 15 to 20 percent concentration can definitely trigger the disease with long exposures. All silica damage to the lungs is irreversible. Durand was familiar with the air sampling done at the Standard Metals' crusher and was of the opinion that the operator and his helper were in jeopardy.

Mr. Durand was a knowledgeable witness. I accept his undisputed testimony as true.

Faced with a similar case, where medical evidence showed that long-term exposure to excessive dust levels in an underground coal mine could lead to life-threatening chronic bronchitis or pneumoconiosis, Judge Broderick of this Commission held than an excessive exposure of two-month's duration to miners should be considered as "significant and substantial." This was so, he reasoned, because the cumulative effects of the exposure could lead to illnesses of a "reasonably serious nature." Consolidation Coal Company, 5 FMSHRC 378 (1983) (ALJ) (Commission review pending).

I conclude that the reasoning in that case is correct. Each increment of exposure which adds to the possibility of contracting or of worsening a serious disease is significant and substantial. Otherwise, violation of most of the mandatory health standards promulgated under the Act would lose any practical meaning in preventing chronic occupational disease. Standard Metals' failure to comply with 30 C.F.R. 57.5-5 was significant and substantial.

Respondent's remaining defenses are relevant to determination of a reasonable civil penalty. The criteria for penalty assessment were discussed earlier in this decision and need not be set out again. Those elements common to all citations, that is, Standard Metals' size, its prior history of violations and its ability to continue in business, have been discussed and decided earlier. All that need be added is the respondent's status as a bankrupt does not show an inability to pay the penalties, per se. The mine was still operating at the time of the hearing, and its status was not such that payment of the total penalties originally proposed would have been enough to cause it to close down (Tr. 191-194).

I conclude that the gravity of the dust violation was moderate-to-high. Only two men were involved, but the exposure of these men to respirable silica was significantly above permissible limits. Further, the deteriorated condition of the dust system strongly implies that the exposures had existed for some time before the initial inspection. The record shows that respondent did nothing more than experiment with water sprays between Inspector Galloway's first visit and his second. This haphazard response added to the duration of the exposure.

On the other hand, Standard Metals did have a respirator program in effect during the entire time in question here. For reasons already made apparent, use of respirators did not constitute a defense against the alleged violations. The respirators, however, doubtless reduced the actual amount of respirable silica dust reaching the workers' lungs. In reaching this conclusion I do not ignore testimony by various of the Secretary's witnesses that the respiratory program was not truly effective because the face-pieces did not have a tight enough fit, and the respirators were not properly stored nor adequately cleaned. Those charges were never adequately rebutted, and I find them true. Nevertheless, I am persuaded that the operator and helper wore their respirators the overwhelming part of the time,

and that even with imperfect fits and maintenance, the devices reduced the individual exposures.

I conclude that Standard Metals' negligence was moderate. Its management should have known from the condition of its dust control system and the visible concentrations of airborne dust, that a significant dust problem existed. The negligence was mitigated to some extent by the company's respirator policy.

The record presents a mixed picture concerning Standard Metals' abatement efforts. The credible evidence convinces me that the respondent's initial efforts showed a considerable amount of foot-dragging, if not plain indifference. After the extension was granted for completion of the Tech Support study, the evidence shows at least a reasonable effort, if not a fully enthusiastic one.

In this regard I must note that Standard Metals' management had some justification for confusion. The overall evidence indicates that the proper path to abatement was not as well marked as the Secretary would have us believe. One can understand, for example, why the respondent greeted the idea of booths for the workers as the ultimate answer to its dust problems. It was endorsed by the very MSHA official who delivered the 104(b) withdrawal notice. On the whole, I classify the respondent's good faith in seeking abatement as low-to-moderate.

Having carefully considered the evidence relating to all the statutory penalty elements, I conclude that $675.00 is the appropriate civil penalty for each dust violation. In reaching this conclusion, I decline to assess the greater sums ($5,000 each) which the government ultimately asked, principally because I am convinced that the respondent was as much confused as recalcitrant in trying to abate during and after the time MSHA extended the initial abatement date on the citations.

I must also note, however, that I give no favorable weight to Standard Metals' suggestion that its difficulties in compliance were in part occasioned by a high turnover in management personnel and a safety officer whose attitudes toward MSHA were unduly confrontational. The mine operator alone must surely bear the responsibility for its internal problems.

CONCLUSIONS OF LAW

Based upon the entire record herein, and in accordance with the findings of fact contained in the narrative portions of this decision, the following conclusions of law are made:

(1) This Commission has the jurisdiction necessary to decide this case.

(2) Standard Metals violated the mandatory safety standard published at 30 C.F.R. 57.6-92 as alleged in the Secretary's amended petition for Citation 2096966.

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(3) The violation was significant and substantial within the meaning of section 104(d)(1) of the Act.

(4) The appropriate civil penalty for the violation is $150.00.

(5) Standard Metals violated the mandatory safety standard published at 30 C.F.R. 57.6-27 as alleged in Citation 2096840.

(6) The violation was not significant and substantial within the meaning of section 104(d)(1) of the Act.

(7) The appropriate civil penalty for the violation is $35.00

(8) Standard Metals violated the mandatory health standard published at 30 C.F.R. 57.5-5 as alleged in Citation 572109.

(9) The violation was significant and substantial within the meaning of section 104(d)(1) of the Act.

(10) The appropriate civil penalty for the violation is $675.00.

(11) Standard Metals violated the mandatory health standard published at 30 C.F.R. 57.5-5 as alleged in Citation 572110.

(12) The violation was significant and substantial within the meaning of section 104(d)(1) of the Act.

(13) The appropriate civil penalty for the violation is $675.00.

ORDER

Accordingly, all citations in this case are ORDERED affirmed, and Standard Metals is ORDERED to pay civil penalties totalling $1,535.00 within 30 days of the date of this decision.

John A. Carlson
Administrative Law Judge

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Footnotesstart here:-

~Footnote_one

(1) 30 C.F.R. 57.5-5, as pertinent to this case, provides:

Control of employee exposure to harmful airborne contaminants shall be, insofar as feasible, by prevention of contamination, removal by exhaust ventilation, or by dilution with uncontaminated air. However, where accepted engineering control measures have not been developed or when necessary by the

nature of work involved (for example, while establishing controls or occasional entry into hazardous atmospheres to perform maintenance or investigation), employees may work for reasonable periods of time in concentrations of airborne contaminants exceeding permissible levels if they are protected by appropriate respiratory protective equipment. Whenever respiratory protective equipment is used, a program for selection, maintenance, training, fitting, supervision, cleaning, and use shall meet the following minimum requirements:

(a) Mine Safety and Health Administration approved respirators which are applicable and suitable for the purpose intended shall be furnished, and employees shall use the protective equipment in accordance with training and instruction.

(b) A respirator program consistent with the requirements of ANSI Z88.2-1969, published by the American National Standards Institute and entitled "American National Standards Practices for Respiratory Protection ANSI Z88.2-1969," approved August 11, 1969, which is hereby incorporated by reference and made a part hereof. This publication may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York 10018, or may be examined in any Metal and Nonmetal Mine Safety and Health District or Subdistrict Office of the Mine Safety and Health Administration.

The cited standard must be read in connection with 30 C.F.R. 57.5-1, the pertinent portion of which provides:

Except as permitted by 57.5-5: (a) Except as provided in paragraph (b), the exposure to airborne contaminants shall not exceed, on the basis of a time weighted average, the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists, as set forth and explained in the 1973 edition of the Conference's publication, entitled "TLV's Threshold Limit Values for Chemical Substances in Workroom Air Adopted by ACGIH for 1973," pages 1 through 54, which are hereby incorporated by reference and made a part hereof. This publication may be obtained from the American Conference of Governmental Industrial Hygienists by writing to the Secretary-Treasurer, P.O. Box 1937, Cincinnati, Ohio 45201 or may be examined in any Metal and Nonmetal Mine Safety and Health District or Subdistrict Office of the Mine Safety and Health Administration. Excursions above the listed thresholds shall not be of a greater magnitude than is characterized as permissible by the Conference.

The ACGIH publication referred to in the standard sets out the following formula at page 32 for determination of silica dust TLV's:

TLV for respirable dust
in mg/m3:

10 mg/m3k
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% Respirable quartz + 2

~Footnote_two

(2) The withdrawal order was not specifically contested by Standard Metals and is not directly in issue in this case. Its validity, that is to say, will not be decided here. It is relevant, however, in the sense that it is one episode in the history of abatement or attempted abatement of the alleged dust violations. The facts relating to abatement are in issue.

~Footnote_three

(3) I must assume that respondent was justified in leaving the fan shroud on in accordance with the manufacturer's suggestions, and I note that covering the screens was merely a matter for "consideration," not a frank recommendation.