CCASE: CYPRUS TONOPAH MINING v. SOL (MSHA) DDATE: 19910923 TTEXT: Federal Mine Safety and Health Review Commission Office of Administrative Law Judges The Federal Building Room 280, 1244 Speer Boulevard Denver, CO 80204

CYPRUS TONOPAH MINING	CONTEST PROCEEDINGS
CORPORATION,	
CONTESTANT	Docket No. WEST 90-363-RM
v.	Citation No. 3645243; 9/5/90
SECRETARY OF LABOR,	Docket No. WEST 90-364-RM
MINE SAFETY AND HEALTH	Citation No. 3459560; 9/5/90
REVIEW ADMINISTRATION,	
RESPONDENT	Cyprus Tonopah
	Mine I.D. 26-02069
SECRETARY OF LABOR,	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	Docket No. WEST 90-202-M
REVIEW ADMINISTRATION,	
PETITIONER	AO No. 26-02069-05507
v.	

CYPRUS TONOPAH MINING CORP., RESPONDENT

DECISION

Appearances: Lisa A. Gray, Esq., Office of the Solicitor, U.S. Department of Labor, Arlington, Virginia, for Respondent/Petitioner;

R. Henry Moore, Esq., Buchanan Ingersoll Professional Corporation, Pittsburgh, Pennsylvania, for Contestant/Respondent.

Before: Judge Lasher

In this matter (1) the Respondent/Petitioner (MSHA) seeks assessment of penalties for two alleged violations originally charged in two Section 104(a) (Footnote 1 Citations dated February 27, 1990, which were subsequently modified by MSHA on March 1, 1990, to a Section 104(d)(1) Citation and a Section 104(d)(1) Withdrawal Order, respectively (I-T. 24-28), and (2) Contestant/Respondent Cyprus Tonopah Mining Corporation (herein "Cyprus")

seeks (as enlarged at hearing) broad review of practically all aspects of the two enforcement documents and MSHA's actions taken with respect thereto. (Footnote 2)

Enforcement Documentation

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Section 104(d)(1) Citation No. 3459560 as modified was issued by MSHA Inspector Arthur L. Ellis and charges Cyprus with a violation of 30 C.F.R. 56.3200 as follows:

There was loose material and rocks on high walls in the Pushback 1 Pit. Benches were full and did not provide protection from falling material. The walls were about 145 ft. high. An access road ran next to the west wall and pumps were being utilized to pump water at the bottom of the pit. An employee enters the area to move and maintain pumps. The area was not posted or barricaded to prevent travel alongside the high walls.

30 C.F.R. 56.3200, under the general heading "Scaling and Support" and pertaining to "Correction of Hazardous Conditions," provides:

Ground conditions that create a hazard to persons shall be taken down or supported before other work or travel is permitted in the affected area. Until corrective work is completed, the area shall be posted with a warning against entry and, when left unattended, a barrier shall be installed to impede unathorized entry.

Section 104(d)(1) Order No. 3645243, as modified, was issued by Inspector Ellis and charges Cyprus with the following violation of 30 C.F.R. 56.3130: Benches between the 5545 level and the 5400 level in the Pushback 1 had accumulated with materials and would not provide an adequate catch-bench to protect persons working below. An access road ran next to the west wall and pumps were being utilized to pump water from the bottom of the pit. Employees enter the area to move and maintain the pumps. (Footnote 3)

30 C.F.R. 56.3130, under the general heading "Mining Methods" and specifically pertaining to "Wall, bank, and slope stability" provides:

Mining methods shall be used that will maintain wall, bank, and slope stability in places where persons work or travel in performing their assigned tasks. When benching is necessary, the width and height shall be based on the type of equipment used for cleaning of benches or for scaling of walls, banks, and slopes.

Contentions

Cyprus (1) challenges the occurrence of both violations charged, the special findings of "Significant and Substantial" ("S&S") and "Unwarrantable Failure" attributed by MSHA to both, and the validity of the issuance of the modifications to both enforcement documents, and (2) maintains that both enforcement documents (the Citation and the Order) and the two safety standards allegedly infracted are impermissibly vague. In addition, and of considerable focus during litigation, Cyprus contends that the two violations charged are duplicative. Cyprus alleges that no "hazard" existed relative to the Section 56.3200 standard, and that (a) there was no "wall, bank, or slope" instability, and (b) clean benches were not "necessary" relative to the Section 56.3130 standard.

It is noted that Citation No. 3459560 is the underlying 104(d)(1) Citation in the Section 104(d) chain required as a prerequisite to the validity of the subject (d)(1) Order, No. 3645243 (I-T. 26-27). Should, for any reason, the Citation fail, or its 104(d) nature prove to be unsustainable, the validity of the Order would likewise fail.

A final major question is whether, with respect to both the allegedly S&S Citation and Order, any hazard contributed to by any proven violation was "reasonably likely" to have resulted in an injury.

MSHA'S Modifications of Original Citations

Citation No. 3459560 (involved in Contest Docket WEST 90-364-RM) was modified to a Section 104(d)(1) Citation on March 1, 1990, at 8 a.m., was "terminated" on March 2, 1990, at 9 a.m., and was modified what appears to be three subsequent times thereafter. In a modification on September 5, 1990, line 10 D of this enforcement document was modified to show that the "Number of Persons Affected" was "5" instead of "1".

Similarly, Citation No. 3645243 (involved in Contest Docket West 90-363-RM) was modified to a Section 104(d)(1) Order on March 1, 1990 (the hour of such modification was left blank on the modification form); was "terminated" at 8:40 a.m. on March 2, 1990 (see Stipulation, Court Ex. 1); and was further modified in various respects on five subsequent occasions. In a modification dated March 5, 1990, line 10 D of this enforcement document also was modified to show the "Number of Persons Affected to "5" instead of "1".

Cyprus, in both contest dockets, filed its "Notice of Contest" on September 13, 1990, and an "Amended Notice of Contest" on September 24, 1990. In its contests, Cyprus challenged only the validity of the modifications dated March 5, 1990, pertaining to the number of persons affected by the alleged violations.(Footnote 4) It is noted here that other challenges made to the enforcement, i.e., occurrence of the alleged violations, special findings, duplicative charges, etc., were litigated as part of the penalty docket, WEST 90-202-M.

Prior to hearing, Cyprus filed a "Motion for Partial Summary Judgment" (on December 10, 1991) confined again to the same March 5, 1990, modifications described above. The basis for such motion was that a Citation, once "terminated," cannot be modified. By my Order dated January 22, 1991, this motion was denied. It was held, inter alia, in such Order that (1) MSHA's administrative termination of a citation does not vacate it, and (2) that a citation can be modified after its termination to alter or amend allegations relating to penalty assessment factors but not to materially change the nature of the violation charged or the description of the violation charged set forth in the citation. That holding is here affirmed and my "Order Denying Motion for Partial Summary Judgment" dated January 22, 1991, is incorporated by reference as part of this decision.

Stipulation

Pursuant to written stipulation (Ct. Ex. 1; I-T. 178), the parties stipulated and I find as follows:

1. At all times relevant to these proceedings, Cyprus was the owner and operator of an open pit molybdenum mine located in Tonopah, Nevada.

2. Cyprus's mining operations affect interstate commerce.

3. Cyprus and its mine at Tonopah are subject to the provisions of the Federal Mine Safety and Health Act of 1977 (the "Act").

4. The Administrative Law Judge has jurisdiction over these proceedings, pursuant to Section 105 of the Act.

5. Citation No. 3459560 was properly served by a duly authorized representative of the Secretary of Labor upon an agent of Cyprus. It was not issued or served at the time or date shown on the Citation.

6. Citation No. 3645243 was properly served by a duly authorized representative of the Secretary of Labor upon an agent of Cyprus. It was not issued or served at the time or date shown on the Citation.

7. Cyprus is a large operation and the subject mine is a large mine.

8. Civil penalties have been proposed for Citation Nos. 3459560 and 3645243. Payment of such penalties will not affect Cyprus's ability to continue in business.

9. By a subsequent action issued on March 1, 1990, Citation No. 3459560 was modified to allege a violation of Section 104(d)(1) of the Act.

10. Citation No. 3459560 was terminated on March 2, 1990, at 9 a.m.

11. By a subsequent action issued on March 1, 1990, Citation No. 3645243 was modified to allege a violation of Section 104(d)(1) of the Act.

12. Citation No. 3645243 was terminated on March 2, 1990, at 8:40 a.m.

Findings

On Tuesday, February 27, 1990, MSHA Metal/Non-Metal Mine Inspector Arthur L. Ellis, while on a regular inspection of the mine, observed the conditions which he cited in the two subject Citations (Exs. P-1 and P-2; I-T. 13-15). The Citations were actually served on Cyprus on February 28, 1990. (I-T. 14-15). Inspector Ellis intended both Citations to cover the entire area called "Pushback No. 1," meaning thenorth, south, east, and west walls thereof. (I-T. 28, 45-46). The conditions cited did exist.

When Inspector Ellis commenced his inspection on February 27, 1990, Cyprus's Mine Manager Michael A. "Mike" Curran and Safety Director Robert R. Altamirano accompanied him to a place called the "overlook" from which they could observe the pit, i.e, the entire operation (I-T. 15). Mr. Ellis explained generally what he saw:

. . . We got out of the vehicle, looked at the overlook and I observed the pit, and looked like there was a pit within a pit. It was explained that the small pit, the middle of the pit is the--actually was called "Pushback No. 1. (I-T. 16) (Footnote 5)

Inspector Ellis observed some of the benches to be filled with loose, unconsolidated material and rocks. (I-T 16, 29, 79, 82). Benches are normally left on a pit wall to prevent material

from accelerating down a wall. (II-T. 18-19). If material falls off the top, the bench is to act as a catch area to keep material from accelerating down into the pit and possibly causing damage or injury.

On the east wall of the pushback (Footnote 6) he observed a "partial bench about one quarter of the way down from the top (Footnote 7) and "no benches the rest of the way down." (I-T. 17, 49).

During the inspection from the overlook, Inspector Ellis observed a dozer about to descend into the pit and was advised by Mr. Curran that he (Curran) "was getting ready to build a berm." (I-T. 17) The berm was to be built in the pit alongside the west wall of the Pushback 1 (I-T. 17, lines 21-22), because the berm which has been there had filled up "with a loose, a ravel material." Mr. Ellis objected, since he did not want the west wall disturbed, since he was afraid "loose material or something" would come down on the dozer. (Footnote 8) Curran and Altamirano explained to him that the former mine manager and chief engineer who were responsible for the situation had been discharged (I-T. 18, 19) for giving false information to the general mine manager (I-T. 19). This had nothing to do with this matter. (II-T. 207-208). It was decided to build the new berm by hauling in new material (I-T. 17). Before leaving the overlook, Inspector Ellis indicated to Curran and Altamirano that he was going to issue a citation.

After leaving the overlook, the inspection party proceeded to near the bottom of the pit, but did not stay because it was narrow and there was activity ensuing in building the new berm (I-T. 18-19, 33). They then went to the south end at the top of Pushback 1. The Inspector described what he saw there as follows:

And from there I observed the same thing I did from the overlook, benches that had been filled with loose and consolidated materials and some benches that had appeared to be--have been failing on the east wall. There was one partial bench about one quarter of the way down, but hardly any benches. I also noticed that the east wall kind of bellied in the middle and protrudes out, narrowing the middle of the pit floor considerably. (I-T. 20).

* * * * *

- A. I noticed some loose unconsolidated material and rocks in the wall. Benches were pretty well full, the ones that they had tried to lever or had filled with this material and some benches that appeared to be failing.
- Q. All right. And the material you described as loose, is this material that has the potential to move or be dislodged?
- A. Yes, it does.
- Q. And how did you determine that the material was loose?
- A. Well, just from my experience, it looked loose. And also from Mike Curran and Bob Altamirano's statement that this loose material was continually filling up their benches and that's why they were putting in berms (Footnote 9) about 10, 15 feet from the toe, 3 to 4 feet high, was to try to keep any material from coming all the way down on the people who were working at the bottom.

* * * * *

A. That's correct. I asked them why there wasn't a berm at the toe at the time I was observing this pit and they said because it filled up with loose unraveled material. (I-T. 21). (Emphasis added).

* * * * *

MSHA expert witness David M. Ropchan, a mining engineer in the Ground Support Division of MSHA, observed the Pushback 1 area on March 6, 1990, some seven days after the inspection of Inspector Ellis. He stated that he was first struck by the narrowness of bottom of the pit.

> Yes, it was immediately apparent that--the first thing that really struck me was the very narrow condition of the bottom of the pit. There really wasn't a floor in the pit; there was just a travelway that looked really very narrow, considering the overall condition of the lower area of the pit. (Footnote 10)

> > * * * * *

. . . The west wall of the pit was in a state of distress. It had--it was evident that partial failure in the upper area of the wall had covered portions of benches. It appeared that some of the lower benches had failed and that there was a material covering or a portion of those lower benches rendering some of them quite ineffective.

* * * *

Well, benches were normally--are normally left on a pit wall to prevent material from accelerating down the wall. If material falls off the top, the bench is to act as a catch area to

keep material from accelerating down into the pit and possibly causing damage or injury.

* * * * *

For the most part, it did not appear that there had been any attempt to maintain or keep the benches open or clean them. There was no--simply did not seem like that there was much really effective area really left there to contain. There was still some bench area left but not a great deal.

* * * * *

Near the top of the west wall there was some rather large material that was loose on the top of the wall. It appeared that there was portions of an escarpment at the very top of the wall. This is a hazardous situation because these areas could feed rock down onto the slopes below and allow it to roll down into the pit. (II-T. 18-19).

Mr. Ropchan described the "material" as rock "of various sizes." (II-T. 22, 24). More specifically, in connection tion with an area along the upper part of the west wall, he testified:

. . . from the north end you could easily see a fault trace running across the south end of the upper area of the pit, and Mr. Curran said that the fault trace pretty much aligned--was pretty much aligned along the edge of the upper part of the west wall, (Footnote 11) and some of the--of course that material to the west was alluvium, and it was a brownish, tanish material, and some of it in fairly large chunks was lying in the top part--it was in the top part of that wall, loose.

- Q. And did you notice the size of the loose material you observed?
- A. Oh, it was fair-sized. I think some of it was several feet in diameter.
- Q. All right. And based on what you saw, if the material of the size that you saw was to reach the bottom of the pit floor could it damage equipment if it struck equipment at the bottom?
- A. Yes, definitely. I think it was a real threat to men and equipment at the bottom.
- Q. All right. And from what you observed, if there were movement of the loose material, would the catch benches, starting with the point at the west wall you observed, would those benches have been able to--would they have been able to contain material moving down the slope?
- A. Well, definitely they'd contain some of it, but I felt there was sufficient threat of them being unable to contain it, that there was a real hazard from this material. (II-T. 31-32).

Mr. Ropchan in some detail described the nature and mechanism of the hazard he observed. In particular, he stated:

- A. The hazards that I perceived were the west wall was in a state of failure. The benches had either failed or were partially filled or fallen away. There was no access to any of the benches on the lower--on that west wall. There was no way to maintain it, and it stood right above a very narrow travel way.
- Q. What was the hazard?

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A. In the fact that it stood above a very narrow travel way. There was loose material, large loose material escarpments on the very top of the fall, could have fed rock down, allowed it to roll down, jump off that wall, hit the floor below. The overall wall was very ragged and rough in appearance. It was not a smooth surface. It was a very hazardous condition for rock fall. Anyone who's ever observed rock fall will note that on areas of rough walls, this rock can bounce and hop around, become airborne, it can assume a considerable horizontal velocity. It can really reach out. (Footnote 12 (II-T. 36) (Emphasis added).

In his written report (Ex. P-12), Mr. Ropchan reached specific conclusions as to the conditions in Pushback 1 and their portent which are (a) found convincing, reliable, and consistent with the general sense of the evidentiary record (including the various photographic exhibits therein) and (b) incorporated as part of the findings and factual conclusions set forth in this decision, to wit:

> The portion of the pit below the 5545 level contains serious safety hazards from a ground control standpoint. This lower area has been developed in a manner that has resulted in narrow, deep work areas that are poorly protected against rock falls or slope failure.

The west wall of this lower part of the pit is in a very hazardous condition. There are no adequate or effective catch benches remaining in place along most of this wall. The existing benches are either full or have partially or completely failed. The alignment of this lower west wall along a major fault could result in a continuous weakness plane occurring in the upper part of the wall. There has evidently been a large displacement along this fault plane. This could result in a disturbed or weakened shear zone occurring in both the monzonite and in the alluvium for some distance on both sides of the fault. The presence of a long tension crack developing just back of and parallel to the edge on the wide bench above this lower pit area may be a result of this weakness zone.

The east wall in the lower portion of the pit does not have adequate catch benches to protect against falling rock in the work and travel areas below. Furthermore, this portion of the pit wall wall is convex in plain view which puts the wall area under tension. This can increase the potential for failure of portions of the slope. At the outermost bulge of this wall, the pit floor (which is also a travelway) is only about 50 feet wide.

In summary, the lower portion of this pit appears to have been developed to minimize the excavation necessary to get at two small areas of the ore body. In so doing, both travelways and work areas are exposed to serious fall of ground hazards. The narrow, deep confined work areas at each end of the pit floor expose workers to ground fall hazards funneled toward the pit floor from three sides in close proximity. The haulroad leading down into the lower pit area is not sufficiently protected from falling material from either the west or east walls. A berm has been placed along the west half of the road along the west wall. This berm is too close to the wall and too small to provide sufficient rock fall protection considering the overall condition of this west wall. In addition, the size of the haulage trucks (170-ton) make it inadvisable to reduce the roadway width to such a degree.

It is found from the testimony and evidence of Inspector Ellis and Mr. Ropchan (Footnote 13) that loose unconsolidated material not only had the potential of moving from the wall face, but was in fact moving and filling up the benches below the movement (see also Breland, I-T. 127-135) and had filled up a berm built by Cyprus at the bottom. Thus, the material could and did travel to the bottom (III-T. 126-127; Ex. P-11) and, as indicated in the statement to the Inspector by Mr. Curran and Mr. Altamirano, the purpose of the berm was to try to keep the material from coming down "on the people who were working at the bottom." (See also I-T. 68, 188-191, 193). I infer from this and the testimony quoted above that the material was of sufficient size to have created a hazard, i.e., posed a threat of bodily harm to those

~1536 working at the bottom. (See, for example, Ropchan testimony reporting "large material." (II-T. 18, 36, 38-39). See also, testimony of Cyprus's Mine Operations Supervisor Vernon Lee Alan. (II-T. 164, 173-175), and further testimony at II-T. 189-190, 194-198; III-T. 126-127).

The use of adequately maintained benches was a necessary part of the mining method employed by Cyprus in Pushback No. 1. (I-T. 29, 29, 79-86, 121-122, 130, 134-135, 155-157, 165-168, 171-172, 173, 174, 188-189, 193, 195; II-T. 18, 31-32, 36; Exs. P-10, P-11, P-12).

It was established not only from the testimony of Inspector Ellis and MSHA Engineer Ropchan, but also that of MSHA Assistant District Manager Breland, who inspected the area 30 days after Ellis, that the benches were full, inadequate, and failing. (I-T. 79-83, 128, 129, 130; II-T. 20, 32, 3-37, 40).(Footnote 14)

The bottom of the Pushback No. 1 Pit was very narrow, amounting only to a travelway. (II-T. 18, 36).

The conditions (loose rock and material, filled benches, falling benches, tension cracks, and a narrow pit floor) in Pushback 1, as charged in Citation No. 3459560 constituted a hazard. (I-T. 21, 23, 26, 28, 29, 30, 51-52, 65, 79-83, 84-86, 122, 130, 134-135; II-T. 18, 19, 21, 23, 27, 28-29, 30-36, 67-68, 74, 83; III-T. 15-16, 33-34, 126-127; Ex. P-3, P-10, P-11, P-12).

Approximately five miners who worked in the pit were exposed to the hazard (I-T. 62-63, 184; Exs. P-5, P-6, P-7, and P-8). Four miners (a shovel operator and three truck drivers) had been working in the pit shortly before Inspector Ellis's inspection (I-T. 23-26, 50, 52, 61-62, 63) in addition to another miner who was maintaining and moving pumps (I-T. 18, 22, 51-52, 62, 67, 91).

Water at the north and south ends of the Pushback 1 pit blocked access to the bottom of the pit below the walls at those two ends (I-T. 55, 64-65). The west wall was not bermed or barricaded to prevent access to the area below the wall (I-T. 29, 64; Ex. P-12). Mining was "expected" by Cyprus to be and was completed in the bottom of Pushback 1 on or about Monday, February 26, 1990, and thereafter the only activity going on there was to have been maintaining the pup station (II-T. 135, 136, 141, 142; III-T. 11-12, 15). The last blasting in the bottom of the Pushback 1 occurred on about February 15 (II-T. 139-140). Pushback 1 was completed on the swing shift on February 26, 1990 (II-T. 165-166, 168; III-T. 11). There were no plans to go into the bottom of the pit thereafter with a shovel and haul trucks (III-T. 11). Final mining in the pit was along the south end (III-T. 17).

Summary of Cyprus's Evidence

Alan Dale Curtis, who was Cyprus's acting chief engineer on February 27, 1990, was of the opinion that the west, east, and south walls were safe and stable for miners to work and travel under and that the catch benches were adequate to catch any raveling (II-T. 129, 130-134).(Footnote 15)

He also indicated, inter alia, that Cyprus does not go back on benches to clean them up after mining below them because "the catch bench is in place and we've done all we can to scale the wall without equipment, with our blasting methods, so . . . it's not necessary to go back." He said that if "you do go back, you're putting equipment and manpower at risk " (II-T. 157-158).

Mine Operations Supervisor Vernon Lee Alan testified that the week before mining ceased in Pushback 1 (the week before February 27, 1991) he felt the east, west, and south walls were stable and that it was not "unsafe to work in the bottom of the pit." (II-T. 162-163).

Cyprus introduced two videotapes, Ex. R-24 (taken between March 2 and March 13, 1990) and Ex. R-39 (taken in December 1990). Exhibit R-24 runs 20 minutes, demonstrates the conditions of Pushback 1, and is summarized in a written narrative of record--Exhibit R-25. Exhibit R-38 runs five minutes, was shown during the hearing (II-T. 184-186) and depicts an enactment of the effect (loss of energy) of dumping material over a bench down a 35-36, 40-50 feet vertically high (90-foot long) slope (II-T.

181-183, 184-185, 190, 193). These two pieces of evidence have been considered both as to occurrence of a hazard, gravity, and the "reasonable likelihood" aspect of the "significant and substantial" issues.

Robert R. Altamirano, Safety Director, testified that there had been no accidents or injuries to miners from material coming off the east, west, or south walls of Pushback 1. (II-T. 189). there were "one or two incidents" where boulders "came down and struck equipment" over the 12-month period prior to February 27, 1990 (II-T. 194, 195-200). See also Exhibits P-21, P-22, and P-24. Exhibit P-22, an Incident Investigation Report dated 1-19-89, indicates that "In this area it's hard to tell if you have a ball of mud or a big rock hanging on the wall."

Mr. Altamirano gave the following opinion as to work safety in Pushback 1:

- Q. And why do you think it was safe to work in Pushback 1 with regard to the slopes?
- A. Well, in discussing the west wall I was informed that we had stepped back and the angle of repose had been reached and we maintained a berm at the bottom, so that, you know, in my opinion, the west wall did an adequate job.
- Q. What about the east wall?
- A. On the east wall where the double-benching technique had been attempted or, you know, had taken place, they took extra precautions to step back at each bench. I think it was five feet or so, so they wouldn't undercut, and to me that looked like a good situation. (II-T. 188).

Mine Superintendent Michael A. Curran testified it was not unsafe to conduct mining in the bottom of the pit because the "walls around the bottom of the pit were in a stable condition and posed no hazard" because "the west wall was stepped out and sitting at an angle of repose, and material that was on that slope was at rest . . . He also indicated that the berm had been constructed along the toe to keep travel away from that area (III-T. 16, 26-27). He said the east wall was "very competent rock that had been scaled and that there were adequate catch benches along the south wall (III-T. 16-17). Final mining in the pit was in the southeast corner and there was an adequate catch bench above this area (III-T. 17).

Duane W. Pergrem, Manager of Safety and Hygiene, examined the pit on March 6, 1990. He scrutinized the old berm (built to abate the 1989 violations) and the new berm (under construction on February 27, 1990) (Footnote 16) and noted that the old berm was about half full. (III-T. 44-45).

He felt the west wall was fairly shallow and that two or three pieces of large material on it "were resting in a fairly stable position." (III-T. 46). He indicated that in some places on the west wall "it had run to the angle of repose" and that in some places it still had benches. He saw no problem with the east wall or the south wall, noting that there was water in front of both the south and north walls. (III-T. 46-47). He thought the benches were satisfactory on the east wall and saw nothing "that looked like it was going to come off." (III-T. 48-49). His conclusion was that it was safe to work in the bottom of the pit. (III-T. 52).

Based on his prior experience with Cyprus's and other mines, he stated that

. . . I have not seen a pit that didn't have benches full with material sluffed down to the next level. On many of them I've seen berms or barriers above in a place where employees might go by to contain the material if it should go on down. (III-T. 53).

During his examination, Mr. Pergrem observed a blast on one of the upper benches of the south wall of Pushback 1 and noted that the material which he "assumed" was from the blast traveled slowly down the wall in the southwest corner. He saw no other material move on the wall. (III-T. 49-51, 52).

James P. Savely, senior geological engineer in Cyprus's technical service assistance group, who was recognized at the hearing as an expert in slope stability (III-T. 75, 77) inspected Pushback 1 on March 6, 1990. (III-T. 78).

He found nothing to be concerned about with the east wall, finding the same to be stable and competent. (III-T. 84, 87). He felt the benches on the south wall "were in pretty good shape." (III-T. 88).

On the west wall, he examined the crown (top) of the failure, found no tension cracks that were "well behind the crest of the slope" and concluded that the "rubble-ized" portion of the slope was superficial. (III-T. 89). He had no alarming concerns about the reddish material (the large pieces mentioned by Mr. Ropchan). (III-T. 89-90). His conclusion was that it was safe to work in the bottom of the pit. (III-T. 91-92). (Footnote 17)

As to the reddish material below the work area on the west wall, Mr. Savely was unable to reach a conclusion as to the like-lihood of its coming down the wall. He did believe that the rock pieces were not "strong" and would tend to break up when "colliding" and thus concluded that such was "likely" to fragment and stop somewhere on the slope. (III-T. 102-103). His observation of the new berm on March 6, 1990, was that there was nothing on its far side and that it was "containing everything there." (III-T. 103, 111, 112).

Mr. Savely testified that it was not common practice to go back and clean benches once mining had progressed past them. (III-T. 103). The mining method to be utilized was to mine such an area bench by bench and to "step out" (explained, infra) and subsequently to install berms. (III-T. 104, 109). He thought it "unlikely" that the material on the west wall would start to move on its own. (III-T. 105).

Dr. Richard D. Call, president of a geotechnical consulting firm and an expert on ground control, also testified on behalf of Cyprus. Dr. Call's firm specializes in rock mechanics, open-pit slope design, and underground rock mechanics. He visited the mine on May 15, 1990, to inspect it in preparation for rendering his expert opinion on slope stability conditions. (III-T. 116). Mining had taken place around the top of Pushback 1 during the interim between February 27 and the date of his inspection--three levels on the east side and one level on the south end. (III-T. 118, 121-122). Dr. Call could not state for certain that material he observed which had "gone beyond the berm and was on the pit floor was from "overbank," i.e., being pushed over the bank during mining during the interim period, or from raveling. (III-T. 126-128). Dr. Call's opinion was that it would have been safe to work in the bottom of the pit on February 27, 1990. (III-T. 130-131, 133). He felt the probability that material on the west wall reaching bottom was low:

- A. Well, one, there's a significant probability that it won't reach the bottom. The material and angle of repose tend to absorb energy. As a particle goes in that, the energy's lost in moving pieces around. So that it could very easily get hung up on the wall on the way down, and there are a number of boulders on the face there that have done just that. Secondly, when it reaches the bottom it's not going to have high--a high level of energy, therefore it's not going to be moving that fast, and it will impact directly at the toe of the slope, and it doesn't take a great deal of a retaining berm to stop it from rolling on out into the pit.
- Q. When you say it doesn't take a great deal of a retaining berm, let's take the berm that had been built at the time of the citations issued five to six feet high and out from that wall. Would that be retaining material that was raveling off it, for some reason, did ravel?
- A. Based on my observations of the mechanics and the computer simulations of that, I would estimate that 90 percent or greater of the material would be retained by that berm. I can't say a 100 percent because that's an extreme value and all kinds of extreme values are possible, but in terms of reasonable probability, it would be retained. (III-T. 131-132).

Dr. Call said that the "potential is very low for any significant rock fall on the east wall" (III-T. 133) and that the south wall was "intermediate" meaning not as favorable as the east wall but "more competent" than the west wall. (III-T. 133-134). (Footnote 18)

Dr. Call also pointed out a line of thinking that benches actually decrease slope stability. (III-T. 138-141).

Special Findings Concerning Order No. 3645243 and "Unwarrantable Failure" Issues

On May 31, 1989, and June 1, 1989, Cyprus received two citations, analogous to the two involved in the instant proceeding, also charging violations of the same two standards, 30 C.F.R. 56.3200 and 30 C.F.R. 56.3130. These were issued by MSHA Inspector Ronald Barri and were numbered 3463545 (Ex. P-18) and 3463546 (Ex. P-19), respectively. See I-T. 102-104, 105-110, 11, 175-176.

Citation No. 3463545 charged:

There were large pieces [sic] of loose material hanging on the west high wall about 100 feet above the ramp haul road on the 5400 level. Haul trucks and other equipment travel the road alongside the high wall. The area was not posted or barricaded to prevent travel alongside the high wall.

Citation No. 3463546 charged:

The 5728 bench on the south end of the pit to the east face at 5682 level bench on the south end and east face had been allowed to accumulated [sic] materials and would not provide an

adequate catch bench to protect haul truck traffic below. A maintenance program for maintaining benches had not been established. During time periods needed to clean these benches [operator will use] one lane outer edge haulage beneath these benches will be required if loose material is subject to spilling on haul road.

On or about June 1, 1989 (I-T. 102, 104, 106, 105-113), MSHA Assistant District Manager Rodric M. Breland spoke with Inpector Barri and then conducted his own investigation of these two prior citations at the mine.

At this time, some nine months prior to the issuance of the instant Citations, Mr. Breland observed that the benches on the west wall had "already started to fail." (I-T. 105, 106-107, 109). Thereafter, on the same day, a meeting was held with Cyprus's management (I-T. 110-114), including Mr. Curran, which was described in some detail by Mr. Breland as follows:

Predominantly we discussed the issue of the pit walls and overall mining plan, and mostly in generalities as far as reacting to conditions as they developed. In this case the west wall was showing signs of failure and they were aware of that and had at that time explained that they were going to step out a little bit, and by stepping out meaning move away from the angle they were at, at that time, and flatten it back a little more. We talked about the 56.3130 requirement and the 3200 requirements, fairly extensively, that the--with the conditions such as were existing there, they were required to put the berm or the barrier in prior to continuing on with working in the area. They couldn't wait for loose material to hit the floor. There was some material on the floor that had sluffed off the face, even after the berm had been put in, even the day before I was there, so that face was working. Also the 3130 I specifically had gone out on several of those benches with Mike Curran and my superintendent. I talked to him about what was going on there. They were--or could have been accessed to do the bench maintenance that's required as part of the standard. However, they were not doing that and had not been doing that, and I explained the requirement there to keep those benches clear as long as there was staff beneath them. (I-T. 110-111). (Emphasis added).

These two prior citations were not contested (I-T. 171-172) and were abated by (a) building a berm to impede traffic to the affected area and (b) cleaning off the benches. (I-T. 112, 151-152, 175-176; II-T. 206-207). (Footnote 19)

During the meeting on these two prior citations, Mr. Breland "cautioned" Cyprus management that MSHA had issued a CAV (Compliance Assistance Visit) notice (Ex. P-9, Notice dated 7-27-88) prior to the commencement of their operation "concerning the same issue on the benches and bench maintenance" and reminded them that this was a "subsequent repeat problem or potential problem and that they had been made aware back probably six months (previously) that MSHA expected bench areas--or benches to be maintained where people work." (I-T. 114, 115, 120, 121).

Following the issuance of the July 27, 1988, CAV Notice pertaining to cleaning benches the following correspondence (I-T. 117-119) ensued between Thomas C. Lukins, MSHA District Manager, and Cyprus. (Footnote 20) In a letter dated August 2, 1988, Mr. Lukins advised Ron O. Kellnar, Vice President/General Manager of Cyprus, as follows:

> During the July 28, 1988, visit to your operation by Ron Barri and Art Ellis of the Mine Safety and Health Administration, we discussed the problem of your benches and the inability to maintain or clean them.

Section 56.3130 states, "Mining methods shall be used that will maintain wall, bank, and slope stability in places where persons work or travel in performing their assigned tasks. When benching is necessary, the width and height shall

be based on the type of equipment used for cleaning of benches or for scaling of walls, banks, and slopes.

Since no mining activity was being conducted and your company has just recently taken over the mine, a general mine plan was not available. As per the meeting, a general mine plan must be submitted to this office, when developed, stating the bench heights and widths to be used and how you plan on cleaning/maintaining the benches if they become full of material. (Ex. P-10). (Emphasis added).

In Cyprus's reply letter to Mr. Lukins from Mine Manager Burjore E. Choksey, dated September 21, 1988 (Ex. P-4), regarding "30 C.F.R. 56.3130, Ground Control, Wall, Bank, and Slope Stability," Cyprus enclosed its mine plan, and agreed to utilize a double-benching technique to "contain any raveling," to wit:

In response to your letter dated August 2, 1988, to the V.P. and General Manager, Mr. Ron Kellner, we are enclosing a copy of our mine plan titled "Ultimate Pit with Roads."

The mine plan will utilize a double benching technique, which will allow us to have wider catch benches to contain any raveling that may occur. The width of the catch benches will vary from 32 to 50 feet, for every 91 to 100 feet of vertical interval. The varying widths are because of Anaconda having had 14-meter-high benches.

The current pit bottom elevation is 5500. Benches above this elevation will be 46 feet high and below 5500 level, they will be 50 feet high. As an added safety factor we plan to step-out an additional 10 feet, every fourth bench. The plan also provides for extra road width so that catch berms could be constructed if for some reason we encountered increased local raveling. Every effort will be made to control the pit walls by way of controlled perimeter blasting and surface drainage. The plan as laid out above will allow us to operate the mine in a safe and efficient manner." (Ex. P-4). (Emphasis added).

~1546 Conflicting Evidence

The testimony of MSHA's witnesses, including Inspector Ellis who observed the violative condition on February 27, 1990, has been credited over the testimony of Cyprus's witnesses in the areas of major conflict: whether a hazard existed, whether benches were necessary, whether benches should have been cleaned and maintained as mining progressed to the bottom level, and whether there was loose rock and material on the slopes which posed the threat of falling into the bottom of the pit on miners.

The description of conditions and the opinions of MSHA's witnesses were particularly convincing. See, for one example, Inspector Ellis's testimony at I-T. 21 as to why he considered the material to be "loose." Thus, it appeared that way (loose) not only from his visual observation but he was told that the old berm had filled up from falling material and that Mr. Curran and Mr. Altamirano were having the new berm built to keep material from falling on miners in the pit. I find this and the preponderance of documentary and testimonial evidence at odds with the opinions of Mr. Curran and Mr. Altamirano and other Cyprus's witnesses that it was safe for miners to work in the pit. (Footnote 21) Upon careful evaluation of the record, it is concluded tha MSHA's evidence was the more objective, reliable, and convincingly stated. I have thus to some extent incorporated MSHA's evidence into "Findings," supra, but summarized Cyprus's evidence.

DISCUSSION, ULTIMATE FINDINGS, AND CONCLUSIONS

A. The Two Regulations

Section 56.3130 requires:

 that mining methods be used that will maintain wall stability where persons work or travel, and

- if benches are necessary as part of the mining method, their width and height shall be based on type of equipment
 - a. used for cleaning the benches, or
 - b. used to scale the walls and slopes.

To establish the elements of a violation, MSHA must establish that benches $% \left({{\left[{{{\rm{T}}_{\rm{T}}} \right]}_{\rm{T}}} \right)$

- 1. were a "necessary" mining method, or part of such,
- the benches were improperly maintained (cleaned) or were of inadequate width and height to permit maintenance/cleaning, and
- 3. that, as a result of the improper benches, or maintenance thereof, "wall, bank, and slope" stability was not maintained, in
- 4. places where persons work or travel "

The focus of this standard is on benches, and their being a necessary part of the mining method used. If benches were a necessary mining method and they were not kept up, and people worked in the area, an infraction occurs. (Footnote 22) The standard (3130) itself does not specifically require benches. (I-T. 70, 96, 101, 164).

The d-1 Order (No. 3645243) in its second sentence clearly charges that persons work or travel in the area.

~1548 B. Vagueness

cyprus contends that 30 C.F.R. 56.3130 is impermissibly vaque since it does not provide reasonable notice of the conduct required by the mine operator. Based on analysis of this standard, supra, it is concluded that a reasonably prudent person familiar with the mining industry, relevant facts, and protective purpose of the standard would understand what was required. See Ideal Cement Company, 12 FMSHRC 2409, 2415-2416 (November 1990). The record indicates that benching was a necessary part of the mining method employed by the mine operator, that Cyprus undoubtedly understood the purpose of the standard (Exs. P-4 and P-10; I-T. 103-119, 120-121, 165-166; II-T. 206-207), (Footnote 23) that Cyprus in writing agreed to a plan utilizing a "double benching technique" to actually "have wider catch benches to contain any raveling that may occur" (Ex. P-4; I-T. 165), as well as agreeing that every fourth bench would be stepped out an additional 10 feet as "an added" safety factor. (Ex. P-4). It did not mention that it did not intend to maintain or clean such.

The standard is clearly the type of regulation that must be couched in simple and brief language in order to be "broadly adaptable to myriad circumstances." (Footnote 24) As the Secretary states in her Brief (p. 7), "Any person familiar with open-pit mining and its methods would be aware that the standard is directed toward the prevention of death or injury caused by the collapse of walls, banks, or slopes upon miners who work in the area." The Secretary also cites comments appearing in the Federal Register, Vol. 51, No. 195, p. 36193, October 8, 1986, concerning what would appear to be understandable to an average prudent person as requirements of the standard and such are listed here and approved as part of the meaning attributable to the standard:

a. When benching is necessary, the benches must be able to serve as catch benches.

- b. The determination of when benches are a necessary part of the mining process is left within the province of the mine operator (see I-T. 101), as is the determination of bench width and height.
- c. The only restriction placed upon the operator is that the width and height selected for the benches be measurements which allow the operator to use available equipment to prevent the benches from creating a fall of ground hazard as well as to act as a catch bench.

Here, it is clear that Cyprus chose benching as a part of its mining method. Accordingly, it was required by the standard to maintain the benches to ensure wall, bank, and slope stability in those places where persons worked or traveled. (See I-T. 157, 172, 173-174, 175-176).

The contention of Cyprus that the standard in 30 C.F.R. 56.3130 is unenforceably vague is rejected.(Footnote 25) Any contention of Cyprus that the standard cited in Citation No. 3459560 (30 C.F.R. 56.3200 is unenforceably vague (Footnote 26) is likewise rejected.

C. Duplicative Charges

Cyprus takes the position that the two subject enforcement documents (Citation and Order) were issued for essentially the same condition in the same area of the mine, i.e., "because the benches were full" in Pushback 1. (Cyprus Brief, pp. 58-59).

This contention is rejected. As noted in the analysis above, the gravamen of violations under the two subject standards differs materially. Under Section 56.3200 the existence of a hazard must be established and, once established, a violation is established if work or travel is permitted in the area. If the hazardous condition is in the process of correction but correction is not completed, the area is to be posted and/or barricaded. Section 56.3130, on the other hand, does not focus on the actual existence of a hazard and does not mention the requirements of corrective work, barring work and travel of miners, and posting and barricading.

The fact that both the Citation and Order mentioned one condition--full benches--in common does not change the basic differences in the thrust of each or the safety standard under which each was issued. Contrary to Cyprus's argument, the conditions cited in each enforcement document differ. They were not the same. In addition to full benches, the Citation also charges, unlike the Order, (1) that there was "loose material and rocks" on highwalls in Pushback 1, and (2) in the specific language of Section 56.3200, that the area was not posted or barricaded. Both these factual issues were the subject of evidentiary presentation at hearing.

The Mine Act imposes a duty upon mine operators to comply with all mandatory safety and health standards. It does not permit an operator to shield itself from liability for a violation of a mandatory standard simply because the operator violated a different, but unrelated mandatory standard. Secretary v. El Paso Rock Quarries, Inc., 3 FMSHRC 35, 40 (January 1981); Secretary v. UNC Mining and Milling, 5 FMSHRC 1164 (June 1983).

The Citation and Order are found not to be duplicative.

D. Occurrence of Violations

As charged by the Inspector and as reflected hereinabove, it is concluded that there existed loose rock and material on walls and slopes of Pushback 1, which together with full and partly full, inadequately maintained, failing benches created a hazard to miners working in the narrow pit below and traveling along the haul road leading into the lower pit area. These hazardous ground conditions had not been taken down or corrected, and the area was not posted with a warning against entry or otherwise barricaded to impede entry. Miners were permitted to work and travel in areas exposed to the danger of ground fall.

This is found to constitute a violation of 30 C.F.R. 3200 as charged in underlying Section 104(d)(1) Citation 3459560.

Although Cyprus management indicated it never intended to maintain or clean the benches in Pushback 1, this is found to be contradictory to its previous conduct and acquiescence when cited during the CAV inspection, and when cited with two prior violations and discussions following such. (I-T. 110-111; Exs. P-4, P-9, P-10).

The most reliable and persuasive in the record establishes that benches in Pushback 1 had accumulated with rock and materials and did not serve as adequate catchbenches to protect miners working below. The mining method employed by Cyprus to mine in

Pushback 1 did not maintain wall, bank, and slope stability sufficient to safeguard miners working in the pit or traveling along the haulroad from falling rock and material. That a hazard existed was well-established by MSHA by the preponderant reliable and probative evidence. Thus, maintenance and cleaning of the benches was "necessary." (Footnote 27)

In summary, it is concluded that a violation of 30 C.F.R. 3130 as charged in Section 104(d)(1) Order No. 3645243 did occur since MSHA, in terms of the standard, established that

- benches (including the maintenance and cleaning thereof) was "necessary,"
- the benches were not maintained or cleaned, were inadequate, and were, in some cases, themselves "failing,"
- 3. that as a result of the inadequate benches, "wall, bank, and slope" stability was not maintained in
- 4. places where person worked or traveled. (Footnote 28)
- E. Unwarrantable Failure

"Unwarrantable Failure" means "aggravated conduct, constituting more than ordinary negligence, by a mine operator in relation to a violation of the Act." Emery Mining Corporation, 9 FMSHRC 1997, 2004 (December 1987); Youghiogheny & Ohio Coal Company, 9 FMSHRC 2007, 2010 (December 1987). An operator's failure

to correct a hazard about which it has knowledge, where its conduct constitutes more than ordinary negligence, can amount to unwarrantable failure. Secretary v. Quinland Coals, Inc., 10 FMSHRC 705 (June 1988). While negligence is conduct that is "thoughtless," "inadvertent," or "inattentive," conduct constituting an unwarrantable failure is "not justifiable" or is "inexcusable."

Here, Cyprus concedes it never intended to maintain its benches after mining through them in Pushback 1, and that it was unsafe to go back and maintain the benches. Thus, by not maintaining the benching or engaging in an alternative mining mode consistent with keeping the benches clean and safe (II-T. 39-40), Cyprus contends that after the benches indeed became unsafe to clean and maintain, that such justifies its mining methodology to begin with. This argument is rejected for several reasons. First, because of the actual hazard of falling rock and material injuring miners working in the pit and haul road. Secondly, because this record does reflect that such material did in fact reach the areas in the pit where miners worked, and because of the conduct and reaction of Cyprus's management with respect to the prior attempts of MSHA (CAV inspection, two prior Citations, and correspondence) to deal with the problem belying the explanations derived on this record after the two subject enforcement documents were issued by Inspector Ellis. While Cyprus further argues that the regulation (56.3130) was unconstitutionally vague in that it deprived Cyprus of knowing what course of conduct to follow, the prior enforcement actions of MSHA also serve to dilute the efficacy of this argument. (Footnote 29)

The record is compelling that Cyprus's failure to maintain and clean its benches was not merely due to inadvertence or inattention since it is beyond dispute that its management personnel were quite aware of the continuity of the conditions, proceeded intentionally to expose miners on the haul road and in the very narrow pit despite ineffective failing catch benches, and the presence of loose rock and material. See Secretary of Labor v. Eastern Associated Coal Corporation, 13 FMSHRC 178, 187 (February 1991).

It is thus concluded that the violations charged occurred as a result of Cyprus's unwarrantable failure to comply with the two cited safety standards.

~1553 F. Significant and Substantial

Both enforcement documents (Citation and Order) were designated as "Significant and Substantial."

A violation is properly designated "significant and substantial" if, based on the particular facts surrounding that violation, there exists a reasonable likelihood that the hazard contributed to will result in an injury or illness of a reasonably serious nature. Cement Division, National Gypsum Co., 3 FMSHRC 822, 825 (April 1981). In Mathies Coal Co., 6 FMSHRC 1, 3-4 (January 1984), the Commission explained:

> In order to establish that a violation of a mandatory safety standard is significant and substantial under National Gypsum the Secretary of Labor must prove: (1) the underlying violation of a mandatory safety standard; (2) a discrete safety hazard--that is, a measure of danger to safety--contributed to by the violation; (3) a reasonable likelihood that the hazard contributed to will result in an injure; and (4) a reasonable likelihood that the injury in question will be of a reasonably serious nature.

Accord, Austin Power v. Secretary of Labor, 861 F.2d 99, 103 (5th Cir. 1988).

The third element of the Mathies formula requires "that the Secretary establish a reasonable likelihood that the hazard contributed to will result in an event in which there is an injury, and that the likelihood of injury must be evaluated in terms of continued normal mining operations. U.S. Steel Mining Co., 6 FMSHRC 1573, 1574 (July 1984). See also Monterey Coal Co., 7 FMSHRC 996, 1001-02 July 1985). The operative time frame for determining if a reasonable likelihood of injury exists includes both the time that a violative condition existed prior to the citation and the time that it would have existed if normal mining operations had continued. Halfway, Inc., 8 FMSHRC 8, 12 (January 1986); U.S. Steel Mining Co., 7 FMSHRC 1125, 1130 (August 1985). The question of whether any particular violation is significant and substantial must be based on the particular facts surrounding the violation, including the nature of the mine involved. Texasgulf, Inc., 10 FMSHRC 498, 500-01 (April 1988); Youghiogheny & Ohio Coal Company, 9 FMSHRC 2007, 2011-12 (December 1987). Finally, the Commission has emphasized that it is the contribution of a violation to the cause and effect of a hazard that must be significant and substantial. U.S. Steel Mining Co., 6 FMSHRC 1834, 1836 (August 1984).

It has been determined that the violations charged in both the Citation nd Order did in fact occur, and that both constituted and/or contributed to discrete safety hazards as above described. In terms of the four-part Mathies formula, the decisive question here is whether the hazard contributed to by both violations, respectively, would in reasonable likelihood result in an injury. (Footnote 30)

Inspector Ellis, although given the opportunity, never advanced from characterizing the "likelihood" of the hazard's occurrence from something which "could have" happened, or was merely "possible." (I-T. 85-86, 95). There was no evidence presented by MSHA of prior injuries or what can be termed "close calls" from fall of ground.

Cyprus's evidence that occurrence of the hazard was not likely is found to be more persuasive. (III-T. 103, 105, 126-127, 131; Ex. R-25). As Cyprus points out (Footnote 31) a lengthy and unlikely chain of events would have to transpire, even in connection with the west wall (Footnote 32), before the circumstances constituting the hazard would combine to cause an injury:

- Movement of material would have to begin as a result of some event.
- 2. Such material would have to travel to the bottom of PB1 in sufficient size to pose a hazard.
- 3. Such material would have to retain sufficient velocity to pose a hazard.
- 4. Such material would have to overcome the friction of the material on the west wall.

- 5. Such material would have to overcome the characteristics of the material on the slope of the west wall to gain momentum as it slid down the slope.
- 6. Such material would have to retain sufficient momentum to climb up and over the berm at the bottom of the west wall.
- 7. Such material would have to overcome the unevenness of the slope of the west wall which would tend to slope or stop the material.
- 8. Such material would have to avoid being retained on the slope by the remnants of the existing benches.
- 9. When mining was occurring, such material would have to come to the bottom of the pit with sufficient size and with sufficient velocity to overcome (in some cases), protection afforded by the location of miners in equipment cabs high above the pit floor.
- 10. After mining ceased, such material would have to arrive at the bottom of PB 1 coincident with the brief 10-15 minute period on one of the two or three days a week when the pumps were serviced in the pit.
- 11. After mining ceased, such material would have to arrive at the bottom in a portion of the pit where access to the base of the walls was not blocked by large pools of water.

While it has been determined that there existed serious "fall of ground" safety hazards to miners contributed to by the two violations, it is also concluded that there was not established a "reasonable likelihood" that the hazards contributed to would result in an injury. Accordingly, both violations are found not to be significant and substantial.

G. Final Modifications

Since Citation No. 3459560 has been found not to be "Significant and Substantial," it does not meet the requirements of Section 104(d)(1) of the Act. Accordingly, its nature shall be modified to delete this special finding and to show issuance under Section 104(a) of the Act.

Since Citation No. 3459560 as originally issued was the underlying Section 104(d)(1) Citation for Section 104(d)(1) Withdrawal Order No. 3645243 (Footnote 33), its modification to a Section 104(a) Citation results in there no longer being the prerequisite foundation in the 104(d)(1) scheme for Order No. 3645243. Since Order No. 3645243 has also been found not to be "Significant and Substantial," it lacks the prerequisite elements for a 104(d)(1) Citation, and it also is to be modified to a Section 104(a) Citation. See Mettiki Coal Corporation, 13 FMSHRC 760, 764 (May 1991); Consolidation Coal Company, 4 FMSHRC 1791 (October 1982).

H. Penalty Assessment

Cyprus is the owner and operator of a large open pit molybdenum mine located in the vicinity (Ex. P-12) of Tonopah, Nevada. Cyprus is a large mine operator (Stipulation, Court Ex. 1) which had a history of 34 previous violations (Ex. P-27) including the two similar violations cited on May 31, 1989, and June 1, 1989, discussed in detail herein. Payment of penalties will not affect Cyprus's ability to continue in business (Court Ex. 1). Cyprus, after notification of the violations, proceeded in good faith to promptly abate the same. (III-T. 159).

Although neither violation has been found to be "significant and substantial" within the special meaning in mine safety law of this legal term of art, both violations are found to be serious in view of the hazard found to have been posed by them and the potential for serious injury to miners had the hazard come to fruition.

In view of the frequency of the occurrence of the problem, first discovered during a CAV inspection, subsequently cited in May and June of 1989, and again cited during the subject inspection by Inspector Ellis, and the mine operator having been warned about the situation by MSHA's representative Mr. Breland, I have concluded that both violations resulted from Cyprus's continuing (see I-T. 188-193, 195) unwarrantable failure to comply with the pertinent standards and here conclude that Cyprus exhibited a considerable degree of culpability in the commission of the two infractions.

Accordingly, a penalty of \$1000 is assessed for Citation No. 3459560 and a penalty of \$1000 for Citation No. 3645243.

ORDER

1. Citation No. 3459560 is MODIFIED to change the "Gravity" designation in Section 10 A thereof from "Reasonably Likely" to "Unlikely," to delete the "significant and substantial" designation in Section 10 C thereof, and to change the issuance authority thereof from Section 104(d)(1) of the Act to Section 104(a).

2. Order No. 3645243 is MODIFIED to change the "Gravity" designation in Section 10 A thereof from "Reasonably Likely" to "Unlikely," to delete the "Significant and Substantial" designation in Section 10 C thereof, and to change its nature and issuance authority from a Section 104(d)(1) order to a Section 104(a) Citation.

3. Contestant/Respondent Cyprus shall pay to the Secretary of Labor within 30 days from the date of issuance of this decision the total sum of \$2000 as and for the civil penalties above assessed.

Michael A. Lasher, Jr. Administrative Law Judge

Footnotes start here:-

1. Federal Mine Safety and Health Act of 1977, 30 U.S.C. 801, et seq.

2. The hearing was held on three hearing days, March 13, 14, and 15, 1991. For each of the three days of hearing there is a separate transcript beginning with page 1. Accordingly, the transcript citations will be prefaced with "I", "II", and "III" for March 13, 14, and 15, respectively.

3. It is noted that neither enforcement document specifically alleges that the benches themselves were failing, although the testimony of MSHA's expert witness, Assistant District Manager Rodric M. Breland, mentions "failing" benches and stress fractures in benches. (I-T. 127-130). After careful scrutiny, it is concluded that both enforcement documents are broad enough to include this condition as a ground condition hazard or bench inadequacy.

4. In its contest pleadings Cyrpus correctly pointed out, as to both enforcement documents, that such were "subject to challenge in a civil penalty contest docketed at No. WEST 90-202-M."

5. See also I-T. 125-126 and photographs (Exs. P-3 and R-14 A) for a general description and views of the subject area.

6. Review of the transcript reveals that the inspector's primary concern was the west wall of Pushback 1.

7. The height of the pushback was approximately 250 feet. (I-T. 49, 85).

8. Although his testimony was somewhat disjointed, the Inspector credibly testified "there were some benches on the west wall" which were not "being maintained" and were "full"; that there was "loose" on the faces and that there was "loose and unconsolidated material in the west wall that could come down and get somebody." (I-T. 29, 79). A berm already at the base of west wall was "filled up." (I-T. 68).

9. The purpose of a berm, according to Inspector Ellis, is "to keep something from coming on down into the bottom of a pit or to block something out," or to keep people away from hazards (I-T. 91-92).

A berm installed to abate two previous citations was inadequate. (II-T. 38-39).

10. Mr. Ropchan indicated that ". . . considering the very narrow throat area down in the bottom, the condition of the walls was totally inadequate to allow people to work in the bottom of that pit." (II-T. 30).

11. See also Ropchan Report (Ex. P-12, pg. 1). Although Mr. Ropchan's inspection took place a week after the Ellis inspection, it is found that the passage of this relatively short period in terms of mining environment and conditions does not materially detract from the reliability or the probative value of Ropchan's observations, opinions, and conclusions.

12. See illustration, Ex. P-11.

13. Contrary to Cyprus's Contention (Cyprus's Brief, p. 17).

14. If benches, originally installed as part of a mining methodology, are not maintained and/or kept clean, and such lack of maintenance subsequently causes or contributes to a groundfall hazard, can it reasonably be said that benches are not "necessary" as that term is used in 30 C.F.R. 56.3130?

15. He indicated that when the design for Pushback 1 was put in place, it was never intended to go back on the benches to clean and scale (II-T. 146).

16. III-T. 32.

17. This is repeated in a summary of Mr. Savely's findings, Exhibit R-15. Therein, he reiterates his favorable view of the east wall's stability, indicates he saw no evidence of unsafe mining practices, and as to the west wall indicates:

The west wall below the Liberty fault had partial benches remaining. There were no signs of deep-seated large-scale movement or active failure. The talus on the slope was already at an angle of repose of 36 to 38, which is a stable condition. There was no significant active raveling occurring and because the slope is at angle of repose it is very difficult for rocks to begin to roll. Usually, for rocks to roll on angle of repose slopes they must have some significant energy input to give the rock momentum. This occurs when material is being dumped from above or when the slope is in active failure. Neither condition was present.

18. Dr. Call's testimony, en toto, seems to concede the hazard of rock fall, but gauges the probability of such happening and going beyond the berm as improbable. See also his testimony at III-T. 142-143. As with the opinion of Mr. Savely, this testimony has more probative value in terms of the "reasonable likelihood" aspect of S&S, rather than as to the occurrence of a violation.

19. Cleaning a bench which had "tension fractures" may not have been feasible (I-T. 152-153) due to inaccessibility. According to Mr. Breland, Cyprus used the "berm" abatement technique it employed to abate these two prior violations as part of its subsequent "routine mining practice." (I-T. 172).

20. This correspondence, like the two prior Citations and the CAV Notice, is of some consequence with respect to the issues of unwarrantability, culpability generally, and the question whether or not benches were necessary as part of Cyprus's mining methodology to maintain wall, bank, and slope stability.

21. The behavior and conversation of Cyprus's Superintendent and Safety Director on February 27, 1990, when advised of the violations doesn't indicate disagreement at that time with Inspector Ellis's determination.

The long-standing approach of Cyprus to the situation, beginning with the CAV inspection, through the two prior citations in 1989 and to the two subject violations, appears to have been an ignoring of the problem recognized and described by MSHA and discussed between MSHA and Cyprus.

22. This differs from the thrust of 30 C.F.R. 56.3200 (d-1 Citation No. 3459560) where the essence of the violations charged was existence of "ground conditions," i.e., "loose materials and rocks on highwalls" which created a hazard (of such falling on persons below). If the hazard--which MSHA attests was contributed to by full benches--is created, work or travel is not to be permitted until the condition is alleviated, and until this "corrective work" is completed, the area shall be posted--and . . . barricaded when unattended. (See I-T. 101-102). Notably, the the Citation charges that there existed "loose material and rocks on high walls," as well as full benches, as well as the admitted fact that the area was not posted or barricaded.

23. As above noted, Cyprus was cited for a similar violation of the same standard on June 1, 1989. (See Ex. P-19; I-T. 102-113, 114) which was not contested. (I-T. 191-192).

24. The process for analysis of vagueness challenges is well

illustrated in Secretary v. U.S. Steel Corporation, 5 MSHRC 3 (January 1983).

25. Compare Secretary v. Alabama By-Products Corp., 4 FMSHRC 2128 (December 1982).

26. Such contention is not made specifically in Cyprus's Brief.

27. It does not appear that Cyprus contends that building the benches initially was not necessary. Cyprus made no convincing showing that it had successfully employed some alternative method to accomplish wall and slope stability, i.e., effective to prevent the ground fall hazard. As noted elsewhere in this decision, there was evidence that rock and material was reaching the bottom of the pit, not just that it was "loose" on the wall. The presence of loose rock on the walls without adequate catch benches below would create a hazard and alone warrant the conclusion that "benching" (including the maintenance thereof) was "necessary."

28. It is noted that this violation of 3130 was simply a part, a component, of the larger 3200 violation for having a "ground condition" hazard which was not taken down, etc., in an area which was not posted or barricaded.

29. I have previously in this decision found the Secretary's position meritorious on the vagueness question.

30. The testimony of MSHA's primary witness, Inspector Ellis, did not directly deal with the "likelihood" question and was almost devoid of enlightenment as to the possibilities of the occurrence of the hazard.

31. Brief, pgs. 49-50.

32. Which by all accounts was the most hazardous of the four walls in Pushback 1.

33. See Exhibit P-1, 1st Ellis Modification of Order 3645243 dated 3-1-90.