FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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January 11, 2000

SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDING
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. LAKE 99-38-M
Petitioner	:	A. C. No. 11-00066-05536
v.	:	
	:	Thornton Quarry
MATERIAL SERVICE CORP.,	:	
Respondent	:	

DECISION

Appearances: Christine M. Kassak, Esq., Office of the Solicitor, U.S. Department of Labor, Chicago, Illinois, for the Petitioner;
Richard R. Elledge, Esq., Gould & Ratner, Chicago, Illinois, for the Respondent.

Before: Judge Feldman

Before me is a petition for assessment of a $35,000 civil penalty filed by the Secretary of Labor (the Secretary) against the respondent, Material Service Corporation (MSC), pursuant to section 110(a) of the Federal Mine Safety and Health Act of 1977 (the Act), 30 U.S.C. § 820(a). This matter concerns the August 18, 1997, fatality of Charles E. Street, a cartage driver employed by Jack Gray Transport, a contract haulage company servicing MSC's Thornton Quarry. The fatality occurred when the victim was buried and asphyxiated by the sloughage of limestone material after he had positioned himself on the base of a limestone stockpile, between the rear of his haulage truck and the stockpile. The hearing in this proceeding was conducted on September 28, 1999, in Chicago, Illinois. The parties' post-hearing briefs have been considered in this disposition.

The Secretary's petition seeks to impose a $35,000 civil penalty for Citation No. 7824527 that alleges a violation of the mandatory safety standard in section 56.9314, 30 C.F.R. § 56.9314. This mandatory standard provides that "[s]tockpile and muck pile faces shall be trimmed to prevent hazards to persons." For the reasons discussed below, the Secretary has failed to demonstrate, by a preponderance of the evidence, that the condition of the stockpile should have alerted MSC that it required trimming. Accordingly, Citation No. 7824527 shall be vacated.

I. **Findings of Fact**

a. The Stockpile

The Thornton Quarry, located in Cook County, Illinois, is a limestone quarry operated by MSC. The stockpile involved in this fatal accident contained Grade 8 material that was composed of a mixture of various sizes of crushed limestone, from ¾ inch particles to particles of sand. The site of the fatality was a very busy stockpile that was the most frequently used pile in the quarry. The stockpile was located in a lower level of the quarry, approximately 50 to 60 feet below street level. It was created, and constantly refilled, by material deposited off of a stacker conveyor that was located at a higher elevation. The conveyor system fed material onto the stockpile at a rate of 300 tons per hour (five tons per minute).

At the time of the August 18, 1997, accident, the subject stockpile was a "fresh pile" that was created the night before, after the stacker system had operated for approximately eight hours. On that day the stockpile had reached a height of approximately 75 feet. As the day progressed, the stacker continued to add material to the top of the stockpile. While the stacker continued to load material at the top, front-end loaders continued to remove material from the bottom of the stockpile in order to load material into haulage trucks. As the process of adding material to the top and removing material from the bottom continues, consistent with gravity, material continues to slough down the side of the stockpile throughout the day until, at any given moment, the material reaches its angle of repose.[1] In this regard, the Secretary's witness Joseph Molnar, a contract haulage truck driver who was familiar with the Thornton Quarry, testified that as material is loaded from the bottom, material from the top fills the void during a constant process wherein material "filters down all day." (Tr. 115-19). Consistent with Molnar's testimony, John Halloran, MSC's area manager, testified stockpiles continually slough and move as material is unloaded and replenished. (Tr. 270).

Stockpiles are frequently trimmed. Loader operator Michael O'Donnell estimated stockpiles are trimmed every other day. Area Manager John Halloran testified stockpiles are trimmed daily. The trimming occurs from the street level above, by using dozers to push material down when the stockpile becomes too high and the angle of repose becomes extreme. When necessary, dozers or loaders are used at the base of the stockpile to knock material down to fill hazardous voids that are created during the loading process. The Grade 8 stockpile had not been trimmed prior to the accident because it was a new stockpile that had been created the previous evening.

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[1] Stockpiles become unstable during loading and unloading. Sloughage (material falling down the side of the slope) occurs when a stockpile exceeds its angle of repose. A stockpile achieves its angle of repose when the pile reaches a state of relative equilibrium and the pile is at rest.

b. The Accident

At the time of the accident, Charles Street had already picked up and transported approximately 7 loads of crushed stone. The stone was transported and delivered to a construction site by utilizing spreader chains on the back of the truck bed. Spreader chains limit the opening in the truck bed to enable material to be spread , rather than dumped, at a site for purposes such as road bed construction. (Tr. 70).

At approximately 11:00 a.m., after Street's load was placed in his truck before he had driven off the Thornton Quarry premises, a MSC dispatcher was informed by a Jack Grey Transport dispatcher, that Street's last load had been canceled. The MSC dispatcher conveyed this information to Street who proceeded to drive back to the stockpile to unload.

Eyewitnesses told MSHA investigators that Street backed his truck into the base of the stockpile and raised his truck bed in an attempt to dump his load. However, the spreader chains prevented Street from dumping the load in a timely or efficient manner. MSHA accident investigator Fred Tisdale testified that, after Street had raised his truck bed:

> [Street]dropped his truck bed a little bit, went to the back of the truck, and unhooked the left or driver's-side spreader chain, crossed over [on the base of the stockpile] behind the truck, and was attempting to unhook the right spreader chains when the pile of material sloughed off and covered him up, trapping him behind the right-hand tandem wheel.

(Tr. 70-1; MSHA Accident Investigation Report, Gov. Ex. 6). Molnar testified the proper method of removing spreader chains is to remove them when the truck is a safe distance from the stockpile.

At the time of the August 18, 1997, accident, Michael O'Donnell, MSC's heavy equipment operator, was operating a loader for the purpose of filling haulage trucks at the Grade 8 stockpile. O'Donnell normally loads trucks on the driver's side. When the accident occurred O'Donnell was loading a truck driven by Joseph Molnar, operated by Brites Cartage, from the passenger side because Jack Gray Transport drivers, who were returning their loads, were parking on the driver's side of the trucks O'Donnell was loading. O'Donnell's loader was approximately 25 feet away from Street's truck. At the time O'Donnell finished loading Molnar's truck, O'Donnell noticed material behind Street's truck start to slide. But O'Donnell could not see Street because his view was obstructed by Molnar's truck. As Molnar was driving forward after receiving his load, O'Donnell could see Street being covered with material. O'Donnell testified that the amount of sliding "didn't look that big to [him]." (Tr. 169).

Molnar testified that, on August 18, 1997, the material at the Grade 8 stockpile was just normally filtering down "all day long," with the top filling the void at the bottom as trucks were loaded. (Tr. 115-16). Significantly, Molnar testified that as he looked at the stockpile through his rear view mirrors, he saw no unusual overhangs or other hazardous conditions. (*Id*.) Street drove his truck to the stockpile and backed it against the stockpile next to Molnar's truck. Molnar observed Street as Street left his truck and walked on the base of the stockpile behind the truck.

John Halloran, MSC's area manager, was working in the vicinity of the Grade 8 stockpile at the time of the accident. Halloran immediately went to the accident scene to assist in the rescue efforts. Halloran directed O'Donnell and another loader operator to use their loaders to remove material from the side and from the rear of the truck. While the loader operators were removing material, material that was being loaded from the stacker conveyor above continued to slide down the stockpile and cover the victim. It took several minutes to turn off the conveyor.

Although Halloran did not know the approximate weight of the fatal slide, Halloran testified the sloughage area was not extensive in that Street was extricated from the waist up to his face pretty quickly. However, Street could not be removed because his legs were caught between the rear passenger tires. Halloran tried mouth-to-mouth resuscitation but was unsuccessful.

With respect to the nature and extent of the slide, Halloran explained:

> . . . what I gathered from the two Brites drivers I talked to . . . [Street] was up on the top of the pile; and when it sloughed, it kind of took his feet and pushed him underneath the truck. Because if he stood straight up, he would never have got (sic) buried. But what happened is his feet, with the motion of the pile, he slid underneath, and then he tried to dive out. And then when he dove out, the pile just came down and buried him. . . . he probably went underneath the tires. Because we found his feet when we pulled the truck forward. We couldn't get him out by just pulling him. Because we tried to put ropes on him and just pull him out. We couldn't do it, so we pulled the truck forward and then got him out.

(Tr. 286-87).

c. <u>The Condition of the Stockpile</u>

MSHA accident investigators Fred Tisdale and Steven Richetta arrived at the Thornton Quarry accident scene several hours after the accident had occurred. Thus, Tisdale and Richetta did not observe the stockpile prior to the accident. Although Tisdale and Richetta speculated about possible overhangs that may have required trimming, neither testified that their accident investigation revealed the existence of any potentially abnormal or otherwise hazardous conditions immediately prior to the accident. As previously noted, neither Molnar nor O'Donnell observed any abnormal stockpile conditions before the accident.

Although Richetta testified that the extent of the sloughage led him to believe there was an overhang in the slope of the stockpile, the magnitude and location of the sloughage that caused the fatality was disturbed and redistributed during the recovery efforts. Moreover, normal portions of the stockpile had to be removed and stacked in order to remove the victim.

While the Secretary relies on remnants of material on the back of Street's tailgate measuring approximately 7 to 8 feet in height from ground level to support her hazardous overhang theory, examination of accident scene photographs reflects Street's truck was backed into the slope of the stockpile. (Gov. Exs. 2, 3). Thus, the location of residue lines on the tailgate, 8 feet above ground level, is of little evidentiary value with respect to demonstrating the significance of the sloughage.

Of greater significance is the slope of the angle of repose immediately prior to, and after, the accident. MSHA's accident investigation concluded:

> Measurements taken at the [accident] scene indicated the angle of the stockpile was approximately 37 degrees. It was estimated that the angle of this stockpile prior to the accident was approximately 39 degrees.

(Gov. Ex. 6, p.3).

Richetta testified the angles of repose before and after the accident were determined through trigonometric formulas utilizing measurements taken at the accident site and adjacent to the accident site. (Tr. 231). Richetta further testified that 39 degrees verses 37 degrees would not be a discernible difference. (Tr. 233). In fact, Richetta conceded a 39 degree angle of repose was not necessarily hazardous. (*Id.*). Both Tisdale and Richetta testified that, based on their observations of the condition of the stockpile after the accident, the stockpile was in compliance with section 56.9314 in that it did not have to be trimmed. (Tr. 95, 96, 104, 240, 323).

Based on Tisdale and Richetta's accident investigation, on September 11, 1997, Tisdale issued Citation No. 7824527 alleging a violation of section 56.9314. The Citation stated:

> On August 18, 1997, a contract truck driver was fatally injured when the grade eight stockpile sloughed, covering him as he was removing the spreader chains from his truck's tailgate. **He had backed the truck against the base of the approximately 75 foot high stockpile**, and had walked between the truck and the stockpile, when the stockpile sloughed. (Emphasis added).

To abate Citation No. 7824527, Tisdale required MSC to provide documentation that safety meetings were held with truck drivers at which times the fatal accident, and ways to prevent further injury, were discussed. MSC was also required to provide cartage drivers with handouts concerning rules of behavior on mine property. The citation was terminated on October 14, 1997. The abatement action did not involve trimming or otherwise altering the stockpile accident site.

d. Procedural History of Citation No. 7824527

Citation No. 7824527 issued on September 11, 1997, the subject of this proceeding, initially alleged a violation of the mandatory safety standard in section 56.9314 that requires that "[s]tockpile and muckpile faces shall be trimmed to avoid hazards to persons." On March 25, 1998, MSHA modified Citation No. 7824527 to substitute section 56.3439, 30 C.F.R. § 56.3430, as the mandatory safety standard violated. This safety standard specifies, in pertinent part, that "[p]ersons shall not work or travel between machinery or equipment and the highwall bank or bank where the machinery or equipment may hinder escape from falls or slides of the highwall or bank."

Subsequent to the modification, the Secretary apparently became concerned about the applicability of a stockpile to the terms "highwall" and/or "bank" contained in 30 C.F.R. § 56.3430. Accordingly, on August 9, 1999, the Secretary filed a motion to allow modification of Citation No. 7824527 to reinsert section 56.9314 as the mandatory standard allegedly violated instead of section 56.3430. The Secretary's motion was granted by Order dated August 25, 1999.

II. **Further Findings and Conclusions**

As a threshold matter, in appropriate circumstances, mandatory safety standards should be broadly interpreted so that they can be adaptable to a myriad of circumstances. *Kerr-McGee Corp.*, 3 FMSHRC 2496, 2497 (November 1981). I note the hazard associated with the inability to escape from unstable highwalls or banks addressed in section 56.3430 is identical to the hazard posed by the inability to escape from an unstable stockpile. However, in this matter, the Secretary has elected to attempt to establish a section 56.9314, rather than a section 56.3430, violation. Accordingly, the issue of whether the victim's position between the rear of his truck and the stockpile constitutes a violation of section 56.3430 is beyond the scope of this proceeding.

As already noted, section 56.9314 requires that "[s]tockpile and muckpile faces shall be trimmed to avoid hazards to persons." Put another way, section 56.9314 requires a mine operator to trim a stockpile when the operator has a reason to know that the stockpile is hazardous or unsafe. In deciding whether a condition is unsafe, the Commission has determined that "the alleged violative condition must be measured against the standard of whether a reasonably prudent person familiar with the factual circumstances surrounding the allegedly hazardous condition, including facts peculiar to the mining industry, would recognize a hazard requiring corrective action." *Alabama By-Products Corporation*, 4 FMSHRC 2121, 2129 (December 1982).

Thus, the issue for resolution is whether Material Service Corporation knew, or should have known, the stockpile was hazardous and required corrective action, *i.e.*, the angle of repose was too extreme and/or there was an overhang or other abnormal condition. In addressing this issue, sloughage, alone, is not evidence of a hazardous condition. Section 56.9314 does not repeal the law of gravity. When rock material is loaded from above by a stacker conveyor at a rate of five tons per minute, and removed from below by a front-end loader, obviously material will slide down the slope of the stockpile. Thus, the uncontroverted testimony, by both Secretary and MSC witnesses, is that sloughage is a normal and continuing process. (*See, e.g.*, tr. 124-29).

The first question, therefore, is whether the angle of repose was severe enough to alert MSC of a potential hazardous fall or slide. The evidence reflects the angle of repose prior to the accident was 39 degrees. The post-accident angle of repose in the vicinity of the accident was 37 degrees. MSHA investigator Richetta conceded there is no discernible difference between a 39 degree and 37 degree angle of repose. Moreover, Richetta admitted a 39 degree angle of repose was not necessarily hazardous. Both Tisdale and Richetta stated the 37 degree angle of repose after the accident complied with the provisions of section 56.9314 in that no trimming was required. Consistent with their testimony, MSHA did not require any trimming action to abate the citation. Consequently, the record does not reflect, nor does MSHA contend, that the angle of repose prior to the accident provided notice to MSC that trimming was necessary.

The second and more difficult question is whether there were any overhangs or other hazardous abnormalities that provided a basis for suspecting that remedial trimming action was appropriate "to avoid hazards to persons" as required by section 56.9314. It is not uncommon for the Secretary to establish the elements of a violation, *i.e.*, a hazardous overhang, by inference. *Mid-Continent Resources*, 6 FMSHRC 1132, 1138 (May 1984). However, there must be "a logical and rational connection between the evidentiary facts and the ultimate fact inferred." *Id.* Although Tisdale and Richetta admit the stockpile did not require trimming after the accident, they have no personal knowledge of the stockpile conditions prior to the accident. They infer there was a hazardous overhang based on what they believe was an extensive rock slide.

However, the accident scene was significantly altered to extricate the victim. Thus, piles of rock material removed by loaders from the side and rear of the truck, in an effort to reach the victim underneath the truck, are not necessarily evidence of a significant rock slide. Moreover, the residue sloughage on the rear of the tailgate likewise does not support the conclusion of a massive rock slide. Photographs of the accident scene reflect Street's truck was backed against the slope of the stockpile. (Gov. Exs. 1-3). The conclusion that Street backed his truck against the stockpile is consistent with the description of the accident in Citation No. 7824527, as well as MSHA's accident investigation report.[2] (Gov. Exs. 4, 6, p.4).

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[2] A photograph of the accident scene depicts the truck backed against the stockpile. (Gov. Ex. 2). The photograph reflects the position of the truck after it had been advanced several feet in an effort to free the victim.

Although, Tisdale and Richetta did not see the victim prior to his removal, MSC's manager, John Halloran participated in the recovery efforts. Halloran credibly testified that the fatality apparently occurred because the sloughage caused the victim to slide under the truck preventing his escape. With the victim in a prone position, confined to the area under the truck, it did not take a large amount of dislodged material to cause the fatality.

In concluding that the fatality was not caused by a large rock slide, I am not suggesting that the stockpile was stable immediately prior to the accident. To the contrary, given the loading from above at five tons per minute, and unloading from below, the stockpile was inherently unstable. However, it is significant that the Secretary does not argue that loading the top of the stockpile by stacker conveyor, at the same time material is being removed by loaders at the bottom, is a violation of any mandatory safety standard. In this regard, the Secretary responded:

> The Court: Ms. Kassak, let me ask you a question. How did the Mine Safety and Health Administration's abatement process prevent this accident, or prevent the sloughage from recurring if that was the problem, the loading at the top and - - by the stacker conveyor and the loading from the front-end loader at the bottom?
>
> Ms. Kassak: I don't believe we addressed that as a hazard your honor . . . .
>
> The Court: . . . the operator was not prevented from continuing that normal operation subsequent to the accident; is that correct?
>
> Ms. Kassak: I have to say that is correct . . . .

(Tr. 122-23).

Although the process of loading from above creates constant "filtering" or sloughage, in view of the limited nature and extent of the localized sloughage at the accident site, the evidence does not suggest an observable overhang that required trimming. In this regard, neither Molnar nor O'Donnell observed any abnormalities in the stockpile immediately prior to the accident.

In the final analysis, the possibility of drawing two inconsistent inferences from the evidence does not, alone, preclude the Secretary's overhang theory. *Id.*, *citing NLRB v. Nevada Consolidated Copper Corp.*, 316 U.S. 105, 106 (1942). However, the greater weight of the evidence, given the localized nature of the fatal sloughage behind the truck, the location of Street on the stockpile, the weight of Street's truck on the base of the stockpile, the weight of the material that may have been released when Street initially raised the truck bed before removing the spreader chains, and the lifting and lowering of the truck bed against the slope of the stockpile, leads to the conclusion that Street's position on the stockpile, as well as the contact of the stockpile with Street's truck and its material, substantially contributed to the dislodging of the material that resulted in this tragic accident.

Accordingly, the Secretary has failed to establish, by a preponderance of the evidence, that there was any observable hazardous stockpile condition prior to the accident that warranted remedial trimming. In reaching this conclusion, I have not addressed whether Material Service Corporation had a duty to prevent the exposure of cartage drivers to stockpiles, and, if so, whether Material Services Corporation satisfied its duty. Although there was testimony that signs were placed on mine property warning drivers to stay in their trucks, the adequacy of Material Service Corporation's efforts to address the disembarkment hazard that was the proximate cause of this fatality is not an issue in this case. (Tr. 262-63).

ORDER

In view of the above, Citation No. 7824527 **IS VACATED**. **ACCORDINGLY**, Docket No. LAKE 98-38-M **IS DISMISSED**.

Jerold Feldman
Administrative Law Judge

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