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United States of America
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
1924 Building - Room 2R90, 100 Alabama Street, SW
Atlanta, Georgia 30303-3104

Secretary of Labor, Complainant, v. Southern Pan Services Co., Respondent.	OSHRC Docket No. **08-0866**

Appearances:

Dane Steffenson, Esq., U. S. Department of Labor, Office of the Solicitor, Atlanta, Georgia
For Complainant

J. Larry Stine, Esq., and Mark Waschak, Esq., Wimberly, Lawson, Steckel, Schneider & Stine, P. C., Atlanta, Georgia
For Respondent

Before: Administrative Law Judge Ken S. Welsch

DECISION AND ORDER

Southern Pan Company (SP) is a concrete formwork contractor. General contractor Choate Construction Company subcontracted SP to install the shoring and formwork for a new six-story garage and adjacent condominium tower, known as the Berkman Plaza II project, in Jacksonville, Florida. On December 6, 2007, the garage collapsed as subcontractor A. A. Pittman and Sons poured the concrete for the sixth level roof. More than 20 workers were seriously injured, and SP employee Willie Edwards was killed.

Occupational Safety and Health Administration (OSHA) compliance officer Henry Miller conducted an inspection of the worksite after the collapse. As a result of the inspection, the Secretary issued serious and willful citations to SP on June 2, 2008. SP timely contested the citations.

Item 1 of citation no. 1 alleges a serious violation of 29 C. F. R. § 1926.21(b)(2), for failing to instruct each employee in the recognition and avoidance of unsafe conditions. Item 2 of citation no. 1 alleges a serious violation of 29 C. F. R. § 1926.703(b)(7), for subjecting shore heads and similar members to eccentric loading for which they had not been designed. The Secretary proposed a penalty of $ 2,500.00 for item 1 and $ 5,000.00 for item 2.

Item 1 of citation no. 2 alleges a willful violation of § 1926.701(a), for failing to determine, based on information received from a person who was qualified in structural design, that the structure or portion of the structure was capable of supporting the loads. Item 2 of citation no. 2 alleges a willful violation of 29 C. F. R. § 1926.703(a)(2) for failing to have drawings or plans available at the worksite. The Secretary proposed a penalty of $55,000.00 for item 1 and $ 70,000.00 for item 2.

The court held an eight day hearing in this matter, from May 18 to May 22, and from July 7 to July 9, 2009, in Jacksonville, Florida. The parties stipulated jurisdiction and coverage (Exh. J-A). Each party has filed a post-hearing brief.

SP denies the violations and contends the Secretary failed to present a *prima facie* case for each of the alleged violations. In its answer, SP asserted the affirmative defense of unpreventable employee misconduct. SP no longer asserts that defense (Exh. J-A, ¶ 23).

For the reasons discussed in this decision, the court vacates both items of citation no. 1, and item 1 of citation no. 2. The court affirms item 2 of citation no. 2, as willful, and assesses a penalty of $ 40,000.00.

Facts

The parties stipulated to a number of facts which are the primary source of the following facts, rearranged for narrative purposes (Exh. J-A):

SP's corporate headquarters are located in Lithonia, Georgia. Choate hired SP to install the shoring and formwork on the Berkman Plaza II project. The Berkman Plaza II project, located at 500 E. Bay Street in Jacksonville, Florida, consists of a 23-story condominium tower and a six-story parking garage. Both structures are constructed with poured-in-place (also referred to as "cast-in-place") concrete. Construction on the project began in January 2006.

SP began work on the project in March 2006. SP was responsible for obtaining shoring and reshoring drawings for both the garage and the tower, building the formwork, and placing the

concrete for some of the vertical pours. SP was not responsible for placing the concrete for the horizontal pours, which included Pour 6A (6th level, A section), the pour being made at the time of the collapse.

Various participants were involved in the development and construction of the Berkman Plaza II project. They include the following:

1. Berkman Plaza II, LLC

Berkman Plaza II, LLC (BPII), is the owner of the project. BPII hired the architect, Pucciano and English, and the general contractor, Choate. Under the Florida Building Code, BPII is responsible, as owner, for ensuring that structures pass threshold inspection before proceeding with safety-critical operations, as determined by state law (Exh. J-18).

2. Choate Construction Company

Choate is the general contractor on the project. Choate's project manage for the Berkman Plaza II project was Lawrence Gilbert. Choate hired the subcontractors, including SP, and the threshold inspector (Tr. 29).

3. Synergy Structural Engineering

Choate hired Synergy Structural Engineering to meet Florida's threshold inspection law. Synergy employed the threshold inspectors Eric Cannon and Tim Frazier (Tr. 94-95).

4. Pucciano and English

Pucciano and English is the architecture firm hired by BPII to create the design of the parking garage. Pucciano and English is responsible for the project manual and specifications, and for the general construction drawings. The firm hired the project's engineer, Soheil Rouhi (Tr. 35-36).

5. Soheil Rouhi

Soheil Rouhi is the engineer of record for the project. Rouhi prepared the structural drawings, and signed and sealed them. He drafted and/or approved the threshold inspection plan. Rouhi expected the threshold inspector to verify the inspected structure to comply with the approved plans and drawings, including the shoring and reshoring plans provided by Patent Engineering.

6. Patent Engineering

As the formwork contractor, SP hired Patent Engineering to provide its plans and drawings for shoring and reshoring on the project. Patent provided the only signed and sealed drawings for

the shoring and/or reshoring. The drawings consisted of ten pages, eight of which were full-size and the last two (pertaining to approval of replacing the aluminum beams with 4x4 wood beams) were on 8.5-inch by 11.5-inch sheets of paper. These drawings were available at the worksite. There were no other written plans or drawings pertaining to the shoring and/or reshoring for the garage. Patent's drawings included a typical reshore diagram that shows the garage to have shoring and/or reshoring to the ground.

7. Universal Engineering Sciences

SP hired Universal Engineering Sciences, a professional engineering firm, to inspect the shoring and reshoring to determine whether components were correctly constructed according to the plans prepared by Patent (Tr. 83).

8. A. A. Pittman and Sons

Choate hired A. A. Pittman and Sons, a concrete finishing company. Pittman and Choate were responsible for placing the horizontal pours, including Pour 6A. Pittman poured the concrete slabs in the garage at depths of 8 inches, 16 inches, and 20 inches (Exh. J-11). It poured slabs in the tower at depths of 8 or 9 inches (Tr. 371).

On October 22, 2007, SP, when placing shoring under the fifth level of the garage, began to remove some of the shoring and reshoring from the first level in the section where there were no 20-inch slabs. On October 26, 2007, SP removed some shoring and reshoring from the second level in the section where there were no 20-inch slabs. On November 19, 2007, SP started removing some of the shoring and reshoring between the ground and the third level (referred to as the "high bay area").

Pittman performed Pour 5A on November 7, 2007; Pour 5B on November 20; and Pour 6A on December 6. Pour 6A was for the sixth level roof of the garage. On December 6, at approximately 6:15 a.m., the parking garage from column line GA to column line GG (approximately 70% of the garage), collapsed to the ground ("pancaked") as the concrete was poured. SP employees Willie Edwards and Roland Hawkins were on the fifth level, below the pour,

ready to clean off any excess concrete. The collapse killed Edwards[1] and seriously injured Hawkins and other contractor employees.

OSHA's assistant area director Jeff Romeo and a compliance officer arrived at the site the day of the collapse. At that time, and for the next several days (the body of Edwards was not recovered for three days), only rescue personnel were allowed in the garage area. Compliance officer Henry Miller arrived at the site the following Monday or Tuesday. He was accompanied by Mohamed Ayub, OSHA's director of engineering. Miller and Ayub observed the collapsed area from a manlift on the north side of the garage. They took photographs of the collapsed area. Miller also conducted interviews and obtained documents from SP (Tr. 772).

As a result of the OSHA inspection, the serious and willful citations were issued to SP on June 2, 2008.

Citation No. 1

The Secretary has the burden of proving the violation by a preponderance of the evidence.

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

Atlantic Battery Co., 19 BNA OSHC 2131, 2138 (No. 90-1747, 1994).

Item 1: Alleged Serious Violation of § 1926.21(b)(2)

The citation alleges SP "did not instruct the laborers on how to read the plans and drawings to recognize hazards when removing reshores from a concrete structure." Section 1926.21(b)(2) provides:

> The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his

[1] By all accounts, Willie Edwards was a dependable, hard-working employee and a man devoted to his family. SP had recently given him a raise. SP superintendent James Smith stated, "Willie was the one man that would go with somebody else to make sure it got done, and we could rely on him to do that. He had become a very reliable employee" (Tr. 213). Hawkins testified Edwards was working the day of the collapse "so he could have a good Christmas for his children" (Tr. 625).

> work environment to control or eliminate any hazards or other exposure to illness or injury.

SP stipulated that § 1926.21(b)(2) applies to the work SP was performing at the worksite (Exh. J-A, ¶ 13). SP also stipulated it "did not instruct the laborers on how to read the plans and drawings" (Exh. J-A, ¶ 26). SP contends that the concrete formwork industry does not recognize the duty to instruct laborers in how to read plans and drawings. SP also contends any violation for failing to train Roland Hawkins is barred by the six-month statute of limitations for OSHA violations.

Section 1926.21(b)(2) requires an employer to "instruct its employees in the recognition and avoidance of those hazards of which a reasonably prudent employer would have been aware." *Pressure Concrete Constr. Co.*, 15 BNA OSHC 2011, 2015 (No. 90-2668, 1992). "An employer's instructions are adequate under § 1926.21(b)(2) if they are specific enough to advise employees of the hazards associated with their work and the ways to avoid them." *Model Continental Construction Co.*, 19 BNA OSHC 1760 (No. 00-1629, 2001).

Compliance officer Henry Miller testified he recommended the Secretary issue the citation based on his questioning of SP president Ken Dickey. Dickey told Miller he did not train SP laborers how to read plans and drawings. Miller did not research whether other formwork contractors train their employees in reading plans and drawings, and he did not know what the industry standard for training laborers in reading plans and drawings is (Tr. 953).

In determining the duty of a "reasonably prudent" employer,

> Reasonableness is an objective test which must be determined on the basis of evidence in the record. Industry standards and customs are not entirely determinative of reasonableness because there may be instances where a whole industry has been negligent . . . . However, such negligence on the part of a whole industry cannot be lightly presumed. *Diebold Inc. v. Marshall,* 585 F.2d 1327, 1336 (6th Cir. 1978). It must be proven.

Ray Evers Welding v. OSHRC, 625 F.2d 726, 732 (6th Cir. 1980).

Patrick Marchman, SP's safety director, testified it is not the construction industry's standard to teach laborers how to read plans and drawings (Tr. 1058). SP president Ken Dickey also stated it is not the industry standard (Tr. 1124).

Dr. Stanley Lindsey is a professor of environmental and civil engineering at Georgia Tech Savannah. He has a Ph.D. in Structural Engineering from Vanderbilt University (Exh. R-8). The court qualified Dr. Lindsey as an expert in structural engineering and cast-in-place concrete (Tr. 1222). Dr. Lindsey addressed the issue of training people in how to read plans and drawings:

> You know, at Tech, in order to familiarize a student to be able to really use Auto CAD, to read drawings and to do that sort of thing, we take them for two semesters and teach them the basis of engineering drawings and engineering calculations. And, to think that you're going to take a laborer out in the field and within ten hours or a week teach him how to read drawings, that's not going to happen. If you could, we certainly wouldn't be spending two semesters at Tech doing that. I'll tell you that right now. We have more important things to do (Tr. 1187).

The Secretary adduced no evidence establishing it is the formwork industry's standard to train laborers to read plans and drawings. Research on this issue failed to turn up a single case where the Secretary cited an employer for failing to train its laborers to read plans and drawings. Such training usually requires a certain degree of education and technical training that is beyond what an employer can reasonably be expected to provide to laborers. The Secretary has failed to establish § 1926.21(b)(2) requires employers to train their laborers to read plans and drawings.

Although the citation specifies SP's alleged violation is not instructing its laborers "on how to read the plans and drawings," the Secretary attempts to broaden the alleged violative conduct. In her post-hearing brief, she states, "SP violated this standard by not training its laborers *on all formwork standards and hazards applicable to their work*" (Secretary's brief, p. 14, emphasis added).

James Borders is OSHA's area director of the Jacksonville office (Tr. 843). When asked if OSHA was contending there is a recognized hazard for failing to train laborers to read plans and drawings, Borders replied:

> No, sir, not so much plans and drawings, but I think the intent here was that they should be familiar that they do exist and what is the purpose of those things. The employer does have an obligation, as the standard says, to educate their employees about what standards apply to their work. As you know, plans and drawings are very important to this type of work. I think the intention here was that the

> employer had an obligation to make sure that their laborers were aware that plans existed, that they had to be followed, they had to be approved and things of that nature (Tr. 866).

Later, Borders was asked if the Secretary cited SP for failing to train its laborers to read plans and drawings. Borders stated, "I believe the intent was more broader than that. But, yes, that's what the alleged violation description said, and it could have been written better than that" (Tr. 889).

In her post-hearing brief, the Secretary argues SP knew "that the basis of this training citation was that SP employees were not 'trained about the standards that apply to their work'" (Secretary's brief, p.15, footnote 10). The Secretary declined to amend the citation to allege SP failed to train its laborers on all formwork standards and hazards applicable to their work.

SP did not impliedly consent to try the broader issue of training laborers in all formwork standards and hazards. Indeed, SP expressly and repeatedly objected to broadening the scope of the citation (Tr. 279, 384, 627). Counsel for SP stated, "We've stipulated to the language in the citation that we had not trained our hourly employees on any of the blueprints and drawings. We want to preserve our objections that we're not trying this by consent, any other issue as to the training" (Tr. 277). An amendment under Rule 15(b)(2) of the Federal Rules of Civil Procedure "is proper only if two findings can be made-that the parties tried an unpleaded issue and that they consented to do so." *McWilliams Forge Co.*, 11 BNA OSHC 2128, 2129 (No. 80-5868,1984). The Secretary did not move to amend the citation to allege SP failed to train its laborers on all formwork standards, and the court declines to do so now *sua sponte*.

The Secretary has failed to establish a violation of § 1926.21(b)(2). Item 1 is vacated.[2]

Item 2: Alleged Serious Violation of § 1926.703(b)(7)

The citation alleges the wood blocks SP placed on top of the scaffold jack screw plates "were not plumb, exposing employees to a structural collapse hazard." Section 1926.703(b)(7) provides:

> Eccentric loads on shore heads and similar members shall be prohibited unless these members have been designed for such loading.

[2] Because the court finds the violative conduct alleged in item 1 is limited to training laborers in reading plans and drawings, SP's argument that its alleged failure to train Roland Hawkins is barred by OSHA's six-month statute of limitations is moot.

SP stipulates § 1926.703(b)(7) applies to the work it was doing at the Berkman Plaza II site (Exh. J-A, ¶ 13). SP argues the Secretary offered no evidence establishing the wood blocks were not plumb prior to the garage collapse.

Shoring is placed on the level that currently is being built. It is used to hold the formwork prior to pouring the concrete (Tr. 467). Reshoring is placed on the completed levels below the current level being built. Reshoring does not support the structure itself; its purpose is to carry the load of the wet concrete placed on the upper level (Tr. 1452).

SP's shoring consisted of frame scaffolds of different heights (3 feet, 6inches; 5 feet; and 6 feet) with screw jacks on top of each of the frame's four corners. Employees could adust the height of the screw jacks. On top of the screw jacks were shore heads, and on top of the shore heads were aluminum I-beams that supported 4"x4" laminates placed perpendicular to the I-beams. SP employees placed plywood on top of the laminates, onto which the concrete was poured (Tr. 238-239).

For SP's reshoring, employees would remove the plywood, the 4"x4" laminates, and the aluminum I-beams. They would replace these materials with "post-shore heads" (PSHs) or "post header extensions." These are 12- inch long 4"x4" wood blocks that employees placed either upright or lying flat on top of the shore heads. The employees would then adjust the screw jack so that the PSHs were snug up beneath the previously poured concrete levels (Tr. 270-272).

SP received most of its 4"x4" blocks from SP's yard in Atlanta, where they were cut with a table saw. The table saw made a single cut all the way through the wood, so that the cut surface was smooth and flat. SP superintendent James Smith testified his employees had to cut some 4"x4"s in the field, using a Skil saw. Smith explained the method for cutting with a Skil saw: "You take a speed square, mark it all the way around so you have a line, a pencil line, all the way around on square, cut it through, flip it over and cut it through following the line" (Tr. 274). Sometime this method left the cut surface uneven. Smith testified he discarded those blocks:

> There were a few of them like that on the job, but I would have those taken away. We wouldn't use them. [Labor foreman] Drew [Linderman] knew that we couldn't use those and would discard them to the side. If some of his laborers had used them, they would be swapped out and replaced with the correct ones
> . . . .

> If it was a sixteenth of an inch, I would let it go. If it's three-sixteenths of an inch, it got discarded (Tr. 275).

SP's employees would set aside the rejected 4"x4" blocks. The clean-up crew routinely ran late on this project, so the rejected blocks were not removed immediately: "Probably not at that particular moment, no. When the cleanup crew came through, then, yes. Anything lying down, 4"x4"s or any trash or material that had been cut, laying on a slab, then they would be discarded by the clean-up crew" (Tr. 275). Smith stated that not all of the wood blocks were used as PSHs. Some were used as "kickers" to keep the forms in place, some were used for bracing, and some were used for dunnage (Tr. 342-342).

The Secretary contends SP used some of these double-cut blocks as PSHs. Because the surfaces of these PSHs were uneven, the Secretary argues, they did not fit plumb on the shore heads, causing them to carry an eccentric load. The Secretary relies primarily on the testimony of three witnesses, John Czerepka, Roland Hawkins, and Mohamed Ayub, to establish SP violated the terms of § 1926.703(b)(7).

John Czerepka is a project engineer with Bracken Engineering (Tr. 462). After the garage collapse, Bracken was hired to "come up with a demolition protocol on how to take apart the collapsed debris and also the standing portion, and how to save evidence and documentation of that evidence. . . "(Tr. 463). Czerepka worked with other Bracken employees to remove reshoring from the structure on the east side of the garage (Tr. 466-467).

Bracken's employees removed the reshoring assemblies, marked them, and attached them to the scaffold frames with zip ties. Bracken then placed the units in a storage container (Tr. 468). Czerepka testified he uncovered hundreds, perhaps thousands, of 4"x4" wooden blocks in the rubble (Tr. 470). He retained approximately 20 of these blocks, chosen at random, as a representative sample of blocks on the site (Tr. 473).

Exhibit C-6 is a copy of a photograph showing eleven of the blocks, standing on their ends (Tr. 476). Czerepka brought two of the blocks to the hearing on May 20, 2009. Using a tape measure, Czerepka demonstrated a difference of ¼ inch on the surface of one block, and of c inch on the other (Tr. 485). Czerepka could not say that these two blocks, or the blocks shown in Exhibit C-6, were used as PSHs. He conceded the two blocks he brought in appeared to be waterlogged, indicating they were stored on the ground (Tr. 496).

Roland Hawkins was the SP's lead carpenter on the vertical crew for the garage. He began working for SP approximately four months before the collapse (Tr. 616). At the time of the collapse, Hawkins was standing next to Willie Edwards on the fifth level of the garage, "watching the forms for leakage or blowouts" (Tr. 617). Hawkins was seriously injured in the collapse.

Hawkins testified he observed some of the double cut 4"x4" blocks used by SP employees (Tr. 630-631): "I would say that there were uneven cut boards used as reshoring; not the majority of them, but maybe a small percentage, you know. It's just grab what you can and stick it in there and go." Hawkins worked on the leading edge at the top level of the structure most of the time, but he did occasionally help erect or dismantle reshoring. He also observed the reshoring on the lower levels as he walked up and down the ramps (Tr. 631, 635). He stated that, as he went up and down the ramps, he sometimes observed reshoring that was not plumb, "but not to the point where I was afraid to go to work" (Tr. 632). Hawkins was not questioned as to the date or dates he observed the PSHs that he thought were out of plumb.

Hawkins testimony regarding to the condition of the wooden blocks is not given weight because he did not identify the dates of his observations and his memory apparently has been affected by his injuries and treatment. He candidly discussed his personal problems and when asked if his memory had been affected since the collapse, Hawkins responded, "Absolutely, yes. . . . It doesn't have anything to do with my recollection" (Tr. 636-637, 664).

Superintendent Smith, carpenter foreman James Ferrell, and Synergy threshold inspector Eric Cannon all testified that the reshoring was constantly checked for plumbness. If any reshoring was found out of plumb, it would be corrected immediately (Tr. 340, 740, 1242).

Smith gave detailed testimony regarding the loads placed on the PSHs. He testified that the PSHs would on occasion come loose:

> If the slab above is being poured and they're vibrating from the concrete, hitting the deck from the pump, the vibrators themselves, and they were only snug tightening them by hand anyway, and there's no gauge saying how tight you had to have these or have them torqued down to a certain strength, there were occasions where there would be one or two here or there that would work themselves loose and you had to go back.
>
> You know, that was part of the inspection. You checked these things. This is part of why they had to go through and inspect these,

> to make sure. There were things like that that happened. It happens on every job (Tr. 338-339).

To ensure the PSHs were put back in plumb, Smith stated:

> I had one particular–I usually had one man and I would instruct Drew to send one man through, "Check all your reshore posts. Make sure they're plumb and make sure they're snug and tight." (Tr. 340).

Smith testified that as of December 5, 2007, the PSHs had been checked by Univesal and found to be plumb. To ensure the PSH's remain plumb, Smith testified:

> You go by and you grab it and if it don't move, it's good. If it moves, it's going to come out of plumb. I mean, it's real simple (Tr. 340).
>
> . . . .
>
> We used levels, torpedo levels, two-foot levels, check out our plumbness. Drew would tote–like I said, when he was with Universal walking through, he kept a torpedo in his pocket. If he had a question about something not being plumb, the torpedo level goes on it to find out (Tr. 341).

Ferrell corroborated Smith's account. He testified that he, Smith, and Linderman all participated in the walk-around inspection for Pour 6a. At that time, immediately before the December 6 pour, all the PSHs "were plumb and straight" (Tr. 1244).

The testimony of Smith and Ferrell specifically addresses the condition of the site "on or about December 6, 2007," as alleged in the citation. It is given more weight regarding the condition of the PSHs than Hawkins's testimony, because there is no indication of the date or dates Hawkins observed the PSHs out of plumb.

The Secretary adduced evidence it obtained after the collapse in an attempt to show the PSHs were eccentrically loaded before the collapse. Miller took photographs from the manlift of various

PSHs that appeared to him to be out of plumb (Exh. C-10).[3] The Secretary rejects any suggestion the garage collapse may have shaken the PSHs out of plumb. Ayub stated:

> This is not a seismic event. This is not a ground motion which relates to the whole event of acceleration, and vertical acceleration and the rotation of the building.
>
> Here, we are dealing with a collapse. A collapse has taken place, essentially five bays on the north, and there is damage done to three bays with the main collapse upward.
>
> That line of shoring which is very close to the fractured slab surface . . .there could be some distortion and some movement on the line of the shoring which is closest to where the fracture took place on the unfailed part.
>
> I was at the site, I observed the unfailed base. There was not rotation, there was no tilting. It was all standing plumb (Tr. 1570-1571).

Dr. Lindsey disagreed with Ayub's analysis. He testified, "[W]hen the structure collapsed, . . .what I would consider to be a large amount of force, and very difficult to calculate the exact quantity of, was exerted on the garage, and it caused the garage to move. And, in moving, it had the potential and probably the result of that movement, was to displace some of those 4"x4"s that were in place" (Tr. 1321-1322). He stated there is no scientific basis to say the PSHs were not plumb prior to the collapse (Tr. 1323). He also stated an engineer could not observe the conditions of the PSHs post-collapse "and make any viable conclusions about the status of those blocks prior to the collapse" (Tr. 1434).

Upon consideration of the evidence, the court concludes the Secretary has fallen short of proving it was more likely than not that PSHs were eccentrically loaded on or about December 6. The only eyewitness who stated he observed PSHs out of plumb (that were not corrected immediately) did not give a specific date for his observation. The record establishes SP checked the PSHs constantly and immediately corrected any that were out of plumb. The threshold inspector inspected the reshoring before the December 6 pour and found the PSHs to be plumb. Smith,

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[3] The Secretary also introduced a copy of a photograph taken "a few weeks" before the collapse by Tim Marlow, SP's superintendent for the tower (Exh. C-4), which the Secretary claims "unintentionally documented a PSH that was substantially off-center" (Secretary's brief, p. 27). Although the PSH does appear to be off-center, the distance and the angle from which the photograph was taken diminish the accuracy of a conclusive finding. In addition, the citation alleges PSHs were eccentrically loaded "on or about December 6, 2007." An out-of-plumb PSH observed "a few weeks" before that date falls outside the scope of the alleged violation.

Ferrell, and Linderman also inspected the reshoring prior to Pour 6A, and observed the PSHs were straight and plumb.

The evidence gathered post-collapse also fails to establish the PSHs were eccentrically loaded pre-collapse. There is no evidence the double cut 4"x4" blocks recovered by Czerepka were used as PSHs. Smith's testimony establishes the blocks could have been used as kickers, or bracing, or dunnage, or were discarded blocks set aside for the clean-up crew to collect. The photographs admitted as Exhibit C-10 are insufficient to establish the violation on two counts: first, it is not possible, based on the photographs, to prove the plumbness or out-of-plumbness of any of the PSHs. Second, even if the PSHs were conclusively established as being out-of-plumb, the Secretary cannot establish this condition did not result from the collapse itself. The court does not give weight to Ayub's opinion that the collapse could not have generated forces that would cause the PSHs to shift. Smith testified the PSHs would shift during concrete pours, due to vibrations from the pump and the vibrators (Tr. 338). Vibrations created by pouring concrete do not exert the force of vibrations created by the collapse of 70% of the parking garage. In the report Ayub submitted following his investigation, he states, "The collapse was massive . . ." (Exh. C-15). The enormity of the collapse, as amply demonstrated in the photographs, supports the expert opinion of Dr. Lindsey, who stated the collapse most likely caused the PSHs to move. Hawkins, the only witness who was actually in the garage at the time of the collapse, stated the collapse "was like being in a tornado of steel and concrete. It was like being in a hurricane of steel and concrete" (Tr. 666).

The Secretary has not established SP failed to comply with the terms of § 1926.703(b)(7). Item 2 is vacated.

Citation No. 2
Item 1: Alleged Willful Violation of § 1926.701(a)

The original citation alleged SP "did not have a qualified person determine if the formwork with the additional height added, would be capable of supporting the additional load of the wet concrete, exposing the employees to a structural collapse hazard." Upon the Secretary's motion (and over SP's objection), the court amended the citation to allege SP "did not determine, based on information received from a person who was qualified in structural design, the concrete garage structure or portion of the concrete garage structure was capable of supporting the weight of the wet

concrete for pour 6A, exposing employees to a structural collapse hazard." Section 1926.701(a) provides:

> No construction loads shall be placed on a concrete structure or portion of a concrete structure unless the employer determines, based on information received from a person who is qualified in structural design, that the structure is capable of supporting the load.

The parties stipulate the Secretary has not issued any interpretations of § 1926.701(a), other than the preamble to the final rule (Exh. J-A, ¶ 25). SP argues § 1926.701(a) does not apply to it because SP did not place the load of concrete on the structure.

In 1988, OSHA revised its regulations concerning concrete formwork in order to eliminate redundancies, ambiguities, and gaps resulting from prior regulations and the incorporation of ANSI standards, and to establish a clear set of operating principles for employers in the concrete construction industry. In the preamble to the final rule, the Secretary states:

> After carefully considering all the comments and testimony received, OSHA has decided to delete the requirement for the specified engineer-architect services. This decision is based on the comments and testimony received which indicates that engineer-architects frequently do not consider construction loads in the design, nor do they approve their placement on partially completed structures. However, OSHA believes that it is still important that someone be responsible for performing this service. Therefore, OSHA is requiring that the employer make the determination that the structure or portion of the structure is capable of supporting the construction loads. The employer must make this determination on the basis of information received from a person qualified in structural design. *This revision also places responsibility for employee safety with the person directly responsible for the concrete operations*.

Concrete and Masonry Construction Safety Standards, Final Rule, 53 FR 22612, 22617 (emphasis added) (Exh. J-20).

In this instance, the employers directly responsible for the concrete operation are Choate, the general contractor, and Pittman, the concrete finishing subcontractor. The Secretary concedes that Choate "would typically be responsible for making sure that a person qualified in structural design provided information upon which contractors could determine that it was safe to place construction loads on the structure being built" (Secretary's brief, p. 30). The Secretary argues, however, that

"SP agreed and was contractually obligated to perform this responsibility for Choate by being the contractor responsible for hiring the shoring engineer, who would provided the information upon which this determination could be made via the signed and sealed shoring and reshoring plans" (Id.).

The Secretary relies on paragraph 12 of Exhibit B of SP's subcontract with Choate to support her argument that the contract shifts the obligation of compliance with § 1926.701(a) from Choate to SP. Paragraph 12 states:

> Furnish, install, and maintains all necessary shoring and reshoring. Furnish all necessary shore and reshore inspections. Furnish shoring and reshoring drawings, sealed by engineer.

SP argues that the obligation to comply with § 1926.701(a) remained with Choate and Pittman, and further argues that the employers fulfilled that obligation when Choate hired Synergy as its threshold inspector.

The court agrees that SP was not responsible for the placement of the concrete load on the structure. The contents of paragraph 12 of the subcontract do not shift responsibility for the concrete operations to the formwork subcontractor. Paragraph 12 of the subcontract essentially paraphrases the requirements of § 1926.703(a)(1), with which SP is obligated to comply.[4]

The Secretary stipulated, "A. A. Pittman was the concrete finisher and along with Choate was responsible for placing the horizontal pours, including Pour 6A" (Exh. J-20 ¶ 9). With this stipulation, the Secretary has undercut her case that § 1926.701(a) applies to SP. The plain language of the standard indicates the employer placing the construction load is the employer to whom the standard applies. The preamble to the final rule further clarifies that the § 1926.701(a) applies to the employer "directly responsible for concrete operations." In the present case, that employer was not SP.

Item 1 of citation no. 2 is vacated.

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[4] Section 1926.703(a)(1) provides:

> Formwork shall be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork. Formwork which is designed, fabricated, erected, supported, braced and maintained in conformance with the Appendix to this section will be deemed to meet the requirements of this paragraph.

Item 2: Alleged Willful Violation of § 1926.703(a)(2)

The citation alleges SP "did not obtain a reshoring drawing, including all revisions, for the reshoring design method of using two levels of reshores, exposing employees to a structural collapse hazard."

Section 1926.703(a)(2) provides:

> Drawings or plans, including all revisions, for the jack layout, formwork (including shoring equipment), working decks, and scaffolds, shall be available at the jobsite.

SP stipulates § 1926.703(a)(2) applies to the work it was doing at the Berkman Plaza II site (Exh. J-A, ¶ 13). SP argues it had all existing plans and drawings available at the site. The dispute is whether SP was required to have a revised plan on site once it removed reshoring from the lower levels, which was contrary to the plans on site.

The stipulations pertinent to this issue are (Exh. J-A):

1. Southern Pan was responsible for obtaining shoring and reshoring drawings for both the garage and tower, building the formwork and placing the concrete for some of the vertical pours. (¶ 7)

2. Southern Pan hired Patent to provide it plans and drawings for shoring and reshoring. (¶ 14)

3. Patent provided the only signed and sealed drawings pertaining to the shoring and/or reshoring for the garage. These drawings consisted of 10 pages, eight of which were full-size and the last two (2) pertaining to approval of replacing the aluminum beams with 4x4 wood beams were on 8.5" by 11.5" sheets of paper. These drawings were available at the worksite. There were no other written plans or drawings pertaining to the shoring and/or reshoring for the garage. (¶ 15)

4. The Patent drawings included a typical reshore diagram that shows the garage to have shoring and/or reshoring to the ground. (¶ 16)

5. Southern Pan removed some of the shoring and reshoring from the first level in the non-20" section of the garage beginning on or about October 22, 2007. (¶ 17)

6. Southern Pan was removing some shoring and reshoring from the second level of the non-20" section of the garage on or about October 26, 2007. (¶ 18)

7. Southern Pan started removing some of the shoring and reshoring between the ground and the third floor, which is referred to as the high bay area, on or about November 19, 2007. (¶ 19)

8. Subsequent to the start of construction of garage, Southern Pan provided Choate multiple copies of the shoring plan described above, but Choate misplaced at least some of the copies. (¶ 22) (Exh. J-A)

Doug Rose is the Patent shoring engineer who designed the shoring and reshoring plans for SP (Tr. 110-112). He testified that for all of Patent's designs, all levels of a structure are shored and reshored ("to the ground") (Tr. 118). If SP decides not to shore to the ground, then a separate engineering firm (SP used Dansco when it requested revised plans for the tower) must calculate and create an new reshore plan to be signed and sealed. Patent does not create reshore plans that do not go to the ground (Tr. 122).[5]

Rose stated that reshoring could not be removed from the structure and still be in compliance with Patent's plans because "of Patent's policy, and that's the way it was designed" (Tr. 134). Rose testified Patent's plans called for the reshoring to be kept in place to the ground until "the end of the construction phase" (Tr. 142).

Tim Postma, SP's project manager, testified the Patent drawings that showed reshoring going to the ground were "what was intended to be used" (Tr. 546). Superintendent Smith recognized SP was required to follow Patent's plans (Tr. 242): "You don't deviate from the drawing sets that you have unless another engineer provides adequate, I guess, paperwork or plans to change things. You never deviate from the plans, the original things you got, until something else, a revision comes in."

Despite this recognition, Smith ordered his employees to remove reshoring from the lower levels of the garage, beginning on October 26, 2007. Smith testified he assumed Postma had requested Dansco to create a revised reshoring plan, in which, instead of reshoring to the ground, SP would shore the top level and only the two lower levels ("1-over-2" shoring) (Tr. 243).

Smith explained how his misunderstanding arose:

> There was a discussion among Tim Postma and Tim Marlow, the superintendent of the tower, and myself. His drawings, original drawings from

[5] When a structure is shored and reshored to the ground, it creates "a load path that would take the wet concrete to the ground" (Tr. 123). That way, the reshoring is carrying the weight of the wet concrete, rather than the structure itself. If reshoring is removed, the weight of the wet concrete is transferred to the structure (Tr. 124-125).

> Dansco, had got misplaced through the mail. There was a reordering process going on with Tim Postma.
>
> In discussing the drawings, I assumed he was doing mine at the same time because when he was speaking to us, I felt like he was speaking to both of us at the time and that my drawings were going to be with that second set of drawings for the tower as well when they came in.
>
> . . . .
>
> [T]hat's typical on every job. I mean, every job that we've done since I've been with Southern Pan, that was the typical procedure (Tr. 244).
>
> . . . .
>
> Patent's drawings always showed shoring or scaffolding to the ground, the ground all the way up, whether it's three stories or fifteen stories.
>
> And, it was typical procedure to have it recalibrated where you could use one floor of shoring and two floors reshoring, one over two. I had worked with high-rises. That was the typical standard thing that was done (Tr. 245).

Postma testified Smith should have checked Patent's plans that were available at the site before he removed the reshoring on the lower floors:

> Jim Smith should have looked at the drawings and, yes, if Jim Smith made a mistake and took something out he shouldn't have taken out, that was a mistake. And, that's the reason the other layer of Universal is there to catch those mistakes, and at that point, if the mistake was caught, the shoring would have been put back in place and we would have been back in accordance with the drawings that were on the site (Tr. 552).

Postma agreed that Smith was qualified to understand the need for shoring plans on site. He said "No, he's a qualified superintendent. I have every faith in him to have done exactly as he should have. It was a mistake."

SP contends it did not violate the terms of § 1926.703(a)(2) because Synergy, the threshold inspector, "by e-mail, secured the approval of Rouhi, the engineer of record, for the removal of reshoring from lower levels except for one area where Rouhi stated that the reshoring should be retained" (SP' brief, p. 35). This argument is rejected. Synergy emailed Rouhi *after* SP began removing the reshoring because Synergy wanted to clarify whether SP should be doing so

(Exh. J-7).[6] Furthermore, there is no evidence SP knew of the existence of this email prior to the collapse (Tr. 759-760).

SP also argues it was not required to have any plans in addition to the Patent plans already available on site. SP contends, somewhat confusingly, it was not required to provide "mental plans," (Tr. 942). It is perhaps best to quote SP verbatim on this point (SP's brief, p. 36, emphasis in original):

> Complainant's position appears to be that Southern Pan violated 29 C.F.R. § 1926.703(a)(2) not because all plans and drawings *in existence* were not available at the site, but rather because plans and drawings *that did not exist*–had not been created, but in OSHA's opinion should have been–were not available. Specifically, Complainant appears to be arguing that: (1) Patent's reshoring plans showed reshoring going all the way to the ground; that (2) Jim Smith was using the "1-over-2"standard industry practice method, so Jim Smith must have had a "mental plan" which would, in the Secretary's view, require him to stay on site at all times in order to have the "plan in his head" on site; that (3) Jim Smith had an obligation to revise the written plans to show removal of reshoring in order to allow him to leave the site as he did; and that (5) [sic] Smith's alleged failure to either remain on site, or in the alternative, create a drawing constitutes a willful violation of the standard. Such an interpretation impermissibly contorts the natural meaning of the words in the cited standard.

SP's argument is rejected. The Secretary is only arguing point (1) listed above, which is a fact stipulated to by both parties. The Secretary is not arguing Smith was required to stay on site at all times so that his "mental plan" was available, nor is she arguing Smith should have drawn up some plans himself. What she is arguing (and what Smith and Postma both understood at the hearing) is that SP needed to have revised shoring and reshoring plans on site before it began

[6] Rouhi's email was ambiguous. On August 31, 2007, Choate project manager Kirk Gilbert emailed Rouhi, seeking permission to proceed with construction despite two structural problems in two different bays in the garage. SP had installed extra reshoring to repair the problems. Rouhi responded, "As long as the shores stay in place I will not have any problem continuing the project." On October 30, 2007, Tim Frazier of Synergy emailed Rouhi after learning SP was removing reshoring: "They are beginning to remove shoring at the garage. Per your email below I just wanted to clarify that the areas you are requesting to stay shored all the way to the ground are only the bays where the repair is required, not the entire garage, correct?" Rouhi responded with one word, "Correct" (Exh. J-7). Rouhi testified he was not approving the removal of all of the reshoring on the lower levels, but rather advising Synergy that the additional reshoring should be kept in place in the two bays where there were structural problems (Exh. C-5a, pp.31-32)

removing the reshoring. Section 1926.703(a)(2) plainly states, "Drawings or plans, including *all revisions*" for shoring equipment must be available on site. Patent created a set of plans for SP, showing reshoring going all the way to the ground. SP decided to alter the way the reshoring was installed, which required a revised plan to be on site. Both Smith and Postma understood this. Smith stated, "You never deviate from the plans, the original things you got, until something else, a revision comes in" (Tr. 242). Postma conceded Smith made a mistake in removing the reshoring without a revised plan (Tr. 565): "We discuss [plans required to be on site] all the time. It's an ongoing discussion. It's an ongoing discussion even on my job sites with my superintendents when I'm on the job site. Always according to the drawings. The drawings that are on the site is the Bible of what you're going to go by."

The Secretary has established SP violated the terms of § 1926.703(a)(2). The requirement that all plans, including revisions, be present on site is not a mere technicality. Formwork is designed to transfer weight from the structure. Prematurely removing formwork without an engineer's revisions exposes employees to structural collapse. Without the correct plans on site, crucial information is missing.

SP had actual knowledge of the violation. Smith was the SP's superintendent for the garage. Smith admitted SP did not have a revised plan on site, and that he knew OSHA required it have one. Item 2 of citation no. 2 is affirmed.

Willful Classification

The Secretary classifies this violation as willful. A willful violation is one "committed with intentional, knowing or voluntary disregard for the requirements of the Act, or with plain indifference to employee safety." *Falcon Steel Co.*, 16 BNA OSHC 1179, 1181 (No. 89-2883, 1993). A showing of evil or malicious intent is not necessary to establish willfulness. A willful violation is differentiated from a nonwillful violation by an employer's heightened awareness of the illegality of the conduct or conditions and by a state of mind, *i.e.*, conscious disregard or plain indifference for the safety and health of employees. *General Motors Corp., Electro-Motive Div.*, 14 BNA OSHC 2064, 2068 (No. 82-630, 1991).

The court finds the Secretary has established SP's violation of § 1926.703(a)(2) was willful. Superintendent James Smith was responsible for removing the reshoring without having a revised plan on site. Smith admitted he knew he was not permitted to continue work if he did not have the

revised plans on site. Smith admitted he never saw any revised plans, yet he ordered the reshoring removed anyway (Tr. 247). "The hallmark of a willful violation is the employer's state of mind at the time of the violation- - an intentional, knowing, or voluntary disregard for the requirements of the Act or ... plain indifference to employee safety." *Kaspar Wine Works, Inc.*, 18 BNA OSHC 2178, 2181 (No. 90-2775, 2000) *aff'd* 268 F.2d 1123 (D.C. Cir. 2001). Smith's testimony demonstrates his state of mind at the time he ordered his employees to remove the reshoring . He knew he did not possess revised plans on site, he knew he was not supposed to deviate from the existing plans, and yet he did so. Smith knowingly disregarded the requirements of the standard.

Smith's claim he mistakenly assumed the revised plans were in the mail from Dansco, along with the replacement drawings for the tower is, rejected. Even if the plans were in the mail, Smith should not have removed the reshoring until the revised plans were on site. No one specifically told Smith that revised reshoring plans had been ordered or were in the mail. Smith's mistaken assumption does not show good faith.

A willful violation is not justified if an employer has made a good faith effort to comply with a standard or eliminate a hazard, even though the employer's efforts were not entirely effective or complete. *L.R. Willson and Sons, Inc.*, 17 BNA OSHC 2059, 2063 (No. 94-1546, 1997), *rev'd on other grounds*, 134 F.3d 1235 (4th Cir. 1998).

SP's contract with Universal Engineering Service to inspect the shoring/reshoring does not show good faith. The test of good faith for these purposes is an objective one; whether the employer's efforts were objectively reasonable even though they were not totally effective in eliminating the violative conditions. *Williams Enterp., Inc.*, 13 BNA OSHC 1249, 1256-57 (No. 85-355, 1987). SP cannot contract away its responsibility under the standard. Universal was never given the Patent plans and was only shown the shoring plans SP asked it to inspect. Greg Holtz was the project engineer for Universal (Tr. 398). He inspected the garage on December 4, 2007, in preparation for Pour 6A. Holtz testified he never saw reshoring plans, only the shoring plans (Tr. 408). Smith would verbally tell Holtz what he wanted Holtz to look at. Smith carried what were purported to be shoring plans. Holtz states, "[T]here was no need to bring out the plans. He had them rolled up and said, 'These are the plans' and he quickly rolled them back up" (Tr. 409). The inspections by Universal were not in accordance with the plans on site.

The violation is properly classified as willful.

Penalty Determination

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

The record does not disclose the size of the employer. The Secretary has previously cited SP for OSHA violations and therefore SP is not entitled to credit for history (Exh. C-11). The Secretary adduced no evidence of bad faith.

The gravity of the violation is high. The parties stipulated, "The Secretary does not allege that any of the alleged violative conditions in this case caused the collapse of the garage," (Exh. J-A, ¶ 24). However, had the reshoring been in place in accordance with the only reshoring plan on site, it may have lessened the damage caused by the collapse. A penalty of $ 40,000.00 is assessed.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

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

ORDER

Based upon the foregoing decision, it is ORDERED that:

1. Item 1 of citation no. 1, alleging a serious violation of § 1926.21(b)(2), is vacated, and no penalty is assessed;

2. Item 2 of citation no. 1, alleging a serious violation of § 1926.703(b)(7), is vacated, and no penalty is assessed;

3. Item 1 of citation no. 2, alleging a willful violation of § 1926.701(a), is vacated, and no penalty is assessed; and

4. Item 2 of citation no. 2, alleging a willful violation of § 1926.703(a)(2), is affirmed as willful, and a penalty of $40,000.00 is assessed.

\s\ Ken S. Welsch
KEN S. WELSCH
Administrative Law Judge

Date: March 8, 2010