



United States of America
**OCCUPATIONAL SAFETY AND HEALTH REVIEW
COMMISSION**

1120 20th Street, N.W., Ninth Floor
Washington, DC 20036-3457

SECRETARY OF LABOR,

Complainant,

v.

OSHRC Docket No. 11-1734

CALPINE CORPORATION, and its
successors

Respondent.

ON BRIEFS:

M. Patricia Smith, Solicitor; Joseph M. Woodward, Associate Solicitor; Heather Phillips, Counsel for Appellate Litigation; Scott Glabman, Senior Appellate Attorney; U.S. Department of Labor, Washington, D.C.

For the Complainant

Frank C. Botta, Esq.; Jeremy L.S. Samek, Esq.; Willis Siegfried, Esq.; Eckert Seamans Cherin & Mellott, LLC, Pittsburgh, PA

For the Respondent

DECISION

Before: MACDOUGALL, Chairman; ATTWOOD and SULLIVAN, Commissioners.

BY THE COMMISSION:

Calpine Corporation owns and operates a power generating plant in Bethlehem, Pennsylvania known as the Bethlehem Energy Center (BEC). Following an incident in which an employee fell to his death, OSHA inspected the BEC and issued Calpine a one-item serious citation with a proposed penalty of \$7,000. As amended, the citation alleges that Calpine violated 29

C.F.R. § 1910.23(a)(7), which requires that “[e]very temporary floor opening . . . have standard railings, or . . . be constantly attended by someone[.]”¹

Administrative Law Judge Dennis L. Phillips vacated the citation, finding that no Calpine employees were exposed to the violative condition. For the following reasons, we reverse the judge and affirm the citation.

BACKGROUND

At the time of the incident, Calpine had contracted with Siemens Energy, Inc. to perform a maintenance overhaul of several turbines at the BEC, including a turbine referred to as CT-6. During the overhaul, Siemens disassembled and then reassembled CT-6, which contains two combustion chambers with an upper platform surrounding each chamber that connects via a catwalk. The platform is slightly more than seventeen feet above the concrete floor of the building and accessible using either of two ladders—one for the east chamber and one for the west chamber. To work on CT-6, Siemens had to remove grates from sections of the platform, creating several openings.

On December 20, 2010, Calpine’s operations manager, Thomas Narkin, issued a work order that instructed the Calpine maintenance employees working the night shift to “install [a] new spark rod . . . in CT-6 where one was ‘borrowed’ for [another turbine] this past weekend.” The task, which could be performed by any one of the night shift’s four maintenance employees, required accessing the upper platform, as the spark rod needed to be installed near the top of CT-6 in the east chamber. During the night shift that began the evening of December 20, at approximately 4:30 a.m. on December 21, a Calpine lead maintenance operator (LMO), Timothy Lewis, entered the building that housed CT-6 using its southwest access door, intending to replace the spark rod.² After Lewis entered the building and looked up from the ground level, he noticed the openings in the platform and decided that the task “wasn’t safe to do.”

¹ Subsequent to the issuance of the citation, OSHA promulgated a revised final rule for fall protection in general industry. *See* 81 Fed. Reg. 82,494 (Nov. 18, 2016) (Walking-Working Surfaces and Personal Protective Equipment (Fall Protection Systems)). Under the revised rule, there is no separate requirement for “temporary” floor openings; in addition, the standard permits the use of covers, travel restraint systems, or personal fall protection instead of guardrails. 29 C.F.R. § 1910.28(b)(3)(i).

² Calpine’s night shift ran from 6:00 p.m. to 6:00 a.m. For each night shift, Calpine assigned an LMO to serve as a supervisor and three operator maintenance technicians to perform work.

On the night shift that began the evening of December 21, Narkin listed the replacement task on a work order for the second time. He then left the work order and replacement part in the control room, which is located on the west side of CT-6. The work order did not mention that the upper platform contained openings.³ The platform opening at issue was “pretty close to” the west chamber ladder and had neither railings nor an attendant.

During that night shift, sometime after 3:30 a.m. on December 22, another Calpine LMO entered the CT-6 building with work gloves on and the replacement part in his pocket, but without the tools required for the replacement task. No one saw what occurred after he entered the building. His co-workers found him around 5:30 a.m. on the concrete floor near the base of the west chamber ladder. He suffered fatal head and neck injuries as a result of a fall.⁴

DISCUSSION

To establish a violation, “the Secretary must show by a preponderance of the evidence that: (1) the cited standard applies; (2) there was a failure to comply with the cited standard; (3) employees had access to the violative condition; and (4) the cited employer either knew or could have known of the condition with the exercise of reasonable diligence.” *Astra Pharma. Prods.*, 9 BNA OSHC 2126, 2129 (No. 78-6247, 1981), *aff’d in relevant part*, 681 F.2d 169 (1st Cir. 1982).

On review, Calpine argues that § 1910.23(a)(7) does not apply here because “personal fall protection was always worn by [its] employees.” By the standard’s own terms, however, applicability is not conditioned on the absence of personal fall protection. Rather, the standard applies whenever there is a “temporary floor opening”; so, the Secretary’s burden to establish applicability is met when he shows that such an opening existed. *See* § 1910.23(a)(7) (“Every temporary floor opening shall have standard railings, or shall be constantly attended by

³ Although the platform contained a total of four openings, the amended citation only alleges that an opening located close to the west chamber’s access ladder was violative.

⁴ Neither the coroner nor a forensic pathologist, both of whom testified, could determine the precise location from which the decedent fell, although both agreed it was not likely that he fell through an opening in the upper platform. The pathologist stated that he had not been asked to determine from where the decedent fell and thus did not include it in his report. However, after reviewing information provided by Calpine, he came to believe that the decedent fell from somewhere near the ladder that led from the ground floor to a lower platform.

someone.”). Here, Calpine has not disputed the Secretary’s contention that the cited platform opening fits within the standard’s definition of floor opening or that the opening was temporary.⁵

As to noncompliance, the use of an abatement measure that differs from that specified by a standard is not a defense. *See, e.g., S.A. Storer and Sons Co. v. Sec’y of Labor*, 360 F.3d 1363, 1372 (D.C. Cir. 2004) (finding controlled access zone was not acceptable means of fall protection under cited fall protection provision and that argument ignored “plain language of the applicable regulations”). Calpine neither disputes testimony from both COs that the cited platform opening lacked railings nor claims that the opening was constantly attended. Therefore, we find that the Secretary has established both applicability and noncompliance.

A. Exposure

To establish exposure, the Secretary must show that an employee was actually exposed to the cited condition or that access to the cited condition was reasonably predictable. *Phoenix Roofing Inc.*, 17 BNA OSHC 1076, 1079 (No. 90-2148, 1995), *aff’d*, 79 F.3d 1146 (5th Cir. 1996) (unpublished). As to actual exposure, the judge found that there was insufficient evidence that the decedent fell through the cited opening. On review, the Secretary makes no claim that the decedent or any other Calpine employee was actually exposed to the hazard posed by the unguarded opening;⁶ so we examine only whether exposure to the violative condition was reasonably predictable.⁷

⁵ The standard defines a floor opening as “[a]n opening [that] measures 12 inches or more in its least dimension in any floor, platform, pavement, or yard through which persons may fall; such as a hatchway, stair or ladder opening, pit, or large manhole.” 29 C.F.R. §§ 1910.23(a)(7), 1910.21(a)(2) (definition of floor opening). The coroner estimated that the cited opening was about 32 inches long on its right and left sides and that it was sufficiently large for a person to fall through. Narkin testified that the openings were not present under normal operating conditions, and it is undisputed that they had been created during the overhaul project.

⁶ Since the Secretary does not rely upon actual exposure, the cause of the employee’s death—whether he fell through the cited platform opening or from a ladder—is not relevant and need not be resolved by the Commission. *See Boeing Co.*, 5 BNA OSHC 2014, 2016 (No. 12879, 1977) (finding of a violation does not depend on the cause of the particular accident that led to the case); *Concrete Constr. Corp.*, 4 BNA OSHC 1133, 1135 (No. 2490, 1976) (“The Act may be violated even though no injuries have occurred, and even though a particular instance of noncompliance was not the cause of injuries.”); *Kansas City Power & Light Co.*, 10 BNA OSHC 1417, 1422 (No. 76-5255, 1982) (“Indeed, both the judge and Respondent improperly define the hazard at issue in terms of the asserted cause of the specific incident that led to injury . . .”).

⁷ In finding that exposure was not reasonably predictable, the judge relied on numerous factors that have no bearing on an exposure analysis. These factors include: (1) the low priority of the

Reasonably predictable exposure is established by proving that “either by operational necessity or otherwise (including inadvertence) . . . employees have been, are, or will be in the zone of danger.” *Nuprecon LP*, 23 BNA OSHC 1817, 1819 (No. 08-1307, 2012) (citations omitted). Employees may come within the zone of danger “while in the course of assigned working duties, personal comfort activities while on the job or their normal means of ingress-egress to their assigned workplaces.” *Gilles & Cotting, Inc.*, 3 BNA OSHC 2002, 2003 (No. 504, 1976); *Donovan v. Adams Steel Erection, Inc.*, 766 F.2d 804, 812 (3d Cir. 1985) (“ ‘access,’ not exposure to danger is the proper test”). The Secretary need not show it was certain that employees would be in the zone of danger, but he must show that exposure was more than theoretically possible. *Fabricated Metal Prods., Inc.* 18 BNA OSHC 1072, 1074 (No. 93-1853, 1997); *Phoenix Roofing*, 17 BNA OSHC at 1079; *Kaspar Wire Works, Inc.*, 18 BNA OSHC 2178, 2195 (No. 90-2775, 2000) (finding that it was “ ‘reasonably predictable’ that an employee would come into contact with the unguarded belt and pulley either while attempting to reposition the fan, or inadvertently while passing nearby”), *aff’d*, 268 F.3d 1123 (D.C. Cir. 2001).

To make this showing, the Secretary argues that it was reasonably predictable Calpine employees would be exposed to the platform opening at issue based on Narkin’s continuing work order to install the spark rod near the top of CT-6. We agree. It is undisputed that this assigned task required going on the upper platform containing the cited opening. The platform was not complete on December 20, when Narkin initially assigned the task, or on December 21, when he again assigned the task.

In addition, as the Secretary argues, there was an established “nexus between the unguarded platform opening and the likely movements of employees assigned the task of replacing the spark

assigned replacement task; (2) the conditional nature of the authorization to do the task; (3) Calpine’s training of employees to conduct safety assessments; (4) the decedent’s good safety record; and (5) the obviousness of the hazard. The alleged low priority of the assigned task is irrelevant because it was included on the work order and employees were expected to complete the task during the shift for which it was first assigned, if time permitted. Any task not completed during a night shift would typically be rolled over to the next night shift’s work order until it was completed, which is what happened here with the assigned replacement task.

The remaining factors address the extent to which Calpine was entitled to rely on its employees to comply with its instructions and avoid engaging in violative conduct. However, such factors would relate to the affirmative defense of unpreventable employee misconduct, but not to exposure. In any event, these factors are moot given that, as discussed below, other considerations are dispositive of the affirmative defense alleged by Calpine.

rod.” Calpine does not dispute the Secretary’s claim that the cited opening was located “within a few feet of” and “closely adjacent” to the west chamber ladder.⁸ Two photographs in the record, along with testimony from one of the COs, confirm that the opening was immediately adjacent to this ladder, which had a hinged gate that allowed entrance onto the platform. The control room, where the work order and replacement spark rod were located, was also on the west side of CT-6.

Although the work order did not specify that the spark rod needed to be installed in the east chamber, the record shows that use of the west chamber ladder was part of a reasonably foreseeable route to where the task needed to be performed.⁹ Because a platform surrounded each chamber and they were connected via a catwalk, the east chamber was accessible via the west chamber ladder. Three employees testified that, given that the spark rod and work order had been placed in the control room to the west of CT-6, the most likely route an employee performing the task would take after retrieving the replacement part would be to enter the building through the southwest access door closest to the west chamber ladder, just as Lewis had done. Indeed, Lewis explained that this was the “easiest” door to use because it provided ground-level access and avoided the need to use a vertical ladder while carrying tools or “hav[ing] to circle around and go into the . . . east side of the building” and “go down some stairs.” As Lutz described it, this route was the “path of least resistance.”

Given that the west chamber ladder was closest to the southwest access door into the CT-6 building, we find that it was likely an employee performing the replacement task would use that ladder to reach the platform around the west chamber and use the catwalk to cross over to the east chamber platform. We also find that because the west chamber ladder was immediately adjacent to the cited platform opening, it was reasonably predictable that any employee carrying out the assigned task would enter the zone of danger posed by the unguarded opening. *Nuprecon*, 23 BNA

⁸ There is no measurement of this distance in the record.

⁹ The record shows that some employees either knew or thought that the replacement spark rod was for the east chamber, but at least one did not. LMO William Varga stated that he knew the spark rod had been taken from the east chamber, but he did not know which burner. LMO Raymond Lutz testified that he was “pretty certain,” based on a conversation he had with the decedent, that it was the decedent who had removed the spark rod. Lutz identified the approximate location of where the spark rod was to be installed in the east chamber, but it is not clear how or when he learned of the location. Lewis testified, however, that he did not know where the spark rod needed to be installed; so, he would have had to walk around and look at each burner until he located the one with a spark rod missing.

OSHC at 1818-19 (finding exposure where it was reasonably predictable employee would come within six feet of edge); *Phoenix Roofing*, 17 BNA OSHC at 1079 (“about 12 feet” from unguarded skylights); *Dic-Underhill*, 8 BNA OSHC 2223, 2229-30 (No. 10798, 1980) (twenty-five or more feet from an unguarded edge, working towards that edge); *Cornell & Co.*, 5 BNA OSHC 1736, 1738 (No. 8721, 1977) (ten feet from an elevator shaft).¹⁰

In sum, we find that Calpine assigned its employees to complete a task that would bring them into the “zone of danger” posed by the unguarded platform opening. Accordingly, we conclude the judge erred in determining that the Secretary failed to establish exposure as the record shows it was reasonably predictable that Calpine employees would have access to the hazard.

B. Knowledge

To establish knowledge, the Secretary must show that the employer knew or with the exercise of reasonable diligence could have known of a hazardous condition. *Kerns Bros. Tree Serv.*, 18 BNA OSHC 2064, 2067 (No. 96-1719, 2000). A supervisor’s knowledge of the violative condition is imputable to the employer. *Tampa Shipyards, Inc.*, 15 BNA OSHC 1533, 1539 (No. 86-360 & 86-469, 1992) (consolidated). Here, the Secretary sought to establish both actual and constructive knowledge of the unguarded platform opening. As to actual knowledge, the Secretary claims that five Calpine supervisors knew the platform opening was unguarded on December 21,

¹⁰ We disagree with the judge’s conclusion that this case is distinguishable from *Nuprecon* and *Lancaster Enters. d/b/a Orbit Roofing*, 19 BNA OSHC 1033, 1037 (No. 97-0771, 2000). He read those cases as involving employees who had actually entered the zone of danger, but in fact the Commission found only that it was *reasonably foreseeable* the employees in both cases would enter the zone of danger; not that they actually did. See *Nuprecon*, 23 BNA OSHC at 1820 (finding it reasonably predictable that an employee on a lift would dismount the lift and work in the zone of danger); *Lancaster*, 19 BNA OSHC at 1037 (“The use of the hatchway to get to and from the roof made it reasonably predictable that an employee would enter the zone of danger presented by the unguarded glass skylight.”). Similarly, Calpine assigned a task to its employees that would have brought any one of them immediately adjacent to an unguarded opening. That a Calpine employee was not shown to have actually entered the zone of danger does not alter the fact that it was reasonably predictable, by virtue of the assigned task, that an employee would have entered the zone of danger to complete the task. See *Pete Miller, Inc.*, 19 BNA OSHC 1257, 1258 (No. 99-947, 2000) (even if employee “never [got] closer than eight feet from the edge” of a roof, it was reasonably foreseeable that he would enter danger zone due to nature of work).

the day before the accident. The judge agreed, finding that all five supervisors had actual knowledge of the violative condition and that their knowledge was imputable to Calpine.

We agree with the judge. Five Calpine supervisors knew of the opening on December 21—Roy Killgore, Raymond Rice, Lewis, Lutz, and Narkin.¹¹ Killgore and Rice oversaw Siemens' work during the overhaul and were in the CT-6 building on a daily basis. They both reviewed a report from Siemens on December 21 that indicated that Siemens had not finished replacing the platform grates as of 5:00 p.m. that day. After Lewis saw the unguarded platform opening when he entered the CT-6 building on the morning of December 21 to install the spark rod, he communicated his observation to Lutz, who acknowledged in his testimony knowing about the opening.

In addition, Lewis testified that he informed Narkin about the unguarded opening and Lutz's testimony corroborates this: "I think [Narkin] was there when [Lewis] told me, because I kind of remember having a long conversation—a longer conversation than just a two second blurb about it." Narkin, however, testified that he was not told about the opening. The judge credited Lewis and Lutz on this issue—specifically, he found that Narkin's denial was a "convenient explanation for his inaction in not removing the spark rod replacement task from the night order or warning the deceased" of the opening, citing Narkin's "defensive and unpersuasive" demeanor in testifying about this issue. We defer to the judge's demeanor-based credibility finding and conclude that Narkin was also aware of the opening. *See E.R. Zeiler Excavating Inc.*, 24 BNA OSHC 2050, 2057 (No. 10-0610, 2014) (appropriate for Commission to defer to judge's demeanor-based credibility finding).

Calpine does not dispute that it had actual knowledge on December 21, but it argues that its supervisors lacked knowledge of the violative condition during what it asserts is the two-hour time period relevant to the citation—between approximately 3:30 a.m. and 5:30 a.m. on December 22. According to Calpine, (1) the supervisors who knew of the condition on December 21 were

¹¹ Calpine does not challenge the judge's finding that these five individuals were supervisors. *See Diamond Installations, Inc.*, 21 BNA OSHC 1688, 1690 (No. 02-2080, 2006) (supervisory status turns on the delegation of authority, not the title of the employee); *Jersey Steel Erectors*, 16 BNA OSHC 1162, 1164 (No. 90-1307, 1993) (knowledge of a foreman or supervisor can be imputed), *aff'd*, 19 F.3d 643 (3d Cir. 1994). Nor does Calpine dispute the judge's decision to treat Killgore and Rice—engineers employed by a Calpine affiliate that the judge found operated as a single entity with Calpine—as Calpine employees.

no longer present at the BEC on December 22; (2) conditions in the CT-6 building were constantly changing; (3) it was entitled to rely on Siemens' representation that it expected to reinstall the grates to cover the platform openings during its own night shift, which ran from 5:00 p.m. to 3:30 a.m.; and (4) it could not have determined the condition of the platform until after Siemens' night shift concluded because "[t]here were no non-Siemens' employees present between the time they ended their shift and the time that [the decedent] entered the CT-6 building shortly thereafter."

Contrary to Calpine's claim, the parties tried the case on the conditions that existed during the Calpine night shift that began on December 21 and continued through the morning of December 22. This is consistent with the citation, which asserts that the violative condition existed "on or about December 22, 2010." Moreover, even if the period of the alleged violation was limited to the two-hour period as Calpine alleges, the Secretary has nonetheless established the company's actual knowledge of the violation. Calpine's five supervisors knew of the opening on December 21, and their absence in the early morning hours of December 22, when the cited opening still existed, does not magically erase that knowledge. *See Caterpillar, Inc.*, 17 BNA OSHC 1731, 1732 (No. 93-373, 1996) (termination of a supervisory employee's employment prior to the time of the cited condition did not vitiate the departed supervisor's knowledge of a previous occurrence of the same condition) (citing cases and Restatement (Second) of Agency), *aff'd*, 122 F.3d 437 (7th Cir. 1997).

Calpine's other arguments—that it lacked knowledge because conditions were changing, that Siemens had represented that it expected to reinstall the missing grates, and that there were no "non-Siemens' employees" (i.e., supervisors under Calpine's control) in the CT-6 building during the two-hour window—are misplaced. Each of these assertions address whether Calpine, "with the exercise of reasonable diligence, could have known of the presence of the violative condition"—in other words, whether in light of these alleged facts it was unreasonable to expect Calpine to have learned of the opening. *Pride Oil Well Serv.*, 15 BNA OSHC 1809, 1814 (No. 87-692, 1992); *see also Astra Pharm. Prods., Inc.*, 9 BNA OSHC at 2129. Defending against a finding of actual knowledge by making arguments relevant to constructive knowledge is inconsistent with Commission precedent: the Secretary meets his knowledge burden when he shows actual *or* constructive knowledge—he need not establish both. *See, e.g., Tampa Shipyards, Inc.*, 15 BNA OSHC at 1537-39 (Secretary established knowledge by showing actual knowledge of supervisors).

Therefore, we find that Calpine had actual knowledge of the unguarded platform opening on December 21.

Calpine's arguments are not even meritorious when construed as a challenge to constructive knowledge. Regardless of whether conditions in the BEC were "constantly changing," Calpine had an obligation to "inspect the [work] area to determine *what hazards exist or may arise* during the work before permitting employees to work in an area, and the employer must then give specific and appropriate instructions to prevent exposure to unsafe conditions." *Automatic Sprinkler Corp. of Am.*, 8 BNA OSHC 1384, 1387 (No. 76-5089, 1980) (emphasis added). *See also Pride Oil Well Serv.*, 15 BNA OSHC at 1814 (employer required to "inspect the work area, to anticipate hazards to which employees may be exposed, and to take measures to prevent the occurrence") (internal citations omitted). Despite knowing of the unguarded opening on December 21, none of the Calpine supervisors handed off that information, such as through written instructions in the work orders. *See Wiley Organics, Inc. d/b/a Organic Tech.*, 17 BNA OSHC 1586, 1597 (No. 91-3275, 1996), *aff'd*, 124 F.3d 201 (6th Cir. 1997) ("An employer has a general obligation to inform itself of the hazards present at the worksite and cannot claim lack of knowledge resulting from its own failure to make use of the sources of information readily available to it.") (citations omitted).

As to Siemens' representation that it expected to reinstall the missing platform grates during its day shift on December 21, the record shows that this work was in fact not completed during that shift and was instead carried over to the next Siemens shift, as reflected on the turnover report. Rice explained that Siemens' turnover reports were "general reports, I mean we throw a bunch of stuff out there and you get what you can. And then you roll it over to the next shift." As such, Calpine knew that on prior occasions, not all planned work was completed during a designated Siemens shift. In addition, Rice and Killgore testified that there was a significant amount of work Siemens needed to do during the overhaul, noting that "[i]t's pretty hectic" and various things, including an approaching storm on December 21, could affect the progress of Siemens' work schedule. Indeed, when Rice left the building around 2:00 a.m. on December 22, it was readily apparent that not all of the platform grates had been put back. As the Siemens crew was cleaning up rather than continuing to work at that point, he would have had no reason to think that they would complete that work before the end of their shift.

For all of these reasons, we find that the Secretary established that Calpine had both actual and constructive knowledge of the violative condition.

C. Unpreventable Employee Misconduct (UEM) Defense

To establish that a violation was the result of UEM, an employer is required to show that it: “(1) established work rules designed to prevent the violative conditions from occurring; (2) adequately communicated those rules to its employees; (3) took steps to discover violations of those rules; and (4) effectively enforced the rules when violations were discovered.” *Manganas Painting Co.*, 21 BNA OSHC 1964, 1997 (No. 94-0588, 2007). Calpine’s allegation of this defense is conditional—the company claims that *if* the decedent had gone on the CT-6 platform without using personal fall protection (a point Calpine does not concede), such action *would* have constituted UEM.¹²

It should be obvious that misconduct is a prerequisite element of the UEM defense. Indeed, the defense is predicated on the notion that an employer should not be held responsible when the cited violative condition was caused by an employee’s misconduct if that misconduct was not reasonably foreseeable:

An isolated brief *violation of a standard by an employee* which is unknown to the employer and is contrary to both the employer’s instructions and a company work rule which the employer has uniformly enforced does not necessarily constitute a violation of section 5 (a)(2) of the Act by the employer.

Standard Glass Co., Inc., 1 BNA OSHC 1045, 1046 (No. 259, 1972) (emphasis added). Here, the violative condition was the absence of either railings or an attendant at a temporary floor opening on the platform. 29 C.F.R. § 1910.23(a)(7). Calpine does not assert that its failure to install

¹² We note that Calpine also raised the affirmative defense of infeasibility in its answer but did not argue the defense before the judge and did not raise it on review. As a result, the Secretary claims that Calpine has abandoned the defense. Regardless of whether Calpine has preserved this claim, we find that the defense fails. To prove infeasibility, an employer must show that: (1) literal compliance with the terms of the cited standard was infeasible; and (2) an alternative protective measure was used or there was no feasible alternative measure. *Otis Elevator Co.*, 24 BNA OSHC 1081, 1087 (No. 09-1278, 2013), *aff’d*, 762 F.3d 116 (D.C. Cir. 2014). Here, Calpine claims that “there is no evidence in the record that there existed a method to install guardrails” and that a “constant attendant would not protect the person reaching through the floor opening to perform tasks involved in rebuilding the combustion unit and catwalk.” As Calpine has the burden of proving infeasibility, the absence of evidence regarding these claims means Calpine has failed to establish the defense’s first element—that literal compliance with the cited requirement could not be achieved.

railings or assign an attendant was the result of misconduct. In addition, personal fall protection was not a compliance option; so Calpine’s rule requiring employees to use personal fall protection at heights greater than four feet “is not equivalent to the cited standard” and thus fails to satisfy the first prong of the UEM defense. *Daniel Int’l Corp.*, 9 BNA OSHC 2027, 2031 (No. 76-181, 1981) (rejecting UEM defense based on employees’ failure to tie-off where construction fall protection standard required openings to be protected by guardrails or covers, stating that the employer’s tie-off rule “is not equivalent to the cited standard”); *see also Boh Bros. Constr. Co., LLC*, 24 BNA OSHC 1067, 1075 (No. 09-1072, 2013) (employer’s monitoring and enforcement of work rule that did not meet cited provision’s requirements could not be used to establish UEM defense). In short, Calpine has not even alleged conduct that would be relevant to the defense.

Even if the failure to use personal fall protection could constitute misconduct and Calpine had shown that the decedent had gone on the platform without using it, the defense would still fail because Calpine has not shown misconduct by the *other* employees on the crew, any one of whom was expected to complete the task and for whom exposure to the violative condition has been established—a predicate evidentiary burden here that rests with Calpine, since UEM is an affirmative defense. *Daniel Int’l Corp.*, 9 BNA OSHC at 2031. In fact, Calpine has not even shown that the decedent went on the platform. Therefore, we reject Calpine’s UEM defense.¹³

D. Multi-Employer Worksite (MEW) Defense

To establish the MEW defense, an employer must show that it neither created nor controlled a hazardous condition to which its own employees were exposed and that it took reasonable alternative steps to protect its employees from the hazard. *Rockwell Int’l Corp.*, 17 BNA OSHC 1801, 1808 (No. 93-45, 1996); *Atl. Battery Co.*, 16 BNA OSHC 2131, 2166 (No. 90-1747, 1994) (multi-employer worksite defense failed when employer had control over the cited condition); *Grossman Steel & Aluminum Corp.*, 4 BNA OSHC 1185, 1190 (No. 12775, 1976) (employer bears the burden of establishing multi-employer worksite defense).

Calpine claims that Siemens had primary operational control over CT-6, including the platform openings that Siemens created during the overhaul. As the judge found, however, Calpine

¹³ Calpine requests that if the Commission reverses the judge on the issue of exposure, its UEM defense be remanded to the judge for consideration. We decline to remand, as Calpine’s defense raises a legal issue that is appropriate for the Commission to resolve. *See Power Sys. Div. United Techs. Corp.*, 9 BNA OSHC 1813, 1813 n.5 (No. 79-1552, 1981) (question of law does not require remand).

retained ownership and control of the entire BEC and never ceded any portion of that control to Siemens. Calpine supervised Siemens' overhaul work and regularly had its own supervisor in the CT-6 building to oversee their work. In addition, Calpine performed contractor safety audits during which it pointed out safety issues for Siemens to correct and stopped work when Siemens employees were found to be working in an unsafe manner. There is also no evidence that Calpine either lacked the authority or ability to comply with the standard or to order Siemens to comply. *See Union Boiler Co.*, 11 BNA OSHC 1241, 1246 (No. 79-232, 1983) (MEW defense requires showing that the employer did not possess the expertise, personnel, or means to correct the hazard). Therefore, Calpine has not shown it lacked "operational control" while Siemens performed the overhaul work. *Cf. Otis Elevator Co.*, 4 BNA OSHC 1219, 1223 (No. 8468, 1976) (finding that cited employer's joint control of the location of the hazard was sufficient to affirm the citation). Accordingly, Calpine was a controlling employer whose own employees were exposed to the cited condition, which makes it fully responsible for complying with the cited standard as an exposing employer. *See, e.g. McDevitt Street Bovis, Inc.*, 19 BNA OSHC 1108, 1109 (No. 97-1918, 2000) (recognizing that a controlling employer's duties include protecting its own employees). We therefore find that Calpine has not established the MEW defense.

Accordingly, we affirm the citation as serious and assess the \$7,000 proposed penalty.¹⁴

SO ORDERED.

/s/ _____
Heather L. MacDougall
Chairman

/s/ _____
Cynthia L. Attwood
Commissioner

/s/ _____
James J. Sullivan, Jr.
Commissioner

Dated: April 6, 2018

¹⁴ On review, the parties do not challenge the characterization or proposed penalty, and we find no reason to depart from the characterization alleged and the penalty proposed in the citation. *E.g., KS Energy Servs., Inc.*, 22 BNA OSHC 1261, 1268 n.11 (No. 06-1416, 2008) (affirming alleged characterization and assessing proposed penalty when characterization and penalty are not in dispute).



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OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
1120 20th Street, N.W., Ninth Floor
Washington, DC 20036-3457

SECRETARY OF LABOR,

Complainant,

v.

CALPINE CORPORATION, and its
successors,

Respondent.

OSHRC Docket No. 11-1734

APPEARANCES:

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Philadelphia, Pennsylvania
For the Secretary

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Christopher Jones, Esquire, Calpine Corporation, Houston, Texas
For the Respondent

BEFORE: Dennis L. Phillips
Administrative Law Judge

DECISION AND ORDER

This proceeding is before the Occupational Health and Safety Review Commission (“the Commission” or “OSHRC”) pursuant to § 10(c) of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 659(c) (“the Act”). On Wednesday, December 22, 2010, upon being notified

of an accident, the Occupational Safety and Health Administration (“OSHA”) initiated an inspection of Calpine Corporation’s (“Respondent” or “Calpine”) Bethlehem Energy Center (“BEC”) facility in Bethlehem, Pennsylvania. (SF-5).

In June 2011, OSHA issued a “serious” citation, alleging a violation of 29 C.F.R. § 1910.23(a)(8), unguarded floor hole, and proposing a penalty of \$7,000.00.¹ Calpine filed a timely notice of contest, bringing this matter before the Commission. In her complaint, the Secretary of Labor amended the citation to allege a violation of 29 C.F.R. § 1910.23(a)(7), unguarded temporary floor opening. In its answer, Calpine set out 19 affirmative defenses.² An eight-day hearing was held in Philadelphia, Pennsylvania in May and June, 2012. The parties submitted a joint pre-hearing statement, post-hearing briefs, and reply briefs. (SF-2 through 4, 15).

Jurisdiction

Based upon the record, the Court finds that Calpine, at all relevant times, was engaged in a business affecting commerce and was an employer within the meaning of §§ 3(3) and 3(5) of

¹ A recommended draft citation for an alleged violation of 29 C.F.R. § 1926.501(b)(4)(i) for exposing the deceased to an un-guarding temporary floor opening that Siemens created at CT-6 on December 22, 2010 was not approved for issuance to Siemens by OSHA. (Tr. 427-29, 1219-22; RX-J). Area Director (“AD”) Jean Kulp testified that to her knowledge Siemens’ employees wore fall protection when working at elevated levels when openings in the catwalk existed. She also testified that Siemens’ employees not working at elevated levels while catwalk openings existed did not wear any fall protection. She further testified that Siemens’ employees at CT-6’s ground level had ladder access to the upper [catwalk] levels when there were openings that did not have any physical barriers or attendants guarding them. OSHA did not issue a citation to Siemens relating to its activities at BEC. AD Kulp also testified that OSHA did not cite Calpine for any activity that occurred at CT-6 during the overhaul before December 22, 2010, including when Mr. Lewis entered the ground floor of CT-6 on December 21, 2010 at a time when there were openings in the catwalk that were not guarded by guardrails or attendants. (Tr. 1222-23, 1227-34).

² Calpine’s 19 affirmative defenses are summarized as follows: (1) another entity had control over and caused the hazardous condition; (2) it was neither feasible nor was it required for Calpine to implement the requirements of the cited standard; (3) OSHA’s forms, information, exhibits and complaint contain false, inaccurate, and misleading information; (4) Calpine follows all reasonable and acceptable workplace standards and guidelines including OSHA standards; (5) Calpine took reasonable steps to ensure that Siemens was aware of its obligation to follow safety standards; (6) Calpine took all reasonable steps to keep its employees away from CT-6 while it was under Siemens’ direction and control; and (7) the alleged violation was the result of unpreventable employee misconduct.

the Act, 29 U.S.C. §§ 652(3) and (5). *See* pleadings. The Court concludes that the Commission has jurisdiction over the parties and subject matter in this case. (SF-1).

Stipulated Facts

The parties stipulated the following facts in their joint pre-hearing statement.³

1. Respondent is an employer engaged in a business affecting commerce within the meaning of 29 U.S.C. § 652(5), and Respondent utilizes tools, equipment, machinery, materials, goods and supplies which have originated in whole or in part from locations outside the state of Pennsylvania.
2. Calpine timely filed a Notice of Contest to the Citation.
3. On September 16, 2011, the Secretary of Labor (“Secretary” or the “DOL”) filed a Complaint with the Occupational Safety and Health Review Commission (“OSHRC”). In her Complaint, the Secretary amended the Citation to read as follows, replacing the original language.

Citation 1 Item 1a Type of Violation: Serious

29 CFR [§] 1910.23(a)(7): Temporary floor opening(s) were not guarded by standard railings or constantly attended by someone:

(a) CT6, adjacent to the ladder access way – On or about December 22, 2010, a temporary floor opening in the steel grated platform, which surrounded the turbine chamber was not guarded by standard railings or constantly attended to prevent employees from falling a distance of no less than 16 feet through the unguarded opening.

4. Calpine filed a timely Answer to the DOL Complaint, denying the material allegations thereof and asserting various affirmative defenses.
5. Bethlehem Energy Center is located at 2254 Applebutter Road, Bethlehem, Pennsylvania 18015.
6. Joseph Miller is an employee of Calpine Corporation.
7. Joseph Miller was the Plant Manager of Bethlehem Energy Center at the time of the accident.
8. Thomas Narkin is an employee of Calpine Corporation.

³ The stipulated facts (“SF”) were read into the hearing record and at that time minor changes were made to Stipulated Facts 10, 11, and 13; both parties agreed to these changes. (Tr. 16-23).

9. Thomas Narkin was the Operations Manager of Bethlehem Energy Center at the time of the accident.
10. During the week of December 20, 2010, Siemens Energy (“Siemens”) was in the process of re-assembling the CT-6 turbine. As part of that process, Siemens scheduled its 12/21/10 Day Shift (*i.e.*, 7:00 a.m. to 5:00 p.m.) crew to re-assemble the platforms and catwalks, which surround and connect CT-6 combustor silos BK-1 and BK-2. The Day Shift crew did not complete that task, however.
11. Completion of the CT-6 platforms/catwalks configuration, which includes the BK-2 Platform, was left for Siemens’ 12/21/10 Night Shift crew (*i.e.*, 5:00 p.m. to 3:30 a.m.). Siemens’ 12/21/10 Night Shift crew did not complete said platforms/catwalks configuration.
12. When Siemens’ 12/21/10 Night Shift crew left the BEC at 3:30 a.m. on December 22, 2010, the BK-2 Platform was not completely re-assembled.
13. Using a laser measuring device, the coroner determined the BK-2 platform to be 17’ 1 31/32” above ground level.
14. Photographs of the BK-2 Platform, which were taken by both OSHA and the Police, as well as OSHA’s own admission reflect that “the tarps were still on the BEC Unit 6 turbines at the time of the Incident.” (DOL-000632.)
15. Respondent has the burden of establishing the affirmative defense of unpreventable employee misconduct on the part of its employee [the decedent].⁴

Relevant Testimony

The BEC facility is a power-generating facility spread over 52 acres with two river water cooling towers, two steam turbine buildings, six combustion turbine buildings, two heat recovery steam generator buildings, two gas pressure buildings and a chemical addition building. An administrative office, maintenance shop and main control room are also at the BEC facility. Several combustion turbines are located at six combustion turbine buildings. The accident prompting the inspection took place in the combustion turbine building referred to as CT-6.⁵

⁴ In the interest of privacy, the name of the deceased employee has been omitted from the decision.

⁵ CT-6 [also sometimes referred to as “Unit 6”] refers to the building housing Combustion Turbine 6. (Tr. 493-94, 696; RX-MM). CT-6’s walls are depicted in a rectangular shape highlighted in yellow on exhibit RX-MM-E by Mr. Timothy Lewis. (Tr. 641; RX-MM).

CT-6's gas combustion turbine is a Siemens model V84.2. (Tr. 444-45, 505, 948, 1360, 1384, 1422-23, 1439; RX-P, at p. 5, RX-MM-I).

The BEC facility was commissioned in 2002 and transferred to Calpine's ownership in July 2010.⁶ Joseph M. Miller III became the plant manager at the BEC facility at that time.⁷ Previously, Mr. Miller was the operations and maintenance manager at a power plant in Wilmington, Delaware for about ten years. (Tr. 1447, 1531-32; SF 6-7, 9).

Thomas Narkin became the Operations Manager at the BEC facility in the spring of 2009. Mr. Narkin is responsible for managing 17 operator maintenance technicians ("OMT"), four of which are lead maintenance operators ("LMO").⁸ He graduated from Widener University and is an electrical engineer. LMOs operate the BEC facility, perform maintenance work, and help coordinate what gets done each day. In December 2010, there were four LMOs – Raymond Lutz, William Varga, Timothy Lewis, and the decedent.⁹ (Tr. 439-40, 566-67, 606, 693-95, 988-89, 992, 1435-39, 1440; SF-8 through 9).

Calpine's operations staff worked in 12-hour shifts starting at 6:00 a.m. and 6:00 p.m. There were four operations staff members per shift – three OMTs and one LMO.¹⁰ Each LMO is responsible for the oversight of three OMTs per shift. An OMT's routine duties include checking meter readings, plant chemistry, starting and stopping equipment, observing equipment

⁶ Conectiv was the previous owner of the BEC facility. (Tr. 1532).

⁷ Mr. Miller has a Bachelor of Science degree in mechanical engineering from Virginia Polytechnic Institute and State University ("Virginia Tech"). (Tr. 1532).

⁸ Mr. Narkin described the 17 OMTs/LMOs as being a very skilled workforce, all with a least two year technical degrees, and almost all with experience working at BEC for about eight years. (Tr. 1447).

⁹ This was an "acting" position for the LMOs from July 2010 to February 2011; at that time it was changed to an official position. (Tr. 439-40, 512). In May, 2012, Mr. Lutz testified that about 28 Calpine employees worked at the BEC facility. CO Weisenberger testified that she was told that Messrs. Lutz and Roy Killgore monitored Siemens' work at the BEC facility. (Tr. 420-21, 443).

¹⁰ Mr. Lutz, an LMO who started working at BEC in 2002, testified that prior to Calpine's purchase of the BEC facility in July 2010, there was a shift supervisor for each shift; however, that position was eliminated with the Calpine purchase. (Tr. 441-42). Mr. Lewis testified that one member of the crew runs the control room, two members are each assigned to power block 1 or 2, and the fourth crew member is the floating operator who assists the other operators. (Tr. 681-82, 1440-41).

for potential problems, controlling megawatt-levels, maintaining offsite auxiliary equipment, and general light maintenance. Mr. Narkin stated that OMTs are required to inform him of any unusual condition and either stop or not start a job when they discover a safety issue. He testified that an LMO is responsible for his own safety, the safety of his crew, and delegating work tasks.¹¹ In addition, Mr. Narkin testified that one of the LMO's duties including attempting to resolve safety issues, and, if unable to do so, to then contacting the on-call supervisor.¹² (Tr. 441-42, 694, 999, 1440-47; RX-X).

The Overhaul Project

In 2010, Calpine hired an outside contractor, Siemens, to perform a maintenance overhaul of several turbines at the BEC facility. The overhaul effort included CT-6's gas turbine's disassembly and reassembly.¹³ At the time of the accident, Siemens was overhauling the CT-6 turbine and it was in outage mode (not generating energy).¹⁴ Mr. Narkin testified that during the overhaul Siemens directed and controlled the end of CT-6 where the turbine was located.¹⁵ Calpine employees were occasionally borrowed to perform tasks at Siemens' request. (Tr. 453, 1365, 1384, 1474-80; RX-N, RX-P, at p. 40).

¹¹ LMO Varga testified that he was responsible for the day-to-day operations during his shift. (Tr. 694). LMO Lewis testified that he considered himself to be the OMTs' supervisor because there was no other management on site during the night shift. (Tr. 603).

¹² Mr. Narkin testified that the night shift's LMO has greater responsibility because management is not on site during the night shift. (Tr. 1446-47).

¹³ The Master Agreement that governed the overhaul effort called for Siemens to direct its employees and comply with the Act. (Tr. 1362-68; RX-N).

¹⁴ As part of the overhaul, Siemens removed CT-6's roof panels, moved the two combustion chambers out three inches, removed at least part of the catwalks thereon, and lifted the turbine rotor identified at RX-MM-H at "A" from the building to be worked on elsewhere. Mr. Killgore testified that when the center case and rotor were removed, Siemens placed caution tape on top of the combustion chambers' platform indicating that those areas were open. During that time, some of the platforms were in place and some were removed, including those over the center line of the turbine unit. Siemens barricaded off the platform ends that led to the center line. After finishing its work on the turbine rotor, Siemens had replaced the rotor, roof panels, and most of the catwalk by the time of the accident. The missing platform grates were to be reinstalled by Siemens during the December 22, 2010's day shift, after 6:00 a.m. (Tr. 337, 357-61, 955-59, 1401; JX-III, at p. 2, JX-XIV, at p. 11, GX-7, at p. 2, RX-J, at p. 2, RX-MM-H, at "A").

¹⁵ Mr. Narkin testified that CT-6's combustion turbine was undergoing a modified, major overhaul that did not require the two combustion chambers to be removed from the building. The modified, major overhaul did require

Raymond Rice and Roy Killgore were turbine engineers for Turbine Maintenance Group (“TMG”) and worked at the BEC facility during the overhaul project.¹⁶ TMG, a division of Calpine Operating Services Company, Inc. (“COSCI”), is based in Pasadena, Texas. TMG oversees the Master Agreement between Siemens and Calpine and the Operating Plant Service Agreement (“OPSA”) between COSCI and Siemens and provides technical oversight during overhauls at approximately 97 Calpine-owned facilities in the United States. Mr. Narkin explained that the TMG engineers served as an intermediary between Siemens and BEC’s plant management.¹⁷ Mr. Miller testified that “the TMG group is kind of like an internal subcontractor,” He also stated that Mr. Killgore was “kind of the company administrator” for the OPSA between Siemens and Calpine. (Tr. 932-33, 942-45, 1068-70, 1080. 1333-34, 1476, 1569-70; RX-N, RX-P).

Messrs. Killgore and Rice were on site to ensure that Siemens followed the technical specifications for the overhaul project. They worked hours to correspond with the Siemens crews’ shifts. Mr. Rice had oversight for the night shift; Mr. Killgore was on the day shift. Mr. Killgore estimated that during the overhaul he spent 60% to 90% of his time in the area where Siemens was working. (Tr. 937-38, 1375-78, 1385; JX-VII at p. 5).

the removal of at least a portion of the platforms that surrounded the two combustion chambers. Mr. Varga also testified that Siemens controlled that area during the overhaul outage. He further stated that although he generally stayed away from the area, it “wasn’t unheard of to stand at a safe distance and observe for a little while - -” He agreed that he told his crew to stay away from the area because of the inherent dangers there. He testified that he told his crew that if they did not need to be in the area they should not be there. He also agreed that he would not have sent either himself or any members of his crew to the CT-6 catwalk when there were platform openings to install a spark rod. (Tr. 733-34, 742-43, 1000-01, 1376).

¹⁶ Mr. Killgore testified that he has a Bachelor of Science degree in engineering and that he worked at BEC from October 18, 2010 through December, 2010. He testified that he considered himself “management,” but not really a supervisor. He was the Plant Manager at the Hay Road facility in Wilmington, Delaware from 2000 through July 1, 2010 that had the same Siemens’ model number turbines that existed at BEC. Mr. Rice testified that he worked at BEC from December 10 through 2:00 a.m., December 22, 2010. (Tr. 940, 945, 1069, 1075, 1360-61, 1375, 1391; RX-P, at p. 5).

¹⁷ The OPSA indicated that a major inspection of a Siemens’ model V84.2 combustion turbine extended through 33 calendar days. Siemens started its turbine overhaul effort at BEC on October 18, 2010. Siemens began overhauling CT-6’s turbine right after Thanksgiving, 2010; *i.e.* after November 25, 2010. (Tr. 1391, RX-P, at p. 40).

Mr. Killgore testified that Siemens personnel conducted a daily turnover meeting to “basically recap the day’s work for their night shift people coming in, and the night shift was gathering that information so they could go to work.” Messrs. Killgore and Rice attended the meeting to review the technical issues and determine whether BEC staff would be needed to perform a task. Siemens also prepared a Shift Turnover Report that showed work that had been accomplished and identified work to be scheduled. Mr. Rice testified that a completed copy of the Siemens Shift Turnover Report for the December 21, 2010 dayshift was not sent to Calpine’s Control Room on the evening of December 21, 2010.¹⁸ That report indicated that the platforms and catwalks had been hot bolted by about 5:00 p.m., December 21, 2010, but further work needed to be scheduled to torque the platforms and double nut them as necessary for looseness.¹⁹ The Shift Turnover Report completed for the 5:00 p.m. through 3:30 a.m., December 21-22, 2010 night shift continued to indicate that work needed to be scheduled to finish torquing the platform sections.²⁰ (Tr. 366-67, 424-25, 964-77, 981-82, 1288-90, 1376-79; JX-III, at p. 2, JX-VII, at p. 10, JX-XV, GX-7).

Mr. Killgore prepared the “Calpine TMG Daily Shift Turnover Report” each morning, which was then sent to Mr. Rice, Mr. Miller, TMG’s management, and Calpine’s regional vice president, Bill Ferguson.²¹ The report was also a summary of what Siemens had accomplished

¹⁸ Mr. Rice testified that it was customary for Siemens to not send a copy of its shift turnover reports to Calpine’s control room. (Tr. 981-82). Mr. Rice testified that he saw Siemens’ day to night shift Shift Turnover Report for December 21, 2010 at about 5:00 p.m., December 21, 2010. That report stated that Siemens had “Hot bolted platforms and catwalks” earlier that day and indicated that additional work was scheduled to “Torque platforms – double nut as necessary for looseness”. (GX-7 at p. 1). Mr. Killgore testified that he received a paper copy of Siemens day shift Shift Turnover Report at 5:00 p.m. each day. (Tr. 1379; GX-7).

¹⁹ Mr. Killgore testified that “hot bolt platforms and catwalks” meant the bolts were not fully tightened to torque specifications after the platform grates had been lowered into place. (Tr. 1081-82; GX-7, GX-9).

²⁰ Mr. Rice testified that the Siemens’ night shift personnel did not work on the upper catwalks during that time frame. (Tr. 978, 983-84; GX-7).

²¹ AD Kulp testified that she imputed knowledge of the unguarded catwalk openings to Calpine based upon information contained in Siemens’ reports. Using the sender address roy.killgore@calpine.com, Mr. Killgore sent TMG’s daily status report for December 21, 2010 that reported that Siemens’ December 20, 2010 day shift had “Hot bolted platforms and catwalks” to Mr. Miller and others by email at December 22, 2010, 7:48 a.m., a few hours after

in the prior 24 hours.²² Mr. Killgore received the information for this report from the Siemens daily turnover meeting he attended and a report that Siemens sent to him between 6:00 a.m. and 8:30 a.m. each morning which listed the work done overnight.²³ Mr. Killgore also testified that one of his duties was to show Siemens' employees a safety video as part of Calpine's safety training of Siemens' personnel working at BEC. (Tr. 1020, 1076-80, 1379-82, 1424-25, 1572; GX-8, GX-9, GX-13).

Siemens controlled the priority of the work tasks related to the overhaul. Mr. Killgore explained that the project's status could change quickly because Siemens had to deal with various factors, such as the weather, while trying to meet its schedule. For example, Mr. Rice testified that on December 21, there was a blizzard predicted so the early part of that night's shift was dedicated to getting a roof panel replaced. (Tr. 900-01, 961-62, 965, 1377, 1395, 1538-39; RX-D). Mr. Rice testified that work by a BEC employee in the overhaul work area was limited to those tasks necessary to assist Siemens during the outage.²⁴ Siemens was not allowed to perform certain tasks at the BEC facility. For example, if Siemens needed a piece of instrumentation moved, it would request a BEC technician to perform the work. (Tr. 1385-86). Messrs. Lewis, Lutz, Miller and Rice confirmed that BEC staff was only in CT-6 during the

the accident. Mr. Rice, however, had seen Siemens' Shift Turnover Report for December 21, 2010, at 5:00 p.m., December 21, 2010, many hours before the accident and Mr. Killgore had firsthand knowledge of the platform openings by 5:00 p.m., December 21, 2010. (Tr. 1284; GX-6, at p. 1, GX-9).

²² The Calpine TMG Daily Shift Turnover Report reported that eleven Siemens personnel worked during the December 20, 2010 night shift at CT-6. (Tr. 1021; GX-8).

²³ AD Kulp confirmed that the report showing the work Siemens completed on its 12/21 night shift would not have been distributed until later in the morning on 12/22, after the fatality accident occurred. (Tr. 1283-84, 1290; GX-7, at p.1).

²⁴ Mr. Killgore testified that Calpine BEC employees could enter and work in CT-6's northern half, where a heat exchanger, generator, exciter and oil tank were located. This area was beyond the area in CT-6's southern half where Siemens was performing work related to the turbine overhaul. (Tr. 1385; RX-MM-I). He further testified that Siemens posted at CT-6's doors or around the turbine a Foreign Material Exclusion ("FME") sign that required personnel entering the turbine's centerline area to record material, such as tools, including wrenches and sockets, and pens, that entered and exited the designated area. Mr. Killgore agreed that the FME sign did not restrict access to the entire CT-6 building. (Tr. 1387-88, 1426).

overhaul to perform certain limited tasks.²⁵ Mr. Killgore's duties included coordinating tasks, such as to remove wiring, electrical hookups, or conduct crane operations, that Calpine BEC employees needed to perform in the southern half of CT-6 while Siemens was engaged in its overhaul work in that area. (Tr. 454, 529, 644-45, 959-60, 1018-19, 1385-87).

Mr. Killgore testified that Siemens could begin to reassemble the catwalk platforms after completing the re-installation of the rotor, compressor blade and turbine vane carriers, center and exhaust cases, and blow off line in CT-6's turbine. (Tr. 1393). Siemens installed the center case during the December 20, 2010 night shift. (GX-6, at p. 2). Siemens hot-bolted the platforms and catwalks around the two combustion chambers during the December 21, 2010 day shift. Siemens' December 21, 2010 night shift did not perform any work on the upper platforms in CT-6. Siemens' December 21, 2010 night shift Shift Turnover Report indicated that "Finish torquing platform sections" was scheduled work that needed to be done. (Tr. 1394-96; GX-7).

During the overhaul project, Thomas McClelland²⁶ performed tasks in CT-6 in December, 2010. Mr. McClelland testified that in order to remove a pipe in CT-6, "I went into the enclosure to assess the job. Looked up to see where I had to work and made sure it was safe or if it wasn't, which at that time it was not. So I went back and got my fall protection, came back, did the job." He testified that he used fall protection because the catwalk platform was not complete.²⁷ A few days before the accident, Mr. McClelland went back to replace the same pipe in CT-6. Again, he "walked over to the unit, looked around where I needed to work, made sure it was safe, and if not went back and got my safety equipment and then went and did my job."

²⁵ Mr. Miller testified that he considered igniter installation to be a task that allowed a Calpine employee to enter a building, such as CT-2, at a time when Siemens was performing a major overhaul. (Tr. 1019).

²⁶ Mr. McClelland has been an instrumentation and electrical technician at the BEC facility for approximately ten years. (Tr. 1795).

²⁷ Mr. Narkin testified that neither he nor Calpine employees needed to wear any fall protection equipment when walking on the catwalks when all the grates were in place because the engineered fall protection, including railings, was in place. (Tr. 1014, 1513).

He testified that he assessed the situation before he did any work because that was a “personal way I work”, safety training he had, and Calpine’s safety policies. (Tr. 1798-1804).

Mr. Narkin prepared a night order for each upcoming BEC night shift. The night order was a list of tasks to be done, generally listed in the order of priority. Mr. Narkin testified that he did not expect all the listed tasks to be done on a particular night. If a task was critical he would note it as such with a desired completion date. Further, Mr. Narkin testified that he put some tasks on the list in advance of the needed completion date as a way to encourage communication between him and the operations staff about a planned future task. (Tr. 447, 1462-71).

Mr. Lutz described a night order as the way management relayed tasks to the night shift. Night orders were placed on the Control Room’s counter by the operations manager, Mr. Narkin. These tasks were in addition to the routine duties of the operations staff. The night order was primarily for the LMO’s use, but it was available to any employee. Mr. Lutz explained that the expectation was to complete as many tasks as possible from the night order. Mr. Lutz further explained that there was some pressure to get priority tasks that were critical done for the next day’s shift. He also testified that in December 2010 it was common for LMOs to enter into CT-6 to assist Siemens by turning on or off one of Calpine’s pumps, as well as to perform minor “quickie” jobs that did not require much time to complete.²⁸ One such job included performing

²⁸ Mr. Lutz testified that Calpine provided a crane operator to Siemens to work in CT-6 during the overhaul. Mr. Lutz further testified that he was never given any task that required him to go onto the platform surrounding CT-6’s combustion chamber. The Court finds that Mr. Lutz was referring to the time frame while Siemens’ personnel were working in CT-6. He was instructed by Calpine management not to work in areas where Siemens was working. (Tr. 451, 454-55, 530, 1478). He further testified that he had been on the [17-foot] platform at other times. When up on the platform, Mr. Lutz believed that there was no need for fall protection because there were railings, kick boards, and cages around the ladders. He also testified that before the accident he was never trained to wear fall protection when going onto the platforms. (Tr. 451-52). LMO Lewis denied that he had been directed not to work in the area where Siemens’ personnel were working; but he acknowledged that he stayed away from the area of CT-6’s two combustion chambers when Siemens was performing work there. He also did not allow his crew to be there, unless they had a purpose for being there. He testified that he and two other employees, Messrs. Greg Kulanko and Bill Vargas, had been instructed by Mr. Narkin to enter CT-5 to hook up an oil filtration system while Siemens’ personnel were working in the area sometime after 2010. (Tr. 589-91, 635, 641-46; RX-MM-E). LMO Varga testified that he was unaware before the accident of any instructions to Calpine employees to not work in areas

plastic sheeting repair work to protect electrical components when the roof was removed. (Tr. 447-51, 455-56, 530-31, 644, 991, 1478; JX-XIII, GX-10).

Mr. Narkin testified that employees have discretion as to which tasks will be done each night and that employees can skip tasks, “which happens a lot.” Mr. Narkin testified that besides being able to skip items on the night orders when there was not time to complete the task by the end of a shift, employees were expected to skip a task when it could not be performed safely. Mr. Lewis confirmed that safety issues, potential hazards, physical capabilities of the person performing the task, weather conditions, and operational conditions were all reasons to skip over a task on a night order.²⁹ Mr. Varga testified that he did not believe anyone had ever been disciplined for not completing a task on a night order. He also agreed that it was appropriate to assess environmental conditions before performing any task. (Tr. 649-50, 741-42, 1462-64).

Mr. Lutz testified that he told Mr. Narkin that the men were feeling stressed about finishing all the tasks on the list each night. Mr. Narkin then sent out three emails clarifying the priority of tasks on a night order. Mr. Narkin sent these emails on August 20, November 18 and November 24, 2010. The emails were written to remind the employees that the jobs on the night orders were to be completed only if time and conditions allowed, that the listed tasks were secondary to their routine duties and safety training, and that Mr. Narkin did not expect them to complete all the tasks listed during that shift. The decedent was one of the recipients of these emails. (Tr. 539-40, 548-50, 651-52, 1465-71; RX-DD).

where Siemens’ personnel were working. He recalled entering such an area to cover up auxiliary equipment with plastic since the roof was removed and a Calpine operator regularly operated a crane there. (Tr. 704-05, 733). Mr. Rice identified the crane operator as Lee. (Tr. 937-38). Mr. Narkin testified that if Siemens wanted to get a Calpine employee to perform a task in CT-6 during the overhaul effort, Siemens would seek to do so through Messrs. Killgore, Rice, Miller, or himself. (Tr. 1477-79).

²⁹ Mr. Lewis holds Bachelor of Arts degrees in mechanical sciences, political science, and sociology. (Tr. 671).

On the December 20 night order, Mr. Narkin included an assignment to re-install a spark rod³⁰ where one had been removed a few days before from CT-6's east combustion chamber burner by the deceased.³¹ Mr. Narkin testified that he knew that installing the spark rod in CT-6 required the use of the upper platform that surrounded the combustion chambers. He also testified that he did not take any steps at that time to determine the condition of CT-6's catwalk platform. (Tr. 1003-4; GX-5).

Mr. Lewis attempted to complete the spark plug replacement assignment at approximately 4:30 a.m. on December 21. He did not know into which of the two combustion

³⁰ A spark rod is an igniter used to ignite a combustion chamber. The spark rod is also referred to as a spark rod cap, spark plug, igniter tip, igniter, or an igniter rod in the record. Mr. Lutz further testified that the deceased had removed a spark rod cap from CT-6 and installed it in Building CT-2 as directed by the December 17, 2010 Weekend Order. On about February 17, 2011, a Calpine employee told Compliance Officer ("CO") Weisenberger that "Bob" [Itterly] had worked on igniters with the deceased a week before the accident and that they had taken parts from CT-6 to use in CT-2. (Tr. 172, 458-59, 701-02, 997-98; JX-XIV, at p. 6, GX-10; RX-MM-B, D and F). Mr. Miller testified that the deceased was involved in replacing an igniter at CT-2 on about December 15, 2010. (Tr. 1560-61; GX-15).

³¹ Mr. Lutz testified that installing a spark rod was "a matter of screwing a little tip onto a threaded piece." He further testified that you could "flop it [the tarp] up" to access the place for the spark plug on top of the east combustion chamber in CT-6 since the place was close to the edge. (Tr. 468, 496-97; RX-MM). Mr. Lutz also testified that the deceased removed the spark plug from the south eastern side of the east combustion chamber. (Tr. 497; RX-MM-B, at "D"). Mr. Varga also testified that although he believed a spark plug needed to be replaced at the east combustion chamber, he did not know precisely which spark plug needed to be replaced. He also testified that he did not know if there were missing grates where the spark plug needed replacement. He also stated that there was "no sense of urgency" on December 22, 2010 to replace the missing spark plug because the CT-6 turbine was not going to be placed back in operation until after the Christmas holidays. Calpine's December 20, 2010 night order stated that CT-6 "will probably be test run on 12/30." (Tr. 712-13, 738-40, 1403; GX-5). Mr. Lewis also testified the tarps would not have prevented him from replacing the missing spark plug because the tarp was bungee-corded to the chamber's top. He stated that he could have pulled up on the bungee cord, peeled back the tarp and gained access to the combustor burners where spark plugs were used. He also testified that he would have worn fall protection if he had replaced the spark plug located at the south east side of the east combustion chamber on December 21, 2010. Mr. Lewis also testified that he observed Siemens' personnel wearing fall protection when he occasionally entered CT-6. (Tr. 580-81, 678-80, 689-90). A Contractor Job Safety Audit performed by Mr. Ed Rodichok, an employee of TekSolv, at 10:30 a.m., December 21, 2010, rated Siemens' use of fall protection as satisfactory while performing an assembling task at CT-6. (Tr. 1022-25, 1555, 1575-77; RX-LL, at pp. CALPINE002031-2). Mr. Killgore testified that he watched the crane lower the platforms in place in CT-6 on December 21, 2010 and saw Siemens' workers wearing fall protection harnesses on the platforms. He further testified that some Siemens personnel did not tie off properly, some Siemens workers hooked onto guardrails or handrails, while others did not. He did not know whether the Siemens safety representative, who was also present, said anything to the improperly tied off Siemens employees, although Mr. Killgore stated the safety representative should have. (Tr. 1396-97). Mr. Killgore stated that he did not see any Calpine workers on the platform area during the December 21, 2010 day shift. He further testified that while in CT-6 during the December 21, 2010 day shift, he could see from ground level that tarps were still covering both combustion chambers, including igniter locations. He also testified that he saw from the ground level that the combustion chamber platforms had been hot bolted and there were platform openings where grates were left up against the handrail or on top of other grates where Siemens had to later formally tighten the platforms to torque specifications. (Tr. 1397-99, 1401-02).

chambers the spark plug was to be installed.³² (Tr. 460-63, 566, 569-74, 998, 1003-06, 1483-85; GX-5, RX-MM). Mr. Lewis further testified that he entered CT-6's southern door after exiting the Heat Recovery Steam Generator ("HRSG") building. The farthest point he reached was directly south of the west combustion chamber. From there, he could see that "[t]he tops of the combustion chambers were covered with tarps over the top of the burners where this spark rod assembly would go . . . in addition to the tarps covering the combustors there was decking missing from these catwalks."³³ He also testified that he observed the opening in the platform from floor level and that it was so obvious that it took him only a minute to assess the condition of the platform.³⁴ Mr. Lewis did not climb up to the 17- foot platform to install the spark rod

³² Mr. Lewis had replaced combustion chamber spark plugs before. Mr. Lewis testified that there were six combustors that used spark plugs in each of the two combustion chambers and he would have needed to check each one to determine which of the twelve combustor sites was missing a spark plug. The spark plugs were located in all directions around the combustion chamber's circumference. Mr. Varga testified that the spark plugs were about three feet apart. (Tr. 578, 666, 743). Mr. Narkin testified that replacing the spark plug at CT-6 was "a very fast job. It should only take a couple of minutes to do it." (Tr. 1485).

³³ Mr. Lewis testified that he started his trip to CT-6 from either the control room or maintenance shop, both located west of CT-6. He then headed to the HRSG Building because it was very cold, near zero degrees, outside and entered CT-6 through its southern doorway, less than 50 feet from the HRSG building, which put him at the ground floor where there was an access ladder leading to the catwalks. The roof was still off CT-6. Mr. Lewis also testified that during the early morning of December 21, 2010 it was harder to see inside CT-6 because the roof was not installed and not all of the lights were on. He was, however, able to see the grate opening and tarps surrounding the combustion chambers. He did not know whether or not there were any grate openings at the northern side of the two combustion chambers. He also did not know how far the tarps draped down, or how difficult it would be to install the spark plug, on the combustion chambers' northern side. Mr. Lewis testified that he thought it would be impractical to carry tools and the spark rod and enter CT-6's west door because to then get to the combustion chamber one needed to either go down a vertical ladder or circle around to CT-6's east side. When he returned from CT-6, he returned the tools to the maintenance shop and put the uninstalled spark plug on the control room's counter. (Tr. 571, 573-74, 581-82, 654-55, 657-70; RX-MM-E). LMO Varga also testified that coming from the control room he would have entered CT-6's southern door to access its combustion chambers from the ground level. (Tr. 702-03, 745). AD Kulp admitted that OSHA was unable to determine the actual path the deceased took within CT-6, or through which door he entered the building. She also agreed that she had information that there was a possibility that the deceased had entered CT-6 to merely assess the job area. On February 17, 2011, a Calpine employee told CO Weisenberger that the deceased "didn't have tool belt - Think was accessing job area." AD Kulp also testified that OSHA did not know what activity the deceased actually did within CT-6 during the morning of December 22, 2010. She testified "Whether or not he [the deceased] went there [into CT-6] to assess or perform work we don't know for sure." (Tr. 1293-94, 1297, 1303, 1305-06; JX-XIV, at p. 3).

³⁴ Mr. Lewis testified that the catwalk's deck plates were "a few feet wide" and anywhere from a foot to several feet long. He identified where he saw catwalk deck plates missing in the southeast quadrant of the west combustion chamber opposite the caged access ladder, as well as the area connecting the two combustion chambers. Mr. Lewis also testified that on December 21, 2010 he saw a grate plate missing from combustion chamber six [the west combustion chamber of CT-6] that he identified at photograph GX-1, at "B" [shown with yellow tape hanging

because he felt the floor opening made it unsafe and Calpine policies forbid working in an area where there was an uncovered opening unless the opening was covered or barricaded. (Tr. 571-73, 578-81, 654, 661-62, 666, 670, 679-80; RX-MM-E).

At the end of his shift on the morning of December 21, Mr. Lewis informed the next shift's LMO, Mr. Lutz, that the platform surrounding the combustion chambers was unsafe for travel because it had unguarded floor openings.³⁵ Mr. Lewis did not work on December 22, 2010. Mr. Lewis testified that, "to the best of [his] memory," Mr. Narkin was present when he told Mr. Lutz about the openings in the platform.³⁶ (Tr. 533, 581, 587, 671-75). Mr. Lutz confirmed that Mr. Lewis told him about the missing grates in the catwalk platform that morning. Mr. Lutz believed Mr. Narkin was in the room at the time, but he was not "100% sure."³⁷ (Tr. 461-63, 541-42, 533-38, 550). However, Mr. Narkin testified he was not advised of the platform's condition by Messrs. Lewis or Lutz on the morning of December 21. (Tr. 1488-89).

down]. Mr. Lewis did not see any yellow, safety "barricade" tape hanging down from the catwalk's railing at that location on December 21, 2010. (Tr. 575-80, 584-85; RX-MM-C and D).

³⁵ Mr. Lutz testified that he was "pretty certain" that during the morning of December 21, 2010 he discussed Mr. Lewis' safety concerns with the three other members of his crew, including perhaps Ronnie Frank and Greg Sinsky. Mr. Lutz did not instruct his second, possibly Mr. Frank, to advise the deceased of Mr. Lewis' safety concerns. (Tr. 536-37, 541-43, 546-47, 673).

³⁶ Mr. Lewis testified:

Q. Who if anyone did you inform – about your decision not to replace the spark rod?

A. I told the oncoming LMO Ray Lutz

Q. Anyone else?

A. Tom Narkin was in the room and I told him.

Q. Okay. Did you tell Mr. Narkin why you did not replace the spark rod?

A. I said – I told Ray that during the turnover and Tom it wasn't safe to do.

Q. Did you explain why it wasn't safe?

A. Because the decking was missing.

(Tr. 581).

³⁷ Mr. Lutz testified that Mr. Lewis told him that he was unable to replace the spark plug because there was a lot of missing equipment, grading and other things, and he did not feel safe going up onto the platform. (Tr. 462-63).

On the December 21 night order, Mr. Narkin again included the task to install a spark rod in CT-6's east combustion chamber.³⁸ The December 21 night order carried over this task from the previous night, with the added phrase: "[i]f tarps and Siemens are not in the way."³⁹ Mr. Narkin was told to add this phrase, but he could not recall who told him to do so. Mr. Narkin testified he did not question the meaning of the phrase because it seemed very clear. To him it meant that the tarps covering the turbine were off and that Siemens' "people" and "stuff" were gone.⁴⁰ He testified that the "tarps were gigantic. And for them to not be in the way, they would have to be off. They were huge." (Tr. 166, 1006-08, 1485-88, 1517-18; JX-XIII).

Mr. Lutz testified that when BEC operations staff changed shifts there was usually a discussion between the shift LMOs to pass along operational and safety information to the next shift.⁴¹ If Mr. Lutz could not attend he would generally have someone fill in for him. Mr. Lutz also testified that for his December 21 day shift, he left a few hours early and was not there to

³⁸ CO Weisenberger testified that Mr. Narkin told her on December 22, 2010 that a work order instructed the deceased to replace a big spark plug. (Tr. 331-32; JX-XIV, at p. 9). CO Burgei testified that the Calpine officials he and CO Weisenberger spoke with on the morning of December 22, 2010 "did not know what he [deceased] was doing in the area. They told us they weren't sure of what he was supposed to be doing or why he was there." CO Burgei's December 22, 2010, 12:59 p.m. email to CO Weisenberger stated that "Allegedly no one knew why he [deceased] was up there, or if he was supposed to be up there or why he didn't [sic] replace the flooring." (Tr. 907-08, RX-D). Police Officer Christopher Kopp's Incident Report stated that Mr. Narkin told him on December 22, 2010 that the deceased "had email (sic) Narkin at 0215 hours and then was to complete a work order to replace the spark rod in the combustion chamber." Mr. Narkin also reportedly told Officer Kopp that "If the grates were removed, by company policy there should have been yellow tape and/or a plywood barricade across the danger area denying access." Chief Deputy Coroner Coy Smith stated in the Coroner's Investigation Report that Mr. Narkin told him on December 22, 2010 that the decedent "had sent an email to another employee at 2:15 a.m." Officer Kopp stated in his Incident Report that he [Officer Kopp] believed that the deceased "fell headfirst through the open grate." In early 2011, a Siemens' employee told CO Weisenberger that a "spot light was shining where [the] 'spark plug' goes [sic]." CO Weisenberger testified that she was told that the deceased had a spark plug in his pocket when found on the floor. (Tr. 384, 1293; JX-XV, at p. 4, RX-L, at p. 5, RX-M).

³⁹ This limiting instruction was not included in the night order given to Mr. Lewis on December 20, 2010. (Tr. 588).

⁴⁰ Mr. Lutz testified that he had seen the 12/21 night order earlier that day. Its last listed task was, "If tarps and Siemens are not in the way install new spark rods in the control room counter in CT-6, where one was borrowed from C[T]-2 this past weekend." (Tr. 464; JX-XIII). Mr. Lutz interpreted that to mean that if "the tarps were not preventing the job from being done and Siemens left that evening that would be when they weren't under their feet trying to work around them." He also testified that no one in management had instructed him how to interpret the phrase, "if tarps and Siemens are not in the way." (Tr. 467).

⁴¹ This discussion generally occurred in the control room, which is in a building just to the west of CT-6. (Tr. 498, 536).

tell the next shift's LMO about the condition of the platform.⁴² The decedent was the LMO for the December 21 night shift. (Tr. 544-47).

Mr. Rice's last shift at the BEC plant was the night of the accident. He left before the end of the shift, at approximately 2:00 a.m. He left earlier than normal because Siemens had finished the technical aspects of the job and was performing clean-up work for the remainder of the shift, which ended at 3:30 a.m.⁴³ Only Siemens' employees were in CT-6 between 2:00 a.m. and 3:30 a.m. on December 22. (Tr. 937, 940, 971, 980-81).

The Accident

Raymond Lutz arrived at the BEC facility at about 5:15 a.m. on Wednesday, December 22. When he arrived, he was told by other Calpine employees that they were looking for the decedent.⁴⁴ The decedent's body was discovered in CT-6 a few minutes later.⁴⁵ Mr. Lutz then went to CT-6 and saw the decedent lying on the concrete floor near an access ladder leading up to the northwest part of CT-6's west combustion chamber.⁴⁶ He testified that the area was "kind

⁴² At the hearing, Messrs. Lewis, Lutz and Narkin all testified that they had not told the decedent about the openings in the platform. (Tr. 1007, 1011).

⁴³ LMO Varga testified that Siemens' personnel worked two 10 hour shifts and were offsite between 3:30 a.m. and 7:30 a.m. (Tr. 706).

⁴⁴ The December 21-22, 2010 night shift crew included the deceased and Messrs. Joe Brey, Greg Boardman, Bob Iitterly and John Horvath. (Tr. 484-85).

⁴⁵ The Coroner's Investigation report stated that the body was about 25 feet inside from CT-6's main entrance. (RX-L, at p. 4).

⁴⁶ There was also a separate ladder leading up to the northeast part of CT-6's east combustion chamber. Both ladders leading to the 17-foot platforms of the west and east combustion chambers were cage protected. There was a swing metal gate at the top of the 17-foot ladder that reached the west combustion chamber's catwalk. CO Burgei testified that when looking at the gate, the gate swung to the left. (Tr. 774, 779-80, 850; GX-1, at p. 11, GX-16, at 1, GX-17B, RX-MM). Mr. Lutz testified that he thought it was quicker, with no flight of stairs involved, to proceed from CT-6's southern entrance to the east combustion chamber by using the access ladder to the west combustion chamber. He also acknowledged that there were two doors on CT-6's north and west side that were closer to the maintenance shop. (Tr. 497, 501-03; RX-MM). He also testified that one could walk a couple of strides from the CT-6 west side entry way door and reach a "little ladder" with a swing gate at the top that led to the Inlet Guide Vane ("IGV") platform, which was surrounded by a waist-high railing. (Tr. 552-53, 556; RX-MM, at "G"). Mr. Lutz also testified that one could enter either the north or west door to CT-6, hop a railing, and climb atop a particle board and then gain access to the IGV platform, as an alternative to climbing the five or six-foot ladder. (Tr. 558-60; JX-XXXIV, at p. 6). Mr. Lewis also testified that CT-6's north door was close to the parking lot west of CT-6. (Tr. 659-60; RX-MM-E).

of shadowy.”⁴⁷ Using a flashlight and not wanting to move the deceased, Mr. Lutz concluded that the deceased had perished. (Tr. 483-91, 496; RX-MM).

On December 22, 2010, Mr. Varga reported to work at about 5:30 a.m. and went directly to CT-6 when he learned of the accident and saw the deceased lying on his belly. Mr. Varga testified that it was “rather dark” inside CT-6 and he used a flashlight to see better. He testified that the deceased’s legs were on either side of the access ladder that led to a combustion chamber with his crotch pressing very tightly at an elevated level against the access ladder’s left upright. Mr. Varga agreed that it was “very apparent” that there were holes in the catwalk platform. He further agreed that he would have worn a harness for safety reasons if he were to have ascended to the catwalk platform.⁴⁸ He also testified that the deceased’s head was a couple of inches from the right upright of the shorter ladder that led to the IGV platform. Mr. Varga testified that one of the openings in the platform surrounding the combustion chamber was “pretty much right above” where the decedent’s body was discovered.⁴⁹ He testified that he did not recall seeing any tarps covering the combustion chambers. He was at the north side of the west combustion chamber for less than five minutes. (Tr. 695-97, 708-09, 725-26, 731-32, 737-38; RX-MM-F).

Coroner Lysek⁵⁰ arrived at the BEC facility between 6:00 a.m. and 7:00 a.m. to investigate the reported death of an employee.⁵¹ Upon arrival he was directed to CT-6. Mr.

⁴⁷ Mr. Lutz testified although CT-6 was typically well lit, at about 5:30 a.m., December 22, 2010, it was kind of shadowy and “kind of dark” in the area where the deceased was because Siemens had re-installed the roof several hours before and the lights nearest the deceased had not yet been reconnected. He stated that it was “Not dark like oh, I can’t see nothing, but shadowy.” (Tr. 491-92, 742). CO Burgei also testified that he could see the catwalk’s condition before climbing the access ladder. (Tr. 843).

⁴⁸ Mr. Varga testified that neither he nor any of the other operators had been up on the catwalk platform when there were holes in the platform. (Tr. 731-32).

⁴⁹ Mr. Varga testified that he saw a grate opening slightly east of the access ladder leading to the west combustion chamber. (Tr. 699-700; RX-MM-F, at “A”, RX-MM-G, at “A”). Mr. Varga identified the approximate locations of four holes in each of the upper platforms surrounding the two combustion chambers in CT-6. Mr. Lutz also testified that a platform opening was above where he found the deceased. (Tr. 492, 710-11, 1014; RX-MM-G).

⁵⁰ Zachary R. Lysek has been the Northhampton County coroner since 1992. Since then he has been involved in or supervised the investigation of 21,000 deaths. This includes about 620 cases attributed to accidental death, as opposed to suicide, homicide, or natural death. Of the accidental deaths, 36 were workplace related. Prior to being

Lysek ascertained that the lighting was the same as it would have been when the decedent entered CT-6 a few hours prior. He testified the lighting in CT-6 was “adequate enough that I could look up and see the grating and make out everything” and that he could clearly see the missing grates which were “leaning against the railing” on the catwalk; he could see this without a flashlight or other type of lighting device. (Tr. 1588-92, 1607, 1651-54, 1718-19).

Coroner Lysek explained that on the day of the accident he observed the body and the area surrounding it.⁵² He testified that the decedent’s gloves were not misplaced and were on each hand properly.⁵³ There were no tears in his jacket and it “appeared perfectly fine.” He further testified that decedent's head was lying face down on the concrete floor positioned about an inch or two from the short access ladder (identified with the letter “D” on RX-MM-I) with seven steps leading to the lower platform (also referred to by Coroner Lysek as a catwalk) to the east (identified with the letter “E” on RX-MM-I). There was a wet area on the concrete floor that extended from the west wall over to the west side of the combustion chamber. Coroner Lysek described the lower platform as a metal grate walkway about three to four feet wide, about

coroner, he investigated accidents and all types of crime scenes as a policeman for about 8 years. He has worked in the trauma room and pathology department as a forensic pathology assistant at the Lehigh Valley Hospital. He also worked full-time as a forensic pathology assistant involved in autopsy and forensic investigations with a group of forensic pathologists. He was a medical investigator in Warren County, New Jersey and served as Northampton County’s deputy coroner for about four or five years before being appointed coroner. Since 1992, he has continued his training, which has included classes in accident reconstruction, crime scene investigation, and blood pattern analysis. He has two bachelor degrees in management and administration and safety management from DeSales University. He testified that his job is to “investigate death to determine the cause and the manner of death, to determine what happened to an individual, how it could have happened and whether or not this could potentially – the death could have occurred as a result of someone’s else’s action.” (Tr. 1580-86, 1708).

⁵¹ Coroner Lysek testified that the Bethlehem Police 911 center was contacted at about 5:42 a.m., December 22, 2010. Once the police determined at the scene that the individual was dead, police officer Kopp contacted the coroner’s office at 6:07 a.m. (Tr. 1633-34, 1674; RX-L, at p. 3).

⁵² Coroner Lysek testified that he assumed that the decedent entered CT-6 through its west door as was commonly done. (Tr. 1594).

⁵³ Coroner Lysek testified: “Your Honor, the gloves that [the decedent] was wearing was a pair of brown bronze colored cotton work gloves. They were on his hands properly, his fingers were in each of the finger holes properly. I paid close attention to that because at the scene, one of the questions I had was could he have grabbed a hold of anything in an attempt to stop his fall or prevent his fall. And the gloves were loose fitting, they would have - if he would have grabbed hold of something they would have moved off his hand, and the hand - they were not off his hands, but they were properly on each of his hands, both and his right and his left hand, sir.” (Tr. 1650, 1671; JX-XVI at CALPINE000077).

seven feet off the ground.⁵⁴ Two bars, a lower bar and an upper bar, protected and confined the lower catwalk's space. There was a gate atop the short access ladder that had to be opened to stand on the catwalk. He testified that the catwalk extended to the combustion chamber's south side. Immediately north of the short access ladder, he described an area where there were two six-inch I-beams, one north and one south, that extended from left to right from the lower catwalk, and a catwalk to the left and west side. He testified that there was a small section of particle board (also referred to as composite plywood) over the southern I-beam. He testified that there was another steel grated platform area that he identified at "H" on RX-MM-I, to the left of the particle board (looking north), where there was another ladder that extended from the floor where the deceased was found up to a platform that was about the same elevation as the lower catwalk at RX-MM-I at "E". The distance from the particle board to the lower platform ladder at "D" was very short. (Tr. 383, 1597-1610, 1623-26, 1647-49, 1671-72, 1731; JX-XXXIV, RX-L, RX-MM-I).

Coroner Lysek testified that the west combustion chamber was "obviously under construction" with various light stands and tools set about the walls. Upon entering, he saw that "the top of that whole chamber was tarped with a very heavy green tarp." He saw two sections of grate missing from the upper platform (also referred to herein as the "upper catwalk") that surrounded the west combustion chamber, one on the south side that he identified as "I" on RX-MM-I and another on the north side that he identified as "J" on RX-MM-I.⁵⁵ He also saw areas of yellow caution tape hanging downward from the upper platform walkway. (Tr. 1605-07, 1654, 1718; RX-MM-I).

⁵⁴ He identified the lower platform at RX-MM-I at "E". (Tr. 1601-02).

⁵⁵ Coroner Lysek testified that from the concrete floor he could clearly see the holes in the upper platform catwalk and they were obvious when he entered CT-6. (Tr. 1607).

Coroner Lysek took photographs of the area surrounding and above the location of the body. He examined the nearby lower platform which was about seven feet above the floor, the higher, upper platform (where the grated floor sections were missing) which was 17 feet, 1 and 31/32 inches, above the floor (hereinafter any reference to “17 feet” or “17-foot” is referring to an actual height of 17 feet, 1 and 31/32 inches above the floor), and the corresponding access ladders for potential evidence. In an effort to identify any evidence that might suggest the origin of where the deceased fell from, he climbed over a three to four foot high railing that partitioned the lower platform at “H” from the lower platform at “E” identified on RX-MM-I,⁵⁶ and another railing on the east, right side of the lower platform. He then carefully walked across the two I-beams using his left foot on the northern I-beam and right foot on the southern I-beam and climbed over another railing in order to reach the lower platform at “E” identified on RX-MM-I.⁵⁷ Using the caged access ladder at “B”, he then climbed to the upper platform and looked down through the hole on the catwalk and saw two pieces of grating that fit the two openings leaning up against the railing at the west side of the west combustion chamber. (Tr. 161, 333-34, 1597-1613, 1622, 1630-31, 1715; JX-XIV, at p. 10, JX-XVI, at p. Calpine000089, JT-XXXIV, RX-MM-I).

During his testimony Coroner Lysek described the opening in the upper catwalk platform that was closest to, and when climbing up to the left of, the caged access ladder.⁵⁸ He testified

⁵⁶ He testified that he had to step on the lower of two railings and then put his leg over the top railing and then put it back on the lower railing to get down. (Tr. 1714).

⁵⁷ Coroner Lysek testified that he chose to walk using the I-beams that were below the particle board to avoid walking across only the particle board because he was not very light. He testified that “it probably wasn’t the smartest or the safest way to move” between the lower platforms at “H” and “E”. He found the particle board area to be “a dangerous area to walk.” (Tr. 1610-11, 1632-33; JX-XXXIV, at p. 6, RX-MM-I). He further testified that the upper platform opening at “I” could not have played any role in the accident because it was on the opposite, south side of the west combustion chamber in CT-6. (Tr. 1616; RX-MM-I).

⁵⁸ Coroner Lysek described the opening as a slice of pizza pie with the tip of it being cut off. He estimated both opening sides to be about 32 inches, decreased by a 1.5 to 2 inch lip that the missing grate would sit on, with a beam about 1.5 to 2 inches beneath the opening’s east side. He also estimated the opening’s outside radius to be 22 inches

that he would expect there to have been contact between the body and the opening's metal surfaces if someone of the decedent's size had fallen through. He found no physical evidence to indicate the deceased had fallen through or near the platform opening.⁵⁹ Also, the body's location was not directly below the opening, which made it improbable he fell from the upper catwalk platform.⁶⁰ He testified that the lower seven foot high platform at "E" was "directly above the body." Coroner Lysek said that he used a very accurate Leica DISTO meter, D-8, to measure that the distance from the concrete floor to the bottom of the upper catwalk was 17 feet, 1 and 31/32s inches. (Tr. 1617-19, 1622-23, 1633, 1642, 1652, 1683-85, 1710-11; JX-XVI, JT-XXXIV, RX-MM-I).

Coroner Lysek stated that the deceased's body was removed and that his office personnel cleaned up blood beneath the deceased's head before the OSHA COs arrived at CT-6. He also testified that the deceased's cell phone located near the decedent's head and hard hat may have removed before the COs arrived at the accident scene. He further testified that a small silver colored ignition fixture was found in the decedent's coat or shirt pocket,⁶¹ as well as papers in his pocket of work that was done or checked off. Coroner Lysek rendered his initial investigative

and the inner radius to be about 15 inches. He saw "a lot of sharp edges or angles of metal" there, including two bolts. The north side of the opening was wider because it was the outer curve of the upper platform. He estimated that the height of the railings at the upper and lower platforms to be about three to four feet above the platform floors. (Tr. 1615-18, 1629-32, 1716-17; JX-XXXIV).

⁵⁹ Coroner Lysek testified that he looked for tissue, blood, and clothing fibers to indicate where the decedent could have been standing when he fell; he looked carefully at the opening in the 17-foot-high catwalk for any tissue, blood, material, fiber from the decedent's clothing, or a swipe in the dust. He found no physical evidence on the opening. He paid close attention to this area because the law enforcement officers initially focused on the upper platform floor holes as a potential area where the decedent could have fallen through. (Tr. 915-16, 1612-15, 1645-47; RX-L. at p. 4).

⁶⁰ "[B]ecause of the size of the opening in the upper catwalk, which ultimately was not really that big, [the deceased] was 5 foot 11, about 200 pounds, you - if a person were to trip on that upper catwalk they would have had to have gone through that hole on the upper catwalk at an angle. The only way to do that is to impact with the metal surfaces, which would have caused some form of injury. . . . where the body was with respect to where the opening was it was a distance over - I would estimate approximately four feet north of the opening in the floor, and I don't think that he could have - where he fell - when people fall they don't fall at angles, they fall straight down and with that fact and where he fell he did not move." (Tr. 1683-85; RX-L, at p.2). The autopsy reported the decedent's height at 70 inches and weight at 219.5 pounds. (Tr. 1747; RX-L, at p. 9).

⁶¹ Coroner Lysek testified that the fixture that his office initially retained as evidence could also be described as the silver tip that unscrews from the top of a spark plug. (Tr. 1722).

findings and completed the deceased's death certificate on December 23, 2010. He reported the cause of death as "Blunt Force Head Trauma" and the manner of death as an "Accident." His initial investigative findings did not include rendering an assessment as to the origin of where the deceased fell from because of a lack of evidence.⁶² Coroner Lysek testified that he could not tell if the decedent fell while on the ladder leading to the 17-foot platform (at "B", RX-MM-I) or the ladder leading to the lower level platform (at "D", RX-MM-I). He further testified that the decedent's body was about four feet north of the 17-foot platform opening and since he fell straight down and his body did not move he fell from above where he was and not through the opening in the 17-foot platform. He testified that "it's unlikely that he could have fell through the opening." He also testified that the Decedent "very likely" fell from the ladder identified as "D" leading to the lower platform at "E", RX-MM-I.⁶³ (Tr. 1637-39, 1648-49, 1664-65, 1668-70, 1681, 1684-85, 1722-33; JX-XVI at CALPINE000074, RX-L, RX-MM-I).

Detective Iatorola took many photographs while at the accident site on December 22, 2010 at about 7:00 a.m. Several of these photographs have been sealed by Court order due to their graphic nature. Photograph JX-XVI, at p. Calpine000083, shows the platform opening that was nearest the caged ladder that led to the 17-foot platform, as well as the caged ladder and a piece of dangling tape, at the north side of the west combustion chamber of CT-6.⁶⁴ (Tr. 1636; JX-XVI).

OSHA COs Tricia Weisenberger and Nicholas ("Nate") Burgei arrived at the BEC facility at about 9:30 a.m. on December 22.⁶⁵ Before arriving at the accident site, it was CO

⁶² The Coroner's Investigation Report stated how the injury occurred as "Fell from catwalk." (RX-L, at p. 2).

⁶³ Coroner Lysek testified that the ladder at "D" was within inches of the decedent's head. (Tr. 1732).

⁶⁴ Coroner Lysek testified that there were about seven steps before the safety cage surrounded the ladder leading to the upper platform. (Tr. 1612-13).

⁶⁵ CO Weisenberger, a safety specialist, was the lead investigator; she became a CO at OSHA's Allentown office in 2004. Before that, she served as an OSHA system administrator subsequent to 1991. By December 2010, she had conducted about five inspections that involved falls, including one that involved a fatality in 2006 where an

Weisenberger's understanding that an employee had fallen through an opening. They spent from about an hour and a half to two hours at the BEC facility. CO Weisenberger testified that it was fairly dark when they entered CT-6.⁶⁶ Mr. Killgore escorted the COs to CT-6, where the coroner and Mr. Narkin were at that time.⁶⁷ The coroner showed the COs the location of the body because, by the time they arrived, it had been moved and the blood was washed away.⁶⁸ CO Weisenberger made no detailed notes of what the coroner told her.⁶⁹ CO Burgei did not make any handwritten notes or sketches during, of after, the inspection. He sent CO Weisenberger an email on December 22, 2010, at 12:59 p.m., that stated that, from what he could remember, a worker fell from about 17-feet through an open hole in the catwalk.⁷⁰ He also stated in the email

employee fell from a roof. Mr. Burgei, an industrial hygienist, became a CO in the same office in April 2010. CO Burgei was there to "mostly just kind of observe", assist in the inspection, and for training purposes. He testified that he had no involvement with the inspection after December 22, 2010 until he was alerted that he was going to be deposed. He was deposed on February 21, 2012. He did, however, discuss the case with OSHA personnel on and after December 22, 2010 through June 14, 2011, and he obtained the coroner's report on February 17, 2012, which he delivered to the OSHA area office on February 22, 2012. (Tr. 124-25, 181-82, 193, 205, 224, 432-33, 766-69, 801-03, 808, 811-14, 837-39, 846-47, 890-93, 1049, 1185-86).

⁶⁶ CO Burgei testified that CT-6's lighting was sufficient for him to conduct his investigation. (Tr. 894).

⁶⁷ CO Weisenberger testified that Mr. Narkin told her that the decedent had fallen through the opening in the platform. (Tr. 157-58, 639; RX-MM-1 also marked as RX-MM-A).

⁶⁸ CO Weisenberger testified that the coroner told her that blood by the drain had been cleaned up at the accident site before her arrival. She also stated that the coroner told her that the deceased's legs was found lying underneath the platform hole with his legs wrapped around the ladder and his head close to the drain. Coroner Lysek testified that he did not tell CO Weisenberger on December 22, 2010 where the decedent fell from because he could not identify that location. CO Burgei testified that the coroner did not describe the deceased's orientation, but the coroner did indicate that his body was found about three and a half to four feet away from underneath the 17' foot platform opening in the floor area between the drain and the ladder that led to the 17-foot platform. (Tr. 284-86, 334, 371, 373, 504, 832-33, 1687; JX-II, at p. 2, JX-XIV, D, at p. 10). The Court finds that CO Weisenberger was mistaken when she testified that the deceased was found lying on the floor below the catwalk surrounding the "east" combustion chamber. The deceased was found lying below the catwalk surrounding the west combustion chamber. (Tr. 317, 496, 505-06; RX-RR, RX-MM).

⁶⁹ A note made by CO Weisenberger on December 22, 2010 states:

Zach lysic [sic] Cornor [sic]

Thinks hit head on sharp object.

She added during her testimony that the coroner told her that the deceased hit his head on a sharp object on the way down, and that the coroner never identified any object that the deceased might have hit his head on. By letter dated November 14, 2011, Coroner Lysek informed CO Weisenberger that the deceased's "cause of death was determined to be Blunt Force Head Trauma, and the manner of death was Accidental." (Tr. 329-30, 332-33, 1107-11, 1688-89; JX-XIV, at p. 12, RX-C).

⁷⁰ He testified that the assertion was not supported by facts and was "an assumption based on the remarks of the coroner and personal opinion." He admitted that he based the guesstimates and assumptions contained in his December 22, 2010 email to CO Weisenberger upon what he heard from the coroner earlier that day that were not in final form. (Tr. 896, 909-10, 927; RX-D). AD Kulp testified that CO Burgei's assertion in his email that the

that “Yellow caution tape was tied to the guard railing around all four open holes, but the tape had been cut or ripped. It was still tied to the railing, but dangling.”⁷¹ CO Burgei testified that he did not know of any facts that supported the assertion that the deceased was ever up on the catwalk, or that he fell.⁷² AD Kulp testified that CO Burgei’s assertion in the email that Siemens had replaced the catwalk and installed grates during the December 21, 2010 night shift was “found not to be true.” She agreed that Siemens had replaced the catwalk during the December 21, 2010 day shift. (Tr. 128-32, 157-59, 162, 223, 284-86, 309, 326, 421, 434-35, 775, 829-32, 860, 895, 905-09, 1167-69, 1637, 1704; GX-7, RX-D).

CO Weisenberger could see that the catwalk platform surrounding the combustion chambers had missing floor grates.⁷³ CO Burgei took 19 photographs during the inspection.⁷⁴ Photograph GX-1-8 taken by CO Burgei shows the floor opening to the left of the gate on the upper platform. It also shows a tarp that reached nearly down to the walkway at the west

deceased fell 17-feet through an open hole in the catwalk was later found to be inconclusive because OSHA did not know if the deceased fell from the 17-foot catwalk. (Tr. 1168).

⁷¹ CO Burgei testified that it appeared to him that the tapes had been connected because there was partial tape tied to the left side and partial tape tied to the right side. He also testified that he could not determine who cut or ripped the yellow tape, or when it was put up, ripped or cut. (Tr. 906; RX-D).

⁷² CO Burgei testified:

Q ... You don’t have any facts when you drafted this [December 22, 2010 email to CO Weisenberger] that he was up on the catwalk. Do you?

A. No.

Q ‘The direction that he fell was undetermined.’ You have no information to determine whether or not he fell. Do you?

A. No.

(Tr. 908; RX-D).

⁷³ CO Weisenberger testified that Mr. Narkin told her that Siemens had created the openings on the platform while performing the overhaul of the combustion chambers in CT-6. She also testified that Siemens’ District Manager Rich Gautille told her that Siemens had previously removed all of the walkways (also referred to sometimes as platforms or catwalks) around the combustion chambers. She testified that Siemens was responsible for reconstructing the walkways, creating the openings in the platform on December 21, 2010, and not covering the openings by the end of its night shift [3:30 a.m.] during the morning of December 22, 2010. She also stated that Siemens’ safety representative, Daniel Cunnard, indicated to her that the deceased may have fallen off the ladder, or a 10 foot high platform that was adjacent to the 17-foot high platform. (Tr. 174-75, 242-47, 252-57, 263-64, 335, 338, 343-44, 360, 378, 416, 842, 1295-96; JX-XIV, at pp. 10, 13, JX-XV, at p. 6, GX-7, RX-J; SF-11, SF-12).

⁷⁴ Neither CO Weisenberger nor CO Burgei took any video at the accident site on December 22, 2010. (Tr. 277, 421).

combustion chamber in the area of the platform opening.⁷⁵ Photographs GX-1-11 and GX-1-12 also show the floor opening at the upper platform to the left of the gate. Photograph GX-1, at p. 1 (first exhibit photograph), showed yellow caution tape hanging down near, but not going across, one of the 17-foot platform openings on the south side of the west combustion chamber.⁷⁶ CO Burgei, along with Calpine's Environmental Health and Safety person, Al Fisher (also referred to as Fischer), used the taller access ladder to climb to the 17-foot platform surrounding the combustion chambers.⁷⁷ He testified that neither he nor CO Weisenberger measured the platform height, the opening in the platform, the ladder, the distance from the swing gate's right post to the opening, or the deceased's distance from the area below the opening.⁷⁸ CO Burgei did not project a perimeter of the upper platform opening straight down to the floor to see what was directly beneath the opening on the north side of the west combustion chamber. He did not look for or find any physical evidence to show that the decedent could have fallen through the platform opening. CO Weisenberger did not check the ladders for signs of blood, body tissue,

⁷⁵ The tarps were used to protect the combustion chambers when the roof was removed from CT-6. (Tr. 337-38; JX-XIV, at p. 11). A photograph taken by Detective Lalatola also shows a tarp hanging down near, but not going across, one of the 17-foot platform openings. (JX-XXXIII, at p. 13).

⁷⁶ In about early 2011, Mr. Cunnard told CO Weisenberger that caution tape was used as a physical barrier for the crane as a fall protection warning in CT-6. (JX-XV, at p.3). Another Siemens employee told CO Weisenberger on March 4, 2011 that the Siemens' December 21, 2010 night shift crew worked on the ground within CT-6. (JX-V, at p. 2). At about the same time, a Siemens' employee told CO Weisenberger that Siemens' "didn't complete catwalk - 2 openings on each chamber" on December 21, 2010 and that the later December 21, 2010 night shift crew performed bottom [ground floor] work and did not work on the catwalks. (Tr. 1287; JX -XV, at p. 8).

⁷⁷ CO Weisenberger testified that CO Burgei did not wear any fall protection when he went up the ladder onto the platform because Mr. Fisher assured him that he would be safe up there and Mr. Fisher would keep him away from the hole while acting as the hole's attendant. (Tr. 163-64, 310, 777, 843-45).

⁷⁸ CO Weisenberger testified that neither she nor CO Burgei took any measurements of anything at the accident scene on December 22, 2010. She was present when the coroner measured the distance from the floor to the platform at 17-feet, one and 31/32s of an inch. She made a simple sketch of the accident site that showed two small circles connected with two horizontal lines that were crossed by an oblong shape with "Turbine" written on it. She further testified that she did not know the deceased's height or weight or whether he could fit through the platform opening. CO Burgei also testified that he did not take any measurements to determine whether or not the deceased could fit through the opening. OSHA never asked Calpine to provide it with the opening's measurements. (Tr. 277, 283, 288, 298-99, 330-31, 387, 777, 849, 853-54, 1177, 1652; JX-XIV, at p. 9, JX-XVI, at CALPINE000089).

clothing material, fiber, or scuff marks.⁷⁹ (Tr. 132, 152, 160-63, 283-84, 301, 777-83, 813, 849-51, 857, 876-77, 915-18, 1149; GX-1, at pp. 1-19, RX-M).

CO Weisenberger identified two combustion chamber areas [BK-1 and BK-2, also sometimes referred to as the east (BK-1) and west (BK-2) combustion chambers] in CT-6 that were covered by tarps on December 22, 2010. The OSHA-1B Worksheet indicated that the tarps did not cover the catwalk area or the ladder leading to it. OSHA contends that the deceased was exposed to an opening in the elevated walkway surrounding a Unit 6 combustion chamber. CO Weisenberger testified that she believed that the deceased died from a fall, but OSHA is not sure if he fell through the platform opening.⁸⁰ CO Weisenberger testified that the standard at issue called for either a guardrail or someone to constantly attend to the 17-foot platform opening. (Tr. 155-56, 241, 277-78, 299-300, 304, 317, 396-99, 1012, 1151, 1409; JX-III, at p. 2, GX-1-8, GX-17B, RX-E, RX-RR).

The COs left CT-6 and continued their discussions with Mr. Narkin in the control room. CO Weisenberger testified that Mr. Narkin told her a surveillance video showed the decedent walking in the direction of CT-6 from the maintenance shop at 3:32 a.m. that morning. She believes that he also told her that OMT John Horvath found the deceased sometime after 5:15 a.m. (Tr. 164, 335-36, 381-82, 483-84, 495, 1669; JX-XIV, at p. 10, RX-L, at pp. 1-2).

During interviews of Siemens' employees conducted by CO Weisenberger in early 2011, she was told that Siemens' employees were working on the lower area of the combustion

⁷⁹ AD Kulp testified that OSHA did not find any blood or tissue evidence related to the deceased along any fall path from the 17-foot high platform to the floor. (Tr. 1145-46). In her responses to Respondent's First Set of Requests for Admissions, Complainant denied that she did not know with a reasonable degree of certainty from where the deceased fell. (Tr. 1158-59; JX-XI, at p. 5). At the trial, AD Kulp testified that it was "inconclusive that he actually fell from that location [the walkway surrounding the BK-2, west combustion chamber at CT-6]. (Tr. 1159, 1170-72).

⁸⁰ At one point in her testimony, AD Kulp agreed that OSHA had asserted that the deceased fell to his death through an opening left by Siemens in an overhead walkway. Later on, she testified that she did not know that OSHA has contended that the deceased fell to his death through the opening left by Siemens in the overhead walkway. (Tr. 1144-45, 1151-52).

chamber, not on the 17-foot platform, during the December 21-22, 2010 night shift. On about January 11, 2011, Mr. Gauthille told CO Weisenberger that Siemens' employees had removed forty percent of the catwalk and forty percent of the walk around platform so that they could use a crane.⁸¹ He told her that Siemens personnel left CT-6 at 3:30 a.m., December 22, 2010, and that they had been working on the "bottom part of [the] combustor – not on [the] platform." He also told her that Siemens' December 22, 2010 day shift was to replace the missing portions of the 17-foot catwalk comprising two openings at each combustion chamber. (Tr. 343, 375, 412; JX-II, at p. 3, JX-XV, at pp. 4, 6-7).

Mr. Killgore also took several photographs of the combustion chambers and the upper platforms that surrounded the combustion chambers in CT-6 after the coroner departed and while the OSHA compliance officers were on site on December 22, 2010. (Tr. 1405; JX-XXXIII). Photograph JX-XXXIII, at p. 3, shows the upper platform opening that was nearest the caged ladder that led to the 17-foot platform, as well as the caged ladder and a piece of dangling tape, at the north side of the west combustion chamber of CT-6.⁸² Photograph JX-XXXIII, at p. 9, shows yellowing cautionary tape hanging down where there is an upper platform opening and a piece of green tarp over the combustion chamber. The photograph at JX-XXXIII-A shows a piece of grating leaning up against an outside railing and the photograph at JX-XXXIII-B shows the upper catwalk leading from the west combustion chamber to the east combustion chamber, and yellow cautionary tape and a piece of green tarp near an upper platform opening at the south

⁸¹ CO Weisenberger testified that she was not sure if the forty percent referred to a day's work performed on December 21-22, 2010, or from the beginning to the end of the project. (Tr. 379).

⁸² Although he never measured the opening, Mr. Killgore estimated the platform opening's dimensions at "a foot and a half, or maybe two foot by maybe a foot in the inside, pie shaped." He testified that he thought fall protection was needed going up to the platform, but not in the platform area where there were handrails. (Tr. 1429-30; JX-XXXIII, at p. 3).

side of the east combustion chamber.⁸³ Other photographs at JX-XXXIII, at pp. 7-9, 12-13, taken by Mr. Killgore show yellow caution tape tied to fixtures at various places on the 17-foot platform. Mr. Killgore testified that he said to the OSHA compliance officers that they were not wearing any fall protection. He then went up first to the west combustion chamber's 17-foot platform and put a piece of grating down at the opening to the left of the top of the ladder.⁸⁴ He further testified that the opening was visible from the ground level. (Tr. 1405-17; JX-XXXIII, GX-1, at p. 13).

AD Kulp testified that she made the final decision to issue the citation to Calpine.⁸⁵ (Tr. 1049-50, 1128-34; JX-1). She stated that the basis for the citation was the assignment "to go into an area that involved being exposed to a temporary floor opening. That that potential existed without the employee receiving any type of special instructions, being provided any type of fall protection and training specific to the work environment." (Tr. 1314). AD Kulp agreed that OSHA had no evidence that the decedent was on the upper catwalk platform on December 22 and that the evidence was inconclusive as to where he was when he fell.⁸⁶ (Tr. 1170-72, 1293). AD Kulp conceded that she received information during the course of the investigation that it

⁸³ Mr. Killgore estimated that the leaning grate was probably two and a half to three feet at the upper, largest part, and maybe three feet high and a foot and a half to two feet at the bottom. (Tr. 1430).

⁸⁴ The Court finds that CO Burgei took photographs of the opening to the left of the gate on the upper platform before Mr. Killgore installed the grate at the opening. (Tr. 778-79; GX-1, at pp. 8, 11, 12).

⁸⁵ AD Kulp testified that she was responsible for directing and managing enforcement, community program and office administrative activities. (Tr. 1038). CO Weisenberger testified that the OSHA 1-B Worksheet in the file indicated that the decedent was the only employee listed as being exposed to the floor opening for an estimated five minutes because he was given a written work order to go into the area to perform the task, and fell 17-feet to his death. The Worksheet further identified Respondent as the "controlling and exposing employer." She testified that the coroner told her that the deceased fell 17-feet to his death. (Tr. 350-51; JX-III). The Court credits the testimony by the coroner that he did not tell CO Weisenberger on December 22, 2010 where the decedent fell from.

⁸⁶ AD Kulp testified:

Q. Is there any evidence to this day that [the deceased] was even up on the [upper] walkway of BK2 unit six?

A. No, and that's why it's inconclusive.
(Tr. 1172).

was a “possibility” the decedent may have entered CT-6 to merely assess the work area.⁸⁷ She testified that the coroner told her in March, 2012, that the deceased’s injuries could have been consistent with falling from any location within CT-6’s work area. (Tr. 1111-13, 1294).

Coroner Lysek testified that the reference in the coroner’s report that the body was beneath the upper catwalk platform could be misunderstood.⁸⁸ He clarified that it referred to his observation that the upper catwalk was generally above the body; it did not mean the body was directly below the area of missing grates in the upper catwalk platform. He stated that the body was about four feet away from the area directly below the upper platform opening.⁸⁹ (Tr. 1732-33).

Coroner Lysek returned to the BEC facility with Dr. Edward Chmara in February 2012 to walk through the area of the accident to see if he could determine where the decedent was when he fell. (Tr. 1118, 1695-97). Coroner Lysek, after both his initial and follow-up visits to CT-6, concluded that:

[T]he evidence that is there: where the blood impact spatters were, where the body was and the position of it is, I can say he did not move. It's not as if he fell, was in pain and rolled or anything of that nature. Where he hit the ground he stayed, he did not move. And – it’s – to me logical he couldn't have fell from the turbine because of the distance away. He would have had to somehow swung or moved his body a distance north to get in the position he was. It’s not a direct fall down and if fitting through that hole he would have had to have had also some

⁸⁷ AD Kulp further testified: “We assumed and knew from the facts that he was given an assignment to go into that area. Whether he was there to assess or actually perform the work, because we didn't witness how he needed to do that, to make an assessment, whether that would require you to go up to the top we don’t know, but we did obviously have a fatality as a result.” (Tr. 1305-06). She also testified that she had learned that the deceased had reportedly been awake for at least 24 hours before the accident. (Tr. 1125).

⁸⁸ Coroner Lysek testified that the statement was based upon Deputy Coroner Smith’s observation and wording and that only he [Coroner Lysek] climbed to the top of the 17-foot platform. He further testified that the reference was “misleading” because “when you’re standing on the bottom looking up it’s a total different appearance then when you’re standing on the top catwalk looking down.... The body wasn’t directly under it. It’s just a generalization in what he’s [Deputy Coroner Smith] saying that the body was beneath it. Well, the catwalk is above it so it is beneath it. It doesn’t mean it’s directly under it, because the ladder, which is ladder “B”, the tall access ladder to up to the 17-foot catwalk, is not under it, it’s away from it, as is ladder “D” where [the decedent’s] head is. So it’s the terminology and the phrasing I think is not accurately [sic] – if you’re reading that I think it could be misleading – you –[.]” (Tr. 1724-25, 1732-33).

⁸⁹ This clarification was provided during Respondent’s redirect examination of the witness. (Tr. 1730-33).

other evidence, whether it would have been on the metal surrounding that, or the bottom . . . I don't specifically know where he fell from, but I could say with – he reasonably he could not have fell from one area because of where his body was, that I think it would have had to have come from [another] area.⁹⁰

(Tr. 1705-1706). Coroner Lysek testified that it was “very likely” that the decedent actually fell from the access ladder that went up to the shorter platform [also referred to sometimes as the “Turbine” deck].⁹¹ He also testified that “I also think that the area precludes a high elevation fall, and I didn’t feel that he could have gotten very high, he would have had to have fallen from a distance of approximately seven (7) feet or less, just based on the limitations of the area.” Coroner Lysek further testified that the injuries to the decedent “could be consistent with him falling from a standing position and striking something, or from a lower level.” (Tr. 1682, 1707, 1730-31).

Dr. Chmara was the forensic pathologist who performed the autopsy on the decedent on December 23, 2010.⁹² One of his tasks includes determining the cause of a death.⁹³ He testified

⁹⁰ Coroner Lysek testified that the blood spatters near the body show that the decedent did not move after his impact with the floor. (Tr. 1645, 1655-1657; JX-XVI, at CALPINE000099-100). Coroner Lysek has attended courses in blood pattern analysis and has been through basic and advanced level courses at the Blood Institute in Coming, New York. (Tr. 1586).

⁹¹ There was a “turbine deck” (also referred to as “the IGV platform”) with a five or six-foot ladder next to the combustion chamber with a 17-foot platform. (Tr. 343; JX-XV, at p. 4, RX-RR at “K”). Mr. Lutz testified that this five or six-foot ladder was used to get to the IGVs in order to make adjustments. Mr. Varga testified that he went on the IGV platform to perform maintenance and lubrication on the IGVs. (Tr. 507-08, 551, 744; RX-MM, at letter “G”). Mr. Lutz testified that he guessed that someone could get up to the combustion chambers from the IGV platform “if you wanted to monkey it up a little bit.” There is no ladder from the IGV platform to the combustion chambers. (Tr. 551; RX-MM).

⁹² He is a board certified forensic and anatomic clinical pathologist. He has a bachelor’s of science degree in Biology, with a minor in chemistry from Rider College. He attended medical school at the University of Medicine and Dentistry, Robert Hood Johnson Medical School, and performed clinical years at Cooper Hospital. Thereafter, he completed his anatomic and clinical residency at the University of Pennsylvania, and a one-year fellowship at the medical examiner’s office. He then finished his residency at Drexel University, College of Medicine. After that he completed fellowship training in forensic pathology at the Philadelphia’s medical examiner’s office. He testified that he has performed about 2,500 autopsies. (Tr. 1670, 1739-41). Chief Deputy Coroner Smith also attended the autopsy. (RX-L, at p. 13).

⁹³ Dr. Chmara testified as follows regarding his job:

Q. Right. But your job, when you were asked to do this autopsy was simple to determine the cause of death and the manner of death?

A. And to convey how the injury occurred, sure.

that at the time of the autopsy, it had been conveyed to him that the decedent “might have fallen through a part of a catwalk.”⁹⁴ He determined that the death was accidental and from multiple blunt force injuries.⁹⁵ He testified that the broad area of the decedent’s abrasion at the top of his head was “absolutely classic for a head impacting a large flat surface, *i.e.* a concrete floor.” Dr. Chmara further testified that the decedent “fell virtually straight downward and that’s why this is right at the top of his head.” He elaborated that as the decedent’s head hit the ground, his legs spilled over as if trying to do a somersault forward, but your head stops everything and your legs continue to go. He clarified that he had not visited the scene of the accident when he wrote the initial autopsy report. The coroner’s office received the autopsy report in July, 2011. (Tr. 1670, 1680, 1719, 1738-46, 1750-54, 1770; RX-L).

Dr. Chmara’s first visit to BEC’s facility was in February 2012 when he and Coroner Lysek walked through CT-6 at the request of Calpine’s attorneys.⁹⁶ Prior to this visit, Dr. Chmara and Coroner Lysek reviewed simulations of possible accidental fall scenarios that had been prepared by Calpine’s expert C. Brian Tanner. They spent about an hour and a half at the accident scene. After the visit, Dr. Chmara reviewed the photographs taken the day of the

Q. Right. Your job was not to determine where the decedent fell from?

A. Part of how the injury occurred it would fall under the realm, I would think. That’s my job, to tell somebody in a courtroom what happened. So --
(Tr. 1773).

⁹⁴ The autopsy report stated that “[T]he decedent had been walking on a cat walk where reportedly there was [sic] missing grates on the floor. He reportedly fell through one of these areas where the grate was missing. He is found below after workers had not seen him for some time. Approximate height of the fall is 17-feet.” He testified that this part of the Circumstances section of the Autopsy Report is “not at all” factual based upon what he knew at the time of his testimony. (Tr. 1746-47; RX-L, at p. 9).

⁹⁵ CO Weisenberger testified that the coroner told her that the deceased suffered broken ribs, a broken neck, and a head laceration, and that he died from a fall. (Tr. 363). The Final Pathologic Diagnoses in the Autopsy Report identified multiple blunt force injuries including neck fracture, skull fractures right frontal, and right rib fractures. Dr. Chmara testified that there was a large abrasion on the top of the decedent’s head, which he described as the point of impact where the decedent came in contact with the ground. He further testified that the skull fracture was “one of the injuries that probably would have rendered him incapacitated at that moment, the concussive effect from a fall and blow like that is significant.” (Tr. 1749-50; RX-L, at p. 7).

⁹⁶ Coroner Lysek testified that he “went back out to the scene to look at the scene again to determine if I could come to a conclusion as to where [the decedent] fell from.” (Tr. 1695-96).

accident and the autopsy photographs. After visiting the scene, Dr. Chmara testified that “it didn’t make sense that the body would fall through those catwalks and land where it was positioned” as shown in the photographs. He further testified that he “couldn’t make sense of how the body would get five to six feet over further if the body fell straight through from there [17-foot catwalk opening where grate missing identified at “A”, RX-MM-J] and hit nothing on the way.” Dr. Chmara testified that he “did not think it was possible in any way, shape or form that that [decedent’s] body, ..., fell through the opening in the catwalk and then – an unobstructed fall to the ground below from what was a height of 17 feet to the bottom of the platform. It just – it didn’t happen that way.”⁹⁷ Dr. Chmara testified that, instead, he concluded that the deceased:

[w]as climbing up the ladder going to the 17-foot walk, I mean this is my medical opinion to a high degree of medical certainty, for the record. He was climbing up the ladder, the backside of the ladder, and tried to step over to the platform on the other side. The only way that he could be in the compromised position, in my opinion, to have the legs literally straddling that – the uprights of that other ladder, is that he somehow at some point was holding the ladder, climbing up the backside, tried to step over to the other platform by putting his left leg across in front of his right and at some point lost his balance, lost his grip, and at that point fell straight down. (Tr. 1771).

Dr. Chmara testified that he discussed amending the autopsy report with Coroner Lysek, but since he was no longer with Forensic Pathology Associates, he did not have the opportunity to amend any report that came from there.⁹⁸ In late March, 2012, Coroner Lysek met with AD Kulp in his office for between one to two hours during which he reviewed about two hundred photographs of the accident scene on a large screen display. The focus was on photographs of where the body was with respect to the ladders, catwalks, including the two lower catwalks.

Coroner Lysek testified that during this meeting he explained that his initial report did not

⁹⁷ Dr. Chmara testified that he had been to hundreds of scenes where the body was pressed back with the crotch that close to the ladder. (Tr. 1770).

⁹⁸ Dr. Chmara testified that forensic pathology evolves and that he’ll receive information today on a case that he did five years ago and may come up to another determination. (Tr. 1773).

identify where the decedent fell from and that the wording “fell from catwalk” did not mean fell from the 17-foot higher catwalk, the low catwalk, or the beams. He made it clear, that he did not “think that the [decedent] fell from the upper 17-foot catwalk” because of the body’s location, blood impact spatters, and the body’s distance from the turbine; as well as the lack of material evidence showing he fell through the catwalk opening. Instead, he explained to AD Kulp that the decedent fell in the area between “B” [tall 17-foot access ladder at RX-MM-I] and “D” [ladder leading to lower level platform at RX-MM-I]. (Tr. 1689-91, 1696-1707, 1753, 1756, 1760-66, 1770-74; RX-MM-I, RX-MM-J).

Safety Program

CO Weisenberger testified that she conducted an audit of Calpine’s safety programs and she did not recall finding any deficiencies in Calpine’s fall protection program.⁹⁹ (Tr. 367, 372, 389, 392-404, 416-18, 1254 ; JX-II, at p. 5, RX-J, at pp. 4-5, RX-Q, RX-PP). Calpine’s Contractor/Visitor Safety Orientation policy called for BEC on-site contractors, such as Siemens, to “provide and keep in good repair, fences, temporary sidewalks, guard rails, barricades, warning lights, signs and other safeguards necessary to protect all personnel and the public from injury.”¹⁰⁰ AD Kulp agreed the CO’s file notes indicate that Calpine “has an extensive safety and health program and training on hazards.” (Tr. 395-96, 399-400, 1307-08; RX-Q, at p. 4, JX-II).

⁹⁹ CO Weisenberger found that Calpine trained all of its maintenance employees on both general industry and construction fall protection methods. She further found that Calpine’s training went “into substantial detail regarding the methods and means of fall protection across both vertical and horizontal unguarded edges.” (Tr. 368-69, 408-09, 1504-05; JX-III, at p. 2),

¹⁰⁰ The purpose of Calpine’s policy on “Barricading Requirements”, SPM-39, is to educate employees [it also applied to contractors performing work at BEC] regarding safe work practices when working on or around areas or equipment where barricades, warning tape or signs are being utilized. SPM-39 defined “Barricade” as “a rigid device used to warn individuals of a danger and prevent them from exposure to the danger.” It defined “Warning Tape” as a “semi-rigid device that may be utilized to “rope-off” an area or piece of equipment that poses a danger to individuals.” It defined “Signs/Placards” as devices “that give written/visual indication of hazards or directions (i.e. “Do Not Enter,” “Overhead Work,” etc.)[.] ” SPM-39 stated that Yellow Tape “denoted a possible hazard to personal health and safety. Areas roped off by yellow (Caution) tape may be entered, but the use of caution and heightened awareness should be exercised.” (Tr. 404; RX-J, RX-PP).

In her OSHA-1B Worksheet for Siemens, CO Weisenberger stated:

Siemens employees did not implement the directed administrative control of placing warning signage and tape across the ladder access points. This control measure would have provided definitive, easily identifiable (sic) warning to all employees accessing the upper catwalk. This would have indicated the need to use conventional fall protection when working near the unguarded edges. A combination of signage and warning tape, as described in SPM-39 instruction under sections 5.2 and 5.3 would have been a sufficient warning for Calpine employees.
(Tr. 405-06; R-J, at pp. 2, 4).

Mr. Narkin testified that his staff, including the deceased, was required to complete formal safety training modules every month.¹⁰¹ They were also required to do a pre-job safety checklist before each job commonly done in the plant. Mr. Narkin testified that employees were trained to first assess jobs for safety and that he put a system in place to ensure all jobs were done safely. He also acknowledged that Respondent's Fall Protection policy called for supervisors to "[p]erform a fall hazard assessment for each job and determine the proper equipment and procedure for that specific task." He described Calpine's safety program as "extremely good" with a very strong safety culture. (Tr. 998, 1442, 1449-53, 1474, 1500; RX-PP).

Mr. Miller testified that Calpine had monthly safety training and a monthly safety committee meeting, and that each employee received a copy of an employee safety policy handbook. Mr. Miller stated specifically that BEC's safety policy would require an employee working near a floor opening to wear fall protection or barricade the opening.¹⁰² (Tr. 1533-35, 1541-42, 1565).

¹⁰¹ Mr. Narkin testified that there were between 25 to 35 required safety training modules covering topics that included fall protection, ladders and staircases, walkways and walk surfaces, and scaffold safety. (Tr. 1450-53, 1455, 1458-59; RX-II (admitted portion only), RX-JJ (admitted portion only)).

¹⁰² Mr. Miller testified that during the Fall, 2010, he observed a Siemen's millwright standing on the top railing of one of the lower platforms along a combustion chamber reaching up to tighten a fastener. He told the Siemen's worker to get down from the railing, or get his harness on and tie off to do that job. (Tr. 1554-55, 1559).

Mr. Miller also testified that, as BEC's plant manager, he reviewed the monthly safety training records to determine which hourly employees qualified for the bonus training incentive payments. He estimated that the required training for an employee adds up to about 60 to 80 hours annually. In addition, there was a peer-to-peer safety evaluation program in which an employee observed a co-worker and noted safety compliance issues on the evaluation form. The purpose of this evaluation was to promote a general sense of responsibility for safety among the employees. An employee was required to complete at least one observation each month to qualify for the monthly bonus. Further, Calpine retained an outside safety consultant, TekSolv, to conduct safety audits and training at BEC in about July 2010. (Tr. 1533-35, 1548-51, 1555-6; RX-EE, RX-LL).

Mr. Lewis testified that every year he was employed at BEC, every employee at the plant was trained annually on safety policies and procedures for an estimated annual total of 40 hours. The training topics included ladder safety, fall protection, walking-working surfaces, hazard identification, personal protection, barricading, and incident protection training.¹⁰³ Mr. Lewis noted that every employee received a copy of the employee safety handbook. He testified that as a LMO, he considered himself a supervisor of his crew, responsible for enforcing all of Calpine's safety policies and procedures. He also noted that employees who had the risk of falling four feet or more were trained on fall protection procedures.¹⁰⁴ Mr. Lewis stated that

¹⁰³ Mr. Varga testified that he agreed that he was required to receive training in these topics at Calpine. (Tr. 716-22).

¹⁰⁴ Respondent's Fall Protection policy stated (in part):

4.0 Responsibilities

...

4.3 Supervisors

...

4.3.2 Perform a fall hazard assessment for each job and determine the proper equipment and procedure for that specific task.

...

Calpine employees' bonus compensation was tied to their adherence to the safety requirements, safety programs and safety training.¹⁰⁵ (Tr. 603-25, 1525-26; RX-JJ, RX-PP).

Mr. Narkin testified that “every employee knows that they're empowered to either stop or not start a job, when they discovery a safety issue, and that happens frequently.” He testified Calpine employees regularly complete a job safety audit (“JSA”) or job safety briefing (“JSB”) checklist before starting a job identified on a night order and the job is “scrubbed” if the employee sees “something that he can’t do.”¹⁰⁶ He said that employees were disciplined with coaching sessions, written reprimands, and, eventually, termination when they did not comply with safety policies. (Tr. 999, 1443, 1459-62, 1490-91, 1518; JX-XIII).

Mr. Narkin further testified that he prepared a pre-outage list of approximately 16 safety items, which were descriptions of situations that had caused problems at power plants during outages. He stated that he went over this pre-outage list before the overhaul project began and

4.4 Employees – are responsible to ensure that they are trained and maintain compliance with this procedure.

5.0 Hazard Identification

The Supervisor will evaluate each situation or work procedure when employees may be exposed to a fall of 4 feet or more. The supervisor will be responsible for developing a plan to eliminate the exposures, if possible, or to select the appropriate fall protection systems and/or equipment.

...

7.0 Fall Prevention/Protection Required

The following are examples of situations where fall prevention/protection would be needed. There are other situations where a fall of 4 feet or more (6 feet for construction related activities) could be possible.

...

7.2 Holes- Personal fall arrest systems, covers, or guardrail systems shall be erected around holes (including sky lights) that are more than 4 feet above lower levels.

...

8.1.11 At holes, guardrail systems must be set up on all unprotected sides or edges. When holes are used for the passage of materials, the hole shall have not more than two sides with removable guardrail sections. When the hole is not in use, it must be covered or provided with guardrails along all unprotected sides or edges.

(Tr. 599-600; RX-PP).

¹⁰⁵ Mr. Varga testified that he learned through training and experience to assess the work area before performing a task. Mr. McClelland testified that he is required to participate in safety training every month. (Tr. 742, 1796).

¹⁰⁶ Mr. Narkin testified that the JSA or JSB called for each worker to write down, at or near the task site, each task that he is doing and each hazard that he might encounter, as well as how he intends to overcome any identified hazard. The JSB usually remains with the worker until the end of the day, when it is then submitted to Mr. Fischer. He testified that he did not think that a JSA/JSB form was ever found that related to completing the December 21, 2010 task to install a new spark rod in CT-6. (Tr. 1518-23, 1529; JX-XIII).

that he emailed it to his employees twice before the overhaul started. He also stated that one of the items on the pre-outage list was that fall protection was required at heights greater than four feet. (Tr. 990, 1451-52, 1480-82, 1509; GX-11).

The Decedent

Messrs. Lewis, Lutz, and Varga began working at BEC the same year as the decedent – 2002. (Tr. 441, 483, 567, 601, 706). Mr. Lutz testified that it was the decedent’s habit to always wear his gloves while climbing a ladder, and that he did not usually wear them while performing a task. (Tr. 508). CO Weisenberger was told during her employee interviews that the decedent's routine was to wear his gloves while climbing the ladder. He would remove his gloves after closing the gate behind him and then “do what he had to do.” (Tr. 341, 383, 386, 388, 508-10; JX-IV, at p. 3).

Mr. Varga testified that the decedent had a “great attitude about safety” and always wore his personal protective equipment; he was not aware of him working unsafely. (Tr. 706-07). Messrs. Lewis and Lutz also testified that the decedent was very safety-conscious. (Tr. 483, 510, 601-02, 671).¹⁰⁷ Mr. Lewis further testified that he did not believe the decedent would knowingly expose himself to danger by climbing up to the combustion chamber when there was an opening in the platform. (Tr. 670-71).

Mr. Miller testified that the decedent’s 2003 performance evaluation included a rating of “exceeds expectations” for safety. He further testified that his observations of the decedent’s performance were consistent with that evaluation. Mr. Miller explained that the decedent “tried his hardest to complete the tasks he was given. He wanted to make sure he followed all the

¹⁰⁷ Mr. Lewis testified that “[the decedent] was very meticulous about his safety,” “always made sure he had the proper PPE [personal protection equipment],” and “always followed the rules. He didn’t do it begrudgingly. He just did it. So that tells me he followed it, he believed in it.” (Tr. 601-02). Mr. Lutz testified that the decedent “took care of things when it came to safety” and “tried to follow the rules the best he could, I never really seen him ever do anything that was other than what was expected of him.” (Tr. 483).

policies and procedures when doing so. Very conscientious, a very good work ethic, which lines up with the ratings on this particular performance evaluation.” He testified that the deceased appeared “a little more distracted” and “a little flustered” at about 6:30 p.m., December 21, 2010, at a time when some fire alarms were “going off.”¹⁰⁸ (Tr. 1539-41, 1563-64, 1677-78; RX-S).

Cited Standard

The Secretary cited Calpine for violating 29 C.F.R. § 1910.23(a)(7)¹⁰⁹, which states that:

(7) Every temporary floor opening shall have standard railings, or shall be constantly attended by someone.

Secretary’s Burden of Proof

To establish a violation of an OSHA standard, the Secretary must show by a preponderance of the evidence that: (1) the cited standard applies; (2) the terms of the standard were violated; (3) the employer knew, or with the exercise of reasonable diligence could have known, of the violative condition; and (4) one or more employees had access to the cited condition. *Astra Pharm. Prods.*, 9 BNA OSHC 2126, 2129 (No. 78-6247, 1981), *aff’d in relevant part*, 681 F.2d 69 (1st Cir. 1982).

¹⁰⁸ Coroner Lysek estimated that the decedent had been up without sleep for about 20 hours before the accident. (Tr. 1679-80; RX-L, at p. 5). The decedent was 49 years of age. (RX-L, at p. 7).

¹⁰⁹ The citation was amended as follows:

Citation 1, Item 1a Type of Violation Serious

29 CFR 1910.23(a)(7): Temporary floor opening(s) were not guarded by standard railings or constantly attended by someone:

(a) CT6, adjacent to the ladder access way – On or about December 22, 2010, a temporary floor opening in the steel grated platform, which surrounded the turbine chamber, was not guarded by standard railings or constantly attended to prevent employees from falling a distance of no less than 16 feet through the unguarded opening.

(Complaint, p. 3).

Discussion

Whether Calpine was prejudiced by OSHA's Inspection

Calpine asserts that it was “severely prejudiced” because OSHA did not follow its own procedures for an inspection. In particular, Calpine states that because the COs did not take measurements at the accident scene or interview the first responders the investigation was inadequate.¹¹⁰ (R. Br. 81-82). This argument fails for two reasons. First, Calpine has not provided information to show how it was prejudiced. Most importantly, Commission precedent has long held that OSHA’s internal guidance documents do not provide rights or defenses to an employer. *Mautz & Oren, Inc.*, 16 BNA OSCH 1006, 1009-10 (No. 89-1366, 1993) (finding primary purpose of OSHA Field Operations Manual “is not to give employers particular rights or defenses in adjudicatory proceedings.”). Although the Court agrees with Calpine that OSHA’s pre-citation accident investigation was not thorough in all respects, the Court finds there is no evidence of prejudice to Calpine from OSHA’s investigation.

Whether the Secretary Has Established the Alleged Violation

Based on the record, the Court finds the cited standard applies. The evidence shows there was an opening in the 17-foot, 1 and 31/32 inches platform to the left of the caged ladder measuring about 32 inches on both its right and left side and 12 inches or more at its smallest dimension. The Court finds that the opening for which Calpine was cited meets the applicable definition of a “floor opening.”¹¹¹ (S. Br. 13-14; Tr. 575, 776, 778-79, 1615; 1717; JX-XVI, at

¹¹⁰ The COs did not interview the first responders who arrived at the accident site before the COs, including Deputy Coroner Suzanne Dannenhower, Deputy Coroner Coy Smith, Bethlehem Police Officer Christopher Kopp, Detective Sergeant Alleshouse, Detective Iatorola, Officer J. Hoffman, and Officer Phelps. CO Burgei testified that it was important, and he was trained, to interview first responders as soon as possible. (Tr. 326, 338-39, 793-99, 1590; RX-M). .

¹¹¹ A floor opening is defined in 29 C.F.R. § 1910.21(a)(2) as: “An opening measuring 12 inches or more in its least dimension, in any floor, platform, pavement, or yard through which persons may fall; such as a hatchway, stair or ladder opening, pit, or large manhole. Floor openings occupied by elevators, dumb waiters, conveyors, machinery, or containers are excluded from this subpart.”

Calpine000083, at “A”, JX-XXXIII, at p. 3, GX-1, at pp. 8, 11, 12). The evidence also establishes that the upper platform opening was temporary in nature. (Tr. 18-19; 1013-14).

Calpine asserts the standard does not apply because it had no control over CT-6’s upper catwalk platform during the outage; instead, its contractor, Siemens, had exclusive control. Therefore, Calpine asserts that Calpine was not responsible for the upper platform’s condition. (R. Br. 65-66). When an employer neither creates nor controls the hazardous condition at a multi-employer worksite, it may defend against a citation by showing that it protected its employees by taking reasonable alternative measures or that it could not reasonably have known of the hazardous condition.¹¹² *Capform, Inc.*, 16 BNA OSHC 2040, 2041-42 (No. 91-1613, 1994) (citations omitted). The Commission has held that the employer’s conduct is viewed in its totality and “whether a reasonable employer would have done more.” *Id.* at 2041-42.

Calpine’s multi-employer worksite defense and argument fails, as the Court finds that it did continue to have sufficient control in CT-6.¹¹³ Calpine owned the CT-6 building. Calpine, through TMG, had staff present in CT-6 dedicated to the oversight of Siemens’ work. Calpine’s employees still accessed the building during the Siemens’ overhaul. Mr. Narkin acknowledged that employees had to often go to elevated platforms to perform maintenance during overhaul outages. BEC employees had to perform certain tasks that Siemens was prohibited from doing. Calpine also performed safety audits of Siemens’ work in the CT-6 building. The Court finds that Calpine had sufficient control of its own CT-6 facility to the extent that the standard applies. (Tr. 643-44, 1022-23, 1807-08; GX-11).

¹¹² The Court finds that Siemens created the floor opening in the upper catwalk on the north side of the west combustion chamber prior to the accident.

¹¹³ See *Atl. Battery Co.*, 16 BNA OSHC 2131, 2166 n.56 (No. 90-1747, 1994) (multi-employer worksite defense rejected when employer had “control” over the cited conditions).

Under the Act, an employer has a duty to protect its own employees from workplace hazards. *See* 29 U.S.C. § 654(a); *Baker Tank Co.*, 17 BNA OSHC 1177, 1180 (No. 90-1786, 1990) (Respondent had legal responsibility for the safety of its own employees). That duty may not be contracted away to third parties. *See Bianchi Trison Corp. v. Chao*, 409 F.3d 196, 209 & n.21 (3d Cir. 2005); *Summit Contractors, Inc.*, 23 BNA OSHC 1196, 1207 (No. 05-0839, 2010) (finding employer may not contract out of its duties under the Act), *Baker Tank Co.*, 17 BNA OSHC at 1180 (finding Respondent could not contract away its legal duties to its employees or its ultimate responsibility under the Act by requiring another party to perform them). When an employer denies liability on the ground that it lacked control over hazardous conditions to which its own employees were exposed, it must show, first, that it had no ability or authority to abate the hazard as required under the cited standard; and second, that it took reasonable alternative steps to protect its employees from the hazard. *See Rockwell Int'l Corp.*, 17 BNA OSHC 1801, 1808 & n.11 (No. 93-45, 1996) (consolidated) (establishing the multi-employer worksite defense, an employer must prove three elements, including it did not control the violative condition, so that it could not itself have performed the action necessary to abate the condition, and it took all reasonable alternative measures to protect its employees from the violative condition). The employer bears the burden of establishing this multi-employer worksite defense. *See Grossman Steel & Alum. Corp.*, 4 BNA OSHC 1185, 1190 (No. 12775, 1976).

Calpine has not met its burden of establishing this multi-employer worksite defense in this case. There is no evidence that Calpine lacked the authority or ability to prevent its employees from accessing the southern portion of CT-6, or to assign someone to constantly attend to the 17-foot high platform when it contained unguarded openings, during those periods of time when Siemens' work crews were absent from the worksite, or otherwise. As the owner

of the CT-6 building, Calpine could have taken whatever steps it deemed necessary to protect its employees when they entered CT-6 to potentially perform work there. *See Cent. of Ga. R.R. Co. v. OSHRC*, 576 F.2d 620, 624 (5th Cir. 1978) (“If an employer does contract with a third party to maintain safe conditions, it is to be presumed that the employer can enforce the contract.”).

Calpine had the authority and responsibility to insist that Siemens comply with the requirements of § 1910.23(a)(7) during those periods when Calpine employees would be performing tasks in the CT-6 building. Calpine had the ability to abate the hazard. There is also no evidence to show that Calpine implemented any reasonable alternative abatement measures. Calpine neither asked Siemens to abate the hazard, nor attempted to abate the hazardous condition itself.

Calpine could have elected to wait until Siemens had totally completed its [Siemens] overhaul-related work in CT-6 before assigning any task, potential or otherwise, to any of Calpine’s employees.¹¹⁴ Calpine could have prevented its employees from accessing the southern portion of CT-6 during those periods of time when Siemens’ work crews were absent from the worksite. The Court finds that Calpine does not qualify for the exception set out in *Capform*; therefore, the standard applies.

The Court further finds the requirements of the standard were violated. The standard specifies that a temporary floor opening must be either constantly attended by someone or have “standard railings.” Both parties agree there was an opening in the floor of the upper catwalk platform. And, there is no dispute that there was no one was attending the floor opening and that there was no railing around the opening at the time of the accident.

Calpine argues, however, that it did not know of the hazardous condition and that there was no actual or potential employee exposure. The Secretary must prove the employer either

¹¹⁴ Mr. Killgore testified that he could provide information about the progress of Siemens’ work if someone from the BEC plant operations staff needed to know. (Tr. 1419-20).

knew, or with the exercise of reasonable diligence could have known, of the violative condition. *Dun-Par Engineered Form Co.*, 12 BNA OSHC 1962, 1965 (No. 82-928, 1986). The employer's knowledge is directed to the physical conditions that constitute a violation. *Phoenix Roofing, Inc.*, 17 BNA OSHC 1076, 1079-1080 (No. 90-2148, 1995), *aff'd without published opinion*, 79 F.3d 1146 (5th Cir. 1996).

The Secretary asserts that Calpine had constructive and actual knowledge of the violative condition. She states that Calpine could have known if it had made a reasonable, diligent effort to find the hazard since the openings were readily apparent. She further states that Calpine had actual knowledge through its LMOs -- Mr. Lewis and the decedent. (S. Br. 20-21). The Court finds the Secretary has met her burden for this element for the reasons that follow.

As the Commission stated in *Automatic Sprinkler Corp. of Am.*, 8 BNA OSHC 1384, 1387 (No. 76-5089, 1980), an employer "must make a reasonable effort to anticipate the particular hazards to which its employees may be exposed in the course of their scheduled work." Further, the Commission has stated that "the conspicuous location, the readily observable nature of the violative condition, and the presence of [the employer's] crews in the area warrant a finding of constructive knowledge." *KS Energy Servs., Inc.*, 22 BNA OSHC 1261, 1265 (No. 06-1416, 2008) *petition denied*, 703 F.3d 367 (7th Cir. 2012) (citations omitted).

The actual or constructive knowledge of an employer's supervisory personnel can be imputed to an employer, unless the employer establishes substantial grounds for not doing so. *Ormet Corp.*, 14 BNA OSHC 2134, 2137 (No. 85-531, 1991), citing *Donovan v. Capital City Excavating Co.*, 712 F.2d 1008, 1010 (6th Cir. 1983). The criteria to determine who can be considered supervisory personnel is set out in the Commission's decision in *Tampa Shipyards, Inc.*, 15 BNA OSHC 1533, 1537 (No. 86-360, 1992) (consolidated) (citations omitted).

An employee who has been delegated authority over other employees, even if temporarily, is considered to be a supervisor for the purposes of imputing knowledge to an employer.

The knowledge of crew leaders and foremen has been imputed in prior Commission decisions.

Id.; *Kerns Bros. Tree Serv.*, 18 BNA OSHC 2064, 2069 (No. 96-1719, 2000); *Jersey Steel*

Erectors, 16 BNA OSHC 1162, 1164 (No. 90-1307, 1993), *aff'd*, 19 F.3d 643 (3rd Cir. 1994)

(“[t]he actual or constructive knowledge of an employer’s foreman or supervisor can be imputed to the employer.”).

The Court finds an LMO is a supervisor for the purpose of imputing knowledge. The evidence shows that an LMO operated in much the same way as a foreman. The LMO’s duties include delegating tasks to the team and ensuring that safety training was completed. Further, Mr. Lutz testified that when the facility transitioned to Calpine ownership, shift supervisors were eliminated and replaced with LMOs.

Mr. Lewis testified that he knew of the platform openings approximately 24 hours before the accident. He chose not to complete the task on the night order because of the missing catwalk platform grates. Further, Mr. Lewis testified that he notified both Messrs. Narkin and Lutz of the catwalk’s condition. As the night shift LMO, his knowledge is imputed to Calpine.¹¹⁵ Mr. Killgore testified that he worked the December 21, 2010 day shift and described

¹¹⁵ There is a conflict in the testimony as to whether Mr. Narkin was in the room when Mr. Lewis stated he had not changed the spark rod due to the hazard presented by the floor openings. Messrs. Lewis and Lutz thought he was present at the time, but were not completely sure. Mr. Narkin was sure he was not told about the floor openings. On this discrepancy, the Court credits the testimony of Messrs. Lewis and Lutz over that of Mr. Narkin. Mr. Narkin testified that he likes to attend the morning shift turnover meetings to insure “that the turnover is getting done formally and with care. ... So I like being there to make sure it’s being done in the control room in a controlled manner and that people are taking their time with it.” He further testified that by attending the turnover meetings, “It also gives me a chance to get information firsthand from the shift that’s leaving, while they’re giving it to the guy that’s relieving them I can get information that way too.” Mr. Narkin’s purpose for attending the morning shift turnover meetings was to be attentive and gather information from the outgoing crew. The Court found his denial of Mr. Lewis’ report of a hazard to be a convenient explanation for his inaction in not removing the spark plug replacement task from the night order or warning the deceased of safety concerns with regard to the 17-foot platform

the activities accomplished by Siemens during that shift.¹¹⁶ Also, Mr. Rice had seen Siemens' Shift Turner Report for December 21, 2010, at 5:00 p.m., December 21, 2010, many hours before the accident and Mr. Killgore had firsthand knowledge of the platform openings by 5:00 p.m., December 21, 2010. The Court finds that the knowledge of the unguarded upper platform floor openings of Messrs. Narkin, Lewis, Lutz, Killgore and Rice as of December 21, 2010 and carried forward through to the early morning hours of December 22, 2010 is imputed to Calpine.¹¹⁷

The Court also finds that Calpine had constructive knowledge of the hazardous condition. Multiple witnesses testified that the openings in the upper platform present from December 20 through the time of the accident were clearly visible after entering CT-6. Mr. Narkin was aware

a day before the accident. The Court also observed the demeanor of Messrs. Lewis, Lutz and Narkin when testifying and found Mr. Narkin's demeanor to be defensive and unpersuasive as to this discrepancy. Some of his testimony was fast and not deliberative; evasive and not to the point. By contrast, he testified that he could "[a]bsolutely not" recall any conversations with either Messrs. or Lewis about the unsafe condition at CT-6's 17-foot platform, and sure that he "didn't know the condition." Mr. Narkin was also impeached when he inaccurately testified at trial that he did not know in December 2010 that the catwalks in CT-6 had to be at least partially removed from the combustion chambers. At his deposition, he answered a similar question affirmatively and without equivocation. As knowledge can be imputed through others, resolving this testimonial conflict is somewhat redundant. (Tr. 1002-03, 1471-73, 1488-92).

¹¹⁶ Mr. Killgore testified:

Q. Describe for us what activity took place on that shift.

A. All the activities?

Q. As it relates to the platforms.

A. They hot bolted them, which means they basically just kind of tightened them up snug, but didn't torque them properly. Both the platforms and the catwalks. And they set the big roof....

(Tr. 1395-96).

¹¹⁷ The Court find that for the purposes of imputed knowledge of the hazard condition, TMG, including its representatives Messrs. Killgore and Rice, are regarded as a single entity with Calpine. Messrs. Killgore and Rice were the eyes and ears of Calpine for the overhaul project at the BEC facility. At his deposition, Mr. Rice stated that he worked for Calpine because TMG was a division of Calpine Corporation. Messrs. Killgore and Rice coordinated the tasks that Calpine employees performed within CT-6 on a regular basis. Mr. Miller testified that Mr. Killgore signed as a representative of Calpine on a plant visitor and contractor sign-in sheet. Both TMG and Calpine BEC received the daily turnover reports prepared by Mr. Killgore. TMG and Calpine shared a common worksite, had interrelated operations, and shared supervision on site within CT-6. See *Loretto-Oswego Residential Health Care Facility*, 23 BNA OSHC 1357, 1358 (No. 02-1164, 2011) (consolidated) *petition denied*, 692 F.3d 651 (2d Cir. 2012); *C.T. Taylor Co.*, 20 BNA OSHC 1083, 1086-87 (No. 94-3241, 2003) (consolidated) (purposes of Act best effectuated by two entities being treated as one.); *Kulfa Constr. Mgmt. Corp.*, 15 BNA OSHC 1870, 1872-73 (No. 88-1167, 1992) (finding construction standards applicable to entity that was the "eyes and ears" of the building owner for on-site safety matters even when the building owner maintained overall safety responsibility.). See also *Nantahala Power and Light Co. v. Thornburg*, 476 U.S. 953, 957-58 (1986) (finding it appropriate to ignore corporate form and treat separate entities as one to avoid frustration of a statute's purpose).

that Siemens' work in the CT-6 was in progress. TMG representatives were present in CT-6 with Siemens' staff and attended daily status meetings. Mr. Narkin could have personally gone to CT-6 on December 21, 2010, or requested a status of the catwalk platform's condition through a TMG representative. Because the condition was easily seen and TMG staff was in the vicinity, the Secretary has shown that Calpine could have known of the condition with the exercise of reasonable diligence. *See Revoli Constr. Co.*, 19 BNA OSHC 1682, 1684 (No. 00-0315, 2001) ("The test for knowledge is whether an employer knew, or with the exercise of reasonable diligence could have known, of the violative condition."); *see also Sec'y of Labor v. ConocoPhillips Bayway Refinery*, 654 F.3d 472, 479-80 (3rd Cir. 2011). A hazardous condition that is "readily apparent" due to its location in a conspicuous area will support a finding of constructive knowledge, especially where employees are present in the area where the hazard is located. *See KS Energy Servs., Inc.*, 22 BNA OSHC at 1267-68; *Kokosing Constr. Co.*, 17 BNA OSHC 1869, 1871 (No. 92-2596, 1996).

Finally, the Secretary must show that an employee was either actually exposed to the zone of danger or that exposure was reasonably predictable. *Consol. Grain & Barge Co.*, 23 BNA OSHC 2055, 2065 (No. 10-0756, 2011) (citations omitted). Had the Secretary presented sufficient evidence to prove that the decedent had fallen through the upper platform opening, then actual exposure would have been shown. There is insufficient evidence to show that the decedent fell through the upper platform opening on the north side of the west combustion chamber. The Court finds that the decedent did not fall through the opening at that location. Instead, fully crediting the testimony of the coroner and forensic pathologist, the Court finds that the decedent fell from the area between the ladder leading to the lower platform that was between five to seven feet in height at "D", RX-MM-I, and the lower, un-caged portion of the

ladder at “E”, RX-MM-I, comprising not more than seven steps that led to the 17-foot platform. The Secretary has not shown the decedent was actually exposed to the hazard.¹¹⁸ To the contrary, AD Kulp admitted that the evidence was inconclusive regarding where the decedent was when he fell. The Court finds the coroner’s conclusion, that it was more likely the decedent did not fall from the area of the hazard, is persuasive. The coroner has extensive experience in accident investigation. He found no physical evidence to show the decedent fell through the floor opening. The Court further finds that the forensic pathologist, Dr. Chmara, also concluded that the decedent did not fall through the floor opening at the 17-foot platform.¹¹⁹ The Secretary did not present evidence to rebut the findings of the coroner or the forensic pathologist. The Secretary has not proven any Calpine employee exposure to the upper platform floor opening hazard, actual or otherwise.

The predictability of exposure can be determined through “evidence that employees while in the course of assigned work duties, personal comfort activities and normal means of ingress/egress would have access to the zone of danger.” *Phoenix*, 17 BNA OSHC at 1079 n.6. Further, “[r]easonable predictability requires more than a hypothetical possibility of exposure, though less than a certainty.” *Consol. Grain*, 23 BNA OSHC at 2066. There are several factors to consider in determining what was reasonably predictable in this case. Calpine’s overall safety program, the nature of the assigned task, the purpose of the night order, employee practices, and the decedent’s work history are all relevant.

¹¹⁸ AD Kulp testified that the citation to Calpine was based upon a “potential exposure.” (Tr. 1233).

¹¹⁹ The conclusion reached by both Coroner Lysek and Forensic Pathologist Chmara that the decedent did not fall through the upper platform opening is corroborated by the fact that the decedent was found on the floor with gloves on his hands and he had a routine of wearing gloves while climbing ladders, and removing them after reaching the top of a ladder. (JX-XI, at p. 4 – Complainant’s Responses to Respondent’s First Set of Requests for Admissions, No. 11).

The Secretary asserts that exposure is predictable based on the task to replace the spark rod in CT-6. (S. Br. 16). Calpine asserts that because the task was not listed as a priority and was conditional, it cannot be used to show that it was likely an employee would be exposed to the hazard. (R. Br. 26-28). As stated in Respondent's brief, the test for determining access to a violative condition includes a requirement that such access be "reasonably predictable." *Consol. Grain*, 23 BNA OSHC at 2065. "This requirement entails a demonstration that employees will be, are, or have been in a 'zone of danger.'" *Id.*, citing *Fabricated Metal Prods., Inc.*, 18 BNA OSHC 1072, 1074 (No. 93-1853, 1997). The Commission has held that it requires more than a hypothetical possibility that an employee could come in contact with the hazard. The Commission in *Fabricated Metal Products* "emphasize[d] that ... the inquiry is not simply into whether exposure is theoretically possible." *Id.* In *Consolidated Grain*, the Secretary failed to show that it was reasonably predictable that employees would be in the zone of danger, which the court found to be in front of a rotating auger where employees could be exposed to the in-running nip points of the auger. Pursuant to the company's policy, employees were required to stay behind the rotating auger. The court noted that while it was "not impossible that an employee could come in contact with the in-running nip points of the auger, however, that is not the standard." *Consol. Grain*, 23 BNA OSHC at 2066. (R. Br. at pp. 20-21).

The Court finds that the evidence shows that the task to replace the igniter was a low priority on the night order and that there was no pressure on the decedent to complete this particular task during his shift. Further, the record shows that the lighting conditions in CT-6 the morning of the accident were adequate to see the holes in the upper platform from the building's floor; an employee did not need to climb a ladder to determine there was an opening in the upper catwalk's platform. Mr. Narkin's December 21, 2010 night order had two expressed conditions

that had to be met before the task to replace the igniter was to be accomplished by any Calpine employee, including the decedent. Additionally, it was expected by Calpine management, that anyone, including the decedent, who may decide to tackle the igniter replacement task, would first have to do a safety assessment of the task, and in so doing, would have to readily see that the two preconditions were not yet fully met as of the pre-dawn hours of December 22, 2010, and that it would be unsafe to access the upper platform, or its surrounding zone of danger, due to the floor openings that were there.¹²⁰ Tarps were clearly still on top of the combustion chambers and covered the place where the missing igniter was located. (SF-14). The Court finds that the tarps on the combustion chamber were readily visible from the ground level. The facts of this case make it unlikely that the decedent would have found occasion to pass within ten feet of the floor opening on the upper platform on December 22, 2010.¹²¹ Here, there is no evidence that any Calpine employee actually entered the zone of danger, the space within ten feet of the floor opening at the north side of the west combustion chamber's upper platform.¹²² Nor was it predictable, or reasonably expected, that any Calpine employee would have access to the floor opening on the 17-foot upper platform, or the zone of danger, at the time of the accident.¹²³

¹²⁰ The evidence supports the Court's finding that a task listed on a Calpine night order was not to be performed if plant conditions did not allow the task to be performed safely. (Tr. 649-50, 1463-71; RX-DD).

¹²¹ The Court finds that it was not reasonably predictable that the decedent would ignore the obvious condition of the missing grate in the upper platform which was visible from the ground to virtually all others who viewed the combustion unit, disregard the fact that the tarps were completely covering the areas where the igniter tip would be installed even though the tarp was clearly visible from the ground, and disregard Calpine safety requirements after viewing the hazard and fail to go back and get his fall protection assigned to him by Calpine, or pass on performing the task as Mr. Lewis had done the day before.

¹²² The Court finds that employees standing on the ground floor in the area north of the west combustion chamber were not exposed to the upper platform opening hazard that was more than 17-feet above them.

¹²³ The Court notes that Respondent was not cited for exposing Messrs. Lewis or McClelland to any upper platform opening hazards when they entered CT-6 a day, or so, before the accident to perform tasks therein. Also, eleven Siemens employees worked in the southern part of CT-6 during the night shift that ended at 3:30 a.m., December 21, 2010, and Siemens was not cited for exposing any employee to opening hazards on the upper platform. Similarly, Siemens employees worked on the ground floor of CT-6 during the night shift that ended at 3:30 a.m., December 22, 2010; just an hour or so before the accident and Siemens was not cited for exposing any employee to opening hazards on the upper platform.

The Court finds that the decedent never got within ten feet of the floor opening at the north side of the west combustion chamber's upper platform and that there was no actual exposure to the hazard.¹²⁴ CO Weisenberger testified that she did not know the location from which the decedent fell. CO Burgei acknowledged that his preliminary conclusion that the decedent fell through an opening in the upper platform was not supported by facts. AD Kulp also agreed that OSHA had no evidence that the decedent was ever up on the upper platform on December 22, 2010, and admitted that OSHA had no information proving that the decedent actually fell from the upper platform. AD Kulp also testified that it was OSHA's position that the location from which the decedent fell to his death was "inconclusive." (Tr. 277-78, 895-96, 907-09, 1159, 1172). The Court finds that the uncontroverted and un-rebutted testimony of Coroner Lysek and Forensic Pathologist Dr. Chmara established that the decedent did not fall through the upper platform's floor opening. The Court finds their testimony to be very creditable. Their professional experience and credentials regarding their duties to determine a decedent's cause of death are impressive, even more so when weighed against that of the two COs.¹²⁵ The Court observed the demeanor of Coroner Lysek and Dr. Chmara during their

¹²⁴ See *Special Metals Corp.*, 9 BNA OSHC 1132, 1134 (No. 76-4940, 1980) (finding climbing a 30 foot ladder to an unguarded platform is beyond normal employee random movement contemplated by the access test leading to the conclusion that the unguarded grating was too remote to pose a threat to the safety of employees); *Zwicker Elec. Co.*, 5 BNA OSHC 1329, 1332 (No. 11771, 1977) (Commissioner Barnako concurring) (finding no violation where employees not within 30 feet of floor opening); *Garden Ridge, Store # 46*, No. 10-1082, 2010 WL 5600075 (O.S.H.R.C. A.L.J. November 19, 2010) (Secretary failed to prove that employee(s) were within 10 feet zone of danger of an hydraulic ram); *EMCO Mech. Contractors*, No. 89-0773, 1989 WL 223452 (O.S.H.R.C. A.L.J. October 20, 1989) (showing exposure where Secretary proved employees had access to a zone of danger that was within 10 feet of an escalator opening in the course of their duties); *Shank-Ohbayashi*, No. 88-0497, 1989 WL 223342 (O.S.H.R.C. A.L.J. March 31, 1989) (upholding citation where there was ample evidence that employees going about assigned duties would pass within 10 feet of an insufficiently unguarded "skip pit"); *Rudolph & Sletten, Inc.*, No. 87-1983, 1988 WL 212672 (O.S.H.R.C. A.L.J. November 21, 1988) (finding no access where employee's assigned duties make it unlikely that employee would have occasion to pass near the floor opening); *Merritt-Meridian Constr. Corp.*, No. 84-760, 1985 WL 44736, at *3 (O.S.H.R.C. A.L.J. September 13, 1985) (finding that violation was unproven where no evidence that employees were ever closer than 10 or 15 feet from the zone of danger – "too remote").

¹²⁵ The Court finds that the initial conclusions reached by Officer Kopp and CO Burgei on December 22, 2010 that the decedent fell through the floor opening in the upper platform to have been premature and superficial. What was

courtroom testimony and found them both to be honest, knowledgeable, impartial, professional, thorough, confident, direct, and persuasive.

The Commission has frequently found exposure through access where employees had occasion to pass within 10 feet of an unguarded opening. *See e.g. A. Munder & Son, Inc. and Robert Catino, Inc.*, 4 BNA OSHC 1593, 1595 (No. 1858, 1976); *Public Improvements, Inc.*, 4 BNA OSHC 1864 (No. 1955, 1976). The Court finds that the access ladder at “D”, RX-MM-I, that led to the lower platform at “E”, RX-MM-I, was not more than five to seven feet in height from the floor. The Court further finds that the top of the un-caged portion of the ladder leading to the 17-foot platform was not more than seven feet in height. The Court finds that there was more than ten feet of distance from the point where the decedent fell in the area between the ladders at “B” and “D”, RX-MM-I, to the floor opening in the upper platform, which was 17 feet, 1 and 31/32 inches in height.¹²⁶ The Court further finds that the unguarded upper platform opening was beyond the normal employee random movement contemplated by the access test and that the unguarded floor opening was too remote to pose a threat to the safety of the decedent on December 22, 2010. *See Special Metals Corp.*, 9 BNA OSHC at 1134.

The record shows that BEC had a multi-faceted safety program which included training, audits, and discipline. Several employees testified that safety training was required for all employees on a monthly basis. Calpine provided incentives, through monetary awards, to its employees for complying with its safety training requirements. A third party was hired in July of 2010 to conduct a safety audit and provide additional safety training. Calpine had an ongoing program in which employees evaluated each other for safety compliance. The testimony of two

quickly presumed to be an obvious conclusion, turned out to be an error when all of the facts were carefully developed and considered.

¹²⁶ The Court finds since the violation concerns a floor opening hazard that it is appropriate to measure from the floor level of the 17-foot upper platform to the decedent’s feet at the time of his fall, and that distance exceeds ten feet.

employees demonstrated that assessing the safety requirements of a particular work activity was a part of the work culture at the BEC facility.¹²⁷ Respondent's Fall Protection policy called for supervisors, such as the deceased, to "[p]erform a fall hazard assessment for each job and determine the proper equipment and procedure for that specific task." The Court finds that the evidence shows that it is more probable than not that the decedent entered CT-6 with an igniter in his pocket to perform an assessment of the job conditions related to the task of installing the igniter into the east combustion chamber.¹²⁸ Whereas Mr. Lewis carried tools and an igniter when he performed his safety assessment relating to the identical task the day before, no tools were found with the decedent when his body was discovered after the accident.¹²⁹ The Court finds that it was readily possible and reasonably predictable for Calpine employees, including the decedent, to enter CT-6 and perform a safety and readiness assessment of the igniter replacement task without being exposed to the opening hazard at the upper platform more than 17 feet above the floor.

Finally, the record shows the decedent had a good reputation for safety, and there was no evidence of his noncompliance in regard to safety. There is also no evidence in the record that there was a general pattern of lax safety compliance by the BEC employees. No evidence was presented to show that the decedent would be likely to engage in unsafe behavior.¹³⁰ The Court finds that, as a whole, Calpine had a strong safety program and that the decedent's general

¹²⁷ Testimony from two employees, Messrs. McClelland and Lewis, established that each of them did, in fact, make an assessment of the safety issues related to an assigned task. Mr. McClelland utilized personal fall arrest equipment to work in the area where the upper platform floor was incomplete. Mr. Lewis, when assigned the same task as the decedent, chose not to perform this task after observing the holes in the upper catwalk platform the previous day. (Tr. 578-81; 1799-1804).

¹²⁸ These job conditions including making an assessment as to whether or not the task could be performed safely and whether or not the two expressed conditions relating to the igniter replacement task had been met; *i.e.* that "[i]f tarps and Siemens are not in the way."

¹²⁹ AD Kulp testified that OSHA knew as a result of its investigation that the decedent did not have his tool belt when found and may have entered CT-6 to assess the job conditions. (Tr. 1294, 1303-05).

¹³⁰ In *Kerns Bros.*, the Commission found the Secretary had not presented evidence to rebut the employer's evidence that its employees took the work rule seriously and that it had a "formal, well-conceived program . . . and exercised reasonable diligence in carrying out that program." *Kerns Bros.*, 18 BNA OSHC at 2071.

conduct was to follow safety procedures. Calpine employees were trained to assess their environments for safety prior to performing any work, to perform tasks only in safe conditions, to use appropriate personal protective equipment (e.g. fall protection in any condition such as that which existed at the time of the cited violation) when confronted with an unsafe condition, or to not perform the assigned task. (Tr. 742, 998, 1800-04; GX-11).

The information available to Calpine, when considered in its totality, shows that Calpine would not have reasonably expected the decedent to be on the upper catwalk platform when the opening was easily seen upon entering CT-6. No witnesses saw the deceased fall.¹³¹ The Court finds the Secretary has not shown it was reasonably predictable for the decedent to be in the zone of danger.¹³² The Court concludes, therefore, that the Secretary has not proven either actual or reasonably predictable exposure to the cited hazard.

The Secretary cites to two Commission decisions to support her argument that the task on the night order made it reasonably predictable that the decedent would be in the zone of danger. *Nuprecon LP*, 23 BNA OSHC 1817, 1819 (No. 08-1307, 2012) *petition denied*, Order at 1, No. 12-71026 (9th Cir. Jan. 17, 2013); *Lancaster Enters., Inc.*, 19 BNA OSHC 1033, 1037 (No. 97-0771, 2000). The facts in both of these cases, however, are distinguishable from the case at hand. In *Lancaster*, employees actually used an access ladder that was “closely adjacent” to an unguarded skylight to gain access to their work area. In *Nuprecon*, the evidence showed that an employee doing pipe removal work was “closely adjacent” to an unprotected edge. Both of these cases rely on evidence of actual exposure to the zone of danger and do not aptly compare to the case at hand.

¹³¹ Tr. 836, 1145.

¹³² The Secretary offered no evidence or argument that employees other than the decedent could have been exposed to the zone of danger during the December 21 night shift when the same floor openings existed on the upper platform as existed at the time of the accident. (Tr. 127).

The Secretary relies on two further Commission decisions to support her position that it was reasonably predictable for the employee to be in the zone of danger. *Pete Miller, Inc.*, 19 BNA OSHC 1257, 1258 (No. 99-0947, 2000); *Fabricated Metal Prods., Inc.*, 18 BNA OSHC at 1074. In *Fabricated Metal*, the Commission stated that “[I]n order for the Secretary to establish employee exposure to a hazard she must show that it is reasonably predictable either by operational necessity or otherwise (including inadvertence), that employees have been, are, or will be in the zone of danger.”¹³³ *Fabricated Metal Prods., Inc.*, 18 BNA OSHC at 1074; see also *Nuprecon LP*, 23 BNA OSHC at 1817. The zone of danger “is determined by the hazard presented by the violative condition, and is normally that area surrounding the violative condition that presents the danger to employees which the standard is intended to prevent.” *RGM Constr. Co.*, 17 BNA OSHC 1229, 1234 (No. 91-2107, 1995); *Seyforth Roofing Co.*, 16 BNA OSHC 2031, 2033 (No. 90-0086, 1994). The Secretary need only show employee access to the zone of danger, and need not show that employees were actually exposed. *Donovan v. Adams Steel Erection*, 766 F.2d 804, 812 (3rd Cir. 1985). In addition, “[i]t is well settled that brief exposures involved in passing or standing near an open edge constitute access.” *Walker Towing Corp.*, 14 BNA OSHC 2072, 2074 (No. 87-1359, 1991). Neither *Fabricated Metal* nor *Pete Miller* assist the Secretary in her position in this case. In *Pete Miller*, the CO observed an

¹³³ The Secretary makes no argument that a Calpine employee would come in contact with the zone of danger by inadvertence. The undisputed evidence shows that the opening in the upper platform was clearly visible from the ground. Testimony from Messrs. Lewis and McClelland affirms that, in actual practice, it was unlikely that Calpine employees would inadvertently expose themselves to the zone of danger and get within ten feet of the upper platform opening. Calpine employees, including the decedent, were aware that Siemens was performing work on the combustion chambers and it was unlikely that a Calpine employee would inadvertently expose himself to a condition on the upper platform which was obvious from the floor. The decedent’s safety history and past practices support that he would not inadvertently expose himself to the zone of danger, which was clearly visible from the ground. The Court finds that it was reasonably predictable that the decedent would go into CT-6 to assess the safety of the job site prior to performing any work, and he would either decide not to do the work as Mr. Lewis had done, or leave and return with all needed safety equipment and tools as Mr. McClelland had done. The Court finds that the Secretary’s theory that the decedent would have exposed himself to the zone of danger based on the December 21, 2010 Night Order is a speculative hypothetical which fails to meet her burden of proof with regard to showing employee exposure to the hazard.

employee handling materials close to the roof's edge. Here, there is no evidence that any Calpine employee walked on, passed near or stood on the upper platform where the opening hazard was, or was within ten feet of the opening at or before the accident. In *Fabricated Metal*, the Commission found that the Secretary had not shown it was reasonably predictable for an employee to be in the zone of danger, just as the Court has done here.

The Court finds that the Secretary has shown that the cited standard applies, that the terms of the standard were violated, and that Calpine knew or could have known of the hazardous condition. However, as the Secretary did not prove the required element of actual or reasonably predictable employee exposure, the citation is vacated.¹³⁴

Findings of Fact and Conclusions of Law

All findings of fact and conclusions of law relevant and necessary to a determination of the contested issues have been made above. *See* Fed. R. Civ. P. 52(a). All proposed findings of fact and conclusions of law inconsistent with this decision are denied.

ORDER

Based upon the foregoing findings of fact and conclusions of law, it is **ORDERED** that:

¹³⁴ Because the Secretary failed to prove her prima facie case, the Court has not addressed Calpine's asserted defense of unpreventable employee misconduct. To establish this defense, the Respondent must prove that it: (a) established work rules designed to prevent the violation, (b) adequately communicated those rules to its employees, (c) took steps to discover violations, and (d) effectively enforced the rules when violations were discovered. *Capform, Inc.*, 19 BNA OSHC 1374, 1377 (No. 99-0322, 2001) (citation omitted). (Tr. 430-31; JX-III, at p. 2).

Item 1 of Citation 1, alleging a serious violation of 29 C.F.R. § 1910.23(a)(7), is
VACATED.

/s/
The Honorable Dennis L. Phillips
U.S. OSHRC Judge

Dated: May 22, 2013
Washington, D.C.