UNITED STATES OF AMERICA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

THOMAS E. PEREZ, Secretary of Labor, United States Department of Labor, Complainant,	
v.	Docket No. 14-1126
KEY ENERGY SERVICES, LLC, Respondent.	

Attorneys and Law firms

Karla Jackson Edwards, Attorney, Office of the Solicitor, U.S. Department of Labor, Dallas, TX, for Complainant.

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DECISION AND ORDER

John B. Gatto, United States Administrative Law Judge.

I. INTRODUCTION

Key Energy Services, LLC (Key Energy)[1] is a well servicing company based in Houston, Texas. On April 24, 2014, at approximately 2:57 p.m., at Key Energy's worksite near Quitman, Arkansas, three Key Energy employees and a third-party employee of another contractor were injured when lightning struck the worksite. The Department of Labor's Occupational Safety and Health Administration (OSHA) conducted an investigation and issued Key Energy a Citation and Notification of Penalty (citation) for violating the Occupational Safety and Health Act of 1970 (Act), 29 U.S.C. §§ 651–678.[2] The citation alleged a "serious" violation[3] of section 5(a)(1) of

[1] In Respondent's post-trial brief, it asserts it was incorrectly named as "Key Energy Services, Inc." (Key Br. at 1). However, both the complaint and the citation and all orders of the Court correctly named Respondent as "Key Energy Services, LLC." It was only in its own Answer that Respondent incorrectly named itself as "Key Energy Services, Inc."

[2] The Secretary of Labor has assigned responsibility for enforcement of the Act to OSHA and has delegated his authority under the Act to the Assistant Secretary for Occupational Safety and Health, who heads OSHA. *See* 65 Fed. Reg. 50018 (2000). The Assistant Secretary has redelegated his authority to OSHA's Area Directors to issue citations and proposed penalties. *See* 29 C.F.R. §§ 1903.14(a) and 1903.15(a). Here, the citation was issued by OSHA's Area Director in Little Rock, Arkansas.

the Act, *Id.* § 654(a)(1), commonly known as the "general duty clause," for which OSHA proposed a penalty of $7,000.00. (Jt. Pretrial Order ¶¶ 6d-6f). After Key Energy timely contested the citation, the Secretary filed a formal complaint with the Commission charging Key Energy with violating the Act and seeking an order affirming the citation and proposed penalty.

The Commission has jurisdiction of this action under section 10(c) of the Act, § 659(c). (Compl. ¶ I; Answer ¶ 2; Jt. Pretrial Order ¶ 1). Key Energy is engaged in a business affecting interstate commerce and is an employer covered under section 3(5) of the Act, § 652(5). (Compl. ¶ II; Answer ¶ 3; Jt. Pretrial Order ¶ 1). A three-day bench trial was held in Little Rock, Arkansas. Pursuant to Rule 52(a) of the Federal Rules of Civil Procedure, after hearing and carefully considering all the evidence and the arguments of counsel, the Court issues this Decision and Order as its findings of fact and conclusions of law.[4] For the reasons indicated *infra*, the Court concludes the Secretary failed to prove a violation of the general duty clause. Accordingly, the citation is **VACATED** and no penalty is assessed.

II. BACKGROUND

Key Energy is a well servicing company[5] based in Houston, Texas. (Resp't's Post-Trial Br. at 4). On April 23 and 24, 2014, Key Energy's crew was working at a location operated by Southwestern Energy Company (Southwestern) located in a rural area approximately 10 miles from Quitman, Arkansas. (Ex. R-2a, R-2b; Tr. 50, 131). Key Energy was hired to assist Southwestern in replacing the B-section on the well head at issue at the site, which was not working.[6] (Jt. Pretrial Order Stipulated Facts ¶ 6a; Tr. 47-48, 50, 134-35). The gas well was active and producing natural gas. (Tr. 131-32, 134, 373). Southwestern also hired Canary LLC (Canary) and Halliburton Company, Inc. (Halliburton) to assist Key Energy with the B-section repair. (Jt. Pretrial Order Stipulated Facts ¶ 6b).

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[3] A "serious" violation is one that carries a substantial probability that death or serious physical harm could result unless the employer did not, and could not with the exercise of "reasonable diligence," know of the presence of the violation. 29 U.S.C. § 666(k).

[4] If any finding is in truth a conclusion of law, or if any stated conclusion is in truth a finding of fact, it shall be deemed so.

[5] "When oil or gas wells need maintenance or repair, their owners hire a well servicing company." (Resp't's Post-Trial Br. at 4; *see also e.g.*, Tr. 69, 134, 216-17).

[6] A "well head" is located at the surface of the gas well and is equipped with a production tree (also called a Christmas tree), which is a series of tubes and valves connecting the well to the gas pipeline. The B-section is a section of the well head that serves as a place to bolt the production tree. (Tr. 134, 141-43).

The weather on April 23, 2014, was clear and Key Energy's work shift was uneventful. (Tr. 145). Prior to beginning work that morning, Key Energy conducted a Job Safety Analysis (JSA) meeting, documented in Key Energy's Work Plan by Roger Harris, Key Energy's Field Supervisor (and Tool Pusher). (Ex. R-2a; Tr. 143-144). During the JSA meeting, Key Energy employees gathered and "discussed the hazards and discussed the actions to take to eliminate the hazards" for the upcoming work shift. (Tr. 146). After completing the JSA, Key Energy's crew removed the production tree from the B-section. The crew installed a blowout preventer (BOP) onto the B-section, which is designed to prevent an uncontrolled release of gas from occurring. (Tr. 50-51, 135-136). The crew did not complete all of their the work that day and returned the following morning. (Tr. 145).

Five Key Energy employees were working at the jobsite on April 24, 2014: Justin Alexander (Derrick Hand), [redacted] (Floor Hand), [redacted] Jr. (Rig Operator), Roger Harris (Field Supervisor),[7] and [redacted] (Floor Hand).[8] (Jt. Pretrial Order Stipulated Facts ¶ 6e). One Canary employee, [redacted], a Senior Field Services Technician, was also present that day at the worksite and provided the torque equipment required to remove the bolts on the well head. (Tr. 164, 167). In addition, three employees of Southwestern were at the site: Mike Roberts (Site Supervisor), and Larry Stem and Matt Young (Maintenance Technicians). (Tr. 93, 132, 180, 319, 331, 410, 435). Roberts oversaw the activity at the site and worked with the contractors hired by Southwestern to ensure the contracted work was performed. (Tr. 319). Stem and Young were valve specialists who work on Southwestern's well heads. (Tr. 331, 435-36).

At approximately 7:00 a.m. on April 24, 2014, Southwestern and Key Energy conducted another JSA meeting, again documented in Key Energy's Work Plan. (Ex. R-2b; Tr. 58, 145-146, 276, 398, 400). After the JSA meeting, Key Energy's crew pulled pipe out of the well, ran in Halliburton's packer with tubing, and set the packer down in the well (a safety precaution to keep gas down in the well). (Tr. 133, 286-287). With the packer securing the gas in the well, Key Energy's crew removed the BOP to access the B-section. (Tr. 287). Key Energy's crew entered the cellar of the well to replace the B-section (the cellar is an area around the B section

[7] [redacted] are all related. (Tr. 138-139, 141).

[8] The tubing in the well is "essentially a bunch of little tubing strings all tied together." The Floor Hands are at the bottom handling the bottom end of the tubing and "run the [hydraulic] tongs," which are used to "break the connections or tie the connections, depending on whether you're going out or into the hole." (Tr. 139-41). The Derrick Hand is up in a basket on the rig to handle the top of the tubing.

where employees stand inside the hole). (Tr. 53). When standing in the cellar, a man of average height is "about from knee to waist deep" while the rest of his body is outside the cellar. (Tr. 186).

When Key Energy conducted its JSA that morning, it was not raining or storming. (Tr. 58, 276). [redacted] testified that it was "just cloudy." (Tr. 276, 278). At that point, "we didn't even know if it was going to rain then or not." (Tr. 278). Stem also recalled that the weather "was cloudy, but it hadn't started raining at that time yet." (Tr. 439). Stem heard thunder "from far off" but "never really saw lightning." (Tr. 441-42). Sometime around or right after lunch, it did begin to rain, intermittently increasing and decreasing. (Tr. 71-72, 279, 281, 401). As the crew worked in the cellar, the rain intensified into a thunderstorm and the crew sought shelter in a work trailer (referred to as the "doghouse"). Roger Harris did not see lightning or hear any thunder prior to the crew seeking shelter. (Tr. 74, 149, 156). Neither did Roberts. (Tr. 347). [redacted] heard thunder "off in the distance." (Tr. 420). Roger Harris kept his eye on the weather, tracking it by sight and sound. (Tr. 44-46). So did [redacted], but he did not see lightning until immediately before the crew sought shelter. (Tr. 273, 281, 302).

At trial, counsel for both parties questioned the various Southwestern and Key Energy employees who were on the worksite about the timeline regarding the work performed and the thunderstorm that arose on April 24, 2014.[9] [redacted] testified regarding certain events of that day based upon his cell phone logs, which he reviewed before trial. (Tr. 181). [redacted]'s time estimates generally fit his testimony regarding the cell phone calls he received and made and were corroborated by the testimony of other credible witnesses. The Court therefore finds [redacted]'s estimates credible and persuasive and gives them great weight.

[redacted] testified Young and Stem came to his truck to tell him they were ready for his assistance "roughly around 1:26 p.m." As [redacted] explained, "I had a call from my boss that I had received within a couple minutes of that stating . . . that they had forgot to send the right parts." (Tr. 180-181). [redacted]'s co-worker subsequently delivered the correct parts and called him at 2:07 p.m. as he arrived at the worksite gate. (Tr. 183). "He handed [over] the parts . . . and we immediately began working" in the cellar "[a]round 2:09 p.m." (Tr. 183, 184, 187). [redacted] testified they worked for "[r]oughly 25 to 30 minutes" before retreating to the

[9] Two Halliburton employees on location waited in their trucks "for their part of the job to come up." (Tr. 324). Halliburton's employees were on site on April 24, 2014, but were in their trucks parked over 300 feet away at the time of the lightning strike and provided no relevant information at trial. (Tr. 373).

doghouse. (Tr. 187). [redacted]'s testimony is corroborated by [redacted][redacted]'s testimony that they worked in the rain for about thirty minutes before going to the doghouse and [redacted]'s testimony that they worked "probably 15, 20, 30 minutes" before taking shelter. (Tr. 288, 402).

[redacted] testified that after leaving the doghouse they returned to the cellar where they worked for "roughly fifteen minutes" (Tr. 194). [redacted]'s testimony is corroborated by [redacted]'s testimony that after leaving the doghouse, they worked "I believe ten, fifteen minutes" before the lightning strike occurred. (Tr. 293). As [redacted] explained, "the B section was already on. All we had to do was to put the nuts and the bolts back in it and we [were] putting them back in it. And then all I seen was light and I heard boom." (Tr. 292).[10] [redacted] testified the lightning strike occurred "roughly in between 2:57, 2:57 -- probably 2:56 and 2:58." (Tr. 195). As Key Energy puts it, "Then, something happened. No witness testified where the lightning struck." (Resp't's Post-Trial Br. at 15). Key Energy does not dispute "the incident involved a lightning strike in some fashion," but correctly notes, "Where it struck, what it struck, and how it struck, however, are unknown." (*Id.* n. 10). After the lightning strike, [redacted] went to his truck and began making phone calls to his boss and family members at 3:01 p.m. (Tr. 183-184, 198).

As to the amount of time spent sheltered in the doghouse, according to [redacted], they stayed in the doghouse "[r]oughly five to seven minutes," (Tr. 291), which is generally consistent with the statement given by Roger Harris to OSHA the day after the accident on April 25, 2014, that "about 10 or 15 minutes after the rain stopped, we started working again."[11] (Tr. 79, 189). Although Roger Harris testified at trial that they were sheltered in the doghouse

[10] When Roger Harris was asked how long he had been working again before lightning struck, he testified, "We stripped off the old B-section and set the new B-section. So at least 30 minutes or better to do each one, so probably an hour, maybe more." (Tr. 80). [redacted]'s testimony corroborates Roger Harris's testimony as to the type of work done after leaving the doghouse ("We jumped back down in the cellar to finish taking off the bolts to the B section, the bolts and nuts. And we got the . . . new B section put back on and we started to tighten the bolts."). (Tr. 408). Nonetheless, [redacted]also testified they only worked "around 30 minutes" before the lightning strike. (*Id.*) However, both of their testimony was contradicted by [redacted]'s testimony that the B section was already on and all they "had to do was to put the nuts and the bolts back in it" when the lightning strike occurred. The Court finds [redacted]'s testimony more credible since he was the Rig Operator responsible for running the rig and further, his testimony fits the timeline established by [redacted]'s testimony regarding his cell phone calls.

[11] Key Energy argues in its brief that "[redacted] initially claimed the time was merely five to seven minutes, but conceded it was a stab-in-the-dark guess." (Resp't's Post-Trial Br. at 15). The Court does not agree. At trial, [redacted] merely admitted he did not know "exactly that it was five to seven minutes." (Tr. 207).

"probably 30 minutes or more," this testimony was not credible since it was inconsistent with his OSHA statement. (Tr. 77, 78, 79). [redacted] and [redacted] also testified they were in the doghouse for about 30 to 40 minutes. (Tr. 291, 407). The Court does not credit the testimony of Roger Harris, [redacted], or [redacted] on this issue since their estimates (after adding each of their estimates regarding the amount of time worked prior to sheltering and after sheltering) would exceed the timeframes established by [redacted]'s testimony regarding the cell phone calls he received and made at 2:09 p.m. and 3:01 p.m.

The Lightning Strike

Roger Harris testified that immediately after the lightning strike, he had just finished moving some equipment with a forklift and was walking back from the rig. He looked at a beam near the wellhead. "I was looking down at the beam and I could see like arcing, like welder arcing off the guywires onto the beam. . . . And then I looked over to the cellar and everybody was, I mean, like smoking." (Tr. 82). "It was like smoke coming off of them." (Tr. 86). All four employees in the cellar were injured by the lightning strike. Roberts was sitting in his truck when the lightning strike occurred. He testified, "I looked up and saw the guys in the cellar and I saw a small amount of smoke and a couple of the guys were pulling two of the guys out of the cellar. Their heads were up. So I knew that they were not -- you know, they were alive. I knew something was not right and so I immediately called 911." (Tr. 354).

[redacted] stated, "I just remember seeing white and I heard boom. And the next thing I knew, Roger was pulling me up out of the cellar taking me across the location. . . . My arms were just—I guess, achy, hurting. That's it for me. I was the least one that got hurt of the all four of us." (Tr. 293). [redacted] was hospitalized overnight. (Tr. 293). Roger Harris testified that [redacted] "had a little spot on his hand where it was cut, blowed open, whatever you want to call it, and a couple of spots on his leg and his back. The other ones, they just -- I didn't see no real injuries on them." (Tr. 90-91).

Regarding the lightning strike, [redacted] testified, "I didn't hear it. I just seen red and orange to my eyes and -- I mean, I fell down I guess. They said I fell down. I don't know. They said it stood me up and when I fell down, and then I couldn't move after that. I was paralyzed, I guess. I couldn't even climb out. . . . I couldn't move for almost twenty-four hours." (Tr. 409). [redacted] testified he had a burn on his torso "[l]ike a tree branched out -- you know, a tree branch of the lightning on my right side for a little while." (Tr. 409). As for ongoing difficulties,

[redacted] testified, "I get a little -- my nerves and – I mean, stressed out when, you know, lightning comes around, when storms come, I get nervous pretty bad." (Tr. 410).

> [redacted] sustained the most severe injuries:
>
> I remember I was, to the best of my knowledge, knocked out for a little while, or brief period. I remember seeing a really whitish blue light and hearing kind of screaming and, you know, looking back and seeing that, you know, my flesh was kind of melting with my—the FRs that I had on and seeing everybody else over there kind of squeeming [sic] around. And then the next thing I remember, I'm getting pulled out of the cellar and trying to, you know, get away from the cellar as quick as I can and get my clothes that were burning to me off. . . . I sustained burns all over my arm and my leg.

(Tr. 198-199) ("sic" in original). Roger Harris helped pull [redacted] out of the cellar. He testified [redacted]'s clothes "looked like they had been shredded, like cut up pretty bad." (Tr. 91). [redacted] was hospitalized for five days and did not return to work for Canary for three and a half months. (Tr. 199-200).

III. ANALYSIS

A. Key Energy's Failure to Timely Raise Affirmative Defenses

Key Energy argues in its post-trial brief the Secretary improperly cited the general duty clause since, according to Key Energy, 29 C.F.R. § 1910.38,[12] which relates to emergency action plans, "applied to the actions that took place in Quitman, Arkansas on April 24, 2014." (Resp't's Post-Trial Br. at 31). Further, Key Energy argues it "is not citable under the multi-employer worksite defense." (*Id.* at 55). In *Brand Energy Sols. LLC*, 25 BNA OSHC 1386 (No. 09-1048, 2015), the Commission reiterated that a "claim that a general standard is preempted by a more specific standard is an affirmative defense." *Id.* at 25 BNA OSHC 1389 (*citing Vicon Corp.*, 10 BNA OSHC 1153, 1157 (No. 78-2923, 1981), *aff'd*, 691 F.2d 503 (8th Cir. 1982) (Table)). Likewise, to establish the multi-employer worksite defense, Key Energy must prove, by a preponderance of the evidence, that it (1) did not create the violative condition; and (2) did not control the violative condition such that it could realistically have abated the condition in the manner required by the standard; and (3) (a) made reasonable alternative efforts to protect its employees from the violative condition; or (b) did not have, and with the exercise of reasonable

[12] Section 1910.38(a) provides: "An employer must have an emergency action plan whenever an OSHA standard in this part requires one. The requirements in this section apply to each such emergency action plan." 29 C.F.R. § 1910.38(a).

diligence could not have had, notice that the violative condition was hazardous. *Capform Inc.*, 13 BNA OSHC 2219, 2222 (No. 84-556, 1989) *aff'd*, 901 F.2d 1112 (5th Cir. 1990).

However, Commission Rule 34(b)(3) provides that the "answer shall include all affirmative defenses being asserted." 29 C.F.R. § 2200.34(b)(3). Further Rule 34(b)(4) cautions that "[t]he failure to raise an affirmative defense in the answer may result in the party being prohibited from raising the defense at a later stage in the proceeding, unless the Judge finds that the party has asserted the defense as soon as practicable." 29 C.F.R. § 2200.34(b)(4). Here, Key Energy failed to timely raise these affirmative defenses in its answer or in its "Statement of Legal Issues Presented" in the Joint Pretrial Order. (Answer, ¶¶10-16; Jt. Pretrial Order ¶¶ 8a-8o). Therefore, the Court concludes Key Energy is prohibited from raising these defenses at this stage in the proceeding since it failed to assert them "as soon as practicable." 29 C.F.R. § 2200.34(b)(4).

B. Key Energy's Best Evidence Objection

After [redacted] testified in detail regarding the timeline of events, Key Energy's counsel belatedly objected, citing the "best evidence rule" and arguing, "OSHA hasn't produced any of his phone records." (Tr. 196). In its post-trial brief, Key Energy again argues,

> The Secretary failed to give notice of any intent to use testimony based on Mr. [redacted]'s cell phone or cell phone records, or make [redacted]'s cell phone available for inspection, or make available [redacted]'s cell phone records, in violation of FED. R. EVID. 1002. For that matter, the Secretary failed to produce in discovery any of [redacted]'s cell phone records, or make his cell phone available for inspection, all of which were responsive to Key Energy's discovery requests. To the extent this issue becomes critical to the Court's ultimate decision, Key Energy requests the opportunity to submit additional briefing.

(Resp't's Post-Trial Br. at 10, n. 6). Key Energy's reliance on Federal Rule of Evidence 1002 is misplaced.

Under Rule 1002, commonly known as the best evidence rule, "[a]n original writing, recording, or photograph is required in order to prove its content unless these rules or a federal statute provides otherwise." "Thus, the best evidence rule 'comes into play only when the terms of a writing are being established,' not when a witness's testimony is based on personal knowledge." *Kiva Kitchen & Bath Inc. v. Capital Distrib. Inc.*, 319 F. App'x 316, 322 (5th Cir.

2009) (*citing In re Mobilift Equip. of Fla., Inc.*, 415 F.2d 841, 844 (5th Cir.1969)).[13] Here, the Secretary was attempting to elicit testimony concerning [redacted]'s personal knowledge of the events of April 24, 2014, not the contents of his phone records. The fact that [redacted] looked at his phone records prior to trial does not trigger Rule 1002 since it was not offered in evidence and "the use of a document for refreshment purposes does not trigger the best evidence rule." *Kiva Kitchen*, 319 F. App'x at 323 (*citing* Weinstein's Federal Evidence § 1002.04; *Weir v. Comm'r*, 283 F.2d 675, 678 (6th Cir.1960) (holding that the best evidence rule is not involved when a document is not offered in evidence, but only used to refresh a witness's recollection)).[14]

C. Applicability of General Duty Clause to the Cited Conditions

Congress declared the Act was intended "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources." 29 U.S.C. § 654(b). "It is well-settled that the Secretary has essentially two weapons in its arsenal of enforcement. First, the Secretary may issue a citation for violations of specific standards promulgated (through rulemaking) by the Secretary. Alternatively, where the Secretary has not promulgated standards, he may rely on the General Duty Clause as a 'catchall provision.'" *Reich v. Arcadian Corp*., 110 F.3d 1192, 1196 (5th Cir. 1997) (citation omitted). Under the general duty clause, each employer must "furnish to each of his employees employment and a place of employment free from recognized hazards that are causing or likely to cause death or serious injury to the employees." 29 U.S.C. § 654(a)(1).

In *Whirlpool Corp. v. Marshall*, 445 U.S. 1 (1980), the Supreme Court held, "[a]s the legislative history of this provision reflects, it was intended itself to deter the occurrence of occupational deaths and serious injuries by placing on employers a mandatory obligation independent of the specific health and safety standards to be promulgated by the Secretary." *Id.* at 445 U.S. 13. As the Fifth Circuit reiterates, "a plain reading of the Clause reveals that its focus is on an employer's duty to prevent hazardous conditions from developing in the

[13] Key Energy has its principle office in Houston, Texas (in the Fifth Circuit). The alleged violation occurred near Quitman, Arkansas (in the Eighth Circuit). Therefore, both parties may appeal the final order in this case to either the Fifth or the Eighth Circuit Court of Appeals. In addition, Key Energy may appeal to the District of Columbia Circuit. *See* 29 U.S.C. § 660(a) & (b).

[14] Therefore, Key Energy's request to submit additional briefing on the issue of [redacted]'s cell phone records, which the Court notes was included in its post-trial brief in violation of Commission Rule 40(a), is denied. *See* 29 C.F.R. § 2200.40(a) ("A motion shall not be included in another document, such as a brief or a petition for discretionary review, but shall be made in a separate document.").

employment itself or the physical workplace." *Arcadian*, 110 F.3d at 1196. "Consistent with the OSH Act generally, the mere fact that a recognized hazardous condition exists and is 'likely to cause' death or serious physical harm constitutes a sufficient showing that an employer has breached the General Duty Clause." *Id.* at 110 F.3d 1197.

D. Elements of a General Duty Clause Violation

To prove a violation of the general duty clause, the Secretary must prove: "(1) an activity or condition in the employer's workplace presented a hazard to an employee, (2) either the employer or the industry recognized the condition or activity as a hazard, (3) the hazard was likely to or actually caused death or serious physical harm, and (4) a feasible means to eliminate or materially reduce the hazard existed." *SeaWorld of Florida, LLC v. Perez*, 748 F.3d 1202, 1207 (D.C. Cir. 2014) (*citing Fabi Constr. Co. v. Sec'y of Labor*, 508 F.3d 1077, 1081 (D.C.Cir.2007) (citation omitted)); *see also United States Postal Serv. Nat'l Ass'n of Letter Carriers,* 21 BNA OSHC 1767 n. 9 (No. 04-0316, 2006).

1. Condition or Activity in the Workplace Presented a Hazard

The Secretary's citation alleges Key Energy violated the general duty clause "in that employees were exposed to being struck by lightning" because they "continued working outside during a thunderstorm that produced rain and lightning." (Compl. Ex. A, p. 6). The Secretary contends in his post-trial brief Key Energy "does not dispute that its employees were exposed to hazardous conditions on April 24, 2014" and that it does not "dispute that lightning posed serious hazards for its employees on April 24, 2014." (Sec'y's Post-Trial Br. at 12). The Court does not agree. To the contrary, Key Energy devoted five and a half pages of its post-trial brief to this issue, in a section captioned "*IX. The Secretary Failed to Present Evidence of a Preventable Hazard*." (Resp't's Post-Trial Br. at 37).

Key Energy contends the Secretary failed to establish a condition or activity in its workplace presented a hazard in that "'being struck by lightning' is not a preventable hazard." (Resp't's Post-Trial Br. at 38). First, Key Energy asserts "OSHA itself formally admits that a lightning strike is an event 'outside the employer's control.' " (*Id.*) (*citing* Occupational Injury and Illness Recording and Reporting Requirements, Final Rule, 66 Fed. Reg. 5916, 5929 (2001) (codified at 29 C.F.R. Parts 1904 and 1952, § 1952.4); Ex. R-9)). The Court notes the preamble to a standard is the most authoritative evidence of the meaning of the standard. *Wal-Mart Distribution Ctr. # 6016*, 25 BNA OSHC 1396, 1398 (No. 08-1292, 2015); *Superior Rigging &*

Erecting Co., 18 BNA OSHC 2089, 2092 (No. 96-0126, 2000). However, the Secretary argues, and the Court agrees, the preamble "does not provide OSHA's position on whether an employer has exposed its employees to the recognized hazard of lightning or specific hazardous conditions. OSHA is not arguing nor has it ever asserted that [Key Energy] 'controls' lightning during thunderstorms." (Sec'y's Post-Trial Br. at 24). "Since Key Energy and its industry recognize the hazards associated with exposure to lighting, the general duty clause requires that Key Energy protect its employees and materially reduce employee exposure to the hazards through feasible abatement means." (*Id.*)

Key Energy also argues "the citation's description of the hazard is overly broad. Review Commission precedent limits the applicability of the General Duty Clause to *preventable* hazards. *Pelron Corp.*, 12 BNA OSHC 1833, 1835 (No. 82-388, 1986)." (Resp't's Post-Trial Br. at 39) (emphasis in original). The Court does not agree. The first two paragraphs of the citation's description state in pertinent part,

> The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that *employees were exposed to being struck by lightning.*
> On or about April 24, 2014, and times prior thereto, employees performing servicing operations on natural gas well Linn Linda 8-12 1-23H at or near Latitude +35.30554 and Longitude -92.25769, Quitman, Arkansas, *continued working outside during a thunderstorm that produced rain and lightning.*

(Compl. Ex. A, p. 6) (emphasis added). Thus, the recognized hazard— being struck by lightning, was defined in a way that identified conditions or practices over which Key Energy can reasonably be expected to exercise control— its workers continuing to work outside during a thunderstorm that produced rain and lightning. Therefore, the citation defined the hazard in a way that apprises Key Energy of its obligations, and identifies conditions or practices over which Key Energy can reasonably be expected to exercise control.

Further, Key Energy's reliance on *Pelron* is misplaced. In *Pelron*, "the Commission was addressing the requirement that recognized hazards be 'preventable' and 'be defined in a way that … identifies conditions or practices over which the employer can reasonably be expected to exercise control.'" *SeaWorld*, 748 F.3d at 1210. However, the Commission's more recent opinions addressing the general duty clause uniformly phrase the first element the Secretary must prove as a "condition or activity in the workplace presented a hazard." Thus, in *Arcadian Corp.*,

the Commission held a "hazard must be defined in a way that apprises the employer of its obligations, and identifies conditions or practices over which the employer can reasonably be expected to exercise control." *Arcadian Corp.*, 20 BNA OSHC 2001, 2008 (No. 93-0628, 2004). *See also CSA Equipment Company, LLC*, 24 BNA OSHC 1476 n. 1 (12-1287, 2014); *K.E.R. Enterprises Inc.,* 23 BNA OSHC 2241, 2242 (No. 08-1225, 2013); *ACME Energy Services,* 23 BNA OSHC 2121, 2123 (No. 08-0088, 2012), *aff'd*, 542 F. App'x. 356 (5th Cir. 2013); *Deep South Crane & Rigging,* 23 BNA OSHC 2099, 2100 (No. 09-1240, 2012); *Burford's Trees Inc.,* 22 BNA OSHC 1948, n. 5 (No. 07-1899, 2010). Therefore, the word "preventable" does not appear in the Commission's current formulation of the first element of proof for a general duty clause violation. Thus, the Secretary "is not required to show that the proposed abatement would completely eliminate the hazard." *CSA Equipment*, 24 BNA OSHC at 1485 (*citing Acme Energy*, 23 BNA OSHC at 2127).

Key Energy also asserts that a "workplace hazard cannot be defined in terms of a particular abatement method." (Resp't's Post-Trial Br. at 41). However, the Court finds the defined hazard was clearly distinguished "from the means of abatement identified," which was separately addressed in the third paragraph of the alleged violation description. (*See* Compl. Ex. A, p. 6). Therefore, contrary to Key Energy's assertions, the Court finds the hazard was defined in terms of a preventable consequence of the work operation, not the absence of an abatement method.

Key Energy also faults the Secretary because he "offered no evidence to show how often lightning occurs near Quitman, Arkansas, nor any estimation on the probability that the location would be struck by lightning. The Secretary introduced no evidence indicating that lightning had previously struck the location." (Resp't's Post-Trial Br. at 42). However, such evidence was not necessary to establish that employees may be struck by lightning when working outside during a thunderstorm. "There is no mathematical test to determine whether employees are exposed to a hazard under the general duty clause. Rather, the existence of a hazard is established if the hazardous incident can occur under other than a freakish or utterly implausible concurrence of circumstances." *Waldon Health Care Ctr.,* 16 BNA OSHC 1052, 1060 (No. 89-3097, 1993) (*citing National Realty,* 489 F.2d at 1265 n. 33). Being struck by lightning while working outside during a thunderstorm is neither a freakish nor an utterly implausible concurrence of circumstances.

There would seem to be little dispute over the existence of a hazard in the instant case, where four employees were, in fact, injured by a lightning strike on the worksite and subsequently hospitalized as a result of their injuries. "In the usual case involving an alleged violation of the general duty clause, the hazardous nature of the underlying conditions is presumed. No one questions whether an explosion, fire, or 20–foot fall can injure employees, *i.e.*, whether these events, if they occur, pose a significant risk of causing death or serious physical harm. The question in those cases usually involves whether the hazard exists, i.e., whether the conditions that exist in the workplace can lead to the hazardous event." *Waldon*, 16 BNA at 1068 n. 5. Here, the conditions existing in the workplace, *i.e.*, employees working outside in a thunderstorm, led to the hazardous event of being injured by a lightning strike. The Court concludes the Secretary has established the existence of a hazard of being injured or killed by a lightning strike.

2. Recognized Hazard

"Whether a work condition poses a recognized hazard is a question of fact." *SeaWorld*, 748 F.3d at 1208. "The hazard, not the specific incident resulting in injury, is the relevant consideration in determining the existence of a recognized hazard." *Kansas City Power & Light Co.*, 10 BNA OSHC 1417, 1422 (No. 76-5255, 1982). In its brief, Key Energy states, "[t]o the extent the Court finds the Secretary meets his burden on the first element, Key Energy would stipulate that the company recognizes the hazard, without waiver of any of its other arguments. Key Energy does not agree that the Secretary established that the well servicing industry recognizes the hazard, but it is unnecessary for the Court to resolve this issue." (Resp't's Post-Trial Br. at 43).

The Court disagrees with Key Energy's assertion that the Secretary failed to establish the well servicing industry recognizes the hazard of being struck by lightning. Stephen Wells, Key Energy's Senior Health, Safety, and Environment Advisor, has worked in the oil and gas industry (which includes the well servicing industry) for 35 years. (Tr. 486). At trial Wells was asked, "as far as your experience in the oil and gas industry, is it correct to say that the industry recognizes that exposure to lightning could cause serious injury?" Wells responded, "I would say it would have to be yes, anyone would know that." (*Id.*) Based on the record and on Key Energy's stipulation, the Court concludes Key Energy recognized the hazard of being struck by lightning.

3. Causing or Likely to Cause Death or Serious Physical Harm

The Commission does not require there be a significant risk of the hazard coming to fruition, "only that if the hazardous event occurs, it would create a 'significant risk' to employees." *Waldon*, 16 BNA OSHC at 1060. Thus, the Commission has made clear "the criteria for determining whether a hazard is 'causing or likely to cause death or serious physical harm' is not the likelihood of an accident or injury, but whether, if an accident occurs, the results are likely to cause death or serious harm." *Waldon*, 16 BNA OSHC at 1063. Here, there is no dispute that being struck by lightning is likely to cause death or serious bodily harm.

Further, the injuries to the employees constitute at least *prima facie* evidence that the hazard was likely to cause death or serious injury. *See e.g., Usery v. Marquette Cement Mfg. Co.*, 568 F.2d 902, 910 (2d Cir. 1977) ("The fact that the activity in question actually caused one death constitutes at least prima facie evidence of likelihood: 'the potential for injury is indicated on the record by [the] death and, of course, by common sense.' *National Realty*, 489 F.2d at 1265 n. 33."). At trial, counsel for Key Energy stated "we're not disputing that a bolt of lightning can cause serious bodily injury." (Tr. 567). Further, in its post-trial brief, Key Energy again states it "does not dispute the third element of the Secretary's case in this action—that lightning can cause serious injury." (Resp't's Post-Trial Br. at 43, n. 23) Based on the record and Key Energy's stipulations, the Court concludes the hazard of lightning striking the exposed employees at Key Energy's worksite was likely to cause death or serious

4. Feasible Means to Eliminate or Materially Reduce the Hazard

As indicated *supra*, as part of his burden, the Secretary must show "a feasible means to eliminate or materially reduce the hazard existed." *SeaWorld*, 748 F.3d at 1207 (citation omitted); *United States Postal Serv. Nat'l Ass'n of Letter Carriers,* 21 BNA OSHC 1767. Thus, the Secretary must show his proposed abatement method "is feasible and will eliminate or materially reduce the hazard." *Arcadian*, 20 BNA OSHC at 2007 (citation omitted). Further, as indicated *supra*, the Secretary "is not required to show that the proposed abatement would completely eliminate the hazard." *CSA Equipment*, 24 BNA OSHC at 1485 (*citing Acme Energy*, 23 BNA OSHC at 2127).

Here, the Secretary proposed two abatement methods in the citation. The first method was "to train and ensure Supervisors/Management officials controlling and overseeing the projects to stop work activities during inclement weather hazards." (Compl. Ex. A, p. 6). The

second method of abatement proposed in the citation was to provide "weather radios for employees working in rural locations outdoors for notification on weather alerts/posted in their areas." (*Id.*) However, in the parties' May 12, 2015, proposed Pretrial Order, and in his pretrial and post-trial briefs, the Secretary moved the goalposts, now requiring Key Energy to implement policies and procedures that involve taking shelter and suspending outside work activity *for at least 30 minutes* from the last time storm activity is seen or heard before resuming work activities "as recommended by the National Weather Service 'Lightning Risk Reduction Outdoors' guidance," to provide lightning detectors, and to use mobile weather apps. (*See* Proposed Jt. Pretrial Order at 3; Sec'y's Pretrial Br. at 7; Sec'y's Post-Trial Br. at 16) (emphasis added).

Key Energy objected in its post-trial brief to these additional abatement methods, which were not raised in the pleadings, arguing it "did not try these issues by consent and had no fair opportunity to prepare a defense to abatement theories made up [after] the close of discovery by the Secretary." (Resp't's Post-Trial Br. at 45, n. 24). Rule 15(a) of the Federal Rules of Civil Procedure, which governs amendments to pleadings before trial, provides that a party may amend its pleading once as a matter of course within "(A) 21 days after serving it, or (B) if the pleading is one to which a responsive pleading is required, 21 days after service of a responsive pleading or 21 days after service of a motion under Rule 12(b), (e), or (f), whichever is earlier." Fed.R.Civ.P. 15(a)(1). "In all other cases, a party may amend its pleading only with the opposing party's written consent or the court's leave. The court should freely give leave when justice so requires." Fed.R.Civ.P. 15(a)(2). Here, however, these additional abatement methods were not raised in the citation incorporated into the complaint and the Secretary never moved to amend the citation or the complaint before trial pursuant to Rule 15(a).[15]

Rule 15(b)(2), which governs amendments to pleadings during and after trial, provides that "issues litigated by express or implied consent are 'treated in all respects as if they had been raised in the pleadings,' and any relevant amendments of the pleadings may be made upon any party's motion 'at any time, even after judgment.'" *Nat'l Bus. Forms & Printing, Inc. v. Ford Motor Co.*, 671 F.3d 526, 538 (5th Cir. 2012) (*citing* Fed.R.Civ.P. 15(b)(2)). *See also*, *Zenergy, Inc. v. Performance Drilling Co.*, 603 F. App'x 289, 292 (5th Cir. 2015). "As long as fair notice

[15] *See also* Commission Rule 34(a)(3)("Where the Secretary seeks in his complaint to amend his citation or proposed penalty, he shall set forth the reasons for amendment and shall state with particularity the change sought."). 29 C.F.R. § 2200.34(a)(3).

is afforded, an issue litigated at the hearing may be decided by the judge even if the issue is not explicitly raised in the pleadings." *Nat'l Realty & Constr. Co. v. Occupational Safety & Health Review Comm'n*, 489 F.2d 1257, 1264 (D.C. Cir. 1973).

However, an amendment under Rule 15(b)(2) "is proper only if two findings can be made— that the parties tried an unpleaded issue and that they consented to do so." *McWilliams Forge Co.*, 11 BNA OSHC 2128, 2129 (No. 80-5868, 1984). "Consent [will] be found only when the parties ... 'squarely recognized' that they were trying an unpleaded issue." *Erickson Air-Crane, Inc.*, 2012 WL 762001 at *2 (No. 07-0645, 2012) (*citing NORDAM Group*, 19 BNA OSHC 1413, 1414-15 (No. 99-0954, 2001) (citation omitted)). The Secretary argues in his May 22, 2015, pre-trial brief that "Key Energy has notice of what the Secretary expects it to do in order to comply, including implementing policies and procedures that involve taking shelter and suspending outside work activity for at least 30 minutes from the last time storm activity is seen or heard before resuming work activities, provide lightning detectors, and to use mobile weather apps if internet services are available." (Sec'y's Pretrial Br. at 7). The Court does not agree with the Secretary since they were raised by the Secretary for the first time in the proposed Pretrial Order just two weeks before trial, *after* the discovery period had closed, and *after* Key Energy's expert report had been prepared.

Further, at trial, Key Energy's counsel cross-examined Seandra Williams, OSHA's Compliance Safety and Health Officer, regarding the discrepancy between the citation language and the additional proposed abatement methods. Williams acknowledged that nowhere in the citation does the 30-minute waiting period as recommended by the National Weather Service 'Lightning Risk Reduction Outdoors' guidance appear as a means of abatement and that she did not mention such abatement during the closing conference. (Tr. 598-599). Williams also admitted that waiting 30 minutes after the last storm activity was not alone sufficient to meet the Secretary's new abatement method:

> Q. Now I want to talk to you about you mentioned this 30-minute rule, you talked about; remember that?
>
> Williams: Yes.
>
> Q. Are you meaning to tell the Court that if Key and the others on location had waited 31 minutes or more and lightning struck the location, that you would not have recommended a citation be given?

> Williams: Not 31 minutes, and no, they'd also need to have another physical means for detecting the lightning.
>
> Q. So just waiting 30 minutes alone would not have sufficed to -- or I'm sorry. It would have potentially gotten them a citation; correct?
>
> Williams: It wouldn't have probably prevented a citation but it would have prevented the incident from probably occurring.
>
> Q. So you still would have issued them a citation if they waited 30 minutes?
>
> Williams: Maybe -- we might have been -- actually, we wouldn't have been called to the location to do an inspection.

(Tr. 596-597). Therefore, it is clear Key Energy did not consent to try these additional abatement issues.

Further, the General Duty Clause, being a statute of general obligation, always poses fair notice concerns. *Nat'l Realty & Constr. Co. v. OSHRC*, 489 F.2d 1257, 1268 n. 41 (D.C. Cir. 1973). "Due process requires that parties receive fair notice before being deprived of property." *Gen. Elec. Co. v. U.S. E.P.A.*, 53 F.3d 1324, 1328 (D.C. Cir. 1995), as corrected (June 19, 1995). "Although the agency must always provide 'fair notice' of its regulatory interpretations to the regulated public, in many cases the agency's pre-enforcement efforts to bring about compliance will provide adequate notice." *Id.* In some cases, however, "the agency will provide no pre-enforcement warning," effectively deciding "to use a citation as the initial means for announcing a particular interpretation," which "may bear on the adequacy of notice to regulated parties." *Martin v. OSHRC*, 499 U.S. 144, 158 (1991). The present case is such a scenario.

"In such cases, we must ask whether the regulated party received, or should have received, notice of the agency's interpretation in the most obvious way of all: by reading the regulations." *Gen. Elec. Co.*, 53 F.3d at 1329. Here, the Secretary has not promulgated a specific standard through rulemaking addressing hazards associated with lightning strikes and failed to give notice vis-à-vis the citation as the initial means for announcing that employees must suspend outside work activity "for at least 30 minutes from the last time of storm activity" as "recommended by the National Weather Service 'Lightning Risk Reduction Outdoors' guidance."

If "a regulated party acting in good faith would be able to identify, with 'ascertainable certainty,' the standards with which the agency expects parties to conform, then the agency has

fairly notified a petitioner of the agency's interpretation." *SeaWorld*, 748 F.3d at 1229 (*citing Diamond Roofing*, 528 F.2d at 649). Here, however, acting in good faith, Key Energy would not have been able to identify with "ascertainable certainty" the Secretary's 30 minute waiting requirement as "recommended by the National Weather Service 'Lightning Risk Reduction Outdoors' guidance" since the Secretary has no such regulation and has never provided any formal OSHA interpretive letters referring employers to the National Weather Service for guidance. The Secretary has also failed to establish this industry, or any industry, relied on the National Weather Service's "Lightning Risk Reduction Outdoors' guidance."

Further, as Key Energy points out, the Secretary has never cited an employer for exposing employees to being struck by lightning. As the Supreme Court has acknowledged, "an agency's enforcement decisions are informed by a host of factors, some bearing no relation to the agency's views regarding whether a violation has occurred." *Christopher v. SmithKline Beecham Corp.*, 132 S. Ct. 2156, 2168 (2012) (*citing e.g., Heckler v. Chaney*, 470 U.S. 821, 831 (1985) (noting that "an agency decision not to enforce often involves a complicated balancing of a number of factors which are peculiarly within its expertise")). "But where, as here, an agency's announcement of its interpretation is preceded by a very lengthy period of conspicuous inaction, the potential for unfair surprise is acute." *Id.* "[W]hile it may be 'possible for an entire industry to be in violation of the [Act] for a long time without the Labor Department noticing,' the 'more plausible hypothesis' is that the Department did not think the industry's practice was unlawful." *Id.* (*citing Yi v. Sterling Collision Centers, Inc.*, 480 F.3d 505, 510–511 (2007)).

Thus, the Court concludes the Secretary has failed to prove "that a reasonably prudent employer familiar with the circumstances of the industry would have protected against the hazard" [by suspending outside work activity "for at least 30 minutes from the last time storm activity" as "recommended by the National Weather Service 'Lightning Risk Reduction Outdoors' guidance" and by the use of lightning detectors, lightning detection services and computer/mobile device apps]." *SeaWorld*, 748 F.3d at 1207 (citation omitted). Under these circumstances, the Court concludes since the additional abatement issues were never explicitly raised in the pleadings and the parties did not consent to try these unpleaded issues, the only abatement methods at issue before the Court are the two methods proposed by the Secretary in the citation.

(a) Train and Ensure Supervisors/Management Officials Controlling and Overseeing Projects Stop Work Activities During Inclement Weather Hazards

Key Energy created an Emergency Action Plan which contained procedures to assure employee safety during emergencies, including adverse weather. (Ex. C-3; Tr. 95, 464, 475). As part of that training, Key Energy personnel were trained to monitor and watch storms and crew members were taught what steps to take during adverse weather, including lightning. (Ex. R-3 at 10, R-4(a) at 105, R-4(b) at 1; Tr. 26, 31, 38, 44, 46, 156, 266, 271-72). Key Energy also conducted Well Site Scenarios, where HSE team members gave employees hypothetical scenarios and graded their responses to the scenario, one of which specifically tested employees on adverse weather. (Tr. 513). Key Energy conducted daily safety meetings before work starts and monthly safety meetings on a variety of subjects, including adverse weather. (Tr. 121-22,262, 266, 463-64). Key Energy's crew members testified that they shut down a location at any point when they felt uncomfortable or unsafe working outside when a thunderstorm approached, regardless of how far away the lightning may have been. (Tr. 34, 43, 130-31, 264, 394). Key Energy has a Stop Work Authority policy, also known as Key Energy's "Stop Work Program," which provides that anyone on location, employees and nonemployees alike, can stop work at any time for any reason. (Tr. 119-20, 471-72). Even if the employee is wrong about what he or she perceives as a hazard, Key Energy requires the entire crew to stop working, discuss the potential hazard, and resolve it. (Tr. 472).

Key Energy provided RigPass /SafeLand (RigPass) safety training for its employees. As Wells explained, this training "was developed by the oil companies to stop all the different orientations for each company, so it encompassed many training modules inside of the -- inside of this training. It's very comprehensive." (Tr. 491) All Key Energy crew members underwent an all-day RigPass training course, which covered numerous safety topics, including instruction on Key Energy's Emergency Action Plan. (Ex. R-3, R-4(a)-(b), R-5(a)-(d), R-6(a)-(e); Tr. 112-13, 115, 299-300, 413, 491-92). RigPass training also covered adverse weather, including lightning and thunderstorms. (Ex. R-3 at 10, R-4(a) at 105, R-4(b) at 1; Tr. 116, 156, 389-91, 492-93). The RigPass training module used by Key Energy contained specific slides on adverse weather. (Ex. R-4(a) at 105 ([redacted] label KEY 168)). Key Energy's crew members received RigPass training annually, including Roger Harris, Key Energy's supervisor on site. (Tr. 26-27, 502; *see also* Ex. R-5a).

"[T]he employer may defend against a general duty clause citation by demonstrating that it was using an abatement method that is as effective as the one suggested by the Secretary. *Brown & Root, Inc.*, 8 BNA OSHC 2140, 2144 (No. 76-1296, 1980)." *Waldon Health Care Center*, 16 BNA at 1063. It is undisputed Key Energy's employees shut down the worksite and retreated to the shelter of the doghouse during the thunderstorm on April 24, 2014. The Court concludes Key Energy met the requirements of the first method of abatement set out by the Secretary in the citation since Key Energy "train[ed] and ensure[d] Supervisors/Management officials controlling and overseeing the projects to stop work activities during inclement weather hazards." Key Energy's abatement method of providing RigPass training to its supervisors and crew members and enforcing its Stop Work Authority policy was as effective in materially reducing the hazard as the method proposed by the Secretary.

(b) Weather Radios

The Secretary's second proposed method of abatement in the citation was to provide "weather radios for employees working in rural locations outdoors for notification on weather alerts/posted in their areas." However, in its post-trial brief, the Secretary shifts his focus from weather radios to lightning detectors. As noted above, Key Energy did not consent to litigation of the issue of lightning detectors. Therefore, the Secretary is limited to the methods proposed in the citation.

The Secretary called no experts. Key Energy called George Greenly as an expert witness in meteorology. Greenly holds a Bachelor of Science degree in meteorology from Florida State University, and a Master's Degree in meteorology from the University of Oklahoma. He also holds a candidate of philosophy degree in atmospheric physics from University of California at Davis. (Tr. 685-686; *see also* Ex. R-16). Since 1976, Greenly has been a certified consulting meteorologist, certified by the American Meteorological Society. (Tr. 684-686). He served as a staff meteorologist in the United States Air Force from 1965 to 1978. (Tr. 687). He worked at Lawrence Livermore National Laboratory from 1978 to 1991. Greenly has authored many publications on various meteorological subjects. (Ex. R-16). The Court qualified Greenly as an expert witness in meteorology. (Tr. 699). The Court found Greenly to be highly-qualified and knowledgeable in his field. In his post-trial brief, the Secretary points to no discrepancies or inadequacies in Greenly's testimony. The Court accords great weight to his testimony.

Greenly reviewed excerpts from OSHA's inspection file to familiarize him with the facts of the case and prepared an expert report. (Ex. R-16, at 1, Ex. 17). In his expert report Greenly opines,

> It is my professional opinion based on my experience and meteorological expertise that lightning is arbitrary, capricious, random, and stochastic. Just exactly where and when a particular cloud-to-ground lightning strike will occur is beyond today's understanding of the phenomena. It is an overwhelming, unpreventable event caused exclusively by the force of nature; i.e., it is, in effect, an "act of God"; therefore, my professional opinion is it's intuitively obvious there are no feasible and effective means that Key Energy Services LLC could render its workplaces anywhere in the United States free of the hazard of cloud to ground lightning.

(Ex. R-17, p. 3)

With regard to the use of weather radios, Greenly also opined they would provide no notification of lightning in particular areas.

> Greenly: The National Weather Service is a bureau underneath the National Oceanographic and Atmospheric Administration and it's tasked with severe weather events, predicting them and alerting the public for them. It's also tasked with setting up National Weather Service forecast centers in different cities and running the NOAA weather radio.
>
> Q. And you said National Weather Service issues watches and alerts?
>
> Greenly: Watches and warnings. . . . A watch is a situation where you should be on the lookout for things that happen. For example, a severe thunderstorm watch means that the atmospheric conditions are such that we may have severe thunderstorms occurring in a particular area. A warning means that those conditions that were forecast are actually there. There's been a radar echo that shows a severe thunderstorm is occurring or a tornado. If it's a tornado warning, it means that one has been spotted on the ground visually or there's a hook echo on radar that the weather forecaster says that is a thunderstorm with a tornado in it.
>
> Q. I take it you've listened to or read watches and warnings from the National Weather Service?
>
> Greenly: Yes.
>
> Q. Does a National Weather Service watch mention lightning at all?
>
> Greenly: No.

Q. Does a National Weather Service warning mention lightning at all?

Greenly: No, there's no warnings or watches that are put out for lightning.

Q. Mr. Greenly, based upon your knowledge and expertise, is there anything a company like Key can do to predict when -- I'm sorry, where lightning may strike?

Greenly: No.

Q. Is there anything a company like Key can do to predict when lightning may strike?

Greenly: No.

Q. Is there anything out there that you're aware of that Key could use to render an outdoor worksite free of the hazard of cloud-to-ground lightning?

Greenly: No.

(Tr. 715-717).

Greenly opined the Secretary's proposed use of weather radios as a method of materially reducing employees' exposure to the hazard of a lightning strike would not work "[b]ecause the weather radio is only putting out the information that is already contained in a watch or a warning and forecasts information. It's not telling that something is going to happen at a particular place." (Tr. 718). The Secretary offered no evidence to rebut Greenly's opinion, which the Court finds persuasive. Therefore, the Court concludes the Secretary failed to establish the use of weather radios would materially reduce the cited hazard.

IV. CONCLUSION

"To show that a proposed abatement measure will materially reduce a hazard, the Secretary must submit evidence proving, as a threshold matter, that the methods undertaken by the employer to address the alleged hazard were inadequate. Where the Secretary fails to show any such inadequacy, a violation of the general duty clause has not been established." *United States Postal Serv. Nat'l Ass'n of Letter Carriers,* 21 BNA OSHC at 1775 (*citing e.g.*, *Alabama Power Co.*, 13 BNA OSHC 1240 (No. 84-357, 1987) (citation alleging insufficient safety rules vacated where employer's safety program was not inadequate); *Jones & Laughlin*,10 BNA OSHC 1778 (No. 76-2636, 1982)). Here, the Secretary has failed to prove as a threshold matter,

that the method undertaken by Key Energy to address the hazard was inadequate and therefore, failed to establish a violation of the general duty clause.

Further, as indicated *supra*, Key Energy "may defend against a general duty clause citation by demonstrating that it was using an abatement method that is as effective as the one suggested by the Secretary." *Brown & Root, Inc.*, 8 BNA OSHC at 2144; *Waldon Health Care Center*, 16 BNA at 1063. Key Energy's abatement method of providing RigPass training to its supervisors and crew *members* and enforcing its Stop Work Authority policy was as effective as the ones suggested by the Secretary.[16] Accordingly,

V. ORDER

IT IS HEREBY ORDERED THAT the citation is **VACATED** and no penalty is assessed.

SO ORDERED THIS 1st day of **February, 2016**.

/s/
JOHN B.GATTO, Judge

[16] Greenly did testify as to one available method to materially reduce the hazard of exposure to a lightning strike. "There's an actual lightning detection network in the United States that detects lightning flashes, cloud-to-ground flashes and sends out that information to subscribers. Those subscribers have instruments that will pick up this information. What it does, it will give them a picture of where a particular thunderstorm is at the current time and where those flashes are occurring. It will also show some movement of those things and forecasts." (Tr. 717-718). However, the Secretary did not propose this method of abatement in the citation. Even if this abatement method were properly before the Court, the Secretary nonetheless failed to establish a violation of the general duty clause since he failed to prove as a threshold matter, that the method undertaken by Key Energy to address the hazard was inadequate. *United States Postal Serv. Nat'l Ass'n of Letter Carriers,* 21 BNA OSHC at 1775.