United States of America
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION

SECRETARY OF LABOR, Complainant, v. PATTERSON-UTI DRILLING COMPANY LLC, and its successors, Respondent.	OSHRC Docket No. 18-1204

Appearances:

Lindsay A. Wofford, Esq. & Allyson D. Gault, Esq., Department of Labor, Office of Solicitor, Dallas, Texas
For Complainant

Gregory C. Dillard, Esq., Baker Botts, LLP, Houston Texas; Darren Crook, Esq., Baker & Hostetler, LLP, Cleveland, OH; Douglas D. D'Arche, Esq., Baker & Hostetler, LLP, Houston Texas
For Respondent

Before: First Judge Patrick B. Augustine – U. S. Administrative Law Judge

DECISION AND ORDER

On January 22, 2018, a catastrophic blowout and explosion killed five people[1] on Respondent's oil rig located at Section 17-7N-18E, Quinton, Oklahoma ("Worksite"). The explosion occurred shortly after Respondent completed an operation to remove a worn-out drill bit from the bottom of a horizontal natural gas well owned by Red Mountain Energy. Throughout the course of the previous day, as well as during the hours and minutes leading up to the explosion, the well showed signs that natural gas was entering the wellbore. While natural gas entering the wellbore is not unusual during the drilling process, it can become hazardous if not kept under

1. Three of the people killed worked for Respondent.

control. This case concerns whether Respondent fulfilled its obligation under the general duty clause to provide employment and a place of employment that was free from the recognized hazards of fire and explosion resulting from a loss of well control. Although Complainant established the existence of a recognized hazard that ultimately caused the death of five people, the Court finds Complainant failed to prove Respondent's existing methods of abatement were inadequate or more effective means were available to free the workplace of the hazard.

I. PROCEDURAL HISTORY

As a result of the fatal explosion and fire, Complainant sent Compliance Safety and Health Officer Sandra Swearingen and Area Director Steven Kirby to conduct an inspection of the Worksite. Based on their observations, interviews, and review of relevant materials, Complainant issued a Citation and Notification of Penalty, which alleged nine serious violations of the Occupational Safety and Health Act, 29 U.S.C. §§ 651-678 ("Act") and proposed a total penalty of $73,909. Respondent timely contested the Citation.

This matter proceeded to trial on October 15, 2019, and lasted until October 25, 2019, in Oklahoma City, Oklahoma. Before the trial began, the parties notified the Court they had reached a partial settlement with respect to all but one of the Items contained in the Citation. Those items were resolved as follows:

- **Citation 1, Item 2**: In lieu of alleging a violation of section 5(a)(1) of the Act, the parties agreed to amend Citation 1, Item 2 to allege a violation of 29 C.F.R. § 1910.128(b)(1)(i). The characterization and penalty will remain the same.
- **Citation 1, Item 3(a)**: The standard cited is amended to allege a violation of 29 C.F.R. § 1910.38. The alleged violation description ("AVD") is amended to state, "The employer's post-incident muster process do [sic] not include documenting that non-Patterson workers

were present and accounted for." The original characterization and penalty remain as issued.

- **Citation 1, Item 3(b)**: Withdrawn
- **Citation 1, Item 4(a)**: Withdrawn
- **Citation 1, Item 4(b)**: The parties agree to amend the characterization of this Citation Item to "other-than-serious" and amend the AVD to state, "The employer failed to have documentation of completed training." The penalty, which was provided as a grouped penalty under Citation Item 4(a), remains as issued.
- **Citation 1, Item 5**: The AVD shall be amended to state the violation occurred on or about January 18, 2018. The characterization and penalty remains as issued.
- **Citation 1, Item 6(a)**: Withdrawn
- **Citation 1, Item 6(b)**: The parties agree to amend the cited standard to 29 C.F.R. § 1910.1030(f)(1) and the characterization to "other-than-serious". The penalty, which was provided as a grouped penalty under Item 6(a), remains as issued.

(Tr. 14-17). Thus, the only remaining citation item for adjudication is Citation 1, Item 1, which alleges a serious violation of the general duty clause and proposes a penalty of $12,934. As noted above, based on the Court's analysis, Complainant failed to prove a violation of the general duty clause.

A little less than two months prior to trial, Complainant sought to amend Citation 1, Item 1 to assert additional, more specific means of abatement. For multiple reasons, including dilatory behavior by Complainant in responding to discovery, the proximity of trial, lack of fair notice to Respondent, and the propriety of the amendment itself, the Court denied Complainant's motion.[2]

2. Irrespective of the Court's ruling on the Motion to Amend, and as discussed in more detail below, the Court finds

II. STIPULATIONS & JURISDICTION

The parties stipulated to the following jurisdictional facts:

1. The Commission has jurisdiction over this proceeding under § 10(c) of the Occupational Safety and Health Act, 29 U.S.C. § 659(c) ("Act").

2. Respondent is an employer engaged in a business affecting commerce within the meaning of § 3(5) of the Act, 29 U.S.C. § 652(5).

3. Complainant issued the Citation and Notification of Penalty for Inspection No. 1290639 on July 18, 2018.

4. Respondent timely contested the Citation and Notification of Penalty.

5. Complainant timely filed his Complaint.

6. Respondent timely filed its Answer.

7. The Secretary withdraws Citation 1, Item 3(b).

See Joint Stipulation Statement. Based on the Joint Stipulations, the Court finds the Commission has jurisdiction over this action pursuant to Section 10(c) of the Act, 29 U.S.C. § 659(c). Further, the Court obtained jurisdiction over this matter under section 10(c) of the Act upon Respondent's timely filing of a notice of contest. *Id.* The Court also finds Respondent was an employer engaged in a business and industry affecting interstate commerce within the meaning of sections 3(3) and 3(5) of the Act, 29 U.S.C. §§ 652(3), (5).

Pursuant to Commission Rule 90, 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.

III. FACTUAL BACKGROUND

the proposed abatement measures were either already included in Respondent's Well Control Procedures or were otherwise not within its control.

A. Introduction

Respondent is the second-largest onshore oil and gas drilling contractor in the United States, with approximately 4,800 employees and 246 marketable drilling rigs. (Tr. 1277). Respondent was hired by Red Mountain Energy to drill a horizontal gas well in an area known as the Pryor Trust Lease, which is located outside of Quinton, Oklahoma. Under the contract, Respondent agreed to provide the drilling rig, employees to operate the rig, and equipment to maintain well control, such as a blow-out preventer (BOP).[3] (Ex. R-2). The Worksite was owned and operated by Red Mountain Energy ("Red Mountain"), who hired company men through a contractor named Crescent Consulting. (Tr. 1683). The company man was ultimately responsible for all work performed at the wellsite and had final say on the way the well was drilled. (Tr. 1321, 1807, 1995). That said, Red Mountain and Respondent agreed Respondent's safety rules would govern how the various contractors and employees would conduct themselves during the drilling process. (Ex. R-2).

Respondent's principal responsibility was to drill down 7183 feet, then, with the aid of the directional driller, turn horizontally and drill an additional 10,000 feet until it reached a total measured depth of 17,800 feet. (Ex. C-24). On January 21, 2018, Respondent came within 88 feet of the final mark when the company man determined the drill bit was no longer cutting and decided it needed to be replaced to complete the remaining horizontal portion of the well. (Tr. 281). The drill bit is attached to a group of tools known as the bottom hole assembly (BHA), which, in turn, is attached to a series of pipe sections[4] known as the drill string. (Tr. 156). In order to retrieve the

3. As discussed in more detail below, Respondent was not the only contractor responsible for providing well control equipment. That said, one of the principal pieces of equipment required for maintaining well control is the BOP, as well as other related pieces of equipment, which are typically provided by a driller like Respondent.

4. Individual pipe pieces, which measure roughly 30 feet long, are known as joints. (Tr. 148). A string of three pipe pieces connected together is known as a pipe stand. (Tr. 148). When a drill string is removed or inserted into the wellbore, it is typically done one pipe stand at a time, rather than by an individual pipe section.

drill bit, Respondent had to remove the entire drill string through a process called "tripping out". (Tr. 98). As described in further detail below, the tripping out process took nearly 12 hours to complete, which encompassed the entire nightshift.[5] Once the drill string and BHA were removed from the wellbore, the blind rams were closed, thereby shutting off the well. (Tr. 873-74). A little more than two hours later, shortly after Respondent removed the new BHA they had just tested, there was a blowout that ignited.

What follows is a description of the events leading to the blowout, as well as an explanation of some of the more technical aspects of the drilling process.

B. Day Shift – January 21, 2018

The day before the blowout, Respondent was nearing the end of the planned depth of the wellbore. During the course of the day, Josh Ray, the day driller, was experiencing kicks, which are an influx of gas into the wellbore. (Tr. 415, 449, 1932-33). Ray was able to identify kicks because Pason, the data tracking system, indicated his mud pits were gaining drilling mud, and his gas flare had been running constantly at a height of 20-30 feet and, according to some, as high as 50 feet. (Tr. 90, 413-15, 643). Mud pits are large tanks of an oil-based liquid mixture referred to as "mud", which is designed to hold the gas down inside the wellbore during the drilling process.[6] (Tr. 62, 74, 82). The mud is pumped from the tanks down through the drill string and recycled back up the wellbore through the area known as the annulus, which is the space located between the drill string and the outer edge of the wellbore. (Tr. 68, 288, 440-41; Ex. R-1, R-66, C-9A).

5. The work performed at a drilling rig is broken up into two shifts: Day (6 am to 6 pm) and Night (6 pm to 6am). The crews work for a two-week period, known as a hitch, and then are replaced by a different Day/Night crew. Both crews are supervised by a single rig manager, who works for the drilling company. The owner of the well also employs two company men per hitch; their shifts also cover the aforementioned day/night split.

6. The weight of the mud, which in this case was oil-based, is dictated by the mud engineer based on his assessment of the well conditions. (Tr. 81, 1881). Based on those conditions, the engineer directs Respondent's employees, specifically the derrick hand, to add chemicals, typically barite, to ensure it is sufficiently heavy to prevent the gas from migrating toward the surface. (Tr. 81-82).

During drilling, the mud returning to the surface typically contains cuttings, which are tiny bits of rock and debris from drilling, and potentially gas. (Tr. 83). The mud is sent through a mud-gas separator, which directs the gas to the flare to be burned off, and then to the shakers, which removes the cuttings, before being returned to the mud pits. (Tr. 72, 90; Ex. R-66). During drilling, the volume of the mud pits should go down as the well gets deeper because it requires more mud to fill the space. Thus, the signs observed by Ray indicated gas had entered the wellbore.

In response to early indications of a kick, Ray suggested to the company man, Parker Waldridge, they "mud up", which means to increase the weight of the mud to ensure the gas remains contained at the bottom of the well. (Tr. 483). Waldridge overruled Ray's assessment. (Tr. 484-85). Later, when the mud pits had increased in volume by 40 barrels, Ray began the procedures to close the well, including shutting off the pumps. (Tr. 409, 481). Ray was again overruled by the Waldridge. (Tr. 481-82). Ray attempted to appeal to his Rig Manager, Tony Thompson, but Thompson, who was relatively new to the position, ultimately deferred to the company man, and the drilling continued without any changes. (Tr. 483-85). In fact, drilling did not stop until Waldridge determined the drill bit needed to be replaced. (Tr. 1092-93). Once that determination was made, the well was circulated for two hours before Respondent began the process of tripping out of the wellbore. (Tr. 1090). Circulation is the process of pumping mud through the drill string to remove cuttings and gas to ensure the well is static and no more gas enters the well while removing the BHA and pipe stands. (Tr. 96).

C. Shift Change – Night Crew Takes Over

Between shifts, the Day Crew relayed the issues it faced, including the kicks, flare, and trip out. (Tr. 539, 543, 640-42). Based on the information provided to him, the night driller, Lionel Deanda, also suggested they mud up. (Tr. 544). Like Ray before him, Deanda was overruled by the night company man, Brody Blagg, who instead proposed using the orbit valve to control any potential flow and by doing a calculated fill by monitoring the trip tanks.[7] (Tr. 634, 655). Essentially, Blagg recommended closing the orbit valve to prevent flowback from the well. (Tr. 636). Because this has the effect of bypassing the flow meter (which shows whether mud is being pushed out of the wellbore), Blagg recommended using a predetermined calculation of how much mud needed to be pumped into the well in order to displace the volume being taken up by the BHA and the pipe string. (Tr. 638). Blagg, Deanda, and Josh Hager determined the amount they would need to pump into the wellbore to ensure a proper fill. (Tr. 589-90). They used the Pason data, which was illustrated on multiple screens in the driller's cabin, to determine whether they were accomplishing a proper fill as they removed the drill string. (Tr. 718-22; Ex. C-5, C-52, C-122).

D. Horizontal Trip

After circulating the well, the night crew began to trip out of the horizontal portion of the well, which lasted until approximately 11:00 p.m. (Tr. 777, 1590-91). Once the crew had removed enough pipe to reach the vertical portion of the well, also known as the top of the curve, the crew circulated the well again to remove gas from the drilling mud and to resolve discrepancies in the calculated fill. (Tr. 545, 1496). As noted in the Pason data, the well did not take as much mud as was calculated; however, both Mike Garvin, Respondent's Senior Vice President of Operations, and George Medley, Complainant's designated expert, agreed the crew was able to circulate the gas out of the wellbore and displace the volume of the pipe and BHA with a slug. (Tr. 1496, 1593-

7. During the trip out, Respondent used the trip tank, as opposed to the mud pits themselves, in order to fill the wellbore. (Tr. 396, 455).

95). A slug is a premeasured, heavier volume of drilling mud, which is designed to keep gas down and is typically pumped down prior to coming out of the wellbore. (Tr. 96, 131). According to Medley and Garvin, the well was static prior to tripping out of the vertical portion of the wellbore. (Tr. 1497, 1596). Also, at some point during this process, the crew replaced a seal on the rotating head of the BOP. (Tr. 1479).

E. Vertical Trip

After the well was circulated at the top of the curve, Blagg directed Respondent's crew to pump a weighted pill down the well to place additional weight at the bottom of the well to pin down the gas. (Tr. 666). A pill is similar to a slug—in fact, some use the terms interchangeably—in that it is additional weight used to hold down gas; however, there are instances where cuttings, also known as Loss Control Material (LCM), are mixed in with the mud to clog open spaces in the wellbore where mud seeps into the gas formation as opposed to gas pushing mud out of the formation, as was the case here. (Tr. 555). Whether at the direction of Blagg or by accident, derrick hand Kyle Lucas included LCM in the pill,[8] which ultimately caused the drill string to become clogged at the BHA. (Tr. 668-69). After repeated efforts to unclog the pipe, including pumping an additional slug, Deanda and Blagg determined they would have to trip out "wet". (Tr. 670). In other words, they could no longer pump mud down through the pipe string but had to redirect it through the annulus. (Tr. 1498). Further, the pipe stands would be filled with mud, which had to be drained into receptacles that would direct the mud into the trip tank, though some of it ended up in the mud pits. (Tr. 669-71).

8. Deanda testified that Blagg told Lucas to include LCM in the pill, whereas Blagg testified he did not provide a "recipe" for the pill per se and only requested that a pill be built and pumped. (Tr. 666, 1702). Ultimately, it does not matter how the LCM got into the pill; though the Court notes Blagg's testimony regarding this matter and others was evasive and less than credible.

During the wet trip, Deanda noticed the Pason data was not reflecting the correct fill based on their initial set of calculations. (Tr. 672-75). Deanda testified he brought the discrepancy to Blagg's attention and that Blagg again overruled his assessment and decided to press forward with the trip, which, based on his experience, was "what was supposed to be happening." (Tr. 673). Although Blagg testified Deanda did not make him aware of the discrepancy, the Court finds Blagg's testimony came across as evasive and was inconsistent with the other individuals present in the driller's cabin at that time. Further, given that Blagg was present in the driller's cabin with Deanda, he had the same information available to him and should have been aware of the discrepancies. Deanda, on the other hand, provided straightforward testimony and his version of this and other events was consistent with his assistant driller, who also testified. (Tr. 556-67). Accordingly, the Court credits Deanda's testimony regarding both the discrepancy and Blagg's refusal to act upon it. The discrepancy between the actual fill and the calculated fill ended up being substantial. At the end of the vertical trip, the trip tank only decreased by 8 barrels of mud. According to the calculations, it should have been reduced by approximately 45. (Tr. 1612). The evidence indicates Respondent did not stop to perform a flow check as mandated by its own policy. (Tr. 1772-73).

The BHA was tripped to just below the surface of the wellbore by 5:00 a.m. on January 22nd. (Tr. 564). Respondent attempted to clear out the blockage in the BHA; however, they were ultimately unsuccessful and had to build a new BHA. (Tr. 564-65). While Respondent's crew was attempting to clear out the blocked BHA, the trip tank showed an increase of approximately 25 barrels of mud, even though there was no activity downhole. (Tr. 1615-17). This illustrated more gas was pushing into the wellbore. (Tr. 1617). Around 6:15 a.m., during the beginning of the day shift, the blind rams of the BOP were closed. Although closing in the well with the blind rams

prevents fluids from coming to the surface, it does not prevent gas flowing from the formation into the wellbore. (Tr. 1622).

At shift change, the night crew informed the day crew there was gas in the well, but that there was nothing to be concerned about. (Tr. 770-72). The derrick hand, Carillo, conducted a flow check around the time the blind rams were closed and did not observe gas flowing to the surface at that time. (Tr. 105). Meanwhile, a new BHA was being built while the old one was being removed from the drilling rig floor. (Tr. 105-107). This process took some time not only due to the complexity of the parts, but also due to their sheer size—the BHA, which includes the drill bit, the measure-while-drilling tool (MWD), and Monel collar, is roughly 95-feet long and weighs 15,000 pounds. (Tr. 2016). Approximately two hours later, the new BHA was prepped and ready to be inserted into the wellbore for testing.

F. The BHA Test

At 7:57 a.m., once the BHA was ready for insertion, day driller Ray opened the blind rams on the BOP. (Tr. 1628). Once the rams were opened, the Pason data indicated a flow increase of 18% and an increase in the mud pits even though nothing had been inserted into the wellbore. (Tr. 1628; Ex. C-121B). According to the testimony, Respondent performed a flow check that was limited to a quick look, as opposed to the 3-minute minimum mandated by Respondent's own policy. (Tr. 2098-99). At the same time, Matt Smith, a floorhand who died in the accident, showed Steve Wilson, a directional driller who testified at trial, that mud was "gurgling" in the hole once it was opened, providing additional indications gas was flowing in the well. (Tr. 299).

At approximately 7:58 a.m., Respondent began to lower the BHA into the wellbore. (Tr. 2040). Shortly after, the Pason data showed a 10-barrel gain in the mud pits. (Tr. 2093; Ex. C-18). Even though Respondent's policy mandates the Pason alarm, which is both visual and audible,

should go off at +/- 5 barrels (and no more than +/- 10), nobody outside of the driller cabin heard the audible alarm go off.[9] (Tr. 110, 182). According to Medley, Complainant's designated expert, the BHA should displace around 4 barrels of mud; however, given the gain occurred without any additional down-hole activity (like turning on the pumps), both Respondent's and Complainant's experts testified Respondent should have removed the BHA and closed the well. (Tr. 1649, 1654, 2093). At the very least, Respondent's policy mandated the performance of a flow check of sufficient duration. (Ex. C-32). Neither of those things occurred.

Notwithstanding the mud pit increase, Respondent proceeded to insert the BHA to its test depth of 250 feet. (Tr. 1634). During the 10 minutes it took to reach a depth of 250 feet, the volume in the mud pits increased by 21 barrels even though the pumps had not yet been turned on. (Tr. 1637). At 8:09 a.m., the Pason data shows the driller reset the mud pit volume to zero. (Tr. 1638). Although this altered the real-time data readout on the driller's console, the actual data remained the same. (Tr. 1601, 1639). According to Garvin, Respondent's Senior Vice President of Operations, Ray presumably did this to ensure he was getting an accurate reading of the mud pit volume and to establish a baseline because of the movement caused by the pumps. (Tr. 1513).

Around the same time, Ray turned on Pump #1 to begin the test of the BHA. (Tr. 1639). Pump #1 did not generate enough pressure to perform an accurate test of the BHA, so Ray switched over to Pump #2. (Tr. 301-302). Pump #2 proved to be adequate to perform the test, which was completed at 8:25 a.m. (Tr. 302, 1645). While the test was performed, the mud pit gained an additional 23 barrels, bringing the total gain to 44 barrels. (Tr. 1645). At the conclusion of the test, Ray turned off Pump #2 and began to trip out the BHA.

9. The occupants of the driller's cabin, including Ray and the company man, all died in the explosion, so any testimony related to whether anyone could hear the audible alarm came from people working outside on the rig. The testimony was unclear as to whether the audible alarm should have been heard outside the driller's cabin. (Tr. 552).

While Ray was tripping out the BHA, Kevin Carillo, the derrick hand,[10] was preparing to climb the mast of the derrick. As he got onto the rig floor, he noticed mud bubbling out of the rotating head on the BOP a "a cupful at a time". (Tr. 107-108). He reported what he had seen to Ray, who was working alongside Waldridge. (Tr. 108-109). Ray told Carillo to continue up the mast. (Tr. 109). As with the other employees working on the rig that day, Carillo testified he had not heard nor seen any alarms going off inside the driller's cabin. (Tr. 110).

At 8:34 a.m., Respondent's crew began to remove the BHA from the wellbore. (Tr. 1651; Ex. C-13). According to the Pason data, the mud pit volume had increased by nearly 89 barrels since the blind rams were first opened at 7:57 a.m. (Tr. 1652; Ex. C-18). The crew had completely removed the BHA just before 8:36 a.m. (Tr. 1652). Less than a minute later, Carillo observed the rig floor turn black. (Tr. 1653). Shortly after that, the well blew out and rose nearly 90 feet in the air, which was just below Carillo's location on the monkey board. (Tr. 113-114). Carillo managed to escape using the cable wire of the emergency descent device.[11] (Tr. 115). Unfortunately, Ray, Waldridge, and three others were unable to escape and died in the explosion and resulting fire.

The Pason data stopped recording at 8:36:46 a.m., roughly indicating the time of the explosion.[12] At that point in time, the data reflected the mud pit had gained nearly 120 barrels of mud since the blind rams were opened at 7:57 a.m.

10. The derrick hand, amongst other duties, works on a perch toward the top of the mast known as the monkey board. (Tr. 62). From there, he pulls pipe out of, and inserts them into, the hole. (Tr. 62).

11. The descent device did not work as intended, so Carillo had to shimmy down the cable wire and was fortunately able to escape the explosion.

12. Complainant points out that it takes 30 seconds to close the blind rams and calls into question why (1) it took so long to remove the BHA and (2) why the driller waited so long to close the rams. The Court would note that, although the data reflects a specific point in time where it stopped recording, we do not know whether Ray may have been incapacitated by the explosion prior to the point at which data stopped recording. In other words, the explosion itself may have occurred at a point in time prior to the Pason data being cut off. We simply do not know, and the Court will not speculate as to why the objective data does not reflect what might have been possible.

IV. BURDEN OF PROOF AND LAW APPLICABLE TO 5(a)(1) VIOLATION

To establish a *prima facie* violation of the general duty clause, Complainant must show a condition or activity at the worksite presented a hazard, that the hazard was recognized by Respondent or the well-drilling industry, that the hazard was likely to cause serious harm or death, and that a feasible and effective means existed to eliminate or materially reduce the hazard. *See Arcadian Corp.*, 20 BNA OSHC 2001 (No. 93-0628, 2004). The evidence must also show the employer knew or, with the exercise of reasonable diligence, could have known of the violative condition. *See Regina Constr. Co.*, 15 BNA OSHC 1044 (No. 87-1309, 1991).

Complainant must establish his *prima facie* case by preponderance of the evidence. *See Hartford Roofing Co*., 17 BNA OSHC 1361 (No. 92-3855, 1995).

"Preponderance of the evidence" has been defined as:

> The greater weight of the evidence, not necessarily established by the greater number of witnesses testifying to a fact but by evidence that has the most convincing force; superior evidentiary weight that, though not sufficient to free the mind wholly from all reasonable doubt, is still sufficient to incline a fair and impartial mind to one side of the issue rather than the other.

Black's Law Dictionary, "Preponderance of the Evidence" (10th ed. 2014).

V. ANALYSIS, FINDINGS OF FACT AND LEGAL APPLICATION

Complainant alleged a serious violation of the Act in Citation 1, Item 1 as follows:

> Section 5(a)(1) of the Occupational Safety and Health Act of 1970: 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 fire and explosion hazards.
>
> On or about January 22, 2018, and times prior thereto, on Patterson-UTI Rig #219 near Quinton, Oklahoma where well control was not maintained during drilling operations at the Pryor Trust 0718 Well Number 1H-9.
>
> Among other methods, one feasible and acceptable abatement method to correct this hazard is to maintain well control to prevent kicks and blowouts as outlined in American Petroleum Institute (API) Recommended Practice (RP) for Occupational Safety for Oil and Gas Drilling and Servicing Operations, RP 54, Section 6.1.1.

See Citation and Notification of Penalty at 6.

Before discussing the elements of this general duty clause violation, it is important to understand the nature of what is being alleged. As discussed above, the specifics of this case are complex; however, all these complexities revolve around one concept: well control. According to multiple witnesses, well control can be broken down into two parts: (1) primary well control, which uses mud weight, pressure, and equipment to keep gas and formation fluids from entering the wellbore and potentially to the surface; and (2) secondary well control, which involves the safe removal of the intruding gas from the wellbore.[13] (Tr. 605, 1885). Though there appeared to be a dispute as to how to define a loss of well control, the Court finds this was more the result of semantic confusion than an actual conflict. When confronted with the Court's understanding that a loss of well control was an uncontrolled flow of gas/formation fluid from the wellbore, Medley agreed and stated this could result in a blowout. (Tr. 1883). While Reineke, Respondent's designated expert, seemed to disagree with Medley, at least initially, it appears this dispute was the result of confusion regarding whether the Court was describing a blowout and a loss of well control. (Tr. 1967). Reineke agreed a loss of well control was an uncontrolled flow of gas/formation fluid to the atmosphere but stated that such would not necessarily result in a blowout. (*Id.*). His rationale for this was that fluid could reach the atmosphere, but the well could still conceivably be closed in prior to a blowout occurring. While seeming to define a loss of well control, Reineke concluded his colloquy with the judge by stating an uncontrolled flow that cannot be shut in is "to me—is a blowout." (Tr. 1968). In this somewhat confusing back-and-forth, the Court finds there is an important distinction to be made between a loss of well control and a

13. Medley also testified about primary and secondary well control barriers. (Tr. 1885). He described mud weight and back pressures as primary barriers. *Id.* Though he did not complete that thought, Lionel Deanda testified the blind rams on the BOP serve as a secondary barrier.

blowout. The distinction is ultimately between flow that is uncontrolled and flow that is uncontrollable. If gas/formation fluid is flowing to the surface because it overcame your primary and secondary forms of well control, then, by definition, it is uncontrolled. When the driller is unable to shut in the well using the blind rams (secondary barrier), then it is uncontrollable, which is a blowout. While seemingly esoteric, this distinction becomes important when the Court later discusses the nature of the hazard alleged and whether Respondent knew of the conditions constituting a hazard.

Everyone who testified agreed well control involves the coordination of multiple contractors using a combination of equipment and practices to ensure fluids and gas contained in the wellbore remain there until such time they can be removed in a controlled and safe manner. In addition to Respondent, this includes the mud engineer, who is responsible for drafting the drilling prognosis, which informs the weight of the mud used to control the influx of gas into the well bore; the directional driller, who steers the drill string to designated targets; and various others, whose responsibilities include activities like installing the cement casing inside the wellbore. (Tr. 151, 215, 937). Notwithstanding the collaborative nature of well control, Complainant contends Respondent, who was responsible for operating the drilling rig, failed in its specific responsibility to maintain well control, because it did not act upon clear signals of an impending loss of well control, nor did it ensure all appropriate well control equipment and materials were on-site and operational when work commenced. (Ex. C-2). In support of this allegation, Complainant relies upon API 54, which states, "Well control shall be maintained at all times. Consideration shall be made to ensure appropriate equipment and materials are on location and operational before work commences." (Ex. C-2 at 6.1.1).

In response, Respondent contends the API standard is too vague to identify conditions or practices over which it could reasonably be expected to exercise control, especially in circumstances, such as this, where multiple parties were responsible for ensuring well control is maintained. In particular, Respondent seeks to place the onus on the company man, who ultimately directs and controls all work at the drilling site, and the mud engineer, whose job is to properly assess the mud weight to control influxes of gas into the wellbore. Further, Respondent argues there was no evidence its employees were aware of an impending blowout, and thus should not be charged with knowledge of the hazard.

Ultimately, the Court finds Complainant established: (i) the existence of a recognized hazard that was fatal; (ii) Respondent's employees were exposed to the hazard; (iii) Respondent had constructive knowledge of the hazard; and (iv) the hazard was likely to cause serious injury or death. However, the Court also finds Complainant failed to establish the final element on abatement in that he did not show what additional steps Respondent should have taken to avoid being cited, as well as the feasibility and likely utility of those additional steps. *See Cerro Metal Prods. Div. Marmon Grp., Inc.*, 12 BNA OSHC 1821 (No. 78-5159, 1986) (citing *Nat'l Realty & Constr. Co. v. OSHRC*, 489 F.2d 1257 (D.C. Cir. 1973)). Rather, as will be shown below, Respondent had adequate rules governing well control, which Complainant repeatedly cites as evidence of knowledge, recognition, and abatement. Additionally, to the extent Complainant asserts Respondent failed to have proper equipment and materials in an operational state at the time "work commenced", the Court finds Complainant failed to show Respondent's lack of compliance or that such equipment was not operational at the time in question. Accordingly, based on what follows, Citation 1, Item 1 shall be VACATED.

A. Complainant Established the Existence of a Hazard

Complainant alleges Respondent exposed its employees to fire and explosion hazards when it failed to maintain well control as indicated in API RP 54, Section 6.1.1. At trial, Respondent stipulated its employees were exposed to fire and explosion hazards at the worksite. (Tr. 835-36, 1567). As Respondent's brief illustrates, however, its stipulation was more limited than it appeared at first glance. Respondent contends Complainant's allegation is fatally vague because it "fail[s] to provide notice of an activity or a condition within Patterson's control that caused the hazards." *Resp't Br.* at 29. In other words, while Respondent has conceded fire and explosion are a product of a loss of well control, it argues Complainant failed to define the hazard in such a way that Respondent could reasonably be expected to exercise control over conditions or practices giving rise to that hazard. Notwithstanding the general nature of the allegation in the Citation, as well as the broad scope of the term "well control", the Court nonetheless finds Complainant established the existence of an adequately defined hazard.

1. The Hazard Was Adequately Defined

"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 (No. 93-0628, 2004) (citing *Pelron Corp.*, 12 BNA OSHC 1833, 1835 (No. 82-388, 1986)). A hazard is not defined by the absence of a particular abatement method but "in terms of the physical agents that could injure employees . . . ." *Id.* (citing *Chevron Oil Co.*, 11 BNA OSHC 1329, 1331 n.6 (No. 10799, 1983)). Whether Respondent's work practices were adequate to address the hazard is a separate issue from the threshold question of how the hazard is defined and is better addressed under the rubric of abatement. *Id.*

"[A] safety hazard at the worksite is a condition that creates or contributes to an increased

risk that an event causing death or serious bodily harm to employees will occur." *Baroid Div. of NL Indus., Inc. v. Occupational Safety and Health Review Comm'n,* 660 F.2d 439 (10th Cir. 1981). The Commission has held a "hazard means a danger, peril or risk arising out the employee's work." *Integra Health Management, Inc.*, 27 BNA OSHC 1938, *5 (No. 13-1124, 2019). 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 Reality*, 489 F.2d 1257, 1265 n. 33 (D.C. Cir. 1973).

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.

In a recent Decision the Commission reiterated:

> In a general duty clause case, "[the] hazard must be defined in a way that apprises the employer of its obligations, and identified conditions and practices over which the employer can reasonably be expected to exercise control. *Arcadian Corp*., 20 BNA OSHC [2001, 2007 (No. 93-0028, 2004)]; *Peron Corp*., 12 BNA OSHC [1833, 1835 (No. 82-388, 1986)]. The Secretary must show, among other things, that the hazard was present. *Wheeling-Pittsburgh Steel Corp*., 16 BNA OSHC 1218, 1221 (No. 89-3389, 1993).

Mid South Waffles, Inc. d/b/a Waffle House #1283, 27 BNA OSHC 1783, 1785 (No. 13-1022, 2019).

In *Arcadian*,[14] the Secretary cited the employer after a urea reactor exploded in its chemical processing facility. *Id.* The employer was cited pursuant to the general duty clause for exposing its

14. The Court has examined Commission case law subsequent to *Arcadian* which have addressed whether a condition

employees to multiple hazards, including flying debris, burns, and asphyxiation, resulting from the explosion. *Id.* In the citation, the Secretary documented three conditions that contributed to the existence of the explosion hazard: "(1) not shutting down the reactor upon the detection of leaks; (2) improperly monitoring the reactor for leaks; and (3) inadequately inspecting, repairing, or maintaining the vessel's liner." *Id.* The Commission held the trial judge erred in holding these three failures constituted three separate hazards. *Id.* Instead, the Commission stated, "[T]he Secretary has alleged that the urea reactor was not operated or maintained in a manner to protect employees from the danger of explosion caused by urea leaks that could erode the lining of the pressure vessel. That was the hazard in this case." *Id. See also Pelron Corp.*, 12 BNA OSHC 1833 (No. 82-388, 1986) (defining the hazard as "practices, procedures or conditions which *increase* the likelihood of an explosion" resulting from improper handling). The three documented failures, on the other hand, identified potential abatement measures and illustrated Arcadian's inability to reasonably address the hazard. In the face of conflicting characterizations of a hazard, the Commission has noted it has the authority to define the hazard of its own accord. *Davey Tree Expert Co.*, 11 BNA OSHC 1898, 1899 (No. 77-2350, 1984) (switching definition of hazard from "electrocution caused by a limb touching a high-voltage line" to "electrocution from a tree limb contacting a power line because of the actions of employees in removing the limb" to illustrate a condition over which Davey Tree had control).

Similar to *Arcadian*, Complainant alleges Respondent failed to operate or maintain the drilling rig in such a way as to protect its employees from the fire and explosion hazards associated with a loss of well control. Indeed, API RP 54, which is cited as a feasible means of abatement

---

or activity in the workplace presented a hazard to determine whether *Arcadian* is still current case law. *See Integra Health Management Inc.*, 27 BNA OHSC 1838 (No. 13-1124, 2019) and *A. H. Sturgill Roofing. Inc.*, 27 BNA OSHC 1809 (No. 13-1817, 2018). The Court finds *Arcadian* is still current case law and the most direct case on point to the facts in this case.

like the three conditions referenced in the *Arcadian* citation, helps to frame the definition of the hazard. (Ex. C-2). API Section 6.1.1 requires Respondent to (1) maintain well control at all times and (2) ensure appropriate equipment and materials are on location and operational before work begins. (Ex. C-2). Although Complainant did not specifically itemize the conditions that contributed to the loss of well control in the citation, at trial he laid out the ways in which Respondent could reasonably be expected to exercise control, including: (1) conducting flow checks to identify well control events; (2) shutting in the well in response; and (3) ensuring necessary equipment is available and operative. As repeatedly noted in Complainant's brief, these practices are mandated by Respondent's own well control policy. (Ex. C-32, C-59).

In support of its claim that Complainant's allegation is fatally vague, Respondent cites to *Baroid Division of NL Industries, Inc. v. OSHRC*, 660 F.2d 439 (10th Cir. 1981). The Court finds Respondent's reliance on *Baroid* is misplaced. First, the hazard identified by the Secretary in *Baroid* was fairly simple: fire and explosion caused by an accumulation of gas near the drilling rig. *Id.* at 443. While the allegation in the *Baroid* citation is specific insofar as it refers to a gas separator and vent line, these are references to possible methods of abatement and are not necessary for establishing the existence of a hazard. *Id.* at 444 (distinguishing between hazard of gas accumulation and hazard of using a gas separator in presence of a kick). A hazard, as stated by the 10th Circuit, is "a condition that creates or contributes to an increased risk that an event causing death or serious bodily harm to employees will occur." *Id.* Just like the potential for explosion caused by the accumulation of gas in *Baroid* constituted such a condition, the Court finds the potential for explosion caused by a loss of well control satisfies the legal standard for a hazard.

Second, the quote Respondent relies on to argue a lack of proper notice is taken out of context. Respondent contends the alleged violation description ("AVD") fails as a matter of law

to "give reasonably particular notice so that the cited employer will understand the charge being made and will have a full and fair opportunity to prepare and present a defense." *Id.* at 448. Baroid claimed the Secretary's allegation was ambiguous and that the Commission improperly construed the allegation to state something not provided in the citation. *Id.* at 449. The 10th Circuit rejected Baroid's claim, at least as to recognized hazard element,[15] noting that ambiguities in the citation itself can be resolved at hearing and still satisfy due process. *See id.* (quoting *Nat'l Realty and Constr. Co.* v. OSHRC, 489 F.2d 1257, 1264 (D.C. Cir. 1973) ("So long as fair notice is afforded, an issue litigated at an administrative hearing may be decided by the hearing agency even though the formal pleadings did not squarely raise the issue.")); *see also Babcock & Wilcox Co. v. OSHRC*, 622 F.2d 1160, 1164 (3d Cir. 1980) ("Citations, however, are prepared by inspectors who are not legally trained and who should act with dispatch. For these reasons, citations should not be as tightly construed as other pleadings [like] a grand jury indictment, for example.")).

Similarly, in this case, Respondent was given adequate notice of Complainant's characterization of the hazard, how Complainant expected Respondent should address that hazard, and was also given every opportunity to rebut those allegations. Indeed, in response to allegations it failed to have appropriate and operational equipment onsite when work commenced, Respondent put forth evidence regarding the equipment it had on site, how it was inspected, and subsequent testing on the equipment to determine whether it was operational at the time of the blowout. (Tr. 1305-1309, 1314, 1392; Ex. R-10, R-18, C-22). Respondent was also on notice as to how Complainant alleged it should have maintained well control, as Complainant repeatedly referred to Respondent's well control policy and quick reference guide.[16] As such, the Court finds the

15. The circuit court, however, did take issue with a modification to the proposed abatement that was not fully developed at hearing. *Baroid*, 660 F.2d at 449-50.

16. Though the issue of how Respondent should have acted to prevent the hazard is more appropriately discussed

hazard, as characterized above, provided Respondent with adequate notice such that it could properly respond to the allegation and, therefore, met the requirements of due process.

As a corollary to the foregoing, Respondent makes much of the fact that well control is a multi-faceted process—one involving multiple contractors that have unique responsibilities with respect to well control—to suggest Complainant's allegation of a hazard is fatally vague. While the term "well control" is broad in its scope, Complainant's allegations are not so vague as to warrant dismissal on this basis. Respondent points to Complainant's expert, who testified every contractor on the site has some responsibility for well control and noted one contractor could do "everything they have to do in order to maintain well control and you could still have a loss of well control if somebody didn't do their part", in order to highlight the insufficiency of Complainant's allegation vis-à-vis Respondent. *Resp't Br.* at 29. While the Court recognizes well control is a process involving multiple contractors working in tandem, this testimony highlights that each contractor has a part to play and, thus, understands quite well its individual responsibilities with respect to well control. (Tr. 1836). And, as noted by Respondent, the failure to follow through on any one of those responsibilities, including ensuring equipment is available and operational, paying attention and responding to indications of an impending hazard, and shutting down, can have disastrous results. Further, Respondent has specific rules regarding well control, requires its drillers to attend well control school, and has a quick reference guide, which discusses important indicators of a well control event and how to respond. (Tr. 604; Ex. C-32). Although the concept of well control is broad in scope, it has a particular meaning with respect to each contractor on a drill site, including Respondent, who, based on the evidence it presented at

under the rubric of abatement, Respondent brought up the issue in its discussion on the hazard element, which is why the Court discusses it here.

trial, was more than aware of the practices and/or conditions over which Complainant alleged it had control.

Based on the foregoing, the Court finds Complainant established the existence of a fire and explosion hazard caused by the loss of well control.

B. Respondent and the Well Drilling Industry Recognized the Hazard

It is "[t]he hazard, not the specific incident resulting in injury, [that] 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*).* "[W]hether or not a hazard is 'recognized' is a matter of objective determination." *Ed Taylor Const. Co. v. Occupational Safety & Health Review Comm'n*, 938 F.2d 1265, 1272 (11th Cir. 1991). A 'recognized hazard' is a condition that is 'known to be hazardous'. *Georgia Electric* Co. 595 F.2d 309, 321 (5th Cir. 1979). This element is established by proving the employer had actual knowledge that a condition is hazardous. *Id.* A 'recognized hazard" may also be shown by proving the condition is generally known to be hazardous in the industry. *Ed Taylor*, 938 F.2d at 1271 (citation omitted). Whether a work condition poses a recognized hazard is a question of fact. *See Baroid Div. of NL Indus., Inc. v. OSHRC,* 660 F.2d at 446. "While an employer's safety precautions alone do not establish that the employer believed that those precautions were necessary for compliance with the Act . . .precautions taken by an employer can be used to establish hazard recognition in conjunction with other evidence*." Beverly Enters., Inc*., 19 BNA OSHC 1161 (Nos. 91-3144 et al., 2000) (citing *Wheeling-Pittsburgh Corp*., 16 BNA OSHC 1218 (No. 89-3389, 1993); *Waldon*, 16 BNA OSHC at 1061–62.

Industry recognition may be shown through the knowledge or understanding of safety experts familiar with the workplace conditions or the hazard in question. *See Kelly Springfield Tire*

Co. v. Donovan, 729 F.2d 317, 322 (5th Cir. 1984) ("The [industry] recognition standard centers on 'the common knowledge of safety experts who are familiar with the circumstances of the industry or activity in question.'" (citation omitted)); *Beverly Enters., Inc*., 19 BNA OSHC at 1187 (consolidated) (same). The Commission has held industry standards and guidelines, such as those published by the American National Standards Institute (ANSI), are evidence of industry recognition. *Kokosing Constr*. *Co., Inc*., 17 BNA OSHC at 1873; *Cargill, Inc*., 10 BNA OSHC 1398, 1402 (No. 78–5707, 1982). Probative evidence of industry recognition includes, amongst other things, voluntary industry standards, such as those published by ANSI, NFPA, and API. *See, e.g., Cargill, Inc.,* 10 BNA OSHC at 1398 (NFPA); *Kokosing Constr. Co*., 17 BNA OSHC at 1873 (ANSI); *Duriron Co*., 11 BNA OSHC 1405, 1407 n.2 (No. 77-2847, 1983) (NIOSH).

During the testimony of Steven Kirby, Complainant's Oklahoma City Office Area Director, Respondent stipulated that fire and explosions are recognized hazards in the industry. While this stipulation, as it were, is akin to Respondent's qualified stipulation regarding the existence of a hazard,[17] the Court nonetheless finds Respondent and its industry recognize the hazard of fire and explosion caused by a loss of well control. *See Wiley Organics, Inc.*, 17 BNA OSHC at 1591 ("A hazard may be recognized by either the individual employer itself or its industry."). Although Respondent may disagree as to the adequacy of the allegation and whether it has the ability to control the conditions or practices that could lead to a loss of well control, it cannot reasonably dispute fire and explosions stemming from a loss of well control are a recognized hazard. Nearly every individual that testified admitted the failure to properly institute well control procedures, which are referenced in both the API standards and Respondent's own safety policy, can lead to the type of fire and explosion experienced at the Pryor Trust well site on

17. Unlike the question regarding the existence of a hazard, Respondent did not devote any time in its post-trial brief to the question of whether the hazard was recognized.

January 22, 2018. Accordingly, the Court finds Complainant has met it burden and established the hazard was recognized by both Respondent and the industry.

C. Respondent's Employees Were Exposed to a Serious and Fatal Hazard

One of the elements often glossed over in the general duty clause analysis is the question of whether the hazard was likely to cause serious harm or death. *See Mosser Constr.*, 23 BNA OSHC 1044, 1047 (No. 08-0631, 2010) ("If the possible injury addressed by a regulation is death or serious physical harm, a violation of the regulation is serious."). Oftentimes, this is due to an employee being seriously injured or killed by the hazard created by the violation. Injuries to employees constitute at least *prima facie* evidence 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.'" *quoting National Realty*, 489 F.2d at 1265 n. 33.")). Such is the case here, where three of Respondent's employees were killed in the blast resulting from the loss of well control. As such, it is not a stretch to say Respondent's employees were also exposed to the above-described hazard. *See Fabricated Metal Prods., Inc.* 18 BNA OSHC 1072, 1074 (No. 93-1853, 1997) (holding to prove exposure, Complainant 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.").

Though the question of the seriousness of the hazard and Respondent's employees' exposure to it are simple matters, the question of whether Respondent should be held liable for that exposure is another matter. Respondent takes issue with what it characterizes as Complainant's "alternative theory" of liability regarding Respondent's status as an exposing

employer on a multi-employer worksite. Although somewhat difficult to parse through, the gist of Respondent's argument appears to be that it cannot be held liable for a violation of the general duty clause under a multi-employer theory and that any allegation premised on that theory should be vacated. *See Resp't Br.* at 46-49. Respondent's argument is misguided for two reasons.

First, the situations in which multi-employer liability is a concern are typically limited to situations where the Secretary characterizes an employer as "controlling" or "creating" and the determination of exposure includes employees of companies other than the employer being cited.[18] *See Hensel Phelps Constr. Co.*, 909 F.3d 723, 728-29, 737 (5th Cir. 2018) (citing to and approving of application of multi-employer policy under 29 U.S.C. § 654(a)(2)). Complainant has not alleged Respondent is either a creating or controlling employer, nor has it sought to hold Respondent liable for exposing employees of the other contractors at the worksite. Instead, Complainant has merely alleged Respondent exposed its own employees to fire and explosion hazards caused by a loss of well control.

This leads to the second point: Complainant is not alleging multi-employer liability. Respondent is correct that the language of the general duty clause, section 5(a)(1) does not permit the application of multi-employer liability. *See id.* at 731-32 (distinguishing an employer's responsibilities under 5(a)(1), which flow to "each of his employees", from its responsibilities under 5(a)(2), which merely requires compliance with "standards promulgated under this chapter"). However, an employer can be cited under the general duty clause on a worksite that happens to have multiple employers so long as Complainant is only alleging the employees exposed belong to the employer cited. Simply because a violation occurred on a worksite with

18. In the arena of multi-employer liability, a controlling employer is one "having control over a worksite who should have detected and prevented a violation through the reasonable exercise of its supervisory authority", whereas a creating employer is one "who causes a hazardous condition". *Hensel Phelps*, 909 F.3d at 728. In either case, the key to applying multi-employer liability is the assertion that employees other than its own were exposed to the hazard. *Id.*

multiple employers does not *de facto* preclude Complainant from issuing a citation under the general duty clause. Instead, it only precludes Complainant from alleging Respondent is responsible for all exposed employees at the worksite, regardless of who their employer is.

Because Complainant only seeks to hold Respondent liable for the exposure of its own employees, there are no multi-employer concerns involved in this case.[19] Respondent's argument is rejected.[20] The Court finds Complainant has met his burden and established Respondent's employees were exposed to serious and fatal injuries.

D. Respondent Knew or Could have Known of the Hazard

Although not explicitly stated as an element of the general duty clause analysis, Complainant is nonetheless obligated to prove Respondent knew of the violation. *See, e.g., Tampa Shipyards Inc.*, 15 BNA OSHC 1533 (No. 86-360 *et. al.*, 1992). To prove this, Complainant must show Respondent knew or, with the exercise of reasonable diligence, could have known of the violation. *Dun-Par Engineered Form Co.*, 12 BNA OSHC 1962, 1965 (No. 82-928, 1986). Whether an employer has exercised reasonable diligence is a question of fact that "will vary with the facts of each case." *Martin v. OSHRC*, 947 F.2d 1483, 1484 (11th Cir. 1991); *see also Centex-Rooney Constr. Co.*, 16 BNA OSHC 2127, 2129 (No. 92–0851, 1994) (finding that a preponderance of the evidence established the cited employer was reasonably diligent); *Precision Concrete Constr.*, 19 BNA OSHC 1404, 1407 (No. 99-0707, 2001) (noting that Secretary has burden of identifying what reasonable diligence required).

19. To the extent Respondent contends its lack of control vis-à-vis the company man is an issue, the Court shall address those concerns in its discussion of abatement.

20. On the last day of trial, Respondent lodged a written motion with the Court arguing the same point raised in its post-trial brief. After Complainant filed its Response, the Court issued an Order which is consistent with the Court's findings and holdings set forth in this Decision and Order. The Court's Order dated November 21, 2019, which disposed of Respondent trial motion is incorporated herein by reference.

"In assessing reasonable diligence, the Commission has considered 'several factors, including the employer's obligation to have adequate work rules and training programs, to adequately supervise employees, to anticipate hazards to which employees may be exposed, and to take measures to prevent the occurrence of violations.'" *Gen. Motors Corp*., 22 BNA OSHC 1019, 1030, 2004-09 CCH OSHD ¶ 32,928, pp. 53,611-12 (No. 91-2834E, 2007) (consolidated) (citation omitted); Danis *Shook Joint Venture XXV*, 19 BNA OSHC 1497, 1501 (No. 98-1192, 2001), *aff'd*, 319 F.3d 805 (6th Cir. 2003).

The key is whether Respondent was aware of the conditions constituting a violation, not whether it understood the conditions violated the Act. *Phoenix Roofing, Inc.*, 17 BNA OSHC 1076, 1079–80 (No. 90-2148, 1995). Complainant can prove knowledge of an employer through the knowledge, actual or constructive, of its supervisory employees. *Dover Elevator Co.*, 16 BNA OSHC 1281, 1286 (No. 91-862, 1993). Actual knowledge is established when a supervisor directly engages in or sees a subordinate's misconduct. *See, e.g., Secretary of Labor v. Kansas Power & Light Co.,* 5 BNA OSHC 1202, at *3 (No. 11015, 1977) (holding because the supervisor directly saw the violative conduct without stating any objection, "his knowledge and approval of the work methods employed will be imputed to the respondent"). Constructive knowledge is established where the supervisor may not have directly seen the subordinate's misconduct, but he was in close enough proximity that he should have. *See, e.g., Hamilton Fixture,* 16 BNA OSHC at 1073 *17-19, *aff'd,* 28 F.3rd 1213 (6th Cir. 1994) (holding that constructive knowledge was shown where the supervisor, who had just walked into the work area, was 10 feet away from the violative conduct).

Complainant contends Respondent was, or at least should have been, aware of multiple conditions that gave rise to the fire and explosion hazards, including: (i) access to data indicating

the well was flowing when it was re-opened at 7:57 a.m.; (ii) a disconnect between calculated fill and actual fill during trip out; (iii) mud gains during the BHA test; and (iv) visual indications of bubbling mud in the BOP. Respondent, on the other hand, argues there was no objective indication a blowout was about to occur, nor was there any evidence its employees were aware of any such indications. *Resp't Br.* at 40. As will be discussed below, Respondent misconstrues the proper analysis of the knowledge element by focusing on whether the driller was actually aware of the indicators identified by Complainant and also by suggesting knowledge could only be established by showing its employees knew a blowout was certain to occur. Neither of these are required for Complainant to establish Respondent knew or could have known of the existence of the alleged hazardous conditions. Accordingly, the Court finds Complainant has established Respondent was aware of conditions constituting a hazard.

1. There Were Multiple Indications of a Hazardous Loss of Well Control

As discussed in Section III, above, there were multiple indications of hazardous conditions indicating a loss of well control. Rather than addressing them collectively, the Court will discuss them in two tranches: the period when Respondent began tripping out from the bottom after the drill bit wore out and the period after reopening the blind rams. The Court has divided the events in this way because, at least temporarily, Respondent instituted a well control measure when it closed the blind rams so a new BHA could be prepped for insertion. Nonetheless, the Court finds the events prior to the closing of the blind rams are germane to the question of knowledge because they highlight two issues: (i) there were multiple indications of a continuing influx of gas into the wellbore during the tripping out process; and (ii) Respondent's drillers brought those conditions to the attention of the company man with the intention of shutting down the well.

i. Tripping Out the BHA and Closing the Blind Rams

Prior to and during the process of tripping out the BHA to replace the drill bit, Respondent's drillers and rig manager were aware gas was entering the wellbore and the primary barrier—mud—was not holding the gas down. According to his assistant driller, Harold Cole Means, Ray had been experiencing kicks just before they reached the targeted end point of the well. (Tr. 414-415). These kicks were illustrated by a consistent, 20-30-foot-high flare and increased volume in the mud pits according to the Pason data. (Tr. 643). Ray had suggested mudding up to control the influx, which was overruled by the company man. (Tr. 483-85). Later, Ray attempted to close in the well in response to the kicks but was again overruled by the company man. (Tr. 481-82). Ray appealed to Thompson, the rig manager, but Thompson ultimately deferred to the company man's assessment.

Ray was not the only one who recommended mudding up and shutting down. Upon receiving Ray's report about the kicks, Deanda also recommended mudding up before tripping the BHA out of the wellbore, but the night company man, Blagg, overruled Deanda, too. (Tr. 544, 634, 655). Instead, he recommended using the orbit valve to control backflow and using the calculated fill to determine whether enough mud was being pumped into the wellbore as the drill string was removed. Although there were some minor discrepancies during the horizontal trip, the night crew was able to render the well static prior to tripping out of the vertical portion of the well by circulating the mud and burning off excess gas.

The real troubles began with the vertical trip. First, the drill string became plugged, which forced Respondent to trip the pipe out wet and prevented the crew from circulating the mud to the mud-gas separator. This, in turn, should have impacted the calculated fill calculation, which was noted by Deanda, but ignored by Blagg. (Tr. 672-75). According to the initial calculation, the well should have taken somewhere in the neighborhood of 45 barrels; it only took 8. (Tr. 1612-1613).

This means gas was still entering the wellbore and the primary barrier (mud) was not holding it back. According to Medley and Thompson, this was particularly problematic because there should be no gas entering the well while tripping out. (Tr. 1142). Deanda recognized this and yet failed to perform a flow check consistent with Respondent's policy governing well control. Even after the BHA had been removed, but before the blind rams had been shut, the trip tank showed an additional 30-barrel increase even though there was no activity downhole.

The fact the drillers informed the company man of the trip tank increases and discrepancy with calculated fill indicates they were aware of a hazardous condition—the influx of gas into the wellbore. They both recommended increasing mud weight and Ray even prepared to close the well. The primary barrier was not doing its job and the secondary form of well control discussed by Medley—the safe release of gas—was not possible because the orbit valve was closed to control flow. While a kick/influx of gas does not necessarily indicate a blowout, that does not mean kicks are not hazardous. Both experts, as well as many of Respondent's employees, testified the failure to recognize and keep kicks under control is what leads to a loss of well control and, ultimately, a blowout. (Tr. 605, 799, 982, 1024, 1399, 1928). All of this was known by Ray, Deanda, and Thompson. Just because their proposed abatement actions were overruled by the company men does not mean they were not aware of the hazardous condition. Though there is a legitimate question whether Respondent should be charged with knowledge based on these conditions—especially those occurring prior to the vertical trip—at the very least, the foregoing highlights the drillers' ability to both identify and act to control the hazard.

ii. Re-Opening the Blind Rams and Testing the New BHA

Respondent argues well control was established once the blind rams were closed around 6:15 a.m. on January 22, 2018, thus negating any hazard existing prior to that point because fluids

were prevented from coming to the surface. However, as noted by Medley, Respondent never addressed the influx of gas into the well during the trip out, which they were not able to burn off through the mud-gas separator and flare line because that path had been closed during the wet trip. As both experts testified, the act of removing gas is a vital part of well control. Almost immediately after re-opening the blind rams, this failure became apparent.

Prior to re-opening the rams, Thompson checked the pressure gauges, which read "0" and determined they could proceed with the test. (Tr. 1131). Once the rams were re-opened, Carillo testified they performed a visual flow check, but the evidence indicates the flow check did not comply with the minimum 3 minutes mandated by Respondent's policy because Respondent began to insert the BHA within a minute or two of opening the rams. Simultaneous with re-opening the rams, the flow meter jumped to 18%, and the mud pits registered a 10-barrel gain in just a few minutes. According to both experts, neither of these things should have occurred if the well was properly controlled. In fact, both experts testified the 10-barrel mud increase should have prompted Respondent to remove the BHA and close in the well. Respondent's own policy required the alarms to be set to go off in the face of a 5-barrel increase and mandated the performance of a flow check if there is an indication of a pit volume or flow increase. None of these things happened.

Part of the problem, as it turns out, was the audible alarms for the mud pits appeared to have been turned off. According to Respondent's well control policy, the audio and video alarms in Pason were supposed to be set to go off whenever there was an increase or decrease of more than 5 or 10 barrels, depending on the setting. (Ex. C-59). Many of the day crew members testified they did not hear an alarm.[21] That said, the Pason screens were still available to Ray, and increases of the type noted above should have registered a visual alarm. In fact, the Pason data suggests Ray

21. Means testified he heard and saw alarms on the day shift prior to the trip out. (Tr. 414).

was aware of the increases, because the system registered a reset of the mud pit volume to zero. Since Ray was unable to testify, the Court does not know why he reset the mud volume; however, Garvin testified this is typically done to ensure the driller sets a baseline and gets an accurate reading of the mud pit volume.

The increases continued unabated throughout the entirety of the test. Even before the test began, which requires turning on the pumps, there was an additional 21-barrel gain in the ten minutes it took to lower the BHA to the proper test depth of 250 feet. Ultimately, the mud pits gained roughly 120 barrels of mud from the wellbore by the time the explosion occurred. Even if there was no audio alarm to indicate these increases, one of two things was likely occurring within the driller's cabin: (1) the visual alarms were going off on the Pason screens every 5-10 barrel increase, or (2) the alarm never stopped going off because it was never reset by Ray while the test was being performed. Either way, the information was available to Ray, as well as other individuals around the worksite that had access to the Pason data screen.[22] Complainant suggests video and audio alarms were shut off, but the Court finds this unlikely. According to the assistant driller, Means, the audio alarms were annoying so the sounds would sometimes get turned off but noted the alarms would still show up on the Pason screen. (Tr. 414). This was echoed by Deanda. (Tr. 800).

In addition to the data and alarms, there were other, visual indications of gas buildup in the wellbore. According to Steve Wilson, who worked for the directional driller, one of the floorhands who died in the accident reported that mud was "gurgling" in the BOP once the blind rams were opened. (Tr. 296). Likewise, though somewhat later in the process, Kevin Carillo testified he told Ray and the others inside the driller's cabin he observed mud bubbling out of the rotating head on

22. Pason screens were in multiple work trailers throughout the worksite. (Tr. 621).

the BOP a "cupful at a time". (Tr. 107-108). Ray still sent Carillo up the derrick to the monkey board. Shortly after he was positioned near the top of the derrick, the well blew out.

The collective evidence recounted above indicates a hazardous condition developed in the wellbore during the process of removing the BHA and continued to present itself throughout that process, as well as during the testing of the new BHA. Both drillers for Respondent believed the gas influx warranted shutting down the well or, at the least, increasing the mud weight to deal with it. The fact they continued moving forward at the direction of the company man does not negate their knowledge of a hazardous condition. Further, the fact a blowout did not occur after they raised their concerns to the company man and the rig manager does not mean the condition was not hazardous. *See Arcadian*, 20 BNA OSHC 2001 ("Thus, even if the reactor had not exploded, whether employees were exposed to the hazard of an improperly operated reactor could still be before us."). This is not dissimilar from *Arcadian*, wherein objective indicators of a developing hazard presented themselves over time but were routinely ignored. *Id.* Even though the reactor in *Arcadian* did not explode on any of the previous occasions where a leak was identified in the reactor, a hazard was nonetheless present. *Id.* Just because the company man expressed confidence in his work practices based on past experience, or because the explosion did not occur upon Ray or Deanda's initial identification of the hazard, does not suggest there was no hazardous condition to be aware of.

At least initially, it appears as if Ray and Deanda acted in accordance with Respondent's policies in identifying well control issues, even if they ultimately deferred to the company man. Not only did they observe data indicating an influx of gas into the wellbore, there were other indications, such as bubbling mud at the BOP, that reflected this condition and were reported to them. Other than the blowout not occurring until later in the morning, there is no evidence

Respondent or the company man implemented secondary well control measures, such as bleeding the well, to rid the wellbore of gas that accumulated during the vertical trip other than closing the well in.[23] Even then, the well closure was not intended as a well control measure to address the influx, but was rather a perfunctory action taken when the drill string is removed from the wellbore. The fact the mud levels continued to rise almost immediately after the well was reopened highlights this fact.

2. Respondent's Employees and Managerial Staff Could Have Recognized these Indicators with the Exercise of Reasonable Diligence

"[A]n employer has a general obligation to inspect its workplace for hazards." *Hamilton Fixture*, 16 BNA OSHC 1073, 1993 WL 127949 at *16 (No. 88-1720, 1993) (citing *Automatic Sprinkler Corp. of America*, 8 BNA OSHC 1384, 1387 (No. 76-5089, 1980)). The scope of that obligation "requires a *careful and critical examination* and is not satisfied by a mere opportunity to view equipment." *Austin Comm. v. OSHRC*, 610 F.2d 200, 202 (5th Cir. 1979). Some factors to assess whether an employer has exercised reasonable diligence include an employer's "obligation to inspect the work area, to anticipate hazards to which employees may be exposed, and to take measures to prevent the occurrence." *Frank Swidzinski Co.*, 9 BNA OSHC 1230, 1233 (No. 76-4627, 1981). Additionally, an employer "cannot claim lack of knowledge resulting from its own failure to make use of the sources of information readily available to it." *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); *see also N&N Contractors, Inc.*, 18 BNA OSHC 2121 (No. 96-0606, 2000) ("Reasonable diligence implies effort, attention, and action; not mere reliance upon another to make violations known."); *Prestressed Systems, Inc.*, 9 BNA OSHC 1864 (No. 16147, 1981)

23. While the Court recognizes the well was circulated prior to the vertical trip, which purportedly rendered the well static, there were continuing indications during the vertical trip that whatever control had been accomplished at the top of the curve was rendered moot by the influx of gas illustrated in the calculated fill discrepancy.

(finding employer's failure to discover latent defect, whether because it failed to inspect or performed an inadequate inspection, illustrated a lack of reasonable diligence).

Respondent does not dispute whether a supervisor was aware of the conditions described above, nor could it. Rig Manager Thompson, the highest-ranking official for Respondent at the worksite, was privy to most of the conversations discussed above and even consented to the judgment of the company man when it came to a dispute over whether the well should be shut down the day before the accident. Although he went back to his trailer around 2:00 a.m. on January 22, he was back on the rig around 5:30 a.m. during the removal of the BHA and was present, though not on the rig, during the blowout at 8:37. (Tr. 1128). Thompson also had the Pason data available to him in his trailer. (Tr. 1051). Further, according to Thompson, when he was sleeping,[24] the driller takes over as the on-site supervisor. (Tr. 1088-1089). None of this was disputed by Respondent. Accordingly, Thompson's, Ray's, and Deanda's knowledge of the conditions is imputable to Respondent.

In an attempt to argue Complainant failed to establish Respondent had knowledge, Respondent argues the Ray's focus was likely directed towards the BHA and the three-man team responsible for properly inserting it into the wellbore. The Court has no reason to doubt this was the case. However, just because one hazard is more immediate does not obviate the need to ensure other hazards remain abated. Indeed, the whole reason for having audible and visual alarms set to alert at a predetermined level in the first place is to notify the driller to problems occurring downhole, like increases in the mud pit volume, when their attention might be directed elsewhere. (Tr. 1029). The fact the audio alarms may have been turned off at some point during the night shift does not change this result. The day shift driller should have (a) made sure the alarms were

24. There is only one rig manager per 14-day hitch.

turned on, or (b) noticed the audio alarms were turned off when he reset the mud pit levels, which could only have been indicated by the visual alarm at that time. The alternative, of course, is he left them off intentionally. Regardless of which of those three events were the case, Respondent, with the exercise of reasonable diligence could have been aware of the influx of gas in excess of the predetermined levels set by Respondent's own well control policy.

Even if neither Ray nor Thompson was directly aware of the rise in mud levels, their actual knowledge of the condition is not the sole standard for establishing knowledge. As noted above, knowledge can also be established through what Respondent could have known through the exercise of reasonable diligence, which "requires a *careful and critical examination*" of the work area, anticipation of putative hazards, and the implementation of measures to prevent those hazards. *See Austin Comm.*, 610 F.2d at 202; *Frank Swidzinski Co.*, 9 BNA OSHC at 1233. Thus, Respondent cannot "cannot claim lack of knowledge resulting from its own failure to make use of the sources of information readily available to it", such as the alarms intended to alert it to a kick. *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). Nor can Respondent disclaim responsibility by stating, as it does in its brief, that "events taking place beneath the well surface, meanwhile, are the Company Man's purview." *Resp't Br.* at 43. The alarms and information on Pason are equally available to both, and the responsibility to act upon the information on Pason and the alarms triggered by the pre-determined levels indicated in Respondent's well control policy are explicitly assumed by Respondent per the policy. *See N&N Contractors, Inc.*, 18 BNA OSHC 2121 ("Reasonable diligence implies effort, attention, and action; not mere reliance upon another to make violations known.").

Ultimately, there was information available to Respondent indicating the development and presence of a hazardous condition in the wellbore. Regardless of what the driller or rig manager were actually focused on, or whether the company man had a simultaneous responsibility to track the information for potential hazards, Respondent could have been aware of the condition with the exercise of reasonable diligence. Indeed, Respondent's own policy mandated an alert for and acting upon the very information presented to the drillers during the course of the night and day shifts on January 21 and 22, 2018.

3. The Rig Manager's and Drillers' Knowledge is Imputable to Respondent

Under Commission precedent "where the Secretary shows that a supervisor had either actual or constructive knowledge of the violation, such knowledge is generally imputed to the employer." *Am. Eng'g & Dev. Corp.*, 23 BNA OSHC 2093, 2095 (No. 10-0359, 2012) quoting *Access Equip. Sys.*, 21 BNA OSHC 1400, 1401 (No. 03-1351, 2006). It is not necessary to show the employer knew or understood the condition was hazardous. *Phoenix Roofing, Inc.*, 17 BNA OSHC at 1079-1080 (citations omitted); *Peterson Bros. Steel Erection Co.*, 16 BNA OSHC 1196, 1199 (No. 90-2304, 1999), *aff'd* 26 F.3d 573 (5th Cir. 1994).

Notwithstanding Commission precedent regarding imputation of knowledge, the Court is mindful that "[w]here it is highly probable that a Commission decision would be appealed to a particular circuit, the Commission has . . . applied the precedent of that circuit in deciding the case—even though it may differ from the Commission's precedent." *Kerns Bros. Tree Serv*., 18 BNA OSHC 2064, 2067 (No. 96-1719, 2000) (citation omitted). In the Tenth Circuit, a supervisor's 'rogue conduct' generally cannot be imputed to the employer in the situation defined under Commission precedent. *Mountain States Tel. & Tel. Co. v. OSHRC*, 623 F.2d 155, 158 (10th Cir. 1980). Rather, "employer knowledge must be established, not vicariously through the violator's knowledge, but by either the employer's actual knowledge, or by its constructive

knowledge based on the fact that the employer could, under the circumstances of the case, foresee the unsafe conduct of the supervisor [that is, with evidence of lax safety standards].'" *ComTran,* 722 F.3d at 1316.

As painstakingly recounted above, Rig Manager Thompson clearly dropped the ball at various points throughout the process of extracting and reinserting the BHA into the wellbore. However, his failures were ostensibly no different than any other manager who observes his employees engaging in misconduct—or should have been aware their actions were hazardous—and does nothing to abate the hazard. Rather, the failures in this case were almost exclusively in the hands of the drillers, Ray and Deanda, who were at the driller's console when the hazard developed and, ultimately, came to fruition. Again, as recounted above, Thompson either was, or should have been, aware of the developing hazard when he was on the rig prior to and after the removal of the BHA. Even when we he was not on the rig, he had access to information in his trailer. In either case, Respondent's drillers failed to act upon the information indicating an imminent hazard and Thompson knew or could have known about the hazard developing beneath the surface had he exercised reasonable diligence.

Taken at face value, and applied mechanically, *Mountain States* would seem to compel the conclusion that Thompson's knowledge should not be imputed to Respondent. However, upon closer examination, the Court finds the facts of this case are not the same as those that confronted the court in *Mountain States* and, thus, the Court need not mechanically apply the conclusion reached in that case. *See Mountain States*, 623 F.2d 155, *supra*. In *Mountain States,* a supervisor and his subordinate got in a cherry picker to install new telephone wire. *Id.* at 157. The supervisor was not wearing protective rubber gloves and was electrocuted when the telephone line he was handling contacted a live power line. *Id.* Using the rationale employed by many other circuits, the

court found it was improper to impute the supervisor's knowledge of his own misconduct to the employer, because it relieved the Secretary of the burden of establishing knowledge. *Id.* at 158. The court summed it up this way:

> When a corporate employer entrusts to a supervisory employee its duty to assure employee compliance with safety standards, it is reasonable to charge the employer with the supervisor's knowledge actual or constructive of noncomplying conduct of a subordinate. Upon a showing of the supervisor's knowledge, it is not unreasonable to require the employer to defend by showing the failure to prevent violations by subordinates was unforeseeable. But *when the noncomplying behavior is the supervisor's own a different situation is presented*.

Id. (emphasis added). The Court emphasizes the last line because it highlights an important distinction between this case and the facts of *Mountain States*. In *Mountain States*, the noncomplying behavior was the supervisor's and the supervisor's alone. Thus, the only path to imputing knowledge was the supervisor's knowledge of his own mistakes. In this case, however, the noncomplying behavior largely belonged to the drillers, Deanda and Ray. While Thompson could be characterized as having engaged in noncomplying behavior, his biggest failure was being aware, at least constructively, of the drillers' noncompliance (and of the developing hazard) and failing to act as a reasonable and prudent manager would in that situation. *See Calpine Corp. v. OSHRC*, 774 Fed. Appx. 879, 884 (5th Cir. 2019). In other words, Thompson's actions were more akin to the characterization described in the first sentence of the foregoing passage, wherein Thompson was the entrusted supervisory employee charged with assuring Respondent's employees' compliance with safety standards. *Id.* As such, it is reasonable to charge Respondent with Thompson's actual or constructive knowledge.

This conclusion is buttressed by decisions reached by other circuit courts that have held a supervisor's knowledge of his own misconduct cannot be the sole basis upon which knowledge can be imputed to his employer. *See e.g.*, *ComTran Group, Inc. v. U.S. Dep't of Labor*, 722 F.3d 1304 (11th Cir. 2013); *Quinlan v. Sec'y of Labor*, 812 F.3d 832 (11th Cir. 2016); *W.G. Yates &*

Sons Constr. Co. v. OSHRC, 722 F.3d 1304 (5th Cir. 2013). In the Eleventh Circuit, the court has distinguished between circumstances where the supervisor is the only individual involved in the misconduct and those in which he is both involved in the misconduct and observes his subordinates engaging in the same behavior. *See Quinlan*, 812 F.3d 832. In the former, the court held just as it did in in *ComTran* and as the Fifth Circuit held in *W.G. Yates*—the Secretary must establish the misconduct was foreseeable. *Id.* at 837 (citing *ComTran*, 722 F.3d at 1307-08). However, when a supervisor is not the sole participant in the misconduct, but also knows (or at least should know) his subordinates are also engaged in misconduct, the Eleventh Circuit held this is more like the "ordinary case", wherein the supervisor's knowledge is imputable. *Id.* at 842. The reason for the distinction is how the burden of proof is allocated. When the supervisor alone is both the source of the misconduct and knowledge, the Eleventh Circuit held the Secretary cannot meet its burden simply by showing the supervisor was aware of his own misconduct, or else the onus would be on the employer to prove it did not know of the violation, which the Court found unfair and contrary to the law. On the basis of the facts presented in *Quinlan*, however, the court found the Secretary met his burden by proving the supervisor, notwithstanding his own misconduct, was aware of the misconduct of his subordinates. *Id.* Under that set of circumstances, the court found the "'fairness' concern which was at issue in the *ComTran* case is not present in the instant situation." *Id.*

In support of this holding, the Eleventh Circuit pointed to both its prior decision in *ComTran* as well as the Fifth Circuit's decision in *W.G. Yates*, both of which discussed the subtle distinctions at issue in this case:

> Indeed, *ComTran,* in this same footnote 2 at page 1308, cited with approval footnote 7 of the Fifth Circuit *Yates* opinion as noting an example of the "ordinary case." *Yates,* 459 F.3d at 609 n. 7. In that footnote 7, the *Yates* opinion stated in dicta that the violation that was not appealed to the Fifth Circuit—i.e., the simultaneous violation by the two subordinate employees in the presence of the foreman—would constitute the "ordinary context" in which the "supervisor's

> knowledge ... is imputable." The only difference between the facts underlying the instant case and the violation which the *Yates* dicta said would be imputed is that the violation of the two subordinates in *Yates* was slightly different from the simultaneous violation of their foreman, whereas the violation of foreman Pacheco in our case was identical to the violation of Vargas. However, we can perceive no difference in principle between the two situations. Although dicta, we believe *ComTran's* citation with approval of footnote 7 of the *Yates* opinion is an indication that the *ComTran* panel did not contemplate an extension of its holding to the very different situation in this case.

Quinlan, 812 F.3d at 842. In other words, it appears both the Eleventh and Fifth Circuit appear to appreciate the distinction between the two situations described above.

Though the Tenth Circuit has not addressed this particular question, the Court thinks it likely the Tenth Circuit would respond in a manner similar to the Eleventh Circuit. While it could be argued Thompson, by failing to act in the face of a developing hazard, engaged in misconduct, he was simultaneously aware (or should have been) his subordinate drillers also failed to act in response to the same indicia of a hazard. Thus, the Court is not solely imputing knowledge through Thompson's knowledge of his own failures, but also his knowledge of his employees'. Because Complainant proved Thompson was, or should have been, aware of the hazardous condition and his employees' failure to act upon their knowledge of the same hazard, the Court finds Complainant has met his burden of proof that Thompson's knowledge should be imputed to Respondent. As such, Complainant has not been absolved of its responsibility to prove knowledge as a part of its *prima facie* case.

E. Complainant Failed to Prove Respondent's Policies and Practices Were Insufficient to Abate the Hazard

Complainant alleges Respondent failed to free its worksite from the hazards associated with kicks and blowouts and proposed maintaining well control "as outlined in American Petroleum Institute (API) Recommended Practice (RP) for Occupational Safety for Oil and Gas Drilling and Servicing Operations, RP 54, Section 6.1.1." *See* Citation and Notification of Penalty

at 6. API RP 54, Section 6.1.1 is essentially broken down into two requirements: (1) maintain well control, and (2) ensure appropriate materials and equipment are on location and operational before work commences. Complainant contends Respondent failed to ensure its equipment was operational at the time work commenced at the worksite and Respondent failed to follow its well control policy when confronted with evidence the well was flowing.

Respondent, on the other hand, takes a slightly different tack with respect to the issue of abatement. First, Respondent argues it did not control the manner in which work was carried out at the worksite, because that was the responsibility of the company man. Specifically, Respondent contends the cause of the loss of well control and, ultimately, the blowout was the failure to use the proper mud weight, which was the purview of the company man. Second, Respondent argues it did not have adequate time to bring the well under control once it became clear a blowout was imminent.

Ultimately, the Court finds Complainant failed to establish this element. While the Court disagrees Respondent did not have adequate control over the worksite or sufficient time to address the developing hazard before it came to fruition, it does not believe Complainant showed Respondent's abatement methods were inadequate or that there were more effective means by which it could have freed the workplace of the hazard. *See, e.g., Conn. Light & Power Co.*, 13 BNA OSHC 2214 (No. 85-1118, 1989). *See also U.S. Postal Serv.*, 21 BNA OSHC 1767, 1773-1774 (No. 04-0316, 2006) (Where an employer has undertaken measures to address a hazard, the Secretary must establish that the employer's measures were inadequate); *Pelron Corp*., 12 BNA OSHC 1833, 1836 (No. 82-388, 1986) (Secretary may establish that an employer's existing safety procedures were inadequate by demonstrating that there were "specific additional measures" required to abate the hazard). This, of course, is not to say Respondent's employees acted

appropriately in response to the hazardous condition. Rather, the Court's holding is premised on well-established precedent that employers are not strictly liable for violations committed at their worksites. *See National Realty v. OSHRC*, 489 F.2d 1257 (D.C. Cir. 1973) ("Congress intended to require elimination only of preventable hazards."). Instead, it is incumbent upon Complainant to show Respondent's safety program, inclusive of rules, policies, training, supervision, and discipline, is insufficient. *See id*. Complainant failed to meet this burden.

1. Respondent's Arguments Regarding Lack of Control vis-à-vis Company Man

The Court agrees with Respondent that well control is not a monolith. There are multiple aspects to controlling a well, some of which are controlled by the driller, some by the mud engineer, some by the company man, and so on. So, we are left asking: what is the condition or practice over which Respondent could reasonably be expected to exercise control? As discussed above, Respondent was aware of and in control of the data, which highlighted the mud gains, regardless of whether the driller chose to pay attention to it. As a consequence of that knowledge and control, Respondent also has control over how to respond, including whether to close in the wellbore and whether to evacuate its employees in the face of an impending blowout. (Tr. C-32, C-59). Similarly, in the face of a dispute over safe drilling parameters, Respondent had the ability to shut down the job until the company man or his superiors and Respondent's upper management could agree on how to proceed in the face of the type of hazardous conditions observed in this case. (Tr. 1076).

No one disputes the company man, as representative of the controlling entity, has controlling authority over the work of the various contractors as a general rule. Respondent is nonetheless obligated to ensure the safety of its own employees and is required to take actions to guard against conditions presenting a hazard to those employees. This is not only consistent with

the law, but also with the terms of the contract between Respondent and Red Mountain, which states, "Operator agrees that [Patterson's] safety policies and procedures shall control." (Ex. R-2 at ¶ 7.5). Among those procedures is ¶ 4.1.1, which states, "The Jobsite Manager reports to the rig floor and oversees well control procedures *in coordination* with the Operator Representative. The Jobsite Manager is also responsible for ensuring proper use of well control equipment and the safety of all personnel on location." (Ex. C-59) (emphasis added); *see also* (Tr. 1689). The contract between Respondent and Red Mountain, which grants primacy to Respondent's safety rules, recognizes this division of authority. (Ex. R-2).

Moving beyond whether Respondent had any control at the worksite whatsoever, Respondent specifically argues the principal cause of the accident was the company man's failure to order an increase in the mud weight to prevent additional influx and hold down existing gas, which was outside of Respondent's control. There was no serious debate about this, and the Court previously ruled on Complainant's motion to amend that mud weight was not under consideration as an abatement method at trial.[25] That said, Respondent's lack of control over this specific aspect of well control does not absolve it of its other responsibilities towards well control, especially when the evidence indicates it should have been aware of a hazardous condition. The particular cause of an accident is not a relevant consideration in this analysis. As argued by Complainant and as indicated in Respondent's own well control policy, there were numerous ways for Respondent to respond to the gas influx in the well that were not solely based on mud weight.

2. Complainant Argues Respondent's Policies Are Insufficient but Also Uses Those Same Policies to Show Abatement Was Feasible

Complainant explicitly argues Respondent's well control program and policies were

25. That said, based on the evidence at trial, the Court would not have found Respondent exercised sufficient control over the mud weight parameters to warrant upholding it as a feasible means of abatement over which Respondent had control in this particular case.

insufficient to abate the hazard, but curiously points to those very policies to counter Respondent's argument abatement was not feasible. In fact, a review of Complainant's arguments shows each of their proposed methods to identify a hazard and establish well control are found in Respondent's well control procedures. (Ex. C-59). Although Complainant's brief appears to suggest Respondent failed to train its employees, there was no discussion of Respondent's training or disciplinary program at trial, nor did Complainant submit any evidence to support such an allegation. Simply because Respondent's employees failed to comply with the mandates of its well control program does not mean Respondent's program is insufficient or that it failed to render its workplace free of a recognized hazard. There must be proof of such a failure. Complainant's failure to so prove is fatal to its claim.

In a line of cases starting with *National Realty v. OSHRC*, 489 F.2d 1257 (D.C. Cir. 1973), the Commission addressed this very question: what is the standard of proof to establish feasibility of abatement when an employer has a policy that, at least facially, addresses the alleged recognized hazard? In other words, what does it mean to render a workplace free of a recognized hazard? According to the D.C. Circuit, the "actual occurrence of hazardous conduct is not, by itself, sufficient evidence of a violation, even when the conduct has led to injury. The record must additionally indicate that demonstrably feasible measures would have materially reduced the likelihood that such misconduct would have occurred." *National Realty*, 489 F.2d at 1267. *National Realty* was cited when one of its foremen was killed while improperly riding on the running board of a front-end loader. *Id.* at 1262. Although there was evidence of repeated misconduct, the court found "the hearing record was barren of evidence describing, and demonstrating the feasibility and likely utility of, the particular measures which National Realty should have taken to improve its safety policy." *Id.* at 1267. Because the Secretary has the burden

of proof, the court found the Secretary failed to establish a violation.

Subsequent cases before the Commission extended the *National Realty* decision to its logical conclusion. In each case, the operative question was "whether the Secretary established that the company's abatement methods were inadequate or that there was a more effective means by which [the employer] could have freed the workplace of the hazard." *Conn. Light & Power Co.*, 13 BNA OSHC 2214. This was particularly clear in *Cerro Metal Products Division Marmon Group, Inc.*, 12 BNA OSHC 1821 (No. 78-5159, 1986), wherein the Secretary cited an employer for violating the general duty clause when its employees performed maintenance and repairs on a press without deenergizing it. The evidence showed Cerro had a work rule governing the conduct at issue, but the Secretary argued Cerro failed to effectively communicate and enforce its work rule. *Id.* Citing to *National Realty*, the Commission held, "The burden of proof on abatement cannot be met by simply prescribing the very methods already undertaken by the employer. There must be evidence showing how the cited employer's safety practices were inadequate and how the safety policies could have been improved to prevent an accident." *Id.* While there was evidence indicating Respondent had communicated the rule to its employees, the Commission was also careful to note "the burden is on the Secretary to show that Cerro's safety program was inadequate." *Id.* (citations omitted). The ALJ, whose decision was on review, suggested the opposite. It is notable because, though Complainant alleged Respondent also failed to enforce the rule, the Commission noted there was a lack of evidence to indicate supervisory employees were aware of the alleged prior violations of the rule and thus the record failed to "establish that supervisory personnel could have foreseen the need for additional precautions at the time of the accident." *Id.* The problem for Complainant, as stated above, is that it failed to show what additional measures Respondent could have taken to improve its well control program, nor did it

present any evidence whatsoever Respondent failed to communicate these rules or enforce discipline when those rules were violated.

Complainant argues Respondent, under the well control provision of API RP 54, could have taken several steps to abate or materially reduce the fire and explosion hazard, including industry-accepted methods to prevent blowouts on two occasions: during the vertical trip and at the point the blind rams were re-opened at 7:57 a.m. on January 22, 2018.[26] The Court will address Complainant's allegations with respect to these two occasions as laid out in its brief.

First, Complainant notes the mud volume discrepancies during the vertical trip indicated the well was kicking and lays out the various points in time where the trip tank volume failed to track with the calculated fill and noted, unlike the drilling operations from the day before, Respondent's crew did not take steps to manage the influx. Complainant then goes on to note Respondent failed to comply with its Well Control Quick Reference Guide,[27] which requires the driller to stop and perform a flow check for three minutes under those circumstances. Although Respondent closed the blind rams once the BHA was finally removed, Complainant contends Respondent failed to implement measures to control the influx during the trip or after the blinds were closed, which allowed gas to build up below the surface. In particular, Complainant cites to API 54, Section 6.4.16, which indicates the choke or relief lines should be bled of to reduce pressure prior to opening the well. (Ex. R-6).

As it turns out, however, Respondent's Well Control Procedures require each of these steps to be taken. As noted by Complainant, the policy requires flow checks in response to various indicators/events, including when there is an indication of a flow increase, a pit volume increase, anytime the hole is not filled according to calculated fill values during tripping operations, and

26. The Court will address the availability and operational nature of equipment in the next section.
27. The Quick Reference Guide merely condenses the procedures in the Well Control Procedures. (Ex. C-32; C-59).

before pulling BHA into the BOP stack when tripping out of the hole. (Ex. C-59). Additionally, Respondent has two sets of procedures that apply to closing and reopening the annular and blind rams, each of which address a build-up of pressures inside the wellbore. (Ex. C-59 at ¶¶ 4.11, 4.12). While the annular and rams are closed, the flow lines are required to be shut off—albeit in a specific arrangement—and casing pressure is supposed to be monitored with "appropriate alarms set" using the EDR (electronic data recording) system. Prior to opening the annular and rams, Respondent's well control procedures require a set of seven steps to ensure pressure has not built up while they were closed, including "a visual verification of the choke valve alignment shall be performed ensuring that there are not closed valves after the remote choke", followed by opening the remote choke and, if possible, verifying returns at the shakers. (Tr. 85; Ex. C-59 at ¶ 4.12). After verifying returns, if any, the procedures direct crew members to "verify that the casing pressure reads zero on the EDR and manual gauge at the choke manifold." (*Id.*). In other words, Respondent's well control procedures require exactly the type of abatement Complainant recommends through the implementation of API RP 54.

Second, Complainant argues that, once the rams were opened, Respondent failed to maintain well control, ignored indications it lost well control, and did not take steps to regain control at multiple points over the roughly 40-minute time span between when the blind rams were open and when the blowout occurred. Again, Complainant notes the API indicates a well should be shut-in once a kick is detected and expresses a preference for a hard shut-in. (Ex. C-3). Complainant also notes Respondent's Well Control Quick Reference Guide indicates how to identify a well control event; how to manage a well control event under a particular set of circumstances, such as tripping or drilling; and the preferred methods for shutting in and killing the well. (Ex. C-32; C-59). Just as before, Complainant's recommended abatement measures, i.e.,

following the API Recommended Practices, are found within Respondent's own well control procedures, including relieving pressure on the wellbore through the use of the choke valves and verifying pressure on the EDR and on the manual gauge on the choke manifold.

Third, though not explicitly argued in Complainant's brief, but discussed at trial, was the suggestion Respondent could have closed the annular rams around the drill string and evacuated the drill platform to a place of safety. This particular methodology was argued at length as a method to abate the hazard insofar as it placed employees out of harm's way; though most agreed it was not a method of well control, which was the focus of Complainant's allegation. Nevertheless, the Court would like to address this particular issue for two reasons: (1) Respondent claimed closing the annular would present a greater hazard than attempting to remove the BHA and close the blind rams; and (2) even if that were the case, Complainant failed to establish a deficiency in Respondent's safety program because Respondent's well control procedures included a close-in and evacuate procedure. As to (1), the evidence regarding whether closing the annular around the drill string would have caused a greater hazard was little more than speculation. There was no evidence to suggest the pressure built up inside the wellbore exceeded the downward force of the BHA and drill string such that they would have shot out of the well. According to Medley, he would need to know the differential between pipe weight, including the BHA, and wellhead pressure. (Tr. 1647). While Respondent's assertion could be based, in part, on experience, neither expert explicitly concluded the hazard posed by closing the annular and evacuating the rig was greater than the explosion that ultimately occurred from attempting to remove the drill string and BHA before the well blew out, and neither will the Court. That said, as to (2), the Court finds Respondent had multiple procedures addressing a potential blowout, depending on the situation it faced, including when "the string is too far up the wellbore to kill the well or is at risk of getting

pushed out of the hole" or a "shallow gas event". (Ex. C-59 at ¶¶ 4.52, 4.6). In either case, Respondent had a procedure for such an eventuality.

Ultimately, Complainant points out the myriad ways in which Respondent's crews failed to recognize and react to the growing indications of a hazard developing in the wellbore. What Complainant failed to do is show how Respondent's safety program was inadequate to address the hazard. For each identified failure, Complainant points out how API RP 54 is an effective and feasible means of abatement while simultaneously pointing out that Respondent's own well control safety procedures require the exact same methodology. Complainant has not shown any deficiency in Respondent's program, nor has it shown how the API Recommended Practice serves as a more effective means of abatement. In fact, it appears as if Respondent's procedures closely track, and to some extent are likely based on, the abatement methods Complainant identifies within the API Recommended Practices. Complainant's failure to establish Respondent's existing program is deficient—or how API RP 54 is more effective—without more, is fatal to this particular claim.

Perhaps in an attempt to remedy this shortcoming, Complainant appears to claim, without putting forth additional evidence, Respondent's safety program is deficient in the way it is communicated and enforced. The Court notes Complainant did not allege this as a basis for abatement. In support of its argument, Complainant cites to *SeaWorld of Florida, LLC v. Perez*, 748 F.3d 1202, 1215 (D.C. Cir. 2014), and parenthetically notes the court held SeaWorld's existing safety program to be inadequate where evidence showed employer's training and protocols did not prevent continued incidents of killer whales causing injuries and deaths. In *SeaWorld*, the circuit court was addressing the quality of pre-existing abatement measures that failed to prevent three separate incidents, including two deaths, involving killer whales on SeaWorld properties. Here, Complainant has not identified multiple, prior failures to prevent blowouts with the identified well

control procedures, nor has it specified the manner in which Respondent's program could be improved such that the incident that occurred in this case could have been prevented. Further, there is virtually no evidence illustrating the quality of Respondent's training, its methods of communicating its policies and disciplinary program, nor any suggestions as to the manner in which it could be improved such that the Court could conclude Respondent's existing safety program was insufficient to address the hazard.

In a general duty clause case, it is incumbent upon Complainant to prove Respondent's safety program is deficient. *See Cerro*, 12 BNA OSHC 1821, *supra* ("The burden of proof on abatement cannot be met by simply prescribing the very methods already undertaken by the employer. There must be evidence showing how the cited employer's safety practices were inadequate and how the safety policies could have been improved to prevent an accident."). The evidence presented shows Respondent's safety program accounted for the alleged hazards in the same manner identified in Complainant's proposed abatement. Failing there, Complainant's only recourse was to show Respondent failed to properly communicate its rules, ensure its rules were being followed, and meting out discipline on those occasions where they were not. Complainant has not asserted, nor produced evidence, of any issues with Respondent's training or disciplinary program. Because this evidence was Complainant's burden, Complainant's argument as to implementing well control measures consistent with API Recommended Practices fails. This is so even though members of Respondent's on-site management were involved in the alleged misconduct. *See id.* (Commission overruled ALJ holding employer failed to adequately enforce existing rule, which was illustrated by evidence of employees violating rule prior to accident, even though employee violating the rule was a foreman); *see also Mountain States Tel. and Tel. Co. v. OSHRC*, 623 F.2d 155 (10th Cir. 1980) (holding Secretary must establish foreseeability of

supervisor's misconduct to impute knowledge).

3. Respondent Had Operational Equipment at the Worksite at the Time Work Commenced

The second part of Complainant's proposed abatement also comes from API RP 54, which states, "Consideration shall be made to ensure appropriate equipment and materials are on location and operational before work commences." Complainant argues there were multiple pieces of well control equipment that were not operational at the time particular tasks had begun, including trip out and testing the new BHA. These pieces of equipment included the flow sensor, the Pason alarms indicating mud volume and flow, and the Pit Volume Totalizer horn,[28] each of which Complainant contends contributed to Respondent's failure to properly diagnose and respond to an impending blowout. Conversely, Respondent contends it was not required to ensure the operational nature of each piece of well control equipment before every change in work task. Instead, Respondent argues the term "work commences" refers to the spud date, which is when drilling commences at the well site. Further, Respondent argues it implemented a comprehensive inspection scheme, which ensured all its drilling equipment was inspected on monthly, weekly, and even daily basis. (Tr. 794-95, 1193-94).

Based on what follows, the Court finds Complainant failed to establish Respondent failed to free its worksite of a hazard based on API RP 54. First, the Court is not convinced by Complainant's interpretation of the terms "work commences" as espoused by Medley; rather, the Court is persuaded by the interpretation provided by Respondent's expert Reineke, who determined the term refers to the spud date, or when drilling begins. Second, even if the Court

28. At trial, other equipment was discussed, like the accumulator and super choke, which did not make it into Complainant's brief. Therefore, these items are deemed abandoned. *Georgia-Pacific Corp.*, 15 BNA OSHC 1127, 1130 (No. 89-2713, 1991). However, even if they had, the evidence showed the accumulator and BOP worked post-explosion and the super choke was a redundant system that, ultimately, did not impact abatement.

accepts Complainant's definition of the term "work commences", Complainant failed to prove Respondent's safety program did not address these issues. In addition to having a comprehensive inspection program for equipment, Respondent also had procedures requiring the identified pieces of equipment to be operational. Thus, just as the Court rejected Complainant's argument regarding the sufficiency of Respondent's safety program on well control procedures, the Court also rejects Complainant's arguments regarding the availability and operational status of its equipment.

a. Terminology

As illustrated by the parties' arguments, the term "work commences" is ambiguous. This ambiguity, however, does not entitle Complainant to deference, as it was not promulgated pursuant to its statutory authority but was instead produced by an industry trade group, the American Petroleum Institute. Thus, the decision regarding which interpretation to credit is within the Court's discretion. Complainant argues the term refers to the beginning of each new task or job, whereas Respondent argues the term simply refers to the spud date. The Court agrees with Respondent.

In support of its argument, Complainant relies on the testimony of Medley, who has an impressive background as a professional drilling engineer and participant in the International Association of Drilling Contractors and API committees, and other sections of API RP 54. Medley agrees with Complainant's interpretation of the term and points out other equipment necessary to drilling operations does not need to be present at the spud date. (Tr. 1776). For example, Medley points to casing and cement crews: neither the crews nor their equipment need to be present and operational on the spud date. (Tr. 1776). Similarly, Complainant points out other aspects of API RP 54 that appear to support this understanding. For instance, Section 6.3.1 lists recommended practices that are supposed to occur prior to rig-up operations and suggests if the term "work

commences" referred to the spud date, the most logical section would be in section 6.3 under preliminary rig-up operations as opposed to General Operations under Section 6.1. Complainant also points to Section 6.4.1, which permits the installation and testing of certain well control equipment while drilling or well servicing is in progress.

Complainant's argument is unconvincing for three reasons. First, if Complainant's interpretation is accepted, Respondent must perform an inspection of all well control equipment each time a new job/task is started even if that equipment was in use and operational in the task immediately preceding it. For example, Respondent transitioned from drilling to circulating the well to tripping, and all the well control equipment was in use throughout all three activities. Absent some indication the equipment in question was not operational or was not otherwise in use during the previous task, it is unclear why a driller should be obligated to conduct an additional inspection outside of the schedule it already has established. Respondent's expert, Reineke, who has both extensive credentials as a drilling engineer, as well as a lengthy career working in the field, testified regarding these concerns. He believed Complainant's interpretation would impose onerous and unnecessary testing/inspection burdens on a driller, requiring a shutdown every time a pipe is tripped or perform a slightly different task. (Tr. 1976). For that matter, using Complainant's definition, it is unclear what would constitute a new activity requiring equipment to be tested/inspected.

Second, Medley's argument regarding casing and cementing crews is not particularly convincing because the point at which "work commences" is likely different for different crews. Given the general nature of Section 6.1.1, and its application to multiple contractors under different circumstances, this makes sense. Indeed, Reineke testified, "Industry standard is work commences *on a drilling rig* when it starts drilling." (Tr. 1975) (emphasis added).

Third, the other sections cited by Complainant in RP 54 are very specific in their application and do not support Complainant's interpretation. Section 6.3.1 refers to the set-up of drilling and servicing rigs at the worksite and identifying surrounding hazards, such as power lines, pipelines, and underground utilities prior to equipment set-up and, thus, prior to the work of drilling or servicing commencing. Section 6.3.2 makes an important distinction: well operations, or the work or drilling or servicing, shall not be commenced until the rig is rigged up safely. (Ex. C-59). Section 6.3.4 talks about preliminary checks to be performed before the work of well servicing begins. As compared to Section 6.1.1, which addresses the importance of maintaining well control and having necessary well control equipment, the sections cited by Complainant refer to the set-up of the equipment necessary for work to begin. Likewise, Section 6.4.1, which allows well control equipment to be installed and tested after drilling in progress, is consistent with Respondent's reading. Section 6.4.1 merely refers to the equipment that is already required to be at the worksite when work commences pursuant to 6.1.1.

Ultimately, Respondent's interpretation of the standard comports with the nature of its work, whereas Complainant's interpretation appears calculated to achieve the result of holding Respondent responsible for alarms that were purportedly turned off. From the moment a well is spudded, well control becomes an issue, which is why it is imperative that all related equipment be on-site and operational at that time. Thus, as noted by Reineke and many of Respondent's employees, the rig and all its component parts go through a comprehensive inspection prior to drilling and monthly thereafter. (Tr. 1305-1308, 1992; Ex. R-18). In addition, the equipment is subject to regular inspection on scheduled intervals, depending on its function. (Tr. 1314). To further buttress this inspection regime, each crew performs a visual inspection of all vital equipment at shift change to ensure it is working. (Tr. C-22). To impose an additional

testing/inspection requirement on Respondent, when the API already has other provisions for testing equipment is redundant and unnecessary. (*See* Ex. R-6 at 6.4.7, C-118 at 6.25). The Court finds that "work commences" on a rig when drilling starts which is also the spud date. This finding is also consistent with the term as set forth in the contract between Red Mountain and Respondent. Finally, the Court's finding is consistent with industry standards as testified to by Reineke.

Before proceeding to a discussion of individual equipment items as set forth by Complainant, the Court finds there was no evidence introduced by Complainant which demonstrated the individual equipment was not operational at the time drilling commenced. In fact, Respondent induced testimony from the expert witnesses which indicated the pieces of equipment Complainant identified in its brief was fully operational when drilling operations commenced. What follows is a discussion of the individual pieces of equipment focused on by Complainant in supporting his arguments.

b. Flow Sensor

The flow sensor, as its name implies, detects flow of mud from the well to shakers and provides an indicator that gas is entering the well. (Tr. 1906). Complainant argues Respondent admitted the flow sensor was not operational at the time it began testing the BHA and had been faulty for a while. (Tr. 746-47). Although there was some testimony the flow sensor would not properly calibrate after multiple attempts, the Court finds this does not rise to the level of admitting the flow sensor did not function. The evidence shows the sensor registered flow from the well when the blind rams were re-opened at 7:57 a.m. Complainant's own expert testified that while there was a problem with solids clumping around the gauge and making it hang partially open, the important function of the flow sensor was to indicate a change in flow. (Tr. 1906). According to Medley, because the flow sensor was still capable of identifying flow from the well "it would still

be available to use to help maintain control of the well." (*Id.*). Thus, even though the sensor may not have been properly calibrated, it was capable of alerting Respondent to the presence of a hazard as required by its own well control procedures, which require the alarm to go off at 5%. (Ex. C-59). Upon opening the blind rams, the flow sensor registered an increase to 18%. Based on this evidence, the Court finds the flow sensor was operational during the time period alleged by Complainant. Accordingly, Complainant's argument is rejected as to the flow sensor.

c. Alarms

The crux of Complainant's argument is the state of the alarms and the PVT horn. In Complainant's view, if the Court were to accept its definition of when work commences—which it does not—then Respondent would arguably be on the hook for not implementing adequate abatement measures, because the alarms were not in operation in the time leading up to and including the blowout. The problem for Complainant is two-fold.

First, although many people testified they did not hear, nor see, any Pason-related alarms, the Court is dubious about whether both the audio and visual alarms had been turned off. As noted earlier, Deanda testified it was unlikely the visual alarms would be turned off, and he testified he turned the flow/mud alarms on. Further, shortly after the blind rams were opened, and in the face of increasing mud levels, Ray reset the mud pit volume levels on the Pason data screen, which suggests he observed the rise in mud levels and noted a change warranting a reset to verify the gains he observed were accurate. At the very least, it shows his awareness of the information in Pason.

Second, and most importantly, Respondent has procedures requiring all alarms to be "set on the EDR system and not disabled or muted once the BOP stack is installed." (Ex. C-59 at 4.10). *See Cerro*, *supra*. Given these facts, Complainant cannot show how or even whether Respondent's

procedures were deficient when they explicitly required Complainant's proposed abatement measures. There is nothing to suggest the alarms were not working; there is only evidence indicating they may have been turned off. There is no dispute that the act of turning off the alarms, or the failure to turn them back on at shift change pursuant to Respondent's inspection regime, is misconduct under either the API or Respondent's own rules; however, Complainant has not asserted, or put forth evidence to establish, Respondent failed to communicate these rules, ensure compliance with them, or discipline employees when violations of the rules were uncovered. As with the abatement methods proposed with respect to maintaining well control, Complainant has not shown a deficiency in Respondent's safety program, nor has it provided a more effective alternative. In addition, Complainant introduced no evidence to indicate the alarms and horn were not working on the date "work commenced" on the rig – the operational date under API Section 6.1.1. Accordingly, Complainant's arguments regarding the presence and operational nature of well control equipment under API RP 54 are rejected. The Court finds Complainant did not establish Respondent failed to free its worksite of recognized hazards through the implementation of feasible and effective means of abatement.

VI. Conclusion

Notwithstanding the result in this case, the Court is mindful of the fact five people died as a result of the explosion that occurred on the morning of January 22, 2018. There were numerous failures on behalf of the company men and by Respondent's employees that were avoidable and, in all likelihood, could have prevented this catastrophe. Nevertheless, the Court's ruling is bound by the law and evidence presented to it. While the evidence shows Respondent's employees were exposed to a recognized hazard and Respondent, through the exercise of reasonable diligence, could have known about it, the Court finds Complainant failed to meet its burden of proof with

respect to the means of abatement. Respondent had extensive policies governing well control in place at the time of the blowout, and Complainant failed to show how those policies were deficient vis-à-vis the API Recommended Practices, which Complainant identified as a feasible and effective means of abatement. In fact, Respondent's policies closely tracked the requirements of the API Recommended Practices in terms of preparing for, identifying, and mitigating the hazard. While the evidence indicates Respondent's employees failed to abide by those policies—whether by improperly deferring to the company man, or by simply failing to do what was required—those failures cannot be attributed to Respondent because Complainant did not prove they should be. Complainant, in his Complaint and Citation, did not allege employee misconduct—and therefore training and enforcement of Respondent's policies—as a basis of abatement. The burden of proving Respondent's well control program was deficient in some respect other than its substance belonged to Complainant. Complainant failed to meet that burden. There was no evidence Respondent failed to communicate, observe, and enforce the requirements of that program. Accordingly, Citation 1, Item 1 is hereby VACATED.

ORDER

The foregoing Decision constitutes the Findings of Fact and Conclusions of Law in accordance with Rule 52(a) of the Federal Rules of Civil Procedure. Based upon the foregoing Findings of Fact and Conclusions of Law, it is ORDERED that:

1. Citation 1, Item 1 is VACATED.
2. Citation 1, Item 2 is AMENDED to allege a violation of 29 C.F.R. §1910.128(b)(1)(i). The citation item is AFFIRMED as amended as a serious violation, and a penalty of $12,934 is ASSESSED.

3. Citation 1, Item 3(a) is AMENDED to allege a violation of 29 C.F.R. § 1910.38. The alleged violation description (AVD) is amended to state, "The employer's post-incident muster process do [sic] not include documenting that non-Patterson workers were present and accounted for." The citation item is AFFIRMED as amended as a serious violation, and a penalty of $12,934 is ASSESSED.
4. Citation 1, Item 3(b) is withdrawn by Complainant.
5. Citation 1, Item 4(a) is withdrawn by Complainant.
6. Citation 1, Item 4(b) is AMENDED to an "other-than-serious" characterization and the AVD is amended to state, "The employer failed to have documentation of completed training." The citation item is AFFIRMED as amended, and a penalty of $12,934 is ASSESSED.
7. Citation 1, Item 5 is AMENDED to state that the violation occurred on or about January 18, 2018. The citation item is AFFIRMED as amended as a serious violation, and a penalty of $12,934 is ASSESSED.
8. Citation 1, Item 6(a) is withdrawn.
9. Citation 1, Item 6(b) is AMENDED to allege a violation of 29 C.F.R. § 1910.1030(f)(1) and the characterization is amended to "other-than-serious". The Citation is AFFIRMED as amended, and a penalty of $9329 is ASSESSED.

SO ORDERED

/s/ Patrick B. Augustine

Patrick B. Augustine
First Judge, OSHRC

Date: February 12, 2021
Denver, Colorado