APACHE CORPORATION

183 IBLA 273 Decided April 17, 2013

United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Land Appeals
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Arlington, VA 22203

APACHE CORPORATION

IBLA 2012-183 Decided April 17, 2013

Appeal from a final decision affirming Incidents of Noncompliance issued by the Bureau of Safety and Environmental Enforcement. OCS G-02580.

Affirmed.

1. Oil and Gas Leases: Generally--Oil and Gas Leases: Civil Assessments and Penalties--Oil and Gas Leases: Incidents of Noncompliance: Generally--Outer Continental Shelf Lands Act: Oil and Gas Leases--Outer Continental Shelf Lands Act: Operating Procedures

The Bureau of Safety and Environmental Enforcement (BSEE) properly issues Incidents of Noncompliance pursuant to the Outer Continental Shelf Lands Act, 43 U.S.C. § 1332(6) (2006), and 43 C.F.R. § 250.107(a) when there is substantial evidence that a lessee/operator has failed to maintain equipment in a safe condition, resulting in the rapid spread of fire and the unauthorized discharge of hydrocarbons into offshore waters, and has failed to protect the health, safety, property, and the environment by performing all operations in a safe and workmanlike manner. The Board will affirm issuance of Incidents of Noncompliance where the lessee/operator fails to show, by a preponderance of the evidence, that BSEE has committed a material error in its factual analysis, or that the Incidents of Noncompliance are not supported by a record showing that BSEE gave due consideration to all relevant factors and acted on the basis of a rational connection between the facts found and the choices made.

APPEARANCES: Jonathan A. Hunter, Esq., and Thomas P. Diaz, Esq., New Orleans, Louisiana, for appellant; Sarah Doverspike, Esq., Office of the Solicitor,

U.S. Department of the Interior, Washington, D.C., for the Bureau of Safety and Environmental Enforcement.

OPINION BY ADMINISTRATIVE JUDGE ROBERTS

Apache Corporation (Apache),[1] the lessee and operator of Lease OCS G-02580, appeals from the March 1, 2012, decision of the Bureau of Safety and Environmental Enforcement (BSEE),[2] affirming five Incidents of Noncompliance (INCs) issued to Apache for regulatory violations stemming from a September 2, 2010, fire outbreak on Vermillion Block 380, Platform A (the Platform), in the Gulf of Mexico roughly 102 miles off the coast of Louisiana. For the following reasons, we affirm BSEE's final decision.

I. BACKGROUND

On the morning of September 2, 2010, Apache was operating seven production wells on the Platform. In addition, Apache was in the final stages of upgrading the equipment and facilities on the Platform, which was being painted by Nacher Corporation (Nacher). Thirteen men were working on the Platform: the lead operator, the only person employed by Apache; the lead operator's assistants, who were known as an A operator and a C operator; a mechanic; an electrician; a cook; a galley hand; and 6 members of Nacher's painting crew. The painting crew prepared Apache's two-story Platform for painting by placing Visqueen (a brand of plastic sheeting) and duct tape around and over the Platform's back pressure valve (BPV) control box and other safety devices in the area. Administrative Record (AR)[3] 7, 23

[1] Mariner Energy, Inc. (MEI), was the lessee/operator of the Platform at the time of the fire outbreak. On Nov. 10, 2010, MEI merged with Apache. Unless otherwise indicated, our references to lessee/operator are to Apache.

[2] At the time of the incident, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) regulated oil and gas operations on the Outer Continental Shelf (OCS). On Oct. 1, 2011, BOEMRE was divided into two bureaus, BSEE and the Bureau of Ocean Energy Management. *See* 76 Fed. Reg. 64432 (Oct. 18, 2011). BSEE is charged with enforcing operational oil and gas regulations. Secretarial Order 3299A2, § 4 (Aug. 29, 2011). For the purpose of this Opinion, BSEE will be referred to as the investigative bureau and decision-maker during all relevant time periods.

[3] Except for omitted documentation later submitted to this Board (*see infra* note 7), the AR in this case is contained on a compact disc. The AR number we cite to in this opinion corresponds to the document number displayed on the index.

(continued...)

(photograph of BPV); AR 37 (same); AR 73 (investigating officer's notes dated Sept. 2, 2010) at unpaginated (unp.) 3.

At approximately 8:30 a.m., a member of the painting crew accidentally bumped the relay for the Level Safety High (LSH) sensor [4] on the Platform's Glycol Contact Tower (contactor),[5] which triggered the Platform's process alarm. The Surface Safety Valves (SSVs) on the seven operating wells began shutting in. AR 66 (abbreviated transcript of witness statements) at 34; AR 73 at unp. 3. The lead operator then rushed to the well panel where he pulled and pinned the relays for all seven wells in order to open each well's SSV. Once the contactor relay was reset, the bay valve on each well had to be manually opened. AR 73 at unp. 3. At 8:40 a.m., Apache personnel disengaged the SSVs at the master panel so the wells could be restarted. AR 66 at 4. While crew members were manually opening the valves, the compressor's discharge pressure started to increase beyond acceptable limits. When the lead operator attempted to manually bleed off the pressure at the BPV control box, he could not open the panel door because it was covered in plastic sheeting and duct tape. Because the built-up gas could not be released, the high gas pressure activated the safety relief valves on both the contactor and the compressor, which, again, triggered the shut in of the wells.

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[3] (...continued)

On repeated occasions, the Board has held that when an appeal is filed, it is incumbent upon the agency to forward the complete, original case file to the Board, including all original documentation involved in the matter. *E.g.*, *James Chamberlain*, 173 IBLA 100, 101 n.2 (2007). With some misgivings, we conclude that the record, as supplemented by BSEE, is sufficiently complete to warrant our review and disposition of the case. However, we remind BSEE that an appealed decision "may be set aside and remanded if it is not supported by a case file providing information upon which the Board may conduct an independent, objective review of the basis of the decision." *Id.* (quoting *Save Our Cumberland Mountains, Inc.*, 108 IBLA 70, 84, 96 I.D. 139, 147 (1989)); *see also Mobil Oil Exploration & Producing Southeast, Inc.*, 90 IBLA 173, 177 (1986).

[4] The LSH sensor is designed to be activated when the liquid level in the Glycol Contact Tower exceeds the allowable maximum operating level, which could impair the component's functioning. AR 1, *Vermillion Block, Production Platform A: An Investigation of the September 2, 2010 Incident in the Gulf of Mexico* (BSEE Report), Glossary.

[5] The contactor is a vertical vessel in which wet gas produced from the wells is brought into contact with triethylene glycol to remove water vapor. BSEE Report, Glossary.

Meanwhile, even though no production flowed into the Platform's Heater-Treater[6] for over 10 minutes because the wells had been shut in, the vessel remained online. The Heater-Treater's burner, which was not designed to shut off in the event of activation of either the compressor's or the contactor's safety switch, was still operating and the blower continued to fan heat into the fire tube. At around 8:45 a.m., the Heater-Treater's fire tube melted, exposing the remaining hydrocarbons and pressurized gas in the vessel to the burner's flame. This contact caused the component assembly section of the Heater-Treater to explode out of the vessel.

In its Report, BSEE provides the following description of the explosion and its aftermath:

> The A Operator and lead operator then heard the contactor's PSV suddenly activate. The mechanic heard the compressor's discharge PSV

[6] The BSEE Report described the Platform's Heater-Treater as follows:

> The VR 380 A Platform's Heater-Treater was one of the vital pieces of equipment in the Platform's production train and was the source of the fire. Built in 1981, the Heater-Treater received an oily water emulsion that traveled through the production train and then separated the emulsion into oil and water through application of heat, chemicals, and electricity. The Heater-Treater contained a fire tube and a section called a forced-draft fired component assembly section, which housed the Heater-Treater's blower motor, main burner, pilot igniter, and fuel gas inlet lines. The main burner, located in a horizontal position down the center of the tube, produced a flame that heated the fire tube, which, in turn, raised the temperature of the fluids inside of the Heater-Treater. The transfer of heat from the fire tube to the fluid added in the separation of the oily water emulsion. Once the oil was separated in the Heater-Treater, it traveled to the "good" oil tank, LACT [Lease Automatic Custody Transfer] unit, then to the pipeline pump, and then to the shore via pipeline.

BSEE Report at 5 (footnote omitted). This description indicates the manner in which the Platform's Heater-Treater was designed to work. However, as we discuss *infra*, and as the BSEE Report and the Heater-Treater Fire Report explain, matters went demonstrably wrong on the morning of Sept. 2, 2010, resulting in the fire and BSEE's issuance of the 5 INCs now at issue.

The LACT unit is a system that uses automatic equipment to measure, sample, test, and transfer oil to the pipeline and to record that transaction. BSEE Report, Appx. 1 (Glossary) (citing Norman J. Hyne, NONTECHNICAL GUIDE TO PETROLEUM GEOLOGY, EXPLORATION, DRILLING, AND PRODUCTION (2d ed. 2001)).

activate and also heard a sound that he described as similar to "someone's hand hitting the desk" emanating from the cellar deck. After hearing this sound, the mechanic observed flames coming from the cellar deck in the area above the storage building on the northwest corner of the platform next to the flare boom. At or about the same time, the mechanic heard the PSV activate on the compressor, and several other crew members described hearing a sound and seeing flames. These witnesses have described the sound as "a firecracker [exploding] under water," a loud "explosion," or "somebody [taking] a sledgehammer and [hitting] it against the wall."

According to the lead operator, he was trying to return to the well panel when he heard all of the wells' SSV and shut down valves closing upon activation of the relays. At this point, all of the wells were shutting in. The mechanic manually shut down the compressor and headed to the south stairway. He began yelling "fire" and activated the general alarm to alert the other crew members while he descended to the cellar deck.

During this time, the Heater-Treater's fire tube collapsed, and the oil and gas residing within the Heater-Treater came into contact with the vessel's hot burner. The forced draft section of the Heater-Treater was ejected from its mounting flange, which caused a noise that several crew members described as an "explosion." Oil burst into flames as it flowed out onto the cellar deck. The fire spread very quickly to the cellar deck, and then spread to the main deck where it reached combustibles and ignited the living quarters and other buildings on the Platform. The fire produced a thick, oily black smoke, causing an undetermined amount of hydrocarbons to spill from the Platform into the water.

. . . .

After twelve of the VR 380 A Platform crew gathered at the head of the stairway near the well panel on the northeast side of the cellar deck, they noticed that the galley hand was missing. Two crew members ran upstairs to the main deck to try to locate him. Although the C operator located the galley hand, the two men then somehow became separated from each other. The C operator rejoined the crew on the cellar deck, and these twelve crew members proceeded through the smoke down the only exit stairway that seemed available to the Plus 10 deck. Meanwhile, the galley hand reached the Plus 10 deck by

> climbing down a fixed metal ladder on the west side of the platform. The crew gave inconsistent accounts as to when during the evacuation they were able to get life jackets, but they all agreed that there were only twelve life jackets accessible to them during the fire.

BSEE Report at 10-11 (footnote omitted).

For reasons not explained in the record, 13 crew members were unable to notify anyone off-Platform before evacuating the Platform by jumping into the water. No life floats, life rafts, or ring buoys were ever launched. There were only 12 life jackets. The crew member without a life jacket was kept afloat by two men who were wearing life jackets. AR 73 at unp. 3. After braving 7-foot waves for approximately 2 hours, all 13 men were successfully rescued.

II. BSEE'S INVESTIGATION

Pursuant to 43 U.S.C. § 1348(d)(1) (2006), BSEE initiated an investigation of the fire. A five-person team (the BSEE panel) spent 5 months collecting and reviewing evidence regarding the incident. The panel conducted witness interviews, collected witness statements, consulted an expert with regard to the Heater-Treater,[7] reviewed gas measurement charts, electronic computer data, photographs, agency inspectors' evaluations and findings, and documents from both the lessee, lessee's contractors, and the U.S. Coast Guard. Based on that information, on May 23, 2011, BSEE issued the BSEE Report. We summarize the Report below.

A. Failure to Maintain the Heater-Treater in a Safe Condition

Apache's Heater-Treater had been in use 29 years when the accident occurred. The front of the Heater-Treater had two main ports. The left port was fitted with a forced-draft fired component assembly section, which housed the vessel's blower motor, main burner, pilot igniter, and fuel gas inlet lines. A mounting flange attached this assembly to the heated side of the removable, U-shaped fire tube. AR 1 (BSEE Report) at 5; Heater-Treater Fire Report at 6-8; AR 16 (photograph—front of fire-damaged Heater-Treater after exhaust piping had been removed); AR 17 (photograph—front of fire-damaged Heater-Treater). The right port contained the fire tube's exhaust shaft. AR 17. By design, the main burner, located in a horizontal

[7] BSEE hired Casbarian Engineering Associates, LLC, to evaluate the Heater-Treater. The company issued a report titled "Heater Treater Fire Report" in January 2011 and BSEE incorporated that report into its findings. BSEE inadvertently omitted the addenda to this report when submitting the AR to this Board. We therefore cite to the complete version and not to the electronic version previously submitted.

position down the center of the fire tube's left side, contained a flame that heated the fire tube. *Id*. The blower was designed to transport natural gas and oxygen into the fire tube, which was manufactured to heat approximately 10,000 to 12,000 barrels of oil per day (BOPD). Heater-Treater Fire Report at 10-11.

The emulsion process required the fire tube to be submerged in fluids completely during production. If the fire tube was not fully covered in fluids as designed, then temperatures within the vessel would increase because there would be nothing to dissipate the tube's heat. BSEE Report at 31. The manufacturer of the fire tube explained that exposure of the fire tube outside of the liquid bath could increase the tube's temperature radically. *Id*. Overheating of the fire tube over a period of time could cause the tube to fatigue. *Id*. Weakened spots were dubbed "hot spots." *Id*. Upon careful examination of the fire tube itself, BSEE found evidence of "hot spots," heavy corrosion, and pitting on the tube's fired side, which caused a loss of wall thickness. *See id.* at 21, 31. The major "hot spot" occurred near where the main burner's flame was situated. There was a crack in the first bend of the tube turn on the fired side, which was also located at a point close to where the main burner's flame was positioned.

The Heater-Treater required several repairs between 2006 and 2009. In 2006, the Heater-Treater's burner assembly malfunctioned. Apache's contractor, hired to fix the problem, discovered a crack in the top of the then 25-year-old fire tube. *Id.* at 25. Apache told BSEE that it had subsequently hired another company to weld the crack. AR 66 (abbreviated transcript of witness statements) at 4, 69. BSEE's expert concluded that the crack had been poorly repaired. Heater-Treater Fire Report at 8. And, for a fire tube of its age, the expert believed that the proper repair would have been to replace the lower barrel of the fire tube with new pipe or to turn the tube around; the fire tube was made so that it could be reversed. The "side that accepts the fire is subjected to far more heat than the return segment to the stack. . . . This tube should have been reversed after repair if the lower barrel was not replaced. The decision not to replace the pipe was probably a cost saver." *Id*.

The next month, Apache called back the contractor to examine the cause of the Heater-Treater's improperly-high temperatures and heat spikes. The contractor determined that there was not enough liquid to use the burner's minimum amount of heat. Apache only produced about 5,100 BOPD in October 2006 as opposed to the Heater-Treater's manufacturer's recommended 10,000 BOPD. BSEE Report at 29. The contractor warned Apache that the low oil volume caused the burner to overheat the fire tube, which caused the liquid temperature inside that vessel to also overheat. *See* Heater-Treater Fire Report at 5. To make up for low oil production, the contractor blocked the Heater-Treater's water knockout section, which allowed water that normally drained from the section to stay in the vessel's heating area. BSEE

Report at 31. Nothing in BSEE's Report indicates that the contractor pulled the fire tube out for inspection or otherwise noted whether the tubing had been patched since his last Heater-Treater consultation. *Id*. at 28.

Three years later, Apache again hired a contractor to investigate the cause of the Heater-Treater's fluctuating, high temperatures. The contractor again warned Apache that the oil production was too low for the Heater-Treater's burner flame temperature. *Id.* at 26. The rate of production through the Platform was approximately 816 BOPD at that time. *Id*. at 29. On September 1, 2010, the day before the fire, the rate of production through the Platform was at a low for the week of 1,472 BOPD. *Id*. Again, the Heater-Treater was manufactured to process 10,000 BOPD.

The Heater-Treater had several relevant safety features. One temperature safety high (TSH) instrument sensed the temperature of the liquid on the fired side of the Heater-Treater, and the other sensed the exhaust temperature of the burner flame in the exhaust stack. When functioning properly, the TSH sensor was supposed to initiate an alarm and shut down the Heater-Treater when it exceeded a preset temperature. However, the TSH gauge does not transmit through still liquid—that control was designed to act with a flow to move the heat. When feeder wells are shut in, there is no fluid moving into the Heater-Treater. *Id.* at 23.

Apache had set the Heater-Treater's TSH gauge shutoff temperature at 178° F. However, Apache's records reflected that the TSH set point was 178°. BSEE Report at 23. Because the liquid media TSH was 136° F between May 2006 and May 2010, BSEE concluded that Apache had installed a higher temperature TSH gauge in response to the Heater-Treater's consistently high temperatures. *Id.* This gauge did not trigger because either the fire tube melted before any high temperatures could be read, because the liquid in the Heater-Treater was still, or because this gauge had been bypassed, *i.e*., pinned out of service, which prevented the safety device from performing its designed function. *Id*.

The vessel also had a level safety low (LSL) sensor that would shut down the Heater-Treater in the event that the liquid level dipped lower than the preset minimum operating level. BSEE found that Apache had set the Heater-Treater's LSL sensor below the top of the fire tube. *Id.* at 22. Even if the liquid level dropped below the fire tube, the LSL was not programmed to activate until it sensed an even lower liquid volume. Thus, the exposed portion of the fire tube was left to overheat any time the tube was not fully immersed in liquids. BSEE found no evidence that the LSL senor engaged before the fire occurred. *Id*.

Based on its investigation, BSEE concluded that the fire was caused by Apache's failure to maintain and operate the Heater-Treater in a safe condition. The Heater-Treater had a prior history of temperature-related malfunctions and Apache had been warned about the effect that high temperatures and low oil production volume had on the vessel. *Id.* at 25-26, 43. Nevertheless, Apache continued to run the Heater-Treater with a low production volume at high temperatures. Such operation caused hot spots to occur on the fire tube, which, in turn, contributed to the 30-year-old fire tube's deterioration. *See id.* at 31. The deterioration led to the fire tube's collapse, which caused the fire.

B. Failure to Prevent Liquid Hydrocarbons from Discharging into the Gulf

The BSEE panel conducted a fly-over the same day the incident occurred and observed from the air "a very light, silvery sheen in the water near the Platform, which measured approximately ¼ mile in length by about 200 yards in width."[8] BSEE Report at 13. When they boarded the Platform on September 3, 2010, BSEE investigators observed that the Heater-Treater was located on the cellar deck. *Id.*; AR 53 (Platform schematic) at 1. Ignited liquids appeared to have burned the floor from the Heater-Treater to the area where the "out of service" pipeline pumps and oil storage tanks were located, indicating that hydrocarbons had spilled from the Heater-Treater. *Id.* While they also determined that only 50 barrels were drained from the Heater-Treater after the fire, it was not clear how may barrels were in the Heater-Treater when the fire began. AR 20 (Memorandum to BSEE From NOVA Consulting).

An Apache crew member reported that, before the men jumped into the ocean, they could see a "slick" in the water:

> Q: [BSEE Investigator]: So you said you had a slick. So you s[aw] oil in the water?
> A: [Apache crew member]: We could smell it on us . . . .
> Q: In the middle of it?
> A: Yes ma'am. We would kick. We had one of the Mexican guys [who] couldn't swim, and we had [another Apache crew member] with no vest, and when we jumped [i]n, . . . [w]e stayed together, and we got away . . . we were pretty. . . far enough away, we were alright. And then, [another Apache crew member said] we were in the sheen. If this thing lights, we're in a bomb. So we get together, but you couldn't get out of it. No matter how hard you kicked, you couldn't get out of it.

[8] While BSEE stated in its Report that investigators took aerial photographs of the slick, those images were not made a part of the record in this case.

> And you could smell it on your body. And I just knew. And I was prayin' "Lord, don't let nothing big fall and light this thing on fire."

AR 66 (abbreviated transcript of witness statements) at 54-55; *see* AR 68 (audio recording of witness statement) at 32:00. About 26 minutes after describing oil in the water, the witness stated that

> you could see the slick, or it wasn't necessarily what you would call a slick. What it looked like was—you know how a slick just floats on top of the water? . . . This looked like rust, like a foot and a half below the water . . . . It's like the ocean then there's like you had some clean bayou water mixed in with it.

AR 68 at 58:17.

A member of the paint crew also observed "a small film of oil while in the water as well as experiencing a slight smell of oil." AR 72 (U.S. Coast Guard Witness Statements—Notes from Spanish Interviews) at 1. However, when investigators asked another Apache crew member about the presence of oil in the water, he stated that "there was some brown lookin' stuff, but it didn't look like it was a sheen." AR 66 (abbreviated transcript of witness statements) at 38. Another member of the painting crew also said that there was a sheen in the water, calling it a "[s]light discoloration, but not oil." AR 66 at 62.

Based on its investigation, BSEE concluded that hydrocarbons were, in fact, released into the Gulf of Mexico when oil spilled from the Heater-Treater onto the deck and then into the water.

C. Failure to Bring the Wells Back Online in a Safe and Workmanlike Manner

BSEE determined through gas flow rate charts and signs that safety devices had been bypassed, and that Apache personnel brought the wells online too rapidly, which ultimately led to the fire. In order to prevent the compressor from totally shutting down, as a shut down would have created a more complicated well startup procedure, the crew pinned all seven wells out of service, and therefore the flowline pressure-sensing components, among others, could not detect the rise in pressure as the wells were coming back online. When the crew finally noticed that the compressor's discharge pressure was way above normal, no one could relieve that pressure because the Platform's BPV was covered in plastic sheeting and duct tape. Finally, the pressure within the production train caused the PSVs to activate on both the compressor and contactor, causing the wells to again shut in.

BSEE concluded that if the crew had monitored the pressure on the flowlines as they placed the wells back online, they would have noticed an increase in pressure sooner and could have closed the chokes/wing valves before the PSVs activated.

D. Failure to Maintain the Platform's Back Pressure Valve in a Safe Condition

BSEE investigated the Platform's BPV, a direct-acting proportional-only pneumatic production system pressure controller. *See* AR 40 (Fisher® C1 Pneumatic Controller Instruction Manual). If this piece of equipment sensed an increase in system input pressure beyond an operator-adjusted set point, then the output pressure valve would cause the valve to close, decreasing flow into the over-pressurized vessel, thereby reducing the pressure in that vessel as excess pressure is emitted through a pressure relief valve. *See id.*

The BPV contained a Bourdon tube, which is the input-sensing pressure gauge, and the Bourdon tube's connecting apparatus, which used washers "as shims to set parallelism" to the Bourdon tube for proper functionality. AR 40 at 25. If the Bourdon tube is not parallel to the link bearing, then the link bearing binds against the underlying beam, thereby preventing the connecting link from pivoting freely when the Bourdon tube senses pressure. Reduced Bourdon tube motion will not allow the nozzle, which opens in response to incoming pressure, to operate correctly. BSEE Report at 35. The BPV may not work properly if these instruments are damaged, not properly calibrated, or otherwise cannot operate as the manufacturer intended. *Id.*

BSEE investigated the BPV on October 7, 2010. When BSEE opened the control panel, they found that the BPV's nozzle and flapper were corroded and that the nozzle was partially plugged with debris. BSEE Report at 35; AR 39 (photograph of BPV). During the process of disassembling the BPV, BSEE discovered that the Bourdon tube linkage bearing was not located in the correct position because it was missing one flat washer.

BSEE concluded that

> after the wells shut in, the gas compressor remained online, and well A-20's production casing continued to slowly pressure up with gas-lift pressure. This most likely resulted in a decrease of system pressure, which likely caused the Platform's [] controller to increase output pressure to the valve's actuator, thus moving the BPV to the closed position. As a part of the process to bring the Platform's wells back online quickly to prevent the compressor from shutting completely down, all of the wells were rapidly opened rather than being brought

> on slowly. This caused an amount of gas pressure to build up rapidly within the production system, especially within the high pressure system. Because the controller's bourdon tube linkage was inappropriately assembled, and the controller appeared corroded, the controller most likely did not function effectively in response to the rapid rise in the Platform's system pressure. Because the BPV could not open fully or fast enough to relieve the system pressure, the pressure rose on the blocked system, and the PSVs on the glycol contact tower and the compressor activated. This presented a safety hazard to the crew.

BSEE Report at 35.

E. Failure to Conduct Operations in Accordance with BSEE-Approved SAFE Chart

BSEE discovered that Apache's compressor should have shut down when a member of the painting crew tripped the contactor's LSH relay. They gleaned this information from Apache's BSEE-approved operating application, which contained a Safety Analysis Function Evaluation (SAFE) chart [9] depicting the safety systems related to the compressor and showed which tripped valves are supposed to cause a shut in when an undesirable event occurs. AR 52 (Agency approval dated Jan. 26, 2010); AR 53 (SAFE Chart 9 of 21) at 18. The SAFE chart indicated that the compressor would effectively shut down when the contactor's LSH relay activated: LSH activation would "shut off [] fuel to the compressor," "shut off comp[ressor's] F/G filter inlet," and "shut off comp[ressor] suction." *Id*.

Because the compressor stayed online when the painter accidentally bumped that LSH relay, BSEE found that Apache violated its approved safety measures. Had the compressor shut down, BSEE stated, the "crew would not have been in such a hurry to keep production online and the pressure-related events might have been averted." BSEE Report at 44.

F. Failure of the Firewater System

As designed, the gas generator on the main deck supplied power to the Platform's electric firewater pump, which was located within the southeast corner of

[9] A SAFE chart is derived from section 4.3.3 of the American Petroleum Institute's (API) Recommended Practice (RP) 14C, RECOMMENDED PRACTICE FOR ANALYSIS, DESIGN, INSTALLATION, AND TESTING OF BASIC SURFACE SAFETY SYSTEMS FOR OFFSHORE PRODUCTION PLATFORMS, 7th ed., March 2007, (API RP 14C), which BSEE has adopted as part of its regulations. *See* 30 C.F.R. §§ 250.198(h)(56), 250.803(a).

the cellar deck. AR 53 (SAFE and Flow Diagram) at 1. In the event of a Platform shut in or any other reason for a power outage, the diesel generator would start via an automatic transfer switch housed in the Platform's switchgear building. On the day of the incident, however, the backup generator never started. With no power supply to the firewater pump, the crew members were left without a firewater system.

According to the BSEE Report, crew members testified that the Platform lights went out soon after the fire erupted (the gas generator on the main deck stopped a few minutes after the wells shut in) and no one heard the backup generator start. BSEE Report at 11, 39. Based on these statements and examination of the physical evidence, BSEE found that the firewater pump failed to switch to the backup generator because the transfer switch circuitry in the main switchgear building burned before any electrical transaction could take place. The switchgear building's swift destruction prevented "the motor controllers from performing their designated functions of activating and energizing the diesel generator to give the electric firewater pump continued power to operate." *Id.* at 39-40.

The fire rapidly spread to the switchgear building because it was housed on the main deck directly above the "out of service" pipeline pumps on the cellar deck, which sat next to the Heater-Treater. *See* AR 55, 56 (photographs of fire damage to the main deck's northwestern corner). BSEE concluded that placing the switchgear building on the Platform's top deck over a fired vessel was an ill-fated design flaw: The Platform's layout "lacked any risk assessment analysis when the equipment was installed, [and] in all likelihood created a hazardous and potentially pernicious situation for the crew on board." BSEE Report at 40.

In its Report, BSEE referenced the API RP 14F, RECOMMENDED PRACTICE FOR DESIGN AND INSTALLATION OF ELECTRICAL SYSTEMS FOR FIXED AND FLOATING OFFSHORE PETROLEUM FACILITIES, section 11.7.2.1, which states that all electrical fire pumps should be installed with a wiring system "that will withstand direct flame impingement for a minimum of 30 minutes." BSEE Report at 17 n.15; *see* 30 C.F.R. §§ 198(h)(58), 250.903. The Report does not explicitly confirm that the switchgear building's circuitry was not installed to this specification. Because the diesel generator never started, the inspectors assumed the transfer switch was compromised within minutes of the fire. BSEE Report at 39.

Based on the facts gathered during its investigation, BSEE concluded that the diesel generator failed to start and supply electrical power to the electric-driven firewater pump. This failure usurped the crew's ability to fight the fire before it raged out of control.

III. ISSUANCE OF THE INCs AND APACHE'S RESPONSE

On December 27, 2011, BSEE issued the INCs at issue. *See* AR 2. The agency explained in a preface to those INCs that, relying upon its extensive investigation, Apache had violated certain regulatory safety performance standards, pollution prevention and control criteria, and production safety system requirements. BSEE issued the following INCs, which are reproduced verbatim below:

> 1) **G-111**[10]**—30 CFR §§ 250.107(a), 250.802(a)**—[Apache] failed to maintain all equipment in a safe condition to provide for the protection of the lease and associated facilities. Specifically:
>
> • [Apache] failed to maintain its Heater-Treater in a safe condition. The fire tube in the Heater-Treater which was nearly 30 years old and was in a weakened condition, collapsed, ripped the steel away from the vessel and created openings through which hydrocarbons escaped and came into contact with the Heater-Treater's hot burner. The hydrocarbons then ignited, causing a major fire. The failure of the Heater-Treater directly contributed to the cause of the fire.
> • The Back Pressure Valve (BPV) controller's bourdon tube was incorrectly assembled and the controller was corroded, which rendered the BPV inoperable and presented a safety issue, namely increased pressure throughout the production train.
>
> 2) **E-100—30 CFR § 250.300**—[Apache] did not take measures to prevent the unauthorized discharge of hydrocarbons into the Gulf of Mexico, and created conditions that posed unreasonable risk to public health, life, property, aquatic life, wildlife, recreation, navigation, commercial fishing, or other uses of the ocean. When the Heater-Treater's fire tube collapsed, the fluids inside of the Heater-Treater spilled onto the deck and ultimately into the Gulf of Mexico, creating a visible sheen.
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> . . . .

[10] BSEE maintains a list of potential incidents of noncompliance (PINC), which the agency derived from 30 C.F.R. Part 250. Each PINC has a unique identifier. The G in an issued INC stands for general operations, the E corresponds to pollution issues, and the P refers to production operations. *See* http://www.bsee.gov/Inspection-and-Enforcement/Enforcement-Programs/Potential-Incident-of-Noncompliance---PINC.aspx (last visited on Apr. 15, 2013).

> 4) **G-115—30 CFR § 250.802(e)(2)**—Operations were not conducted in accordance with approved applications. Specifically. when the LSH on the glycol contactor was tripped, the compressor failed to shut down as required per the last approved Safety Analysis Function Evaluation Chart dated January 2010.
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> 5) **P-132—30 CFR § 250.803(b)(8)(ii)**—Fuel or power for the firewater pump drivers was not available for at least 30 minutes of run time during a platform shut-in: at the time of the incident, the diesel generator failed to start and supply electrical power to the electric-driven firewater pump. This prevented the crew from being able to fight the fire and cool the area with water.
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> 6) **G-110—30 CFR § 250.107(a)(1)**—[Apache] failed to perform all operations in a safe and workmanlike manner to protect health, safety, property, and the environment. Specifically, [Apache] personnel failed to supervise the Blasting and Painting crew during the process of covering critical production process components and safety devices, like the BPV control box. In addition, the BPV control box was wrapped with duct tape and Visqueen so the Lead Operator could not gain access to its adjustment controls after the increase in system pressure, which resulted in an unsafe condition.

AR 2 at 1-3. BSEE directed Apache to bring its equipment and operations into compliance within 14 days. *Id*. at 3.

After receiving an extension of time to respond, Apache answered the INCs by letter dated February 14, 2012. AR 6. Therein, Apache explained how it had corrected all five violations. However, Apache also requested that BSEE withdraw the INCs because the agency's findings were, as Apache put it, "either contrary to the facts elicited during the investigation or based on conjecture." *Id*. at unp. 1. BSEE denied each rescission request in its March 1, 2012, final decision, concluding that Apache had submitted no mitigating information that warranted rescinding the INCs. AR 10. Apache appealed to this Board. AR 12.

IV. DISCUSSION

[1] The Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. §§ 1331-1356 (2006), authorizes the Department to issue and manage leases on the OCS for oil and gas exploration, development, and production. Any operation on an OCSLA lease must "be conducted in a safe manner by well-trained personnel using technology, precautions, and techniques sufficient to prevent or minimize the likelihood of

blowouts, loss of well control, *fires*, *spillages* . . . or other occurrences which may cause damage to the environment or to property, or endanger life or health." 43 U.S.C. § 1332(6) (2006) (emphasis added). In the event a "major fire . . . occur[s] as a result of operations conducted pursuant to [OCSLA]," BSEE, as the Secretary's designate, "shall make an investigation and public report," which determines the cause or causes of the incident. 43 U.S.C. § 1348(d)(1) (2006).[11]

If BSEE determines, based on reliable, probative, and substantial evidence, that an OCS lessee or operator has not followed any requirement of a statute, regulation, order, or lease term for any Federal oil or gas lease, then it may issue an INC, stating therein the nature of the violation and how to correct it. INCs are appealable to this Board. 30 C.F.R. §§ 250.104, 290.2; *ATP Oil & Gas Corp.*, 178 IBLA 88, 92 (2009). We will affirm the issuance of an INC if it is based on substantial evidence contained in the record. *See, e.g., Pacific Offshore Operators, Inc.*, 165 IBLA 62, 74-75 (2005). The burden is on the appellant challenging such a decision to demonstrate, by a preponderance of the evidence, that BSEE committed a material error in its factual analysis, or that its decision is not supported by a record showing that BSEE gave due consideration to all relevant factors and acted on the basis of a rational connection between the facts found and the choice made. *See, e.g., Black Elk Energy Offshore Operations, LLC*, 182 IBLA 331, 341 (2012), and cases cited. Apache has failed to meet this burden for each INC it has appealed.

A. Apache's Failure to Appropriately Maintain the Heater-Treater

Apache first contends that the facts of record do not support BSEE's finding that the Heater-Treater was not maintained in a safe condition. According to Apache, qualified service contractors inspected the Heater-Treater several times, necessary repairs were always made, and a Platform crew member checked the vessel daily for

[11] BSEE's safety, environmental, and enforcement regulations are codified at 30 C.F.R. Part 250. *See* 43 U.S.C. § 1334(a) (2006) (directing the Department to prescribe rules and regulations deemed necessary to accomplish OCSLA's stated objectives); *see also* 43 U.S.C. § 1348(b) (2006) (operations on the OCS must comply "with regulations intended to protect persons, property, and the environment on the [OCS]"). On Oct. 18, 2011, the Department amended these regulations to, *inter alia*, retitle chapter II as "Bureau of Safety and Environmental Enforcement." Because the Department made no substantive changes to the regulations in place at the time of the incident at issue in this case, we cite to current regulations. *See* 76 Fed. Reg. at 64432-64487.

irregularities. During this time, "there was no suggestion that the heater-treater was inappropriate for continued use." Statement of Reasons (SOR) at 14, *see id.* at 11-15. Apache asserts that BSEE's decision is "based on little more than the fire occurring at the heater-treater [] and speculation that certain maintenance did not occur." *Id.* at 14. According to Apache, "equipment failure will occur even with proper maintenance and inspections, and suspicions contradicted by witness testimony does not remotely establish that the maintenance of the heater-treater was improper." *Id*.

The company also posits that the regulation relied on by BSEE to issue this INC is ambiguous, does not proscribe specific conduct, and is "far too vague to require the replacement of a fire tube." Reply at 3; *see* SOR at 10. "As applied by BSEE, this regulation is not 'sufficiently clear [so] that there is no basis for an oil and gas lessee's noncompliance with the regulation before that regulation is interpreted to the detriment of a lessee.'" Reply at 4 (quoting *Exxon Co. U.S.A.*, 113 IBLA 199, 206 (1990)).

We dispose of Apache's legal argument first. INC G-111 is based on 30 C.F.R. § 250.107(a)(2),[12] which requires the lessee to "protect health, safety, property, and the environment by . . . [m]aintaining all equipment and work areas in a safe condition," and 30 C.F.R. § 250.802(a), which requires "[a]ll production facilities, including separators, treaters, compressors, headers, and flowlines [to] be designed, installed, and maintained in a manner which provides for efficiency, safety of operation, and protection of the environment." These regulations are concerned with whether the lessee or operator consistently maintains equipment and facilities in a condition that protects personnel, property, and the environment. Failure to follow these requirements can result in an INC. *See, e.g.*, *ATP Oil and Gas Corp*., 178 IBLA at 91.

While Apache complains that these regulations are improperly vague as to what actions are necessary to achieve compliance, the language of the regulations clearly imposes a concrete requirement on OCS operators, *i.e.*, to maintain and operate equipment safely. Failure to do so establishes the essential elements for violation of 30 C.F.R. §§ 250.107(a)(2) and 250.802(a). We find these safety standards unambiguous. *See W&T Offshore, Inc*., 164 IBLA 193, 201 (2004)

[12] This regulation was first promulgated as 30 C.F.R. § 250.46. *See* 44 Fed. Reg. 61886 (Oct. 26, 1979). It has been re-designated multiple times without substantive change. *See* 30 C.F.R. § 250.20 (53 Fed. Reg. 10690) (Apr. 1, 1988); 30 C.F.R. § 250.120 (63 Fed. Reg. 29479) (May 29, 1998); 30 C.F.R. § 250.107 (64 Fed. Reg. 72756) (Dec. 28, 1999).

("[W]e reject W&T's argument that any lessee should have seen [OCS] regulations as ambiguous regarding their clear and unfailing goal of human safety."); *see also BP Exploration & Production, Inc.*, 172 IBLA 372, 380 (2007). Moreover, if an appellant believes it properly maintained and operated its platform equipment after receiving an INC for failing to do so, it may, as Apache has elected to do here, present its evidence showing that it complied with the regulations. Apache's legal argument is without merit.

We turn now to Apache's concerns regarding the facts BSEE relied on in issuing INC G-111. Based on the record as a whole, it is abundantly apparent to us that the Heater-Treater burst into flames because it was not maintained and operated in a safe condition. The record amply supports BSEE's finding that Apache was not utilizing the equipment per manufacturer specifications—oil production was not enough to meet the Heater-Treater's capacity and the burner was simply too large for the service Apache assigned to it. Thus, the aged fire tube's condition had been greatly weakened by direct heat exposure every time emulsions were inadequate to immerse the entire tube. By setting the Heater-Treater's LSL sensor below the top of the fire tube, Apache ensured the exposed portion of the fire tube would experience overheating any time it was not fully immersed in liquids. These factors caused the fire tube to weaken, to eventually collapse, and to expose oil to the vessel's burner.

The fact that Apache may have had the Heater-Treater repaired in the past has no real bearing on the outcome of this case. BSEE's Heater-Treater expert reported that the fire tube should have been either replaced no later than 2006 or should have been reversed so that the overheated side would point towards the exhaust. Instead, the expert found the original fire tube's crack had been poorly patched, and the tube was riddled with hot spots, heavy corrosion, and pitting on its fired side, which had never been rotated. Thus, regardless of past service calls, the Heater-Treater was old, deteriorated, and unsafe. Apache has not provided us with any justification to disturb BSEE's well-supported findings and we therefore affirm this INC.

B. Apache's Failure to Appropriately Install and Maintain the BPV

In INC G-111, BSEE determined that Apache again violated 30 C.F.R. §§ 250.107(a)(2) and 250.802(a) by failing to properly maintain the BPV, the pressure-controlling device essential to the Platform's safe operation. Specifically, BSEE stated in its decision that its investigators had determined through visual inspection that Apache incorrectly assembled the BPV controller's Bourdon tube (the tube link bearing was not located in the correct position and there was a flat washer missing on the Bourdon tube linkage), which rendered the BPV "inoperable." AR 2

at 1; *see* BSEE Report at 35. Apache insists BSEE does not possess the facts to reasonably conclude that the BPV was "inoperable." Apache argues that because BSEE never function-tested the equipment, the agency had no way of really knowing whether the Bourdon tube's missing washer caused the BPV to malfunction. SOR at 15. Apache explains that, on the contrary, the preponderance of the evidence shows that the BPV failed to work the day of the fire not because of an incorrectly-installed Bourdon tube but because the entire control box had been covered with plastic sheeting, which disallowed pressure release. *Id*. We disagree.

This INC is supported by BSEE's reasonable explanations and are rationally connected to the facts set forth in the record. The evidence BSEE accumulated during its extensive investigation shows that the missing washer hindered the Bourdon tube's motion, which prevented it from correctly responding to the rapid rise in the Platform's system pressure on the date of the incident. "Because the BPV could not open fully or fast enough to relieve the system pressure, the pressure rose on the blocked system, and the PSVs on the glycol contact tower and the compressor activated." BSEE Report at 35. We simply cannot find any indication, other than Apache's conclusory statement, that the plastic sheeting and not the Bourdon tube precluded proper pressure relief.

We note that BSEE need not show that improper equipment installation and maintenance effectively rendered the BPV inoperable. The record need only contain evidence that Apache failed to inspect and maintain a piece of equipment in a safe condition. *See* 30 C.F.R. §§ 250.107(a)(2), 250.802(a). The Bourdon tube's bottom washer was missing between the screw head and the link bearing. The BPV manual specifically indicates that a missing washer between the connecting link bearing and the screw head compromises the mechanical integrity of the pressure-sensing device. The connecting link to the Bourdon tube cannot pivot freely when it is not properly installed, which prevents the nozzle that controls the pressure flow output from fully opening. BSEE Report at 35. The BPV's incorrect assembly, regardless of whether the missing washer actually caused the pressure buildup that triggered the contactor and the compressor to shut down, does not comply with BSEE's safety regulations. The agency properly issued INC G-111 to Apache.[13]

C. Apache's Discharge of Hydrocarbons into the Gulf

According to BSEE, Apache failed to properly maintain the Heater-Treater, causing an unspecified amount of oil from the Heater-Treater to spill into the Gulf of Mexico, which created a "visible sheen" around the Platform and in the surrounding

[13] This INC also mentioned that the controller was corroded, further evidence that this equipment was not properly inspected and maintained.

waters. BSEE deemed the oil spill a pollution event and charged the company with the unauthorized discharge of hydrocarbons into offshore waters when it issued to Apache INC E-100. According to 30 C.F.R. § 250.300(a), "the lessee shall take measures to prevent unauthorized discharge of pollutants into the offshore waters." Moreover, "[a]ll hydrocarbon-handling equipment for testing and production such as separators, tanks, and treaters shall be designed, installed, and operated to prevent pollution." 30 C.F.R. § 250.300(b)(3).

Apache vehemently disagrees with BSEE's decision to issue this INC. Without citing to any industry or scientific authority, Apache asserts that the rust-colored substance floating around the evacuees, which sunk slightly below the surface instead of floating on the water's surface, was "inconsistent with a hydrocarbon release" and therefore the substance could not be oil. SOR at 17. Based on this theory, states Apache, BSEE clearly failed to take the crucial fact that the oil was not floating exactly on the water's surface into consideration before issuing the INC.

Apache has not presented any evidence that the substance slightly below the water's surface was not fugitive hydrocarbons from the Heater-Treater. We note that, in the event oil from the Heater-Treater entered the water, it most likely would have begun to emulsify with the churning of the rough sea, thereby increasing the oil's density and making it less buoyant. *See generally* Bobra, Mark., A STUDY OF WATER-IN-OIL EMULSIFICATION, Ottawa, Ontario, Canada, May 1992 (Environmental Emergency Manuscript Report No. EE-132). Moreover, the oil from the Heater-Treater would have been much warmer than the water it fell into, causing the oil density to further increase as the oil cooled to water temperature and turning its color and consistency into something resembling rust-colored froth floating below the water's surface. *Id*.

Next, Apache places substantial emphasis on the witness who "recanted his statement that there was an oily sheen" because he later stated that "you could see the slick, or it wasn't necessarily what you would call a slick. . . . It looked like rust, like a foot and half below the water." SOR at 16 (quoting AR 68). We do not agree that the witness retracted his earlier statements. The testimony simply clarifies the oil's position in the water. *Compare* AR 68 at 32:00 *with* AR 68 at 58:17. Moreover, from a helicopter, BSEE investigators saw a sheen in the water near the Platform shortly after the evacuees were rescued. Apache has not preponderated on the evidence in this matter and we therefore affirm INC E-100.

D. Apache's Failure to Perform All Operations in a Safe and Workmanlike Manner

In INC G-110, BSEE cited Apache for violating 30 C.F.R. § 250.107(a)(1), which mandates the lessee to "protect health, safety, property, and the environment

by . . . [p]erforming all operations in a safe and workmanlike manner." Specifically, BSEE found that unsafe conditions occurred (1) when the Platform crew brought the high-pressured wells online "rapidly rather than slowly," which caused an excessive amount of pressure to build up; and (2) when Apache did not appropriately supervise the painting crew while they covered "critical production process components and safety devices, like the BPV control box," which caused the BPV control box to be completely out of service. AR 2 at 2. Apache responds that the Platform crew brought the wells back online at a slow tempo and that the regulations do not require Apache to supervise an independent contractor's step-by-step activities. *See* SOR at 21-24.

The record supports BSEE's findings. While crew members stated they brought the wells back online slowly, investigators determined that those statements were inconsistent with all the other evidence gathered during the investigation—evidence showing that an influx of unmonitored pressure activated the PSVs in both the compressor and the contactor. Such an occurrence is indicative of a pressure surge caused by rapidly reopening a well. BSEE Report at 35. Apache has not submitted any evidence that objectively refutes BSEE's determination.

Furthermore, as the Platform's operator, Apache must ensure safety of its operations and equipment at all times. BSEE's regulation at 30 C.F.R. § 250.146(c) makes it clear that the operator has primary responsibility for supervising and maintaining safety over *all* operations and equipment: "Whenever the regulations in 30 CFR parts 250 through 282 . . . require the lessee to meet a requirement or perform an action, the lessee, operator (if one has been designated), and the person actually performing the activity to which the requirement applies are jointly and severally responsible for complying with the regulation." 30 C.F.R. § 250.146(c), *discussed in Petro Ventures, Inc.*, 167 IBLA 315, 324 (2005) ("The fact that it was a construction crew member who closed the bypass valve does not insulate PVI from responsibility for the violation that resulted . . . ."); *see also ATP Oil and Gas Corp.*, 178 IBLA at 97-98. By failing to keep the BPV control panel, a critical piece of safety equipment, in safe working order, Apache violated 30 C.F.R. § 250.107(a). Apache's arguments to the contrary lack merit.[14]

[14] Apache cites several Federal and State cases for the proposition that it had no duty to supervise its independent contractor. Those cases are inapposite because they discuss private tort actions. An OCS lessee's operational obligations and duties stem from OCSLA and its implementing safety regulations governing this case, not from common law liability concepts.

E. Apache's Failure to Conduct Operations in Accordance with BSEE-Approved Production Safety Systems

In INC G-115, BSEE cited Apache for violating 30 C.F.R. § 250.802(a), which requires operators to "protect all platform production facilities with a basic and ancillary surface safety system designed, analyzed, installed, tested, and maintained in operating condition in accordance with API RP 14C." The operator must submit for BSEE approval a production safety system application containing a SAFE chart. 30 C.F.R. § 250.802(e). Apache's approved SAFE chart depicts the platform safety devices that are designed to activate when an incident that poses a threat to human and environmental safety occurs. Page 9 of Apache's SAFE chart specifically shows that the compressor is designed to automatically shut down when the contactor relay is tripped. *See* AR 53 at 18.

Apache does not dispute that the compressor continued to operate once the contactor's LSH activated and that its approved SAFE chart designated the compressor as one of several pieces of platform equipment to deactivate if the dehydrator's LSH tripped. Apache argues that the Platform crew's "actions interrupted the [compressor's] shut-down sequence," and that the system, as approved by BSEE, would have performed per its approved design if the crew had not intervened. SOR at 18-19. Accordingly, Apache posits that its safety system, as approved by BSEE, conformed to 30 C.F.R. § 250.802(e).

As a part of an approved production safety system, a SAFE chart depicts the safety systems on a platform, showing which valves and other components are supposed to shut in when an undesirable event occurs. Apache's approved SAFE chart shows multiple shutdown functions, which are designed to lead to the automatic shutdown of the compressor when the LSH on the contactor is tripped. The automatic shutdown did not happen and the subject explosion and fire took place. Apache failed to ensure that its compressor system was designed to shut down when the contactor was accidentally activated. Such a failure amounts to a violation of 30 C.F.R. § 250.802(e). Considering all of these factors, we find that INC G-115 was correctly issued.

F. Apache's Failure to Provide Power to the Firewater Pump's Backup Generator

INC P-132 is based on 30 C.F.R. § 250.803(b)(8)(ii), which requires that "[f]uel or power for firewater pump drivers shall be available for at least 30 minutes of run time during a platform shut-in." Apache contends that it complied with the regulations since the Platform's backup power source, a diesel generator, was fully functional and available—"back-up electrical power was available throughout the incident." *Id.* The problem arose when "fire damaged the relays and other electrical

equipment that would have started the undamaged back-up generator." *Id.* at 20. Apache argues that because the system was rendered inoperable does not mean it was out of compliance with the regulation: "To conclude otherwise would subject operators to a myriad of violations because fortuitous events like fires can and will destroy equipment that is fully compliant before the event." *Id.* at 21.

BSEE found that multiple design and installation flaws contributed to the fire pump's failure to run for at least 30 minutes after the wells shut in. BSEE discovered that the switchgear building was situated above a fired vessel. *See* AR 53 (Platform Schematic) at 1. Fired vessels should have been installed on the main deck so that, in the event of a fire, flame would not impinge on overhead equipment. *See* AR 60 (API RP 14J, RECOMMENDED PRACTICE FOR DESIGN AND HAZARDS ANALYSIS FOR OFFSHORE PRODUCTION FACILITIES), at 63, as incorporated into law by 30 C.F.R. §§ 250.198(h)(62), 250.800(b)(1)). Equipment misplacement was ultimately responsible for the inability to use the backup power source for the minimum run time during platform shut in.

Moreover, "[a]ll electric fire pumps should be installed with a wiring system that will withstand direct flame impingement for a minimum of 30 minutes. This wiring system includes all feeder and control cables." API RP 14F, RECOMMENDED PRACTICE FOR DESIGN AND INSTALLATION OF ELECTRICAL SYSTEMS FOR FIXED AND FLOATING OFFSHORE PETROLEUM FACILITIES, § 11.7.2.1 (5th ed., July 2008), as incorporated into law by 30 C.F.R. §§ 250.198(h)(58), 250.803(b)(9)(v). The wiring system burned within minutes of the fire's ignition, which also prevented power from reaching the backup generator, and therefore the firewater pump was nonfunctional at a time when crew personnel needed it most. We reject Apache's premise that, because the system would have worked but for the fire, it was in compliance with the regulation. The question of whether the power for firefighting equipment was available is answered by whether the power was available when a fire occurred. The record conclusively shows that the INC is warranted.

V. CONCLUSION

BSEE is responsible for safety and environmental enforcement functions, and, after careful review, we find that the agency carried out those functions with due regard for all the information and evidence gathered in this case. BSEE's issuance of the five INCs was reasonable in light of the evidence of record. Apache has failed to show by a preponderance of the evidence that BSEE's decision was not based on a careful consideration of the record. We therefore affirm BSEE's decision upholding issuance of the INCs.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 C.F.R. § 4.1, the decision appealed from is affirmed.

/s/
James F. Roberts
Administrative Judge

I concur:

/s/
T. Britt Price
Administrative Judge