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SECRETARY OF LABOR, Complainant, v. BAKER TANK COMPANY/ALTECH, A DIVISION OF JUSTISS OIL COMPANY, INC., Respondent.	OSHRC Docket No. 90-1786-S

DECISION

Before: WEISBERG, Chairman, FOULKE and MONTOYA, Commissioners.

BY THE COMMISSION:

Employees of Baker Tank Co. ("Baker") had just reentered an empty crude oil storage tank owned by Kerr-McGee Refining Corp. ("Kerr McGee") when there was an explosion that killed three Baker employees. The Occupational Safety and Health Administration ("OSHA") of the Department of Labor investigated that fatal accident. As a result of OSHA's investigation, the Secretary of Labor issued a citation alleging that Baker had committed two serious violations of OSHA training and electrical standards. After Baker contested the citation, Administrative Law Judge E. Carter Botkin held a hearing in accordance with the Commission's rules governing simplified proceedings, at which Baker appeared *pro se*. The judge affirmed both items. Baker petitioned for review of the judge's decision, and review was directed. The issues before us are whether the judge erred in finding that Baker had violated those standards. For the reasons below, we affirm the judge's disposition.

FACTS

Baker's contract with Kerr-McGee called for Baker to remove a damaged aluminum internal floating roof or vapor barrier from inside a 30-foot-high, 114-foot-diameter crude oil storage tank at a small Kerr-McGee petrochemical plant in Louisiana. To do this, Baker's employees used electric saws to cut the vapor barrier into pieces small enough to be taken out the openings in the tank so that they could be disposed of. Before Baker began work, Kerr-McGee emptied the tank, washed it with high-pressure hoses, pumped out the residue from the washing, and then steam-cleaned it, as required by the contract, but there was still about 8-10 inches of sludge, containing "tarballs" and solvent, in the bottom of the tank. Kerr-McGee offered to remove all the sludge, but Baker declined that offer. The solvent in the sludge had a flashpoint of 100-110° Fahrenheit. The compliance officer testified that its lower explosive limit ("LEL") was 1.1 per cent.[1]

According to the contract, the atmosphere was to be tested by Kerr-McGee every day before Baker's employees entered the tank, and Kerr-McGee was to issue Baker a "hot work" permit to use spark-producing equipment in the tank if less than 10 per cent of the LEL was present. On March 5, 1990, the day before Baker began work, Kerr-McGee tested the atmosphere in the tank and got a reading of 0 per cent LEL. The next morning, Kerr-McGee again tested the atmosphere in the tank. When it got a reading of 22 per cent, Kerr-McGee installed an exhaust fan in an opening in the side near the bottom of the tank to remove the chemical fumes. After about two hours, the atmosphere was retested and a reading of 0 per cent obtained. When the 0 per cent reading was obtained, Kerr-McGee issued Baker a permit, and Baker's employees then began work inside the tank. That day, Kerr-McGee tested the atmosphere every two hours and each time obtained a reading of 0 per cent.

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[1]The LEL is the minimum concentration of vapor in air or oxygen below which propagation of flame does not occur on contact with a source of ignition. A mixture below the LEL is too lean to burn or explode. *See* NFPA No. 325M-1969, *Fire-Hazard Properties of Flammable Liquids, Gases and Volatile Solids* (1969), published by the National Fire Protection Association.

When Kerr-McGee tested the air on March 8, after almost two days of no work in the tank, the reading was 10 per cent, a permissible level for work according to the contract. Nevertheless, the fan was turned on to move the stale air in the tank. It was turned around, however, to blow into the tank instead of exhaust air from the tank. Baker' crew worked 10 hours that day without incident. The next morning, Kerr-McGee got a reading of 4 per cent and permitted Baker's employees to enter the tank. Again, the fan was positioned to blow air into the tank.

The day of the explosion, Kerr-McGee's reading indicated that 8 per cent of the LEL was present, and it issued Baker a permit. The fan again was turned to blow into the tank. It operated until approximately 1:40 p.m., when it was turned off so the compressor driving it could be refueled. Baker's employees took a break while this was being done and reentered the tank at approximately 2:10 p.m. The explosion occurred within seconds. The bodies of Baker's three employees were found at the base of the ladder to the manhole where they entered the tank, some distance from their tools.

I. The 29 C.F.R. § 1926.21(b)(6)(i) item.

The citation alleged that Baker committed a serious violation of 29 C.F.R. § 1926.21(b)(6)(i)[2] because its employees who were required to enter a confined space had not been instructed about the nature of the hazards they might confront, the precautions they should take, or the protective equipment they should use against these hazards. The judge found a violation, reasoning that Baker's operations fell below that of industry practice.

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[2]That standard provides:

> **§ 1926.21 Safety training and education.**
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> . . . .
>
> (b) *Employer responsibility.* . . .
>
> . . . .
>
> (6)(i) All employees required to enter into confined or enclosed spaces shall be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas.

Evidence of an industry's practice may be relevant in determining whether an employer had adequate notice of what it must do to comply with a broadly-worded regulation such as section 1926.21(b)(6)(i), which does not specify the particular hazards, precautions, or equipment that the required instructions are to address. *See J.A. Jones Constr. Co.*, 15 BNA OSHC 2201, 2205-6, 1991-93 CCH OSHD ¶ 29,964, pp. 41,024-25 (No 87-2059, 1993). In determining the scope of an employer's duty under another broadly-worded standard, 29 C.F.R. § 1926.20(b)(1), the Commission held that an employer may reasonably be expected to conform its safety program to any known duties and that a safety program must include those measures for detecting and correcting hazards that a reasonably prudent employer similarly situated would adopt. *Northwood Stone & Asphalt, Inc.*, 16 BNA OSHC 2097, 2099, 1994 CCH OSHD ¶ 30,583, p. 42,348 (No. 91-3409, 1994); *Pressure Concrete Constr. Co.*, 15 BNA OSHC 2011, 2015, 1991-93 CCH OSHD ¶ 29,902 p. 40,810 (No. 90-2668, 1992). We conclude that it is appropriate to apply the same criteria in determining whether there has been a violation of 29 C.F.R. § 1926.21(b)(6)(i); the Secretary may establish a violation of that standard by showing that the employer did not instruct its employees about the hazards, precautions, and protective measures as a reasonably prudent employer in its industry would have done. In determining what a reasonably prudent employer in the industry would do, evidence as to current industry practice is relevant, but it is not dispositive if industry practice is shown to be inadequate. *Farrens Tree Surgeons, Inc.*, 15 BNA OSHC 1793, 1794, 1991-93 CCH OSHD ¶ 29,770, p. 40,489 (No. 90-998, 1992).

The evidence of industry practice that was introduced into evidence here makes clear that the industry considers frequent retesting of the atmosphere in the tank to be the primary precaution to be taken against the hazards involved, particularly when conditions such as heat from the sun may increase the vapor content of the tank. Baker did not dispute that the solvent in the sludge was volatile and could evaporate into the atmosphere of the tank. For example, Baker introduced photocopies of pages from the 16th edition of the *Fire Protection Handbook*, published by the National Fire Protection Association, discussing cleaning of storage tanks. Page 11-39 of that publication contains the following passage:

> Tests for the presence of flammable vapors constitute the most important phase of the cleaning or safeguarding procedure and must be made

> before commencing any alterations or repairs, immediately after starting any welding, cutting, or heating operations, and frequently during the course of such work.

Baker introduced copies of pages from another publication, *Cleaning Petroleum Storage Tanks*, by the American Petroleum Institute. Page 2 of that publication contains the following statement:

> Vapors that issue from openings in a tank are usually heavier than air. . . . During the tank vapor-freeing operation, all sources of ignition in the tank or in the vicinity of the tank should be eliminated.
>
> Even after a tank has been freed of vapor, flammable mixtures may still be formed later from remaining residual liquids and sludges or from the entry of a liquid or vapor from an outside source. Petroleum vapors or liquids may enter a tank through unblinded lines or leaks in the bottom of the tank. Vapors may evolve within a supposedly empty and clean tank from flammables in overlooked places. . . . Heat from the sun, steam tracing, or hot work may result in increasing the tank vapor content. Tank vapors should be checked frequently even if initial measurements indicate airborne quantities are within acceptable limits.

We find that the evidence establishes that Baker did not instruct its employees regarding the precautions necessary to protect against the hazards likely to be encountered in the tank. The only Baker employee on the site who survived the explosion was its foreman, who was in charge of safety at the worksite. He told the OSHA compliance officer that he did not accompany the Kerr-McGee employees when they conducted the atmospheric testing and that he did not know what they were testing for. Although he had twice signed work permits -- before the first day's work and on the morning of the explosion -- he admitted to the compliance officer that he did not know what he had signed. Based on this evidence, we find that the foreman's knowledge about what safety precautions Baker and its employees should take was so insufficient that we infer that he had not been adequately instructed as to the necessary precautions. He therefore could not reasonably have been expected to instruct the other employees in Baker's crew about the hazards they might encounter in the tank and the precautions to be taken against these hazards.

Although we find the Secretary's prima facie showing to be limited, it is unrebutted. Baker was in a position to know what instructions had been given the employees. Yet it did not offer, nor have we found, evidence that even suggests that Baker's crew had been given

any instructions about the hazards and precautions involved in this job, much less that the instructions satisfied industry practice. We therefore find that Baker was in violation of the standard because the company had not informed its employees about those hazards and precautions about which a reasonably prudent employer would have instructed its employees.

Baker's reliance on its contract with Kerr-McGee does not affect its own liability for the violation. Under the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-678 ("the Act"), Baker had legal responsibility for the safety of its own employees and was required to instruct them about the hazards that might be encountered, including what protective measures to use and how this related to atmospheric testing. Baker's contract with Kerr-McGee may have required Kerr-McGee to assure that the tank was vapor-free, but it said nothing about instructing Baker's employees regarding the hazards involved in entering confined spaces such as the storage tank or in the precautions to be taken against these hazards. Even if the contract had provided for the instruction of Baker's employees, Baker could not contract away its legal duties to its employees or its ultimate responsibility under the Act by requiring another party to perform them. *Tri-State Steel Constr., Inc.*, 15 BNA OSHC 1903, 1916 n.23, 1991-93 CCH OSHD ¶ 29,852, p. 40,740 n.23 (No. 89-2611, 1992) (consolidated), *aff'd on other grounds*, 26 F.3d 173 (D.C. Cir. 1994), *cert. denied*, Mar. 20, 1995 (94-921); *Brock v. City Oil Well Serv.*, 795 F.2d 507, 512 (5th Cir. 1986) quoting *Central of Ga. R.R. v. OSHRC*, 576 F.2d 620, 624 (5th Cir. 1978)). Nor can Baker rely on industry practice to shift the responsibility for its employees' safety and health to a third party. *Id.* at 711. We find a violation here because Baker failed to give its employees the necessary instructions, not because Kerr-McGee's testing practices were deficient.[3]

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[3]Baker has argued that the cause of the explosion was a propane leak, and that its employees had not reached their tools, so that sparks from those tools could not have caused the explosion. In this proceeding, however, we are not charged with determining the cause of the explosion or with determining responsibility for its occurrence. Baker's arguments are not relevant to the question here, whether Baker's employees were properly instructed as required by 29 C.F.R. § 1926.21(b)(6)(i).

Commissioner Montoya notes that, regarding both this item and the next, Baker's evidence and arguments have focused on the cause of the explosion rather than on the elements of the items with which it is charged. This failure to properly address the issues

(continued...)

A violation is serious under section 17(k) of the Act, 29 U.S.C. § 666(k), if it creates a substantial probability that death or serious physical harm is the likely result should an accident occur. *Super Excavators, Inc.*, 15 BNA OSHC 1313, 1315, 1991 CCH OSHD ¶ 29,498, p. 39,804 (No. 89-2253, 1991); *Natkin & Co.*, 1 BNA OSHC 1204, 1205, 1971-73 CCH OSHD ¶ 15,679, pp. 20,967-68 (No. 401, 1973). We find on the evidence before us that, if an accident did occur as a result of Baker's failure to instruct its employees, the consequences could well be death or serious physical harm. Accordingly, we find that the violation was serious.

II. The 29 C.F.R. § 1926.407(b) item.

The citation alleged that Baker committed a serious violation of 29 C.F.R. § 1926.407(b)[4] because its employees were using equipment that was not approved for hazardous locations (electric saws) in a location that, according to the Secretary, was a Class I (hazardous) location. "Class I locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitible mixtures." 29 C.F.R. § 1926.449.

The fact that the air sampling performed by Kerr-McGee obtained a reading at 22% of the LEL the morning after it had obtained a reading of 0% dramatically illustrates the potential for the accumulation of vapors in the tank. Another morning, Kerr-McGee

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[3](...continued)
raised by the citation increases her concern that the Commission's judges exercise more control to restrict the parties to the issues in dispute, especially when the parties have elected to proceed under the Commission's Simplified Proceedings rules. Although Commissioner Montoya generally supports the Simplified Proceedings option, she notes that such proceedings lack the structure imposed by pleadings, discovery, and other pretrial procedures that narrow and define the issues in conventional proceedings.

[4]That standard provides in pertinent part:

> **§ 1926.407 Hazardous (classified) locations.**
>
> . . . .
>
> (b) *Electrical installations.* Equipment, wiring methods, and installations of equipment in hazardous (classified) locations shall be approved as intrinsically safe or approved for the hazardous (classified) location or safe for the hazardous (classified) location.

obtained a reading of 10%. The morning of the explosion, the reading was 8% before the fan was turned on, which may have accelerated the vaporization of the sludge. As the sun rose and the temperature inside the tank increased, the LEL may well have exceeded the 10% which Baker argues is a permissible level to perform hot work in, but no measurements were taken to determine this. Again, Baker has suggested that the real cause of the explosion was an accidental propane leak. That speculation is not relevant to the question here of whether the tank was a location is which flammable gases or vapors may have accumulated in dangerous quantities.

On the facts before us, we find that the tank was a Class I location because it was a location in which flammable vapors could have been present in sufficient quantities to produce an explosive mixture. Because the record clearly and indisputably establishes that the electric saws used by Baker's crew were not approved for use in hazardous locations, a violation is established. We also find that the likely consequences of any accident that could have resulted from the use of spark-producing equipment in this location would include death or serious physical harm. Consequently, the violation is serious.

The Secretary has filed a motion to strike certain attachments to Baker's brief and sections of the brief which rely on information from these attachments. The attachments to which the Secretary objects were not introduced into evidence at the hearing, and Baker's inclusion of them is in the nature of an attempt to reopen the record. We have recently stated that, in deciding whether to reopen the record, we take into account the character of the evidence proffered, the effect of opening the record, and the time the motion was made, and make a decision in the interest of fairness and substantial justice. *Article II Gun Shop, Inc.*, 16 BNA OSHC 2035, 2036, 1994 CCH OSHD ¶ 30,563, p. 42,299 (No. 91-2146, 1994) (consolidated cases). Here, Baker has never made a formal motion to reopen the record or otherwise sought permission to submit materials not in evidence. It appears that this material was available to Baker at the time of the hearing, and there is no explanation why the attachments to which the Secretary objects were not presented at the hearing. Accordingly, we grant the Secretary's motion.

Conclusion.

The Secretary of Labor proposed penalties of $810 for each violation. The administrative law judge assessed penalties in the amount proposed. On review, neither party has challenged the appropriateness of the penalties assessed by the judge. Our review of the evidence in the record relating to the factors to be considered in determining an appropriate penalty under section 17(j) of the Act, 29 U.S.C. § 666(j), (the gravity of the violation and the employer's size, good faith, and history of prior violations) establishes that the penalty assessed by the judge is appropriate. Accordingly, we affirm his assessment of penalties in the amount of $810 for each violation.

For the reasons above, we find that Baker committed serious violations of 29 C.F.R. § 1926.21(b)(6)(i) and 29 C.F.R. § 1926.407(b). We assess penalties of $810 for each violation.

Stuart E. Weisberg
Stuart E. Weisberg
Chairman

Edwin G. Foulke, Jr.
Edwin G. Foulke, Jr.
Commissioner

Velma Montoya
Velma Montoya
Commissioner

Dated: April 10, 1995

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SECRETARY OF LABOR, Complainant, v. BAKER TANK COMPANY/ ALTECH, A DIVISION OF JUSTISS OIL COMPANY, INC, Respondent.	:	Docket No. 90-1786-S

NOTICE OF COMMISSION DECISION

The attached decision by the Occupational Safety and Health Review Commission was issued on April 10, 1995. **ANY PERSON ADVERSELY AFFECTED OR AGGRIEVED WHO WISHES TO OBTAIN REVIEW OF THIS DECISION MUST FILE A NOTICE OF APPEAL WITH THE APPROPRIATE FEDERAL COURT OF APPEALS WITHIN 60 DAYS OF THE DATE OF THIS DECISION.** See Section 11 of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 660.

FOR THE COMMISSION

Ray H. Darling, Jr.

April 10, 1995
Date

Ray H. Darling, Jr.
Executive Secretary

Docket No. 90-1786-S

NOTICE IS GIVEN TO THE FOLLOWING:

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SECRETARY OF LABOR
Complainant,
v.
BAKER TANK COMPANY/ALTECH
Respondent.

OSHRC DOCKET
NO. 90-1786

NOTICE OF DOCKETING OF ADMINISTRATIVE LAW JUDGE'S DECISION

The Administrative Law Judge's Report in the above referenced case was docketed with the Commission on June 21, 1993. The decision of the Judge will become a final order of the Commission on July 21, 1993 unless a Commission member directs review of the decision on or before that date. ANY PARTY DESIRING REVIEW OF THE JUDGE'S DECISION BY THE COMMISSION MUST FILE A PETITION FOR DISCRETIONARY REVIEW. Any such petition should be received by the Executive Secretary on or before July 12, 1993 in order to permit sufficient time for its review. See Commission Rule 91, 29 C.F.R. 2200.91.

All further pleadings or communications regarding this case shall be addressed to:

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Petitioning parties shall also mail a copy to:

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If a Direction for Review is issued by the Commission, then the Counsel for Regional Trial Litigation will represent the Department of Labor. Any party having questions about review rights may contact the Commission's Executive Secretary or call (202) 606-5400.

FOR THE COMMISSION

Ray H. Darling, Jr.

Date: June 21, 1993

Ray H. Darling, Jr.
Executive Secretary

DOCKET NO. 90-1786

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SECRETARY OF LABOR, Complainant, v. BAKER TANK COMPANY/ALTECH, A DIVISION OF JUSTISS OIL COMPANY, INC., Respondent.	OSHRC DOCKET NO. 90-1786-S

APPEARANCES:

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Dallas, Texas
For the Complainant.

Ray G. Thompson
Jena, Louisiana
For the Respondent, *pro se.*

Before: Administrative Law Judge E. Carter Botkin

DECISION AND ORDER

This is a proceeding brought before the Occupational Safety and Health Review Commission ("the Commission") pursuant to section 10 of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 651 *et seq.* ("the Act").

The Occupational Safety and Health Administration ("OSHA") conducted an inspection at a Kerr-McGee petrochemical refinery in Cotton Valley, Louisiana, on March 12 and 13, 1990, pursuant to an explosion on March 11 which caused the death of three employees of Respondent ("Baker"); as a result, Baker was issued a serious citation alleging violations of 29 C.F.R. §§ 1926.21(b)(6)(i) and 1926.407(b). Baker contested the citation, and a hearing was held.

Background

Baker contracted with Kerr-McGee to remove an aluminum vapor barrier from the interior of a 30-foot-high crude oil tank. Prior to Baker's arrival at the facility, Kerr-McGee drained the tank, washed it down and steam cleaned it, leaving 8 to 10 inches of water and oil residue at the bottom of the tank. On March 5, 1990, a Kerr-McGee employee tested the tank's atmosphere with a Mine Safety Appliances Model 260 combustible gas indicator, which showed a lower explosive level ("LEL") of zero percent. At 7:00 a.m. on March 6, Kerr-McGee retested the atmosphere, and, after obtaining a reading of 22 percent LEL, mounted a Coppus ventilator on the manhole at the bottom of the tank. The ventilator, powered by a compressor located away from the tank, extracted air for about two hours; the atmosphere was then retested and showed a zero percent LEL. Kerr-McGee completed a work permit which was signed by Tommy McKelvey, Baker's foreman, and the Baker crew began its job.

The Baker crew consisted of McKelvey and four employees. The employees entered the tank through a manhole at the top, descended to the bottom, and used Skil electric circular saws powered by the generator to cut the vapor barrier into pieces small enough to be removed from the tank. They worked March 6 through March 8 with the ventilator extracting air from the tank. On March 9, when the temperature was in the 80's, the ventilator was turned around so that it was blowing air into the tank, and the crew worked in this manner the rest of March 9 and on March 10. The ventilator was running whenever the employees were in the tank, and there were seven vents in the top of the tank which were open throughout the work operation. No work permits were completed March 7 through March 10, but atmosphere readings taken by Kerr-McGee on those days ranged from 4 to 10 percent LEL.

At 7:00 a.m. on March 11, a Kerr-McGee employee named Mark Adkins tested the atmosphere in the tank and obtained a reading of 8 percent LEL. Adkins completed another work permit which he and McKelvey signed, and three of the original four employees resumed work with the ventilator blowing air into the tank.[1] Around 1:30 p.m.,

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[1]The fourth employee had quit the preceding day.

when the temperature was again in the 80's, the employees left the tank and the ventilator was turned off for about fifteen minutes while the compressor was refueled. The ventilator was then turned back on and the employees reentered the tank, after which an explosion occurred and all three were killed.

29 C.F.R. § 1926.21(b)(6)(i)

1926.21(b)(6)(i) provides as follows:

> All employees required to enter into confined or enclosed spaces shall be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. The employer shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas.

Richard McEachern, the OSHA compliance officer ("CO") who conducted the inspection, testified he concluded the standard was violated based on his discussions with McKelvey and Kerr-McGee employees. McEachern said it is known in the industry that vaporization occurs as the walls of a tank heat up, and that industry practice is to test frequently for flammable vapors. He noted that although Kerr-McGee tested the tank each morning and several times on some days, Adkins tested the tank only once on March 11. He also noted that while Kerr-McGee was responsible for maintaining the tank in a safe condition, McKelvey was responsible for the safety of the employees and did not ensure that Kerr-McGee tested on a regular and frequent basis. McEachern said McKelvey did not accompany the Kerr-McGee employees who were testing, and that he indicated he was unaware of what Kerr-McGee was testing for and unfamiliar with the contents of the permits he signed.[2] (Tr. 19-21; 32-41; 47-48; 52-53; 58-59; 70-71; 76-77).

McEachern further testified that the industry practice is to complete a permit for each shift, to extract air rather than blow it in, which increases vaporization, and to use pneumatic equipment rather than the spark-producing saws Baker used. He identified C-5 as the March 11 work permit, C-6 and C-7 as the confined space entry and hot work permit procedures of Mobil Oil Corporation, and C-9 as the operating guide for the Skil saws.

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[2]Although McEachern initially suggested the Model 260 indicator was inadequate, he later testified it is used throughout the industry and was adequate for testing the tank. (Tr. 41-46; 67-70; 84-88; C-8).

McEachern noted C-5 was valid for the duration of the work shift, that C-7 prohibits hot work in tanks with LEL's over zero percent, and that C-9 prohibits the use of the saws in the presence of flammable gases or liquids. McEachern believed the LEL was much higher than 8 percent when the explosion occurred. He said McKelvey indicated the saws were not being operated at that time, but that a static spark or a spark from a cigarette lighter could also have caused the explosion. (Tr. 31-32; 46-63; 71-72; 82-84).

Ray Thompson is a manager of employee relations with Baker. He testified Baker has been in the tank business for over fifty years, is familiar with industry standards, and uses the required equipment. He further testified the job was performed consistent with industry practice, and that the contract with Kerr-McGee did not require a spark-free environment because the tank was cleaned and tested. Thompson said that while Baker did no testing of its own, McKelvey was familiar with the Model 260 indicator and observed the testing to make sure Kerr-McGee checked both oxygen and explosive vapor levels.[3] Thompson also said the employees worked safely for five days, and that Baker had not had a problem in this regard before. He believed the accident was caused by a static spark and a release of propane at the facility that was introduced into the tank by the ventilator. (Tr. 96-98; 110-12).

Thompson said it is safe to work with an LEL of up to 10 percent. He identified R-1 as the 1986 edition of the Fire Protection Handbook of the National Fire Protection Association ("NFPA"), and R-3 as the 1985 edition of Publication 2015 of the American Petroleum Institute ("API"); R-3 states that hot work can be performed safely in a tank with an LEL not exceeding 10 percent, while R-1 provides for a maximum LEL of under 20 percent for such work. Thompson identified R-2 as OSHA's proposed confined space standard. He noted R-2 defines a hazardous atmosphere as the presence of a flammable gas, vapor, or mist in excess of 10 percent LEL. He also noted that R-2 does not require constant monitoring, and that when the LEL is below 10 percent, a hot work permit is good

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[3]The undersigned has noted that Thompson's testimony about McKelvey's knowledge and observing the testing conflicts with that of the CO. This conflict is resolved in favor of the CO, who was credible and had no reason to misrepresent what McKelvey told him; further, Thompson could have called McKelvey to testify but did not do so.

for eight hours without additional monitoring. Thompson said there was no requirement ventilators extract air, and that R-3 provides for placing a blower at a bottom manway to force air into the tank and vapors out through the top.[4] (Tr. 98-110).

Based on the foregoing, the issue to be resolved is whether Baker's operation at the refinery was consistent with industry practice. The resolution of this issue requires a determination of what industry practice dictates in regard to atmospheric testing, work permits, ventilator positioning and spark-producing equipment.

In regard to testing, R-1 and R-3, NFPA's Fire Prevention Handbook and API's Publication 2015, both state that frequent testing should be conducted when hot work is performed in a tank. *See* R-1, page 11-39, and R-3, page 14. Moreover, R-3 notes the importance of retesting, even if initial measurements indicate an acceptable atmosphere, since heat from the sun can increase vaporization and vapors can enter a tank from an outside source. *See* R-3, pages 2, 13, 14. Finally, C-6, Mobil Oil's confined space entry procedure, requires continuous monitoring of the atmosphere during confined space entries. *See* C-6, page 5.

Baker asserts that R-2, OSHA's proposed confined space standard, requires no further monitoring after an initial test showing an LEL of 10 percent or less. This assertion is evidently based on Baker's interpretation of language contained in the sample work permit located in the standard's appendix. *See* R-2, page 86. I disagree with Baker's interpretation of the permit, especially since there is nothing in the standard itself providing for only an initial testing.[5] Regardless, based on R-1, R-3 and C-6, it is clear that industry practice required Baker to assure frequent testing was conducted every day of the job. It is equally clear that such testing was not conducted, and that Baker was on notice that the tank was hazardous and that there was a potential for explosion; testing of the tank revealed LEL's

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[4]Respondent submitted other documentation as attachments to its post-hearing brief. This documentation is hereby excluded, based on the Secretary's objection to its not having been presented during the hearing; in any case, I note that the documentation adds little, if anything, to the matters requiring resolution.

[5]In fact, I note that the sample entry permit in the appendix of the final standard, which became effective on April 15, 1993, indicates that *continuous* monitoring of LEL's in confined spaces is required. *See* 58 Fed. Reg. 4562 (January 14, 1993).

ranging from 4 to 22 percent, the LEL the morning of the accident was 8 percent, temperatures were reaching the 80's in the afternoons and outside vapors could have entered the tank, as Thompson himself testified. Notwithstanding these factors, the tank was tested only once on March 11, in the early morning, and Baker allowed its employees to reenter the tank in the afternoon, after the ventilator had been turned off for a period of time, without retesting the atmosphere. On the basis of the record, it can only be concluded that Baker's failure to assure frequent testing was conducted was inconsistent with industry practice.

In regard to work permits, C-5, the March 11 permit, states that a permit is required for confined space entry work and that "[i]nterruption of 8 hours or more or any change in working conditions requires a new permit." R-3 indicates at page 14 that hot work permits are required, but does not specify for how long they should be valid; however, C-6 and C-7, Mobil Oil's confined space entry and hot work permit procedures, indicate a permit is required before either operation and that it is valid only for the duration of the shift on which it is issued. *See* C-6-7, pages 2-3. Based on the record, Baker was required to assure a work permit was completed at the beginning of each day's shift.[6] Since it did not, its operation was not consistent with industry practice.

As regards the positioning of the ventilator, C-6 states at page 5 that "air movers ... must be ... situated so as to exhaust air from the vessel. Air hoses blowing into vessels shall not be used for ventilation." R-3, however, indicates at page 9 that extracting air or blowing air into a tank are both acceptable, and specifically states at page 10 that "[a]nother mechanical method is to place the blower in the bottom manway and force air into the tank, allowing the vapor-air mixture to escape through the roof manway." Based on C-6 and R-3, the Secretary has not shown that industry practice prohibits blowing air into a tank; accordingly, Baker's doing so at the subject site was not inconsistent with industry practice.

In regard to the use of the Skil saws, C-7 prohibits hot work in areas with LEL's over zero percent. *See* C-7, page 2. C-5 and R-3, however, permit hot work when LEL's do not

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[6]This conclusion is consistent with the sample permit in the appendix of the final standard, which states that a permit is valid for only eight hours. *See* 58 Fed. Reg. 4562 (January 14, 1993).

exceed 10 percent, and R-2 defines a hazardous atmosphere as a flammable gas, vapor or mist with an LEL in excess of 10 percent.[7] See R-2, page 80, and R-3, page 2. Based on the record, industry practice permits hot work when the LEL does not exceed 10 percent, and Thompson himself so testified. Regardless, the tank in this case was tested only once on March 11, and it is axiomatic that without further testing, Baker could not have known whether the tank's atmosphere remained at an LEL acceptable for hot work.[8] Accordingly, Baker's use of the saws without frequent testing was contrary to industry practice, and a serious violation of the standard is established.

The Secretary proposed a penalty of $810.00 for this citation item. After giving due consideration to the employer's size, history and good faith, as well as to the gravity of the violation, it is concluded the assessment of a penalty of $810.00 for this item is appropriate.

29 C.F.R. § 1926.407(b)

The citation alleges the saws Baker's employees used in the tank were not approved for use in a Class I location, exposing them to the hazard of a fire or an explosion. 1926.407(b) provides, in pertinent part, as follows:

> Equipment, wiring methods, and installations of equipment in hazardous (classified) locations shall be approved as intrinsically safe or approved for the hazardous (classified) location or safe for the hazardous (classified) location.

It is undisputed the saws were not approved for a Class I location, which is defined as a location "in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitible mixtures." *See* 1926.449(c). The Secretary's position, based on the CO's testimony, is that the tank was a Class I location because it contained a residue of water and oil that was producing a vapor with an LEL in excess of zero percent. Baker's position is that the tank was not a Class I location and that use of the saws was not prohibited because the tank was cleaned and ventilated and the testing of its atmosphere showed the LEL was not in excess of 10 percent.

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[7]This definition has been retained in the final standard. *See* 58 Fed. Reg. 4550 (January 14, 1993).

[8]Baker's assertion that the saws did not cause the accident and were used safely for five days is irrelevant. The issue is whether Baker's operation was consistent with industry practice. The evidence establishes it was not.

The preceding discussion demonstrates that industry practice allows hot work in tanks with LEL's not in excess of 10 percent, but that frequent atmospheric testing of such tanks is required to assure that LEL's remain within acceptable levels. It also demonstrates that since Baker failed to assure frequent testing of the tank's atmosphere, it could not have known whether the LEL remained within an acceptable level. Had frequent testing been conducted, Baker's argument might be persuasive; however, as it was not, it is found the tank was, in fact, a Class I location and that use of the saws was prohibited. A serious violation of the standard is established, and the Secretary's proposed penalty of $810.00, based on the factors set out *supra*, is assessed.

Conclusions of Law

1. Respondent, Baker Tank Company/Altech, a Division of Justiss Oil Company, Inc., is engaged in a business affecting commerce and has employees within the meaning of section 3(5) of the Act. The Commission has jurisdiction of the parties and of the subject matter of the proceeding.

2. Respondent was in serious violation of 29 C.F.R. §§ 1926.21(b)(6)(i) and 1926.407(b).

Order

On the basis of the foregoing Findings of Fact and Conclusions of Law, it is ORDERED that:

1. Items 1 and 2 of serious citation number 1 are AFFIRMED, and a penalty of $810.00 is assessed for each item.

E. Carter Botkin
Administrative Law Judge

Date: JUN 14 93