

**STATE OF ALASKA
DEPARTMENT OF LABOR**

**OCCUPATIONAL SAFETY AND HEALTH REVIEW BOARD
P.O. BOX 21149
JUNEAU, AK 99802**

STATE OF ALASKA, DEPARTMENT)	
OF LABOR, DIVISION OF LABOR)	
STANDARDS AND SAFETY,)	
OCCUPATIONAL SAFETY AND)	
HEALTH SECTION,)	
)	
Complainant,)	Docket No. 94-1055
)	
v.)	
)	
HALLIBURTON ENERGY SERVICES,)	
)	
Contestant.)	
_____)	

DECISION AND ORDER

This matter arises from an industrial accident on April 2, 1994, at a workplace under the control of Halliburton Energy Services (Halliburton) in Kenai, Alaska. After investigating the accident, the State of Alaska, Department of Labor (Department) cited Halliburton for violations of occupational safety and health standards, including the process safety management (PSM) standard in 29 C.F.R. 1910.119.

Halliburton contested the alleged PSM violations and moved to dismiss them on the grounds that 1) the PSM standard was not validly made applicable to the manufacturing of explosives in Alaska, and 2) Halliburton is exempt from compliance with the PSM standard under the exemption for "oil or gas well drilling or servicing operations" in 29 C.F.R. 1910.119(a)(2)(ii).¹ The Department

¹ Other violations alleged by the Department either were not contested by Halliburton or subsequently were dismissed by the Department.

opposed Halliburton's motion to dismiss the PSM violations but requested leave to amend its citation to alternatively allege a violation of the "general duty clause" in AS 18.60.075(a)(4) if the PSM standard were found not to apply to Halliburton's Kenai facility. By order dated July 21, 1995, the Board denied Halliburton's motion to dismiss and granted the Department's motion to amend its complaint to include an alternative general duty clause violation. The Board also ruled on other contested prehearing motions. Halliburton's motion to raise the affirmative defense that the PSM standard is unconstitutionally vague was granted to the extent necessary to preserve the issue for appeal. However, no legal arguments were permitted on this issue since the Board has no authority to declare an OSHA standard or regulation to be unconstitutional. Additionally, the Board granted the Department's motion to exclude the testimony of two of Halliburton's expert witnesses on the grounds that Halliburton failed to make proper discovery under the Rules of Civil Procedure. Halliburton was permitted to make an offer of proof regarding the testimony of the two witnesses.

A formal hearing was held before Board members Hoff and Sharp on November 13-15, 1995, in Soldotna, Alaska. Board member Ginnaty was unable to attend the hearing and did not participate in this decision. The Department was represented by Assistant Attorney General Toby N. Steinberger. Halliburton was represented by Michael C. Geraghty of DeLisio, Moran, Geraghty & Zobel, P.C.

At the outset of the hearing, Halliburton requested relief under Civil Rule 60(b) from the Board's July 21 order denying Halliburton's motion to dismiss the PSM violations. The Board elected to proceed with the hearing and reserved its ruling on the Rule 60(b) motion until after the evidence and arguments of the parties had been presented.

Both parties presented witness testimony and documentary evidence at the hearing. Following the hearing the parties filed posthearing and reply briefs. Each party also requested leave to submit supplemental evidence. Upon consideration of the evidence and arguments of the parties, the Board makes the following findings of fact, conclusions of law, and order in this matter.

FINDINGS OF FACT

1. On April 2, 1994, an explosion occurred at Halliburton's facility located near Mile 16 of the Spur Highway in Kenai, Alaska. (Tr. 49-51.)

2. As a result of the explosion, one of Halliburton's employees was killed and four others were seriously injured. (Tr. 63-64.) The body of the deceased employee was badly burned and was recovered in fragments. (Tr. 57, 78.) The other four employees variously suffered broken bones, shrapnel wounds, ruptured eardrums, lacerations and severe burns. (Tr. 140; Ex. 28 at 4, Ex. 30 at 48, Ex. 31 at 2.)

3. The explosion knocked out a 19-foot section of one wall of the facility and blew out a section of the roof. The explosion also caused a major fire damaging most of the building, which is no longer used by Halliburton. (Tr. 57, 65-66; Exs. 3, 5, 14, 20.)

4. Halliburton is an interstate company headquartered in Texas and provides a variety of services to the oil and gas industry. At its Kenai facility, one of Halliburton's primary activities was to assemble and load explosive devices known as perforating guns, which are exploded downhole in an oil well to enhance the extraction of oil from surrounding formations. (Tr. 560-63, 635-37.)

5. At the time of the explosion, the five injured Halliburton employees were loading and assembling perforating guns as part of an order for Phillips Petroleum. The guns were to be detonated at Phillips' oil platform at Tyonek. (Tr. 566.) Phillips had ordered two separate gun runs. The first order was for 2,300 feet of perforating guns containing 300 feet of loaded guns and 2,000 feet of unloaded "spacer" guns. The second order was for 600 feet of guns, half of which were to be loaded with explosives and the other half consisting of spacer guns. (Tr. 601.)

6. Halliburton produces perforating guns in various sizes and lengths. (Tr. 563; Ex. J.) The Phillips order called for Halliburton to produce seven-inch diameter perforating guns in 15-foot sections. These are the largest and heaviest perforating guns made by Halliburton. (Ex. J.)

7. The seven-inch perforating guns manufactured by Halliburton consist of two main parts: a scalloped outer casing approximately one-half inch thick known as a "gun carrier"; and an inner "charge holder" containing shaped explosive charges and a detonating cord which runs through an

inner tube in the center of the charge holder. Each 15-foot gun section holds up to 171 explosive charges. (Exs. 16, 18, 21, 22, J.)

8. The main components of the perforating guns for the Phillips Petroleum order were manufactured at Halliburton's plant in Alvarado, Texas. The shaped explosives charges were manufactured at Halliburton's Alvarado facility or were purchased from another manufacturer. The detonating cord, known as "Primacord," was purchased from the Ensign-Bickford Company. (Tr. 657-58; Ex. L.)

9. The assembly and loading of the seven-inch perforating guns consists of the following basic steps. First the detonating cord is strung through the inner tube of the charge holder, leaving enough cord at each end to allow for multiple gun sections to be connected. Then the shaped explosives charges are placed into the charge holder. The loaded charge holder is inserted into the gun carrier, with each explosive charge aligned with the scallops on the outer casing. Once the charge holder is correctly aligned, it is secured in place by set screws on each end. Rubber cushions are also installed on each end. Then the detonating cord is cut to the correct length and bi-directional boosters are crimped onto each end. Finally, steel end caps or "tandem" connectors are screwed into the ends of the gun carriers allowing multiple gun sections to be joined together. (Tr. 146-56; Ex. J at 35.)

10. After Halliburton completed the assembly and loading of perforating guns for the Phillips order at the Kenai facility, the guns were transported to the well site by another contractor. At the well site Halliburton employees pieced together the 15-foot gun sections, lowered them into the well casing to the desired depth and detonated the guns. Upon detonation, a shock wave travels along the length of the detonating cord and sequentially detonates the explosive charges. Each charge creates a high pressure jet that perforates the gun casing, the well casing, and the formations surrounding the well, enhancing oil flow to the well. (Tr. 159-60, 171-72, 636-37, 693-94.)

11. The insertion and alignment of the charge holder inside the gun carrier is a critical step in the assembly of a perforating gun. Since a fully-loaded charge holder weighs approximately 250 lbs., it normally takes two or more employees to load the charge holder into the carrier. (Tr. 157-58; 331; Ex. J at 37.) Although the gun carriers are machined and oiled prior to

assembly, employees at the Kenai facility sometimes had difficulty moving the charge holder forward or backward inside the gun carrier to precisely align the holes for the set screws. (Tr. 166, 331.) When this occurred, employees would use a device such as the butt-end of a pipe wrench, or a hammer handle, or a T-shaped alignment tool, to push or "tap" against the end plate of the charge holder to correctly align it. (Tr. 153, 181, 205, 341, 605, 640, 649.)

12. According to the explosives enforcement officer for the U.S. Bureau of Alcohol, Tobacco and Firearms (BATF) who investigated the Kenai explosion, one way the explosion may have occurred was that the deceased employee, in the course of pushing a loaded charge holder into a gun carrier with the end of a 48-inch pipe wrench, may have accidentally struck the detonating cord which protruded from the center of the charge holder. (Tr. 316-17.) Portions of a 48-inch pipe wrench were found not far from where the deceased employee had been working on one end of a gun carrier. (Tr. 79, 86, 143, 176; Ex. 15 at photograph 27.) Another way the explosion may have occurred was if the detonating cord protruding from the end of the charge holder became caught or pinched between the end plate of the charge holder and the outer casing of the gun as the charge holder was pushed into the gun carrier. (Tr. 317.)

13. Halliburton's Alvarado, Texas facility manufactures a variety of explosives and has a BATF license to manufacture explosives. However, Halliburton's field locations where perforating guns are assembled, including the Kenai facility, are licensed by BATF only to use, but not manufacture, explosives. (Tr. 690-91.) BATF does not consider the assembly and loading of perforating guns to constitute "manufacturing" of explosives for its licensing purposes. (Tr. 346-48; Ex. RR.)

14. The State of Alaska Fire Marshal's office, which participated in the investigation of the Kenai explosion, determined that Halliburton's Kenai facility was not in compliance with the Uniform Building Code (UBC) requirement that explosives must be handled and stored in a specially-rated facility known as an H-1 facility. (Tr. 125, 132, 136.)

15. The Department of Labor's OSHA enforcement officer in Kenai conducted a separate investigation of the explosion beginning on April 4, 1994. The investigation included photographs and videos of the accident scene, as well as extensive interviews with the injured

employees and other persons. (Tr. 362, 377.)

16. Following its investigation, the Department issued citations to Halliburton on July 26, 1994 for alleged occupational safety and health violations. Halliburton contested certain the cited violations by letter dated August 11, 1994. The contested PSM violations, as amended by stipulation of the parties, are as follows:

Citation 1, Item 1a: Halliburton failed to comply with 29 C.F.R. 1910.119(c)(1) by not having a written plan providing for employee participation in the implementation of a process safety management program.

Citation 1, Item 1b: Halliburton failed to comply with 29 C.F.R. 1910.119(d)(2)(i)(E) by not evaluating the consequences of deviations from standard operating procedures.

Citation 1, Item 1c: Halliburton failed to comply with 29 C.F.R. 1910.119(d)(3)(iii) by not implementing safe practices for the insertion of the charge holder into the perforating gun casing.

Citation 1, Item 1d: Halliburton failed to comply with 29 C.F.R. 1910.119(e)(1)(i) by failing to perform an initial process hazard analysis (hazard evaluation) by May 26, 1994.

Citation 1, Item 1e: Halliburton failed to comply with 29 C.F.R. 1910.119(f)(1)(iii)(E) by failing to provide clear written operating procedures addressing special or unique hazards associated with the assembly of the perforating guns.

Citation 1, Item 1f: Halliburton failed to comply with 29 C.F.R. 1910.119(g)(3) by failing to document and verify the process safety management training of all employees involved in the assembly of the seven-inch perforating guns.

17. As an alternative citation, the Department alleged that Halliburton violated the general duty clause in AS 18.60.075(a)(4) by failing to do everything necessary to protect the life, health and safety of employees, including but not limited to, furnishing each employee with employment and a place of employment free from recognized hazards which were causing or were likely to cause death or serious physical harm.

18. The alleged PSM violations were classified as "serious" pursuant to AS 18.60.095(b). In addition, a total penalty of \$1,650 was assessed for the PSM violations or,

alternatively, the general duty clause violation.

CONCLUSIONS OF LAW

The basic facts in this case are not in dispute. The principal contested issue is the legal question of whether the process safety management standard in 29 C.F.R. ? 1910.119 applied to Halliburton's assembly of perforating guns at its Kenai facility. To resolve this question, we must address two key issues: 1) whether Halliburton was engaged in the "manufacture of explosives" under 29 C.F.R. ? 1910.109(k)(2) so that it was required to comply with the PSM standard; and 2) whether Halliburton was exempt from the PSM standard under the exemption for "oil or gas well drilling or servicing operations" in 29 C.F.R. ? 1910.119(a)(2)(ii).²

Halliburton stipulated that if the PSM standard were determined to apply to its assembly of perforating guns at the Kenai facility, it would not challenge the individual items or penalty in Citation 1, Items 1a-1f, of the Department's amended citation. The Department stipulated that if the PSM standard were determined not to apply to the Kenai facility, it would dismiss the amended citation and penalty. The alternative general duty clause violation would be addressed only if the PSM standard were found not to apply. (Tr. 403-04.)

A. Halliburton's Rule 60(b) Motion

As a preliminary matter, we address Halliburton's request for relief under Civil Rule 60(b) from the Board's prehearing denial of its motion to dismiss the PSM citations. Halliburton's request is based on a memorandum from the U.S. Department of Labor, Occupational Safety and Health Administration (federal OSHA) purportedly indicating that the PSM standard did not apply to the assembly of perforating guns at Halliburton's Kenai facility. The Department responds that Rule 60(b) does not apply to interlocutory orders and that under the "law of the case" doctrine, Halliburton

² We do not address the issue of whether the Kenai facility was exempt from the PSM standard under the exemption for "retail facilities" in 29 C.F.R. ? 1910.119(a)(2)(i) since this issue was not formally raised by Halliburton at the hearing or in its briefing. (Tr. 39.) Additionally, we do not address Halliburton's contention that the PSM standard is unconstitutionally vague except to the extent necessary to preserve the issue for judicial review. *See* Board's order dated November 8, 1995.

should not be permitted to relitigate the Board's prior ruling that Halliburton was not exempt from the PSM standard under the exemption for "oil or gas well drilling or servicing operations."

We agree that Rule 60(b) does not apply in this instance because the denial of Halliburton's motion to dismiss was not a "final order or judgment" as required by the language of the Rule. However, because the parties presented substantial additional evidence and argument at the hearing regarding the PSM exemption issue, we do not believe the "law of the case" doctrine should be applied to preclude further review of the issue. As an adjudicatory body functionally similar to a trial court, the Board has the authority to review and reconsider its own prior interlocutory rulings. *See C.J.M. Construction v. Chandler Plumbing and Heating*, 708 P.2d 60, 61 n.1 (Alaska 1985); *Stepanov v. Gavrilovich*, 594 P.2d 30, 36 (Alaska 1979); Alaska Rule of Civil Procedure 54(b). Accordingly, we exercise our discretion to reconsider Halliburton's claim of exemption in light of the additional evidence and argument presented during the hearing process.

B. The Occupational Safety and Health Act

To fully understand the issues in this case it is helpful to review certain aspects of occupational safety and health law in general and the PSM standard in particular. The central purpose of the Occupational Safety and Health Act of 1970, 29 U.S.C. ? 651 *et seq.* (the Act), is "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources" 29 U.S.C. ? 651(b). To achieve this goal, the Act authorizes the U.S. Secretary of Labor to promulgate national occupational safety and health standards. 29 U.S.C. ? 655. Employers are required to comply with occupational safety and health standards promulgated pursuant to the Act. 29 U.S.C. ? 654(a)(2).

Under the Act, an individual state may implement its own occupational safety and health program upon approval by the U.S. Department of Labor. 29 U.S.C. ? 667. However, with respect to any occupational safety or health issue regulated by a federal OSHA standard, an approved state must adopt and enforce comparable standards which are "at least as effective in providing safe and healthful employment" as the federal standards. 29 U.S.C. ? 667(c)(2). Under the foregoing authority,

the State of Alaska enacted legislation establishing an occupational safety and health program for Alaska. AS 18.60.010-.105. As the designated agency responsible for the implementation and enforcement of the Alaska OSHA program, the Department adopted occupational and safety health standards comparable to federal OSHA standards. 8 AAC 61.010.³

OSHA standards generally have been construed as broadly as possible to best accomplish the Act's purpose of assuring worker safety and health. Mark A. Rothstein, *Occupational Safety and Health Law*, ? 126 at 175 (3rd ed. 1990) (hereinafter "Rothstein"). When there has been more than one possible interpretation of a standard, the interpretation best calculated to achieve accident prevention has been preferred. *Id.*, citing *Brock v. City Oil Well Service Co.*, 795 F.2d 507, 512 (5th Cir. 1986); *Brock v. Schwarz-Jordan, Inc.*, 777 F.2d 195, 198 (5th Cir. 1985); *Brock v. L.R. Willson & Sons*, 773 F.2d 1377, 1386 (D.C. Cir. 1985); *Irvington Moore v. OSHRC*, 556 F.2d 431, 434 (9th Cir. 1977). Moreover, the Secretary of Labor's interpretation of standards has been given substantial deference by the courts, including the U.S. Supreme Court, as long as the interpretation is reasonable and furthers the objectives of the Act. *Martin v. OSHRC*, 499 U.S. 144, 150, 111 S.Ct. 1171, 1175 (1991), *on remand* 941 F.2d 1051 (10th Cir. 1991); *Sparrow Construction Corp. v. Secretary of Labor*, 22 F.3d 402 (2nd Cir. 1994); Rothstein, ? 125 at 174 (citations omitted). Furthermore, the Occupational Safety and Health Review Commission (OSHRC) - our federal counterpart -- has consistently held that when a standard contains an exemption from its general requirements, the burden of proving that the exemption applies lies with the party asserting the exemption. *Durant Elevator*, 8 (BNA) OSHC 2187, 1980 (CCH) OSHD ? 24,873 (OSHRC 1980).

C. **Process Safety Management**

³ From 1973 to 1995, the Department adopted and enforced Alaska occupational safety and health standards. These standards were for the most part substantially similar or identical to federal OSHA standards. Effective December 6, 1995, the Department repealed all existing Alaska OSHA standards adopted under 8 AAC 61.010 and instead adopted by reference all federal OSHA standards, except in certain specific areas where Alaska standards remain stricter than federal standards. See 8 AAC 61.1010-.1190. This regulatory change, however, does not affect the decision in this case.

Process safety management requirements for employers were formally adopted by federal OSHA on February 24, 1992. 57 Fed. Reg. 6356. (Ex. 45.) The basic purpose of PSM is to prevent or minimize the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals which could expose employees and others to serious hazards. 57 Fed. Reg. 6403. PSM requires a systematic approach to evaluating an employer's entire process. Among other things, a covered employer must evaluate whether its process is the safest process; identify weaknesses or deficiencies in its process; explore ways to improve its process; provide process training and clear instructions to employees; and verify that employees understand their training. (Tr. 356-61.)

Simultaneous with the adoption of the PSM standard in 29 C.F.R. ? 1910.119, federal OSHA amended the standard governing explosives in 29 C.F.R. ? 1910.109 to require that manufacturers of explosives must comply with the PSM requirements. 29 C.F.R. ? 1910.109(k)(2).⁴ Federal OSHA recognized that the existing standard for explosives did not address the hazards associated with their manufacture. After considering the entire rulemaking record, including comments from employer groups, federal OSHA concluded that the hazards associated with the manufacture of explosives have the potential of resulting in a catastrophic incident and pose a significant risk to employees, and that the manufacture of explosives should be covered by process safety management requirements. 57 Fed. Reg. 6367-68. (Ex. 45.)

In Alaska, the Department adopted the federal PSM standard by reference effective September 20, 1992. 8 AAC 61.010, subchapter 18. At the same time, the Department amended the Alaska Explosive Code to require that manufacturers of explosives must comply with PSM requirements pertaining to highly hazardous chemicals, explosives, and blasting agents. 8 AAC 61.010, subchapter 09.110(a)(2).⁵

⁴ 29 C.F.R. ? 1910.109(k)(2) provides:

The manufacture of explosives as defined in paragraph (a)(3) of this section shall also meet the requirements contained in ? 1910.119.

57 Fed. Reg. 6403. (Ex. 45.)

⁵ 8 AAC 61.010, subchapter 09.110(a)(2) provides:

D. Application of PSM Standard to Halliburton's Kenai Facility

1. Was Halliburton a "Manufacturer of Explosives" at the Kenai Facility?

As noted, both the federal and Alaska OSHA explosive standards require manufacturers of explosives to comply with PSM requirements. 29 C.F.R. ? 1910.109(k)(2); 8 AAC

61.010, subchapter 09.110(a)(2). The federal standard defines "explosive" as . . . any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion . . . The term "explosives" shall include all material which is classified as Class A, Class B, and Class C explosives by the U.S. Department of Transportation, and includes, but is not limited to dynamite, black powder, pellet powders, initiating explosives, blasting caps, electric blasting caps, safety fuse, fuse lighters, fuse igniters, squibs, cordeau detonant fuse, instantaneous fuse, igniter cord, igniters, small arms ammunition, small arms ammunition primers, smokeless propellant, cartridges for propellant-actuated power devices, and cartridges for industrial guns. . . .

29 C.F.R. ? 1910.109(a)(3).⁶

There is no question that the perforating guns assembled at Halliburton's Kenai facility were explosive devices intended to function by explosion. Halliburton's own PSM consultant conceded this point. (Tr. 481-82.) Halliburton argues, however, that it did not "manufacture" explosives at its Kenai facility but merely "assembled" the component parts of the perforating guns which had been manufactured at its Alvarado, Texas plant or purchased from other manufacturers.⁷ We cannot accept
(..continued)

The manufacture of explosives as defined in section 120(a)(23) must also meet the requirements contained in Subchapter 18, process safety management of highly hazardous chemicals, explosives, and blasting agents.

As noted in footnote 3 *supra*, Alaska's occupational safety and health standards were repealed on December 6, 1995, and were replaced by federal OSHA standards adopted by reference under 8 AAC 61.1010. Thus the foregoing language has been replaced by the substantially similar language of 29 C.F.R. ? 1910.109(k)(2).

⁶ The definition of "explosive" in the Alaska Explosives Code is virtually identical. 8 AAC 61.010, subchapter 09.120(a)(23).

⁷ Halliburton acknowledges that it manufactures explosives at its Alvarado facility and that the

such a narrow interpretation of the manufacturing process. According to the U.S. Government's Standard Industrial Classification (SIC) Manual, which is relied upon by the U.S. Department of Labor in developing OSHA regulations, "[e]stablishments engaged in assembling component parts of manufactured products are also considered manufacturing if the new product is neither a structure nor other fixed improvement." (Ex. 1 at 67; Tr. 227, 276, 304-05.) The SIC Manual specifically considers the production of "well shooting torpedoes" to be the manufacturing of explosives in SIC 2892.⁸ (Ex. 1 at 148-49; Tr. 406.) Furthermore, our view is supported by the testimony of a current senior federal OSHA official, as well as two federal OSHA interpretation letters addressing the facts of this case, which indicate that the assembly of perforating guns is considered to be the manufacturing of explosives and therefore is subject to PSM requirements. (Tr. 225-26; Ex. 35, 43.)

Halliburton also argues that the PSM requirements applicable to manufacturers of explosives do not apply to its Kenai facility because none of the hazardous chemicals listed in Appendix A of the PSM standard were present at the facility. Halliburton relies on the following language from federal OSHA's preamble to the PSM standard:

During this rulemaking process, some concern was expressed that this standard could be interpreted, inappropriately, to apply to all explosive and pyrotechnic manufacturing operations, even those operations of the manufacturing process where explosives or pyrotechnics are not present. . . . This is not the intent of OSHA. The Agency wants to make it clear that the provisions contained in this final rule apply to explosives and pyrotechnics manufacturing operations only when such substances or other chemicals covered by the standard or in Appendix A are present.

57 Fed. Reg. 6369. (Ex. 45.) (Emphasis added.) We find, however, that Halliburton's argument is based on a misreading of the foregoing language. Federal OSHA was merely clarifying that the PSM standard applies to the manufacture of explosives only when explosives or specific chemicals listed in

(..continued)

PSM standard applies to that facility. (Tr. 672.)

⁸ The SIC Manual distinguishes the manufacturing of "well shooting torpedoes" (SIC 2892) from the actual perforation of well casings which is classified as "Oil and Gas Field Services, Not Elsewhere Classified" (SIC 1289). (Ex. 1 at 46-47.)

the PSM standard are present in the workplace. The PSM standard does not apply where no explosives are present or where none of the chemicals identified in the standard are present. Since explosives were clearly present at Halliburton's Kenai facility, this exception relied upon by Halliburton does not apply.

Halliburton further argues that it was not manufacturing explosives at its Kenai facility because it was not required to obtain a BATF explosives manufacturer's license for that facility. Halliburton notes that its Alvarado manufacturing plant, where the perforating gun components are produced, has a BATF manufacturer's license while its Kenai facility was required to have only an explosive user's license. (Tr. 346-47.) However, we do not find BATF explosives licensing requirements to be dispositive in the interpretation of occupational safety and health standards. BATF's primary mission in this area is to regulate and license explosives, not to protect employee safety and health. Because BATF and OSHA have separate and distinct regulatory schemes, we cannot accord controlling weight to BATF licensing requirements.

For the foregoing reasons, we conclude that Halliburton was a "manufacturer of explosives" at its Kenai facility and therefore was subject to the PSM standard.

2. **Was Halliburton Exempt From the PSM Standard Under the Exemption For "Oil or Gas Well Drilling or Servicing Operations"?**

Halliburton contends that its assembly and loading of perforating guns at the Kenai facility was exempt from the PSM standard under the exemption for "oil or gas well drilling or servicing operations." 29 C.F.R. ? 1910.119(a)(2)(ii). As explained in the preamble to the PSM standard,

OSHA also proposed to exclude oil and gas well drilling and servicing operations because OSHA had already undertaken rulemaking with regard to these activities. (48 FR 57202). OSHA continues to believe that oil and gas well drilling and servicing operations should be covered in a standard designed to address the uniqueness of that industry. This exclusion is retained in the final standard since OSHA continues to believe that a separate standard dealing with such operations is necessary.

57 Fed. Reg. 6369. (Ex. 45.)

The proposed standard for oil and gas well drilling and servicing was published on December 28, 1983. 48 Fed. Reg. 57202. (Ex. 44.) However, the proposed standard has never been adopted as a final rule by OSHA. The proposed standard provides in pertinent part:

? 1910.270 Oil and gas well drilling and servicing.

(a) *Scope and Application.* (1) *Scope.* This section contains requirements for drilling, servicing and related operations performed on, or in support of, potential and actual oil and gas wells, including injection wells and water supply wells. The standard addresses hazards associated with assembling and disassembling rigs, rotary drilling, well servicing, cementing, drill stem testing, well completion, wireline services, and acidizing. . . .

(2) *Application.* The requirements of this section apply to all rigs engaged in these operations, whether they are land-based rigs or over-the-water rigs except to the extent that 29 U.S.C. 653(b)(1) prohibits the application of the OSH Act. Exploratory wells, development wells, injection wells and water supply wells drilled in support of oil and gas recovery operations are also covered by this section. . . .

(b) *Definitions.*

. . .

Well Servicing means the remedial or maintenance work performed on an oil or gas well to improve or maintain the production from a formation already producing.

48 Fed. Reg. 57217, 57220. (Ex. 44.)

As we read the proposed oil and gas well drilling and servicing standard, the standard addresses only certain activities and operations on a rig or well site. In the preamble to the proposed standard OSHA states:

It is OSHA's intent that the scope of this standard include all drilling, servicing and special services operations performed on wells as specified in proposed paragraph (a)(2) of this standard. Operations performed to prepare the site for drilling, such as road construction, grading, and digging of earthen pits are covered by the OSHA Construction Standards (29 C.F.R. Part 1926). Therefore, these operations are not addressed by this proposal.

. . .

In paragraph (a)(2) OSHA is proposing the application of the standard. The requirements of this standard would apply to rigs performing drilling, servicing or special services operations on exploratory wells, development wells, injection wells and water wells drilled to support oil and gas recovery operations. . . .

48 Fed. Reg. 57207 (emphasis added). Nothing in the proposed standard suggests that it covers activities or operations off the rig or well site. Significantly, the proposed standard does not address the manufacture or assembly of perforating guns. Thus, even if the proposed standard were in effect, there would be no worker safety protection covering the hazards of manufacturing or assembling perforating guns. Such a result would be inconsistent with the broad remedial purpose of OSHA legislation and suggests that OSHA did not intend to exempt the manufacture or assembly of perforating guns from PSM requirements.⁹

The U.S. Supreme Court has held that OSHA's interpretation of its own standards is entitled to substantial deference as long as its interpretation is reasonable and consistent with the

⁹ The U.S. Department of Labor's "Preliminary Regulatory Impact Assessment and Regulatory Flexibility Certification Assessment" of the proposed oil and gas well drilling and servicing standard further suggests that the standard was intended to cover only "employees who normally would be present at the well site" and would not cover off-site work such as the manufacturing or assembly of perforating guns. (Ex. 46 at V-2 to V-6.)

purposes of the Act. *Martin v. OSHRC*, 499 U.S. 144, 150, 111 S.Ct. 1171, 1175 (1991). In the present case, federal OSHA issued two letters of interpretation indicating that the assembly of perforating guns at Halliburton's Kenai facility was covered by the PSM standard. The first letter, dated June 15, 1994, was issued by federal OSHA Region X in Seattle in response to a request for interpretation from the Department's enforcement officer in Kenai who was investigating the explosion.

Region X concluded:

Specific boundaries cannot be given for all situations, but must be dealt with on a case by case basis. In the situation that Mr. Bundy [the Department's Kenai enforcement officer] is investigating, the company that custom manufactures or assembles the perforation gun is covered by the PSM standard regardless of the location of the manufacturing process. Activities at the well head that include piecing the perforation gun together, placing of the gun in the well and detonating the gun are all considered well servicing operations that are exempt from the PSM standard.

(Ex. 35.) In a second memorandum dated November 8, 1995, the director of federal OSHA's Directorate of Compliance Programs in Washington, D.C. wrote to the Region X administrator stating in pertinent part:

In your October 24 memorandum, you indicated that Region X had issued a letter of interpretation (to the Honorable Charles W. Mahlen, Commissioner, State of Alaska, Department of Labor, dated June 15, 1994). You indicated that the PSM standard applies in the manufacturing (including assembly) of explosive devices, that is, perforation guns, at locations other than the well site where such devices are pieced together, placed in the well, and detonated. We concur with this interpretation.

(Ex. 43.)

Additionally, the current director of federal OSHA's Directorate of Safety Standards Programs, who was extensively involved in the development and promulgation of the PSM standard, testified at the hearing that PSM requirements applied to the assembly of perforating guns at Halliburton's Kenai facility and that such activity was not exempt under the exemption for oil or gas well drilling or servicing operations. (Tr. 223-28, 304-05.)

Halliburton places great reliance on an interpretation letter dated June 29, 1994, from

the federal OSHA Directorate of Compliance Programs to Jeffrey D. Jefferson, an attorney for one of the victims of the Kenai explosion. (Ex. PP; Tr. 437-39.) Jefferson had specifically asked about an oil company's (*i.e.*, Phillip Petroleum's) responsibility under ? 1910.119(h)(2) of the PSM standard to evaluate the safety performance and programs of a contractor (*i.e.*, Halliburton) hired to manufacture perforating guns and detonate them at the oil company's well site. Relying on the exemption for oil or gas well drilling or servicing operations in 29 C.F.R. ? 1910.119(a)(2)(ii), federal OSHA replied:

. . . [T]he oil company is not considered by OSHA to be responsible for 1910.119(h)(2)(i) obligations to the extent the contractor is retained exclusively to do work for an oil or gas well drilling or servicing operation. The basis for that obligation, to assure that employers do not introduce additional hazards to covered processes, would not apply if the contractor has contact only with employees working in processes excepted from coverage under the PSM standard. . . .

(Ex. PP at 3.)

Halliburton argues that the Jefferson letter indicates that the PSM standard did not apply to the assembly of perforating guns at the Kenai facility because Halliburton had been retained exclusively to perform work for an oil or gas well drilling or servicing operation and thus was exempt from the standard. To support this contention Halliburton presented the testimony of its PSM consultant, who formerly was employed by federal OSHA and who was the initial drafter of the Jefferson letter. (Tr. 472-80.) Halliburton maintains that the Jefferson letter supersedes any contrary or inconsistent interpretation from federal OSHA and should be regarded as controlling in this case.

After carefully considering federal OSHA's opinion letters, we conclude that the Region X letter of June 15, 1994 (Ex. 35) and the subsequent confirmation of Region X's interpretation by the Directorate of Compliance Programs on November 8, 1995 (Ex. 43) are the most pertinent federal interpretations and are entitled to greater weight than the Jefferson letter. The June 1994 and November 1995 letters directly address the applicability of the PSM standard to Halliburton's assembly of perforating guns at the Kenai facility. The Jefferson letter, on the other hand, does not directly address whether Halliburton was required to comply with PSM at its Kenai facility; the letter focuses on the separate and distinct question of whether Phillips Petroleum was required to comply with the "host

employer" requirements in subsection (h)(2) of the PSM standard. According to the Jefferson letter, Phillips did not need to comply with PSM requirements for host employers since no activities covered by PSM were occurring at Phillips' well site and Phillips had no contact with Halliburton's employees in Kenai who were assembling the perforating guns. In our view, the fact that Phillips Petroleum was not required to comply with PSM host employer requirements does not mean that Halliburton was exempt from complying with PSM at its Kenai facility. Because the Jefferson letter does not address the precise issue of Halliburton's responsibility under the PSM standard at its Kenai facility, we do not perceive the letter to be inconsistent or conflicting with the interpretation stated in the Region X letter and subsequently confirmed by OSHA's Directorate of Compliance Programs (the same office which issued the Jefferson letter).

Halliburton next argues that it is exempt from the PSM standard because it is primarily an oil field service contractor and its production of perforating guns is unique to the oil and gas industry. Halliburton contends that "it is the nature of the servicing operation in its totality that is important, rather than the individual activities performed."¹⁰ We find this assertion to be at odds with the language of the PSM exemption, which is for "oil or gas well drilling or servicing operations" and not oil well servicing companies (emphasis added). In other words, the exemption applies only to certain activities but does not necessarily exempt an entire company. The evidence shows that Halliburton performs different operations at different locations, some of which are covered by PSM and some which are not. For example, Halliburton's placement and detonation of the perforating guns at the well site would be exempt from PSM as oil well servicing operations. On the other hand, Halliburton's manufacture of explosive components for perforating guns at its Alvarado facility is concededly not exempt from PSM even though the perforating guns are unique to the oil and gas industry. In accord with federal OSHA, we believe Halliburton's loading and assembly of perforating guns at the Kenai facility is part of the process of manufacturing explosive devices and therefore is subject to PSM requirements.

Halliburton also presented anecdotal testimony from its safety director that since the

¹⁰ Halliburton posthearing brief at 20 (emphasis in original).

adoption of the PSM standard in 1992, its field locations where perforating guns are assembled have been inspected approximately twelve times by OSHA yet the company has not been cited for PSM violations except at the Kenai facility. (Tr. 677.) None of the other locations, however, appear to have been inspected while employees were assembling or loading perforating guns. (Tr. 678.) Thus there was no employee exposure to trigger the issuance of an OSHA citation. Based on this limited anecdotal evidence, we cannot assign any particular significance to Halliburton's prior citation history.

Halliburton makes a further argument that the entire oil servicing industry considers the PSM standard to be inapplicable to the assembly of perforating guns and that none of the companies in the industry are in compliance with PSM at locations where perforating guns are assembled. (Tr. 528.)

Even if this is true, however, we are unpersuaded that the industry's view of the applicability of the PSM standard should be given any significant weight, particularly where it conflicts with that of the agency which developed and promulgated the standard. There is no indication that Halliburton or any other oil well servicing company, prior to the Kenai accident, sought or obtained an official determination from OSHA as to the applicability of the PSM standard to the assembly or loading of perforating guns. (Tr. 683.) The fact that Halliburton and other companies in the industry may have misconstrued the applicability of PSM requirements does not excuse noncompliance with the standard.

For the foregoing reasons, we conclude that the assembly of perforating guns at Halliburton's Kenai facility was not exempt from the PSM standard under the exemption for oil or gas well drilling or servicing operations. Pursuant to the stipulation of the parties, therefore, the amended PSM violations and the proposed penalty should be affirmed.^{11 12}

¹¹ In view of this conclusion, we need not address the Department's alternative citation based on the general duty clause, AS 18.60.075(a)(4).

¹² Although Halliburton does not dispute the individual PSM violations cited by the Department, we feel compelled to make an additional comment. We are particularly disturbed by Halliburton's lack of training for temporary employees at the Kenai facility concerning the specific hazards of perforating gun assembly. While Halliburton's permanent employees at the Kenai facility were given extensive training in Texas regarding perforating guns, temporary employees were not afforded this training yet were exposed to the same significant hazards of loading and assembling the guns. The deceased employee and one of the injured employees were both temporary part-time employees. The evidence suggests that the explosion may have been caused when the deceased employee accidentally set off the

(..continued)

detonating cord in a loaded gun with a pipe wrench. We are convinced that if Halliburton had implemented process safety management and had provided these temporary employees with the same training course given to permanent employees, this tragic accident might have been prevented.

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ORDER

Based on the foregoing findings of fact and conclusions of law, it is hereby ordered as follows:

1. Citation 1, Items 1a-1f, in the Department's second amended citation dated November 21, 1995, and the proposed penalty of \$1,650, are AFFIRMED.

DATED this 23rd day of May, 1996.

ALASKA OCCUPATIONAL SAFETY
AND HEALTH REVIEW BOARD

By: _____
Donald F. Hoff, Jr.
Chairman

By: NOT PARTICIPATING
James J. Ginnaty
Member

By: _____
Timothy O. Sharp
Member