

9441.1988(48a)

United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste and Emergency Response

November 21, 1988

Mr. Robert H. Lloyd
Lloyd, Gosselink, Ryan
& Fowler, P.C.
P.O. Box 1725
Austin, Texas 78767

Dear Mr. Lloyd:

Thank you for your October 13, 1988, letter concerning the status of certain oil and gas wastes generated by The Western Company of North America.

The Environmental Protection Agency (EPA) believes that none of the wastes in question is exempt from hazardous waste regulations under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Congress intended to exempt the large volumes of wastes that are intrinsic to exploration, development, or production processes and are generated at exploration or production facilities. Based on the scope of the RCRA exemption as identified in the regulatory determination published July 6, 1988, EPA believes that the acidic waste water, field waste liquids, and waste cement identified in your letter are clearly not exempt.

Acidic wastewater is not exempt because it is not intrinsically derived from the exploration, development, or production of oil or gas within the meaning of the statute. It was never used in such operations, regardless of the intent in preparing the mixture. This type of waste fits the non-exempt category listed in the regulatory determination as "oil and gas service company wastes, such as ... spilled chemicals, and waste acids."

Field waste liquids are included in the non-exempt category of "unused fracturing fluids or acids." There is no distinction made between pre-mixed fluids or wastes composed of the unmixed raw

ingredients. Here again, the unused portions are not intrinsically derived from oil and gas exploration, development, or production operations as this term is used in the statute, regardless of the intent in preparing the mixture.

Your third item, waste cement, is also an unused product and, as such, is not exempt. As you indicated, the waste lubricants, hydraulic fluids, motor oil and paint, waste solvents from equipment maintenance, and waste from truck cleaning operations that you listed in your letter as items four, five and six are also not exempt.

We understand the confusion that can arise when the different states in which Western operates interpret the exemption differently. However, we believe that the regulatory determination has provided substantial clarification regarding the scope of the exemption. We hope that this letter will help Western to plan and implement proper waste management programs in all the states in which it operates.

Sincerely,
J. Winston Porter
Assistant Administrator

Attachment

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October 13, 1988

Mr. J. Winston Porter
Assistant Administrator for Solid
Wastes OS-100
United States Environmental
Protection Agency
401 M Street S.W.
Washington, D.C. 20460

Re: The Western Company of North America - 79703

Dear Mr. Porter:

As a multi-state provider of services to the oil and gas industry. The Western Company of North America (Western) is directly impacted by the acts of the United States Congress and the Environmental Protection Agency (EPA) with respect to the management of oil and gas wastes. Western must necessarily manage the oil and gas wastes generated from its well servicing operations pursuant to all applicable federal laws and regulations, as well as those of the various states within which it conducts business.

Western, therefore, is justifiably interested in the portion of the 1980 amendments to the Resource Conservation and Recovery Act (RCRA) which exempts from Subtitle C regulations "drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas (see footnote 1). In order to plan and implement proper waste management programs, Western must have a clear understanding and, hopefully, an official determination of whether particular wastes it generates are covered within the scope of this exemption.

In this regard, Western has studied the EPA's "Regulatory

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Determination for Oil and Gas and Geothermal Exploration: Development and Production Wastes (see footnote 2). While this determination provides the most detailed description to date of exactly which oil and gas wastes are exempt from Subtitle C regulations, Western still needs additional clarification. This need stems not only from Western's commitment to comply with RCRA regulations but from the fact that the different states in which Western operates are interpreting this exemption differently.

For example, the Texas Solid Waste Disposal Act confers to the Texas Water Commission (TWC) jurisdiction over "hazardous waste" identified pursuant to RCRA (see footnote 3). At present, the TWC regulates wastes generated by Western's well servicing activities as hazardous waste under RCRA if such wastes are either listed or are characteristically hazardous.

On the other hand, in 1981, Oklahoma's Director of the Industrial Waste Division of the Oklahoma State Department of Health indicated that the Western service facilities were exempt from RCRA regulation pursuant to 40 CFR §261.4(b)(5) the federal regulatory provision setting forth the exemption for oil and gas wastes (see footnote 4).

Thus, while both Texas and Oklahoma determined which oil and gas wastes to regulate based on respective interpretations of RCRA, and not on a more stringent state law, their determinations are different for essentially identical wastes generated by essentially identical operations. For Western, this means that identical wastes must be managed differently depending on which state is involved. This problem is complicated by the fact that Western operates a total of 57 facilities in Texas, Oklahoma, Louisiana, Mississippi, Alabama, Utah, New Mexico, Kansas, Wyoming and South Dakota.

Western, of course, will manage its wastes pursuant to RCRA if it is determined that the wastes are not covered by the exclusion.

In some states it is already doing so based on individual state determinations that the wastes are not exempt. It is apparent, however, that a consistent interpretation of the RCRA exemption is needed.

In this regard, Western has relied on two primary sources to

formulate its own preliminary interpretation of the scope of the exemption: the legislative history related to the original RCRA exemption and the EPA's recent Regulatory Determination related to oil and gas wastes.

First, as stated previously, the 1980 RCRA Amendments exempted from Subtitle C regulations "drilling fluids, produced waters and other wastes associated with the exploration, development, or production of crude oil or natural gas." (Emphasis added)(See Footnote 5). Regarding these "other wastes," RCRA's legislative history indicates that:

The term "other wastes associated" is specifically included to designate waste materials intrinsically derived from primary field operations associated with the exploration, development, or production of crude oil, natural gas or geothermal energy. It would cover such substances as: hydrocarbon bearing soil in and around related facilities; drill cuttings; and materials (such as hydrocarbons, water, sand, and emulsion) produced from a well in conjunction with crude oil, natural gas or geothermal energy; and the accumulated material (such as hydrocarbons, water, sand and emulsion) from production separators, fluid treating vessels, storage vessels, and production impoundments.

The phrase "intrinsically derived from the primary field operations" is intended to differentiate exploration, development, and production operations from transportation (from the point of custody transfer or of production separation and dehydration) and manufacturing operations. (Emphasis added (See footnote 6.)

Clearly, Western is involved in the exploration, development and production components of the oil and gas industry. The services Western provides consist primarily of well stimulation and completion through hydraulic fracturing and acidizing, and well cementing. In fact, the respective Western facilities are located near well fields to facilitate the efficient transportation of people, equipment and supplies from the facility to the well head.

Next, with respect to the EPA's recent Regulatory Determination, Western has carefully scrutinized the lists setting forth which

wastes are included in the exemption and which are not (see footnote 7). Using these lists, Western has tentatively determined whether the following wastes are subject to, or exempt from Subtitle C regulations. In addition to the type of waste, Western has included a description of how each waste is generated, and its determination and rationale as to whether the waste is exempt or non-exempt.

1. Acidic Wastewater

Well stimulation is the process of either acidizing or fracturing an oil or gas well to enhance production. Stimulation is performed by pumping specially prepared solutions of acid, water, chemicals and sand into a well to stimulate production by eliminating obstacles to the flow of oil and gas. These solutions are partially prepared at the Western facility by combining the respective ingredients in the 5,000 gallon tank of a tank truck. These solutions are further augmented by adding additional materials (such as chemicals, gels and sand) at the well site prior to pumping the solution into the well.

Back at the Western facility, acid is stored in a large, overhead tank before it is added to the water and chemical solution in the tank truck. The acid is transferred to the tank truck by gravity flow through a flexible hose, four inches in diameter. During transfer, small quantities of acid can spill from the hose or overflow from the tank truck. These spills do not result from carelessness or inattention but are a natural result of transferring large quantities of liquid into a tank truck. Any spilled solution is rinsed with fresh water onto a concrete containment slab which drains into a wastewater holding tank. This method is used throughout the industry.

Western classifies the wastewater in the holding tank, mentioned above, as "well stimulation fluids" because the sole purpose of preparing the solution is to stimulate or otherwise enhance the production of oil and gas. Thus, they would be exempt. Even though the wastes will not reach the well head, they are wastes strictly related to

production operations not wastes related to transportation and manufacturing operations.

Western recognizes that the EPA has indicated that "oil and gas service company wastes, such as...spilled chemicals, and waste acid" are not included in the oil and gas exemption (see footnote 8). Western would assert that "spilled chemicals and waste acids" not included in the exemption would pertain to spilled raw products and materials while spilled solutions contained in the wastewater holding tank would be exempt because once mixed, the well completion, stimulation and treatment process has begun. Further, RCRA waste classification is generally based on a wastes composition, characteristic, or the process by which it is generated, not on the geographic location where it is generated. Thus, the most sensible and meaningful interpretation of the category of "well completion, treatment and stimulation fluids" would include the wastes from this wastewater holding tank.

2. Field Waste Liquids

A tank truck carries the treatment and stimulation fluid solutions, prepared at the Western service facility, to the well site. Depending upon the stimulation function (either acidizing or fracturing) and particular service needs of the well, the stimulation fluid solution is then mixed in a blender truck with varying combinations of briny water (from other tanks at the well head or produced from the well), crude oil pumped from the well, sand, gel, and chemicals as part of the final solution being pumped into the well. For example, when a well's oil flow is inhibited by paraffin and wax buildup within the oil itself, chemicals are added to the stimulation fluid to dissolve these materials, thus enhancing flow.

A pump truck is used to transfer the final stimulation fluid solution from the blender truck into the well. After well stimulation is accomplished, some fluids remain in the tank, blender and pump trucks because it is technically impossible to purge all fluids from them. The trucks then return to the facility where these residual fluids are flushed from the interior portions of the trucks. The resulting field waste is a mixture of flush

water and the treatment or stimulation fluids used at the well head.

Western classifies this field waste as well treatment or stimulation fluids. The waste would, thus, be exempt. Whether these wastes are handled at the well head or the facility does not affect their composition or intended purpose and, therefore, should not affect their exempt status.

In reaching this conclusion, Western has considered and rejected the notion that these field wastes are included in the category of "unused fracturing fluids or acids" (see footnote 9). Western would interpret this category to include those raw products and materials (fluids, acids, chemical powders, chemical liquids) which, for whatever reason, were never prepared for transportation to or use at the well head.

3. Waste Cement

After a well hole is drilled, a casing pipe is inserted into the hole. Because the casing is smaller in diameter than the hole, there is a space between the hole and the casing throughout the length of the hole. This "annular space" must be filled and sealed with cement to prevent groundwater contamination.

The well is "cemented" using a mixture of dry cement, water, and special additives which are mixed at the well site and will vary in type and proportion for each well. Because the well operator can only estimate how much cement will be needed to fill the annular space, Western must mix and transport excess cement to well head to ensure that no shortages occur. Since the cement is specially blended for each well, the excess cannot be reused and is taken back to the facility for disposal.

Western classifies these wastes as exempt because they are (1) associated with measures to remove oil or natural gas from the ground; (2) intrinsic to the exploration for, or the development of, crude oil or natural gas; and (3) are substances which are injected into the ground to

facilitate the drilling operation or maintenance of a well see footnote 10).

4. Waste Lubricants, Hydraulic Fluids, Motor Oil and Paint

These wastes are generated as part of routine vehicle maintenance and repair of equipment failures.

Western classifies these wastes as "used hydraulic fuels," "painting wastes," and "used equipment lubrication oils." The wastes would, thus, be non-exempt.

5. Waste Solvents from Equipment Maintenance

These wastes are generated as a result of equipment parts cleaning.

Western would classify these wastes as "spent solvents" and, therefore, they are non-exempt.

6. Waste from Truck Cleaning Operations

Following each assignment, the truck exteriors are cleaned resulting in wastewater, oily wastes and solids.

Western would characterize these wastes as wastes from exterior truck cleaning operations and believes the wastes are nonexempt.

Western believes the interpretation of exempt and nonexempt as applied to the above waste streams to be consistent with the meaning and intent of the oil and gas waste exemption contained in the 1980 Amendments to RCRA (see footnote 11). In order to plan and implement proper management programs, it is important that Western know whether the EPA agrees. Western respectfully requests, therefore, that the EPA render an opinion in this regard.

Very truly yours,
Robert H. Lloyd

RHL:fh

cc w/enc: Mr. Lawrence Jensen

U.S. EPA, Region IV
U.S. EPA, Region VI
U.S. EPA, Region VII
U.S. EPA, Region VIII
Ms. Michelle McFaddin
Mr. Graham Adelman
Mr. Ron McKeel
Mr. Robert S. Kier

- 1 42 USC 56921(B)(2)(A).
- 2 See 53 Fed. Reg. 25446.
- 3 TEX. REV. CIV. STAT. ANN. art. 4477-7, §1(13), 3(b)
(Vernon Supp. 1988).
- 4 A copy of this determination is attached.
- 5 42 USC §6921(B)(2)(A).
- 6 EPA "Report to Congress, Management of Wastes from the
Exploration, Development and Production of Crude Oil,
Natural Gas, and Geothermal Energy," December, 1987, p.
6.
- 7 53 Fed. Reg. 25453-54.
- 8 53 Fed. Reg. 25454.
- 9 53 Fed. Reg. 25454.
- 10 See EPA "Report to Congress, Management of Wastes from
the Exploration, Development, and Production of Crude
Oil, Natural Gas, and Geothermal Energy," December, 1987,
p. 7.
- 11 42 USC §6921(B)(2)(A).

Enclosure

Oklahoma State Department of Health
1000 Northeast 10th Street
P.O. Box 53551
Oklahoma City, Oklahoma 73152

September 28, 1981

Mr. Vernon Sorgee
The Western Company of North America
P.O. Box 186
Fort Worth, Texas 76101

Dear Mr. Sorgee:

The purpose of this letter is to confirm the interpretation by the Oklahoma Corporation Commission of the State and Federal regulations regarding oil field service facilities (Tim Baker to Vernon Sorgee, September 22, 1981). The interpretation at this time is that such facilities are regulated by the Corporation omission and are exempted from the requirements of the Resource Conservation and Recovery Act (40 CFR part 261.4, paragraph b5, May 19, 1980) and the Oklahoma Controlled Industrial Waste Disposal Act (63 O.S.Supp. 1979, Sec. 2756, paragraph 2).

This interpretation is based upon on-site inspection and the regulatory history of the Western Company Yukon facility. Although each Western Company facility will be evaluated separately, it appears at this time that similar jurisdictional interpretation will be applied to all Oklahoma sites.

Thank you for your attention to regulatory compliance. If you have further questions, please contact me at (405) 271-5338.

Very truly yours,
Donald A. Hensch, P.E.
Director, Industrial Waste Division

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