The Resource Conservation & Recovery Act established the hazardous waste regulatory program. However, certain wastes were accorded “special study waste” classification. Oil and gas exploration and production wastes are among these special wastes. As such, oil and gas exploration and production waste is exempt from RCRA hazardous waste requirements. Although the E&P Exemption is a statutory creature, EPA retains the right to terminate the exemption.

The Oil and Gas Exploration and Production Exemption (“E&P Exemption”) has become a major issue in hazardous waste and solid waste regulatory affairs. Congress has afforded the oil and gas exploration and production industry an exemption from RCRA hazardous waste requirements.

3.1 The History of the E&P Exemption.

Policy considerations played an important role in the development of the E&P Exemption. A historical understanding of the exemption is crucial.

In 1978 EPA first proposed its hazardous waste regulations.1 These regulations contained an exemption for the E&P industry even before the statutory exemption was enacted.2 The special wastes listed by EPA in 1978 included those wastes produced in large volume and believed at that time to be of lower toxicity than other wastes regulated under RCRA.3 The exemption was codified in the 1980 amendments to RCRA.4 The E&P Exemption now is a statutory creature, derived from 42 U.S.C. Section 6921(b)(2)(A) (1980):

Notwithstanding the provisions of paragraph (1) of this subsection, drilling fluids, produced waters, and other wastes associated with the exploration, development or production of crude oil or natural gas or geothermal energy shall be subject only to existing state or Federal regulatory programs in lieu of this subchapter until at least 24 months after October 2, 1980.

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The regulations clarified the E&P exemption. By regulatory definition EPA exempted:

- drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.\(^5\)

The legislative history defined the notion of “other wastes,” stating:

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 facilities as:
- hydrocarbon bearing soils 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.

It becomes readily apparent that the phrase “intrinsically derived from primary field operations” is pivotal to the exemption. Congress explained this phrase as:

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.\(^6\)

Thus, the early history of the E&P Exemption indicates that drilling fluids, produced fluids, and associated wastes were to be exempt from regulation under RCRA. The test for associated wastes was whether the materials were derived from primary field operations.

### 3.2 The Report to Congress

Congress directed EPA to conduct a study to determine whether or not to issue regulations for the materials covered by the E&P Exemption. Congress instructed EPA to send its decision on whether to regulate along with any regulations to both houses of Congress. The first, and most important document submitted by EPA, was the Report to Congress entitled “Management of Waste from Exploration, Development and Production of Crude Oil, Natural Gas, and Geothermal Energy.”\(^7\) No study of the E&P Exemption is complete without a review of this report. The EPA classified E&P Waste as “special waste” in the Report to Congress:

Oil and gas wastes fall within a general category of wastes that RCRA regards as “special” because of some RCRA

\(^5\) 40 C.F.R. §261.4(6).
\(^6\) Report to Congress at 6.
regulatory requirements technically infeasible or impractical, and because of their relatively low level of apparent environmental hazard (based on data available in 1980).  

It is a central concern in regulating the oil and gas industry that the industry itself is extremely large, varied and disbursed over vast areas, many of which are unpopulated. For example, at the time of the Report to Congress, there were more than 840,000 producing wells in 38 states. Almost 70% of these wells were stripper wells, capable of producing only 10 barrels of oil per day or less. Thus, controlled waste management techniques, established by a nationwide regulatory program, would be very difficult for the oil and gas industry. The sheer cost of RCRA hazardous waste compliance could cause the stripper wells to be plugged and abandoned. EPA and Congress both believed that special treatment of the oil and gas industry was justified. The Report to Congress enumerated the materials defining the E&P Exemption in Tables 3-1 and 3-2.

<table>
<thead>
<tr>
<th>Table 3-1 Report to Congress: Exempt Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DRILL CUTTINGS</strong></td>
</tr>
<tr>
<td><strong>BASIC SEDIMENT &amp; WATER AND OTHER TANK BOTTOMS FROM STORAGE FACILITIES AND SEPARATORS</strong></td>
</tr>
<tr>
<td><strong>APPROPRIATE FLUIDS INJECTED DOWNHOLE FOR SECONDARY AND TERTIARY RECOVERY OPERATIONS</strong></td>
</tr>
<tr>
<td><strong>DRILLING FLUIDS</strong></td>
</tr>
<tr>
<td><strong>PRODUCED WATER</strong></td>
</tr>
<tr>
<td><strong>LIQUID HYDROCARBONS REMOVED FROM THE PRODUCTION STREAM BUT NOT FROM OIL RECYCLING</strong></td>
</tr>
<tr>
<td><strong>WELL COMPLETION, TREATMENT, AND STIMULATION FLUIDS</strong></td>
</tr>
<tr>
<td><strong>SAND, HYDROCARBON SOLIDS, AND OTHER DEPOSITS REMOVED FROM PRODUCTION WELLS</strong></td>
</tr>
<tr>
<td><strong>PIPE SCALE, HYDROCARBON SOLIDS, HYDRATES, AND OTHER DEPOSITS REMOVED FROM PIPING AND EQUIPMENT</strong></td>
</tr>
<tr>
<td><strong>HYDROCARBON BEARING SOIL</strong></td>
</tr>
<tr>
<td><strong>PIGGING WASTES FROM GATHERING LINES</strong></td>
</tr>
<tr>
<td><strong>WASTES FROM SUBSURFACE GAS STORAGE AND RETRIEVAL</strong></td>
</tr>
<tr>
<td><strong>CONSTITUENTS REMOVED FROM PRODUCED WATER BEFORE IT IS INJECTED OR OTHERWISE DISPOSED OF</strong></td>
</tr>
<tr>
<td><strong>ACCUMULATED MATERIALS (SUCH AS HYDROCARBONS, SOLIDS, SAND, AND EMULSION) FROM PRODUCTION SEPARATORS, FLUID TREATING VESSELS, AND PRODUCTION IMPOUNDMENTS THAT ARE NOT MIXED WITH SEPARATION OR TREATMENT MEDIA</strong></td>
</tr>
<tr>
<td><strong>DRILLING MUDS FROM OFFSHORE OPERATIONS</strong></td>
</tr>
</tbody>
</table>

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8 Report to Congress, Ex. Sum. at 2.
9 Report to Congress, Ex. Sum. at 4-5.
Table 3-1  **Report to Congress: Exempt Wastes**

<table>
<thead>
<tr>
<th>Exempt Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>GASES REMOVED FROM THE PRODUCTION STREAM, SUCH AS HYDROGEN SULFIDE,</td>
</tr>
<tr>
<td>CARBON DIOXIDE, AND VOLATILIZED HYDROCARBONS</td>
</tr>
<tr>
<td>MATERIALS EJECTED FROM A PRODUCTION WELL DURING WELL BLOWDOWN</td>
</tr>
<tr>
<td>WASTE CRUDE OIL FROM PRIMARY FIELD OPERATIONS</td>
</tr>
<tr>
<td>LIGHT ORGANICS VOLATILIZED FROM RECOVERED HYDROCARBONS OR FROM SOLVENTS OR</td>
</tr>
<tr>
<td>OTHER CHEMICALS USED FOR CLEANING, FRACTURING, OR WELL COMPLETION</td>
</tr>
</tbody>
</table>

Table 3-2. **Report to Congress: Nonexempt Waste**

<table>
<thead>
<tr>
<th>Nonexempt Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASTE LUBRICANTS, HYDRAULIC FLUIDS, MOTOR OIL, and PAINT</td>
</tr>
<tr>
<td>WASTE SOLVENTS FROM CLEANUP OPERATIONS</td>
</tr>
<tr>
<td>OFF-SPECIFICATION AND UNUSED MATERIALS INTENDED FOR DISPOSAL</td>
</tr>
<tr>
<td>INCINERATOR ASH</td>
</tr>
<tr>
<td>PIGGING WASTES FROM TRANSPORTATION PIPELINES</td>
</tr>
<tr>
<td>SANITARY WASTES</td>
</tr>
<tr>
<td>TRASH</td>
</tr>
<tr>
<td>GRAY WATER</td>
</tr>
<tr>
<td>DRUMS -(FILLED, PARTIALLY FILLED, OR CLEANED) WHOSE CONTENTS ARE NOT INTENDED</td>
</tr>
<tr>
<td>FOR USE</td>
</tr>
<tr>
<td>GASES, SUCH AS SOX, NOX, AND PARTICULATES FROM GAS TURBINES</td>
</tr>
<tr>
<td>OTHER MACHINERY WASTE</td>
</tr>
<tr>
<td>IRON SPONGE</td>
</tr>
<tr>
<td>GLYCOL</td>
</tr>
<tr>
<td>OTHER SEPARATION MEDIA</td>
</tr>
<tr>
<td>FILTERS</td>
</tr>
<tr>
<td>SPENT CATALYSTS</td>
</tr>
<tr>
<td>WASTES FROM TRUCK AND DRUM-CLEANING OPERATIONS</td>
</tr>
<tr>
<td>WASTE SOLVENTS FROM EQUIPMENT MAINTENANCESPIPPLES FROM</td>
</tr>
<tr>
<td>PIPELINES OR OTHER TRANSPORT METHODS</td>
</tr>
</tbody>
</table>

The Report to Congress was more abstract than the regulations, establishing
parameters for the application of the E&P Exemption. In the report to Congress, EPA
described how to identify exempt waste under the exemption:

Exempt waste must be associated with measures (1) to
locate oil or gas deposits, (2) to remove oil or natural gas
from the ground, or (3) to remove impurities from such
substances, provided the purification process is an integral
part of primary field operations.\[11\]

Most of the debates focus on the terms “associated waste” and “primary field
operations.” EPA told Congress:

With respect to oil production, primary field operations
encompass those activities usually occurring at or near the
wellhead, but prior to the transfer of oil from an individual
field facility or a centrally located facility to a carrier (i.e.,
pipeline or trucking company) for transport to a refinery or
to a refiner.\[12\]

Thus, the critical question for determining whether an activity is a primary
field operation is whether it occurs upstream of delivery to a carrier for transport to a
refiner. The activity need not be directly on site. It simply needs to be near the production
site.

The conclusion by EPA in its Report to Congress was not to regulate E&P
exempt materials under RCRA. Rather, EPA would regulate the material as special or
solid waste materials.

### 3.3 The Regulatory Determination

On July 8, 1988, EPA promulgated its Regulatory Determination.\[13\] EPA
provided two lists in the regulatory determination, one for those materials covered by the
exemption, and the other for oil and gas exploration and production of waste materials
which were not subject to the exemption. Those materials not subject to the exemption
would be subject to waste characterization to determine whether they are hazardous
waste. The Regulatory Determination identified the following materials as exempt and
nonexempt under the E&P Exemption.

<table>
<thead>
<tr>
<th>Table 3-3</th>
<th>E&amp;P Waste Exempt Under the Regulatory Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCED WATER</td>
<td></td>
</tr>
<tr>
<td>DRILLING FLUIDS</td>
<td></td>
</tr>
<tr>
<td>DRILLING CUTTINGS</td>
<td></td>
</tr>
<tr>
<td>RIG WASH</td>
<td></td>
</tr>
<tr>
<td>DRILLING FLUIDS AND CUTTINGS FROM OFFSHORE OPERATIONS DISPOSED OF ONSHORE WELL</td>
<td></td>
</tr>
<tr>
<td>COMPLETION, TREATMENT AND STIMULATION FLUIDS</td>
<td></td>
</tr>
</tbody>
</table>

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11 Report to Congress, Ex. Sum. at 7.
### Table 3-3  E&P Waste Exempt Under the Regulatory Determination

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIC SEDIMENT AND WATER AND OTHER TANK BOTTOMS FROM STORAGE FACILITIES ACCUMULATED MATERIALS TREATING VESSELS AND PRODUCTION IMPOUNDMENTS SUCH AS HYDROCARBONS, SOILS AND EMULSION FROM PRODUCTION SEPARATORS, FLUIDS</td>
</tr>
<tr>
<td>PIT DIRTS AND CONTAMINATED BOTTOMS FROM STORAGE OR DISPOSAL OF EXEMPT WASTE</td>
</tr>
<tr>
<td>WORKOVER WASTE</td>
</tr>
<tr>
<td>GAS PLANT DEHYDRATION WASTE, INCLUDING GLYCOL BASED COMPOUNDS, GLYCOL FILTERS AND FILTER MEDIA, BACKWASH AND BLANK SIEVES, GAS PLANT SWEETENING WASTE FOR SULPHUR REMOVAL, AMINE FILTERS, AMINE FILTER MEDIA, BACKWASH PRECIPITATED AMINE FILTERS, AMINE FILTER MEDIA, BACKWASH AND BLANK SIEVES, GAS PLANT SWEETENING WASTE FOR SULPHUR REMOVAL, AMINE FILTERS, AMINE FILTER MEDIA, BACKWASH PRECIPITATED AMINE FILTERS, AMINE FILTER MEDIA, BACKWASH PRECIPITATED AMINE SLUDGE, IRON SPONGE,14 AND HYDROGEN SULFIDE SCRUBBER LIQUID AND SLUDGE,15 COOLING TOWER BLOWDOWN SPENT FILTERS, FILTER MEDIA AND BACKWASH (ASSUMING THE FILTER ITSELF IS NOT HAZARDOUS AND THE RESIDUE IN IT IS FROM AN EXEMPT STRING)</td>
</tr>
<tr>
<td>PACKING FLUIDS PRODUCED FLUIDS</td>
</tr>
<tr>
<td>PIPE SCALE</td>
</tr>
<tr>
<td>HYDROCARBON SOLIDS, HYDRATES AND OTHER DEPOSITS REMOVED FROM PIPING AND EQUIPMENT PRIOR TO TRANSPORTATION</td>
</tr>
<tr>
<td>GATHERING LINES WASTE AND SUBSURFACE GAS STORAGE AND RETRIEVAL EXCEPT FOR THE LISTED</td>
</tr>
<tr>
<td>NON-EXEMPT WASTE CONSTITUENTS REMOVED FROM PRODUCED WATER BEFORE IT IS INJECTED OR OTHERWISE DISPOSED OF LIQUID HYDROCARBONS REMOVED FROM THE PRODUCTION STREAM BUT NOT FROM OIL REFINING</td>
</tr>
<tr>
<td>HYDROCARBON BEARING SOIL</td>
</tr>
<tr>
<td>GASES REMOVED FOR THE PRODUCTION STREAM, SUCH AS HYDROGEN SULFIDE AND CARBON DIOXIDE AND VOLATILE HYDROCARBONS</td>
</tr>
<tr>
<td>MATERIALS EJECTED FROM A PRODUCING WELL DURING THE PROCESS KNOWN AS BLOWDOWN</td>
</tr>
<tr>
<td>WASTE CRUDE OIL FROM PRIMARY FIELD OPERATIONS AND PRODUCTION AND ORGANIC VOLATILES FROM EXEMPT WASTE IN RESERVE PITS OR IMPOUNDMENTS OR PRODUCTION EQUIPMENT.16</td>
</tr>
</tbody>
</table>

### Table 3-4. Non-exempt E&P Waste Under the Regulatory Determination

14 Originally iron sponge was considered nonexempt. *Memorandum, “Scope of Oil and Gas Waste Exemption in Section 3001(b) (2) (A) of RCRA: ‘Iron Sponge’ Process,”* from Lisa K. Friedman, Acting Associate General Counsel Solid Waste & Emergency Response Division to Richard J. Nolan, Region VIII, OSWER # 9441.03 (May 25, 1983).  
15 “The scrubber wastes are not covered by the exclusion (sic) because these wastes result not from the physical extraction of the geothermal energy, but from a separate manufacturing process downstream from the production operations.” *Memorandum, “RCRA Exclusions Under Section 3001(b) (2) (A) of RCRA as Applied to Hydrogen Sulfide Scrubber Wastes from Geothermal Power Plants,”* from Marcia Williams, Director Office of Solid Waste to Harry Seraydarian, Director Toxics and Waste Management Division (Region IX), OSWER Directive # 9441.50-1A (November 20, 1985).  
16 Regulatory Determination at 25454.
Most state agencies ignored the Regulatory Determination for a long time. Each state took its own view as to what was and was not exempt, often resulting in a discrepancy between federal and state regulation of oil and gas wastes. This was the case

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17 Memorandum, “Subtitle C Exclusion of Drilling Fluids and Produced Waters,” from John H. Skinner, Director Office of Solid Waste to Kenneth D. Feigner, Chief, Waste Management Branch Region X, OSWER # 9441.02 (April 19, 1983). This opinion also covered pesticide wastes and discarded commercial chemical products that are not uniquely associated with E&P operations.
in Texas. The Railroad Commission of Texas responded to the exempt/nonexempt list in the Report to Congress by writing EPA a protest:

In Texas, the wastes exempt from regulation under the state hazardous waste management program include all wastes generated in connection with primary field operations, including various wastes EPA has tentatively identified as non-exempt, such as rig wash, solvents and Tube oils.18

In making this assertion, the Railroad Commission explained:

The wastes generated in connection with primary oil and gas field operations include some wastes tentatively identified in the report as being nonexempt, e.g., solvents used to clean field equipment and separation media. These wastes are commonly mixed with drilling muds and other exempt wastes, because all the wastes are derived from the same operations.... The contents of the reserve pit should not be identified as nonexempt as a result of this common practice, especially considering that the reserve pit -wastes exemplify the type of wastes that Congress intended to exempt.19

Indeed, there was historical support for the Railroad Commission’s stance. On December 1, 1987, the Railroad Commission, Texas Water Commission, and the Texas Department of Health entered into a Memorandum of Understanding (MOU) to delineate their respective waste management jurisdictions. A copy of the MOU appears as Appendix 3-1. The MOU, executed well after the effective date of RCRA and the adoption of the Texas hazardous waste program, acknowledged the Railroad Commission’s jurisdiction over used oil, trash, barrels, dope cans, and garbage. The MOU also recognized the Railroad Commission’s jurisdiction over treating and cleaning chemical wastes, all filters, and crude oil pipeline spills. Notwithstanding the clear discrepancy between the December 1987 MOU and the December 1987 Report to Congress, the MOU manifested the standard applied by EPA in the Report to Congress for determining applicability of the E&P Exemption:

The Railroad Commission has jurisdiction over the transportation of crude oil prior to the refining of the oil.20

These communications and the MOU clearly evidence that the states continued to assert primary jurisdiction over determining applicability of the E&P Exemption. It appears that the states ceded only the right of EPA to establish the formula to be applied by the states in determining the exempt nature of E&P Wastes.

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19 Railroad Commission Comments at 8-9.
20 MOU at 16.
On September 25, 1990, the Toxicity Characteristic Leaching Potential Test (“TCLP”) replaced the EP Toxicity test for hazardous waste characterization. In addition to changes on the acid extraction procedures, the TCLP was designed to include organic constituents for testing. In particular, benzene became subject to the toxicity characteristic for determining whether a material is a hazardous waste. Benzene is a natural constituent of crude oil. For the first time, the E&P exemption was truly an administrative exemption, easily eliminated by a change in agency policy. But for the exemption, the oil and gas E&P waste would be subject to the TCLP test. Of course, this does not mean that E&P waste is a hazardous waste. It only means that the material, if not exempt, would be subject to testing to determine if it met the hazardous waste criteria of sufficient benzene concentrations.

With the advent of the TCLP test, greater environmental attention was focused on E&P waste. EPA found it necessary to police the Regulatory Determination. As a result, industry and regulators alike for the first time seriously studied the language of the Report to Congress and of the Regulatory Determination.

3.3.1 The Subtitle D Approach
The Regulatory Determination indicated EPA’s intent to develop a new Subtitle D for the regulation of E&P Waste. EPA proposed these alternatives for the regulation of E&P Waste:

- Engineering and operating practices, including run-off controls, to minimize releases to surface water and groundwater;
- Proper procedures for closing facilities;
- Monitoring that accommodates site-specific variability; and
- Cleanup provisions.

The EPA efforts are concentrating on the development of technical information and on the performance of state oil and gas regulatory programs. However, the various states are tightening their programs by closely adhering to the recommendations in the Regulatory Determination and the IOCC Report.

3.3.2 Commercial Facilities
EPA believes that commercial facilities pose the greatest risk if not properly managed:

EPA is particularly concerned about centralized and commercial facilities that treat, store, or dispose of oil field wastes in concentrated form. Pits or impoundments at these facilities often contain hazardous constituents in high concentrations. In addition, centralized facilities are

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21 F.R.
22 For a very good discussion of the intricacies of the TCLP and the oil and gas industry, secure a copy of API, Applying the Revised Toxicity Characteristic to the Petroleum Industry.
23 Regulatory Determination at 25457.
24 Regulatory Determination at 25457.
responsible for some of the most significant damages the Agency documented.”25

While this analysis may sound foreboding for commercial and centralized facilities, the overall text of both the Report to Congress and the Regulatory Determination point toward more centralized control over waste management operations. While centralized and commercial facilities may have been “bad actors” in the past, newer facilities are fully capable of satisfying the compliance requirements.

3.4 The Waste Crude Oil Reclaimers’ Decision

As a result of the TCLP test, a small oil and gas related industry confronted extinction in 1990. The waste crude oil industry virtually was shut down for almost a year pending EPA review of the E&P Exemption.

When oil is produced, there is always dirt, sand, formation fluids and materials mixed with the crude oil. A pipeline can accept only 98% or better crude oil. The producer stores the oil in storage tanks at the wellsite. An oil transporter then picks up the oil for delivery to a pipeline. While the oil is stored in the tanks, the solids (i.e., the sand, dirt, formation materials) settle to the bottom of the tank. Over time, the oil and gas producer must clean these settled materials out of the tank, because they consume valuable tank storage space. These settled materials are known as “production tank bottoms,” which are exempt under the Regulatory Determination. Because these production tank bottoms are mixed with some crude oil from the storage tanks, they are called waste crude oil tank bottoms. The term “waste crude oil” means a mixture of crude oil and production bottoms.

A waste crude oil reclaimer takes the waste crude oil tank bottoms and conducts further separation activities to yield pipeline grade crude oil. Depending upon the percentage of crude oil to waste in the bottoms, the reclaimer pays the oil and gas producer $2.00 or more per barrel of waste crude oil tank bottoms.

The reclaimer off-loads the waste crude oil tank bottoms into a field storage tank, where he administers heat and demulsifying agents identical to those used at the production wellhead tanks. The waste crude oil separates into marketable grade crude oil and basic sediment and water (BS&W).26 The reclaimer then sells the crude oil to refiners, disposes of the wastewater into Class II injection wells and/or state permitted facilities, and disposes of the tank bottoms in permitted landfills. Part of the reclaimer waste is the BS&W which settles to the bottom of the waste crude oil reclaiming tank. This material constitutes a new form of tank bottom, known as the “waste crude oil reclaiming tank bottom.”

Under the Regulatory Determination, waste crude oil reclaimer wastes were nonexempt. However, the reclaimers were not concerned because their wastes were not hazardous waste. The TCLP test elevated the reclaimers’ concern with the addition of benzene as part of the group of substances for testing. This created a problem for the reclaimers because their feedstock material (production tank bottoms) varied in crude oil and benzene components. The degree of benzene depended upon the wellfield

25 Regulatory Determination at 25457.
26 Basic sediment and water means wastewater storage tank bottoms and settled material.
conditions, as well as drilling and completion procedures. The reclaimers were unwilling to rely upon waste characterization for benzene by process knowledge, as they were unable to predict with reliability the level of potentially regulated components in the waste crude oil tank bottoms. At a testing cost of about $1,500.00, the reclaimers could not afford the TCLP test with every batch they processed. Indeed, most of the reclaimers had shuttered their doors pending the EPA request.

The waste crude oil reclaimers submitted to EPA their request on September 18, 1990. The reclaimers’ request advanced three arguments for clarifying the E&P Exemption: (1) waste crude oil reclaiming was a primary field operation; (2) the cost of RCRA compliance would destroy the industry; and (3) waste crude oil reclaiming was a viable form of waste minimization.

3.4.1 The Cost of Compliance Argument

The reclaimers first detailed the cost of compliance argument. The reclaimers paid the oil producers $2.00 or more per barrel for the waste crude oil. If the price of oil were $20.00 per barrel and the reclaimer secured 1/4 barrel of oil out of a barrel of waste crude oil, then the reclaimer would gross $3.00. From that $3.00 gross income, the reclaimer would have to pay for operating costs and waste disposal costs.

The reclaimers detailed the anticipated RCRA/TCLP compliance costs at $550.00 per barrel of waste crude oil tank bottoms and fluids. On average, every four barrels of waste crude oil delivered by the oil producers yielded one barrel of waste crude oil tank bottoms. Hence, the reclaimer, instead of paying the oil producer $2.00 for a drum of waste crude oil, would now have to charge $137.50 per waste crude oil barrel just to cover the cost of tank bottom disposal. There was little doubt that the oil producers would simply dispose on site rather than pay the reclaimers $137.50 per barrel disposal costs. As a result, the waste crude oil industry would cease to exist.

3.4.2 Waste Minimization Would Be Frustrated

The reclaimers called attention to Congress’s statement that significant savings could be realized by reclaiming materials in order to reduce the volume or quantity of material which ultimately becomes waste. They also quoted EPA’s policy placing highest priority on source reduction and reclaiming wastes in a manner beneficial to society:

A reduction in the amount of waste which must be managed (i.e., by source reduction and recycling) provides direct benefits related to protecting human health and the environment from the mismanagement of hazardous wastes.

Shutting down the waste crude oil reclaiming industry due to the new TCLP requirements, would frustrate waste minimization efforts. The material would be buried on-site.

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3.4.3 The Reclaimers Are Primary Field Operations

The reclaimers pointed out that the real issue was whether waste crude oil reclaiming constituted a primary field operation, quoting the Report to Congress language that described how to identify exempt wastes:

Exempt wastes must be associated with measures (1) to locate oil or gas deposit, (2) to remove oil or natural gas from the ground, or (3) to remove impurities from such substances, provided the purification process is an integral part of primary field operations.

Based upon the foregoing language, the critical issue was whether the industry was a primary field operation.

The reclaimers expressed doubt as to whether EPA had considered the impact the TCLP rule would have on their industry. The waste crude oil reclaiming industry did not appear in the list of SIC codexs mentioned.²⁹ At the meeting in Washington, D.C., EPA acknowledged that it had used the API redbook in writing the Regulatory Determination. Since the reclaiming industry was not in the Redbook, EPA assumed it was not a primary field operation.

The reclaimers explained that their facilities were in the oilfields and operated as centralized reclaiming facilities. The reclaimers pointed out that their operations were upstream of delivery of materials to a transporter for carriage to a refiner, the cut off point of the E&P Exemption. The oil producers would send the waste crude oil to the reclaimers. The reclaimers would separate the material, and then send it to a refiner.

In rendering its decision, EPA stated:

The Agency realizes the significant role that waste crude oil reclaimers can play in contributing to its waste minimization policy and goals. Our upcoming interpretive notice will allow us to avoid the inequities that would be imposed if we were to classify wastes that are exempt at primary field operations as nonexempt when generated off-site by commercial reclaimers.³⁰

EPA explained the scope of its decision:

Generally, those wastes that are derived from the processing by reclaimers of only exempt wastes from primary oil and gas field operations are also exempt from the requirements of Subtitle C. For example, wastes generated from the process of recovering crude oil from tank bottoms obtained from product storage facilities at primary field operations are exempt from Subtitle C because the product storage tank bottoms are exempt. This is based largely on the long held principle that, generally, wastes derived from exempt wastes remain exempt.³¹

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³¹ Waste Crude Decision.
The reclaimers were successful in demonstrating that the industry was a primary field operation.

3.5 Problems in Applying the E&P Exemption

As enforcement of the E&P Exemption increases, the EPA is seeing more problems with the E&P exempt criteria discussed in this work. The E&P Exemption is rather arbitrary in that a material can be exempt at one stage, but the very same material is nonexempt one step further. Of course, being nonexempt does not mean the material is a hazardous waste. It only means that the material is subject to waste characterization.

Nevertheless, applying the waste characterization requirement to certain aspects of the industry can either cause industry instability or retard remediation activities. Neither is good for the country.

3.5.1 Crude Oil Pipeline Spills

On May 21, 1991, EPA issued a memorandum holding that crude oil pipeline spills were subject to the TCLP testing requirement. A copy of the memorandum appears as Appendix 3-4. The memorandum guidance is significant because it originally was addressed to Mike Fitzpatrick, author of the E&P exemption. The question was whether snow-melt contaminated with crude oil pipeline leak materials was within the E&P exemption. The memorandum stated:

[W]e believe that the contaminated snow-melt is not covered by the oil and gas exemption under RCRA and must be handled under the provisions of RCRA Subtitle C if it exhibits one or more of the hazardous characteristics.

Thus, neither EPA nor the states can authorize the disposal of hazardous wastes in a Class II well even though the waste was an authorized Class II fluid prior to the change in the RCRA toxicity characteristic.

The Railroad Commission of Texas, along with that several other producing states, responded to this memorandum by requesting EPA defer application of the TCLP to crude oil pipeline spills. The reasons were: (1) permitting requirements might delay remedial response measures; (2) a high volume waste problem for the contaminated soils might develop; (3) under present regulatory practices, the contaminated soils are decontaminated or otherwise managed in a way that is not injurious to the health or environment; (4) applying the TCLP test to these spills would increase the cost of spill response and transportation; and (5) there is insufficient capacity for handling of the waste under the TCLP test. The states participating in the request have encouraged EPA to apply with consistency the analysis used in suspending TCLP applicability to UST cleanups.

32 EPA Memorandum, from Sylvia K. Lowrance, Director, Office of Solid Waste, to Max H. Dodson, Director, Water Management Division, Region 8 (May 21, 1991) (Pipeline Memorandum).
The very same crude oil, spilled from a gathering line, would be exempt due to the cut off point of the RCRA E&P Exemption. The existence of a regulatory program to oversee cleanup is not at issue, as each state has an effective program. Aside from increasing the cost of cleanup, a major factor is the ability to respond promptly. If the material is nonexempt and tests as TCLP hazardous, then RCRA hazardous waste permitting will be required. This process can take months, if not years. In the meantime, the crude oil remains on the ground. Although this argument could be used to support the deregulation of any industry, it is particularly applicable to the oil and gas industry. This industry is national in scope, but individual facilities are generally small installations such as 12” pipeline or an oil well. The burden of permitting every spill from these small installations before undertaking remediation would be prohibitive. Consequently, the Railroad Commission of Texas and other producing states believe that the state agencies are best suited to require and supervise prompt and environmentally safe response to spills.

3.5.2 Transportation Bottoms

A classic example of the fine line between exempt and nonexempt activities involves the storage of crude oil by transportors before moving it to a refiner. The solids that settle from the storage tank bottoms identical to production tank bottoms, which are exempt under the E&P Exemption. However, if the producer owned the tanks, the storage would be exempt. The solids that settle from the storage form tank bottoms identical to production tank bottoms, which are exempt under the E&P Exemption. Although it is true that a line must be drawn or the result would be continual claims for expansion of the E&P Exemption, better formulas are possible.

In an early OSWER Directive, the issue was whether iron sponge was exempt. In analyzing this directive, two caveats should be noted. First, the Directive subsequently was reversed on technical grounds. Second, the author was under a wrong perception of the scope of associated wastes under the Report to Congress. The author of the directive felt that the Report to Congress did not enumerate any types of associated wastes, yet Table 3-1 demonstrates that conclusion to be in error. Nevertheless, the concept that scientific achievement often results from simple mistakes can prove true with this OSWER Directive. The Directive observed about the Report to Congress:

The only wastes specifically listed in the statute are “drilling fluids” and “produced water.” These are substances that were originally extracted from the ground together with the desired oil or gas or that were injected into the ground to enhance extraction of the oil or gas. They do not result from any process other than physical separation from the product.34

It was mere physical separation from the product that was important to the General Counsel, and it was used as an artful tool in applying the E&P Exemption:

33 Memorandum, “Scope of Oil and Gas Waste Exemption in §3001(b) (2) (A) of RCRA: ‘Iron Sponge’ Process, from Lisa K. Friedman, Acting Associate General Counsel, Solid Waste and Emergency Response Division to Richard J. Nolan, Regional Counsel Region VIII, OSWER # 9441.03 (May 26, 1983). The decision in this directive was later changed on technical grounds.

34 OSWER 9441.03 at 5.
It is therefore reasonable to conclude that “other wastes” should similarly be materials extracted from the ground or injected into the ground to enhance oil or gas recovery and not wastes resulting from subsequent processing and manufacturing.\(^3\)\(^5\)

The conclusion that associated wastes include only materials produced from the ground is quite incorrect. Yet, the logic that materials resulting from mere separation of produced materials is astute. Adding this to the criteria for determining primary field operations would yield the following standards:

1. Does the activity take place before transfer of custody of the product? If yes, it is exempt. If no, proceed to question 2;

2. Does the activity take place before delivery of the material to a transporter for carriage to a refiner? If yes, it is exempt. If no, proceed to question 3; and

3. Does the material result from separation activities similar to those in field production tanks? If yes, it is exempt. If no, it is not exempt, or should be subjected to further criteria.

The foregoing analysis would provide logic, consistency, and practicality to the E&P Exemption. It is likely that further study would yield even better tests.

3.5.3 RCRA Imminent Hazard

Some regions have discovered that the RCRA imminent hazard provision can be an offensive tool to require response to E&P Waste which otherwise would be excluded from CERCLA coverage by the Petroleum Exclusion. The act provides:

[U]pon receipt of evidence that the handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, the Administrator may bring suit on behalf of the United States ... to immediately restrain any person contributing to such handling, storage, treatment, transportation, or disposal, or to take such other action as may be necessary.\(^3\)\(^6\)

EPA has been using this provision to enforce against E&P Waste activities on occasion. If a special waste is a solid waste, then the provision would apply on the specified activities.

The first issue is whether the handling, storage, treatment, transportation or disposal must relate directly to the imminent and substantial endangerment. It has been

\(^{35}\) OSWER 9441.03 at 5.

held that a “substantial endangerment” is one which presents a teratogenic, mutagenic, fetotoxic, or carcinogenic risk. However, merely because a substantial endangerment is presented does not allow enforcement under the imminent hazard provision. There also must be an imminent hazard. Where the responsible party had entered into a remediation agreement, at least one court has held that no imminent hazard can be presented so long as the responsible party responds within a reasonable time.38

In one case, the government alleged an imminent and substantial endangerment, but was not able to secure an injunction because it did not allege that the defendants were engaged in the handling, storage, treatment, transport or disposal of the waste at issue.39 This decision is sound, as the handling, storage, treatment, transportation or disposal of the waste is a predicate to application of the imminent hazard provision.

This decision becomes important when evaluating the conduct of handling, storage, treatment, transportation, or disposal. It is significant that this schedule of activities does not include generation of waste. Consequently, a mere generator should not be subjected to imminent hazard cleanup responsibilities.

In the E&P Waste context, it is questionable whether waste crude oil tank bottom producers handled, stored, treated, transported, or disposed of the reclaimer bottoms. The waste crude oil is sold to the reclaimers. The reclaimers conduct further separation activities under the E&P Exemption, yielding pipeline grade crude oil. Although the waste crude oil tank bottoms are exempt, improper management practices may lead to a problem. Should EPA try to assert liability against the waste crude oil tank bottom producers, it is questionable as to whether they handled, stored, treated, transported, or disposed of the material causing the problem (reclaimer bottoms – as opposed to production bottoms). At the time the producers sold the waste crude oil tank bottoms, they were feedstock material for the reclaimers with useful purpose. Consequently, should EPA assert liability of the waste crude oil tank bottoms producers, it is agreeable as to whether the RCRA imminent hazard provision could be applied due to the prerequisite that the producers store, handle or treat the waste.

3.6 Summary

The E&P Exemption is a legitimate exemption under RCRA. It fosters early response to spills, deals with the problems of an industry composed of small installations sprawled over the country, and allows the most knowledgeable regulators to drive the programs. The E&P Exemption needs further refinement to allow practical and consistent application of the provision.