

requirements, and the focus has been on gaps in state, not federal regulations, through the state peer review process. This process has already been supplemented by new state E&P waste regulation in several producing states, as is discussed below.

In the Regulatory Determination, the EPA also clarified the scope of the Bensen Waste exclusion by specifying that the following listed wastes are exempt from Subtitle C:

- Produced water
- Drilling fluids
- Drill cuttings
- Rigwash
- Drilling fluids and cuttings from offshore operations and disposal onshore
- Geothermal production fluids
- Hydrogen sulfide abatement wastes from geothermal energy production
- Well completion, treatment, and stimulation fluids
- Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste
- Accumulated materials such as hydrocarbons, solids, sand and emulsin from production separators, fluid treating vessels, and production impoundments
- Pit sludges and contaminated bottoms from storage or disposal of exempt bottoms
- Workover wastes
- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves
- Gas plant sweetening wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- 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 waste stream)
- Packing fluids
- Produced sand
- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- Hydrocarbon-bearing soil
- Pigging wastes from gathering lines
- Wastes from subsurface gas storage and retrieval, except for the listed nonexempt wastes



- 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
- Gases from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons
- Materials ejected from a producing well during the process known as blowdown
- Waste crude oil from primary field operations and production
- Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment.¹⁸

Further, the status of produced water injected for enhanced recovery was clarified: it is not a waste for purposes of RCRA regulation and therefore is not subject to regulation under either Subtitle C or D.¹⁹

The EPA also concluded, however, that wastes which are not "uniquely associated" with exploration, development, and production of crude oil and natural gas are not exempt from Subtitle C regulation,²⁰ and the agency gave the following list of wastes which are not included in the Bensen exemption:

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt wastes
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubricating oils
- Waste compressor oil, filters, and blowdown

¹⁸53 Fed. Reg. at 25,453-54.

¹⁹53 Fed. Reg. at 24,454. EPA notes, without explanation, that if such produced water is stored in surface impoundments prior to injection it may be subject to RCRA Subtitle D requirements. Id.

²⁰Id. at 25,448.

- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bracks
- Boiler scrubber fluids, sludges, and ash
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation, and miscellaneous solids.²¹

Prior to issuing the Regulatory Determination, the EPA gathered and evaluated information on all of the issues required to be analyzed under RCRA,²² and it focused on what it called "three key factors" pertaining to E&P wastes:²³

1. The characteristics, management practices and resulting impacts of these wastes on health and the environment;
2. The adequacy of existing state and federal regulatory programs; and
3. The economic impacts of any additional regulatory controls on industry.

The EPA felt that Subtitle C does not provide sufficient flexibility to take into account the differences in oil and gas drilling and production sites across the country or to consider costs and avoid the serious economic impacts that regulation would create for the oil and gas industry's exploration and

²¹Id. at 25,454.

²²See 42 U.S.C. § 6982(m)(1)(A)-(G) (1988).

²³53 Fed. Reg. 25,446 (1988).