



Hazardous Wastes and Oil & Gas Operations (cont'd)

Professor Tracy Hester Environmental Law in Oil & Gas

Oct. 4, 2017

Review



- Hazardous waste regulation under the Resource Conservation and Recovery Act
 - Is it solid waste?
 - Is it hazardous waste?
 - Listed
 - Characteristic (ignitable, corrosive, reactive, toxic)
 - Is it excluded (recycling, reuse)?
 - If it's hazardous, what are you doing with it?
 - Generators
 - 90 days accumulation
 - Tanks, containers, etc. w/ management standards
 - Transporters
 - TSDs
 - Strict Liability, Penalties



Review: RCRA's Exploration and Production Waste Exclusion



42 U.S.C. Section 6921(b)(2)(A) (1980):

Notwithstanding the provisions of paragraph(1) of this subsection, drilling fluids, produced waters, and <u>other wastes associated</u> with the exploration, development or production of crude oil or natural gas or geothermal energy shall (not be classified as hazardous).

 Congress directed EPA to complete a study, and EPA decided to continue the exemption in 1988 via regulation.

Review (cont'd) – Rules of Thumb for E&P Exemption



EPA's "rule of thumb" -

- 1. Has the waste come from down-hole, i.e., was it brought to the surface during oil and gas E&P operations?
- 2. Has the waste otherwise been generated by contact with the oil and gas production stream during the removal of produced water or other contaminants from the product?

Core concept – *uniquely* associated with oil and gas E&P operations.

Partial List of Exempted Wastes



- 1. Produced water (98%)*
- 2. Drilling fluids (mud)
- 3. Drill cuttings (rock chips)
- 4. Rig wash
- 5. Well completion and stimulation fluids (frac)
- 6. Accumulated materials (oil, sand, soil, etc) *
- 7. Pit sludges and contaminated bottoms from exempt waste *

- 8. Workover wastes
- 9. Production gasses (hydrogen sulfide, CO₂, benzene?) *
- 10. Pipe scale and gunk from equipment *
- 11. Produced sand
- 12. Pigging waste of gathering lines *
- 13. Constituents removed from produced water (NORM?) *
- 14. BS&W and exempt-waste tank bottoms *

Key questions for hazardous waste and **E&P operations**





Extending the list – Other exempt E&P wastes – Natural Gas Plants



- Dehydration wastes (from water removal)
- 2. Sulfur removal (sweetening)
- 3. Spent filters and residue, if residue is from exempt waste stream
- 4. Cooling tower blowdown

Extending the list – Other exempt E&P wastes – Natural Gas Plants



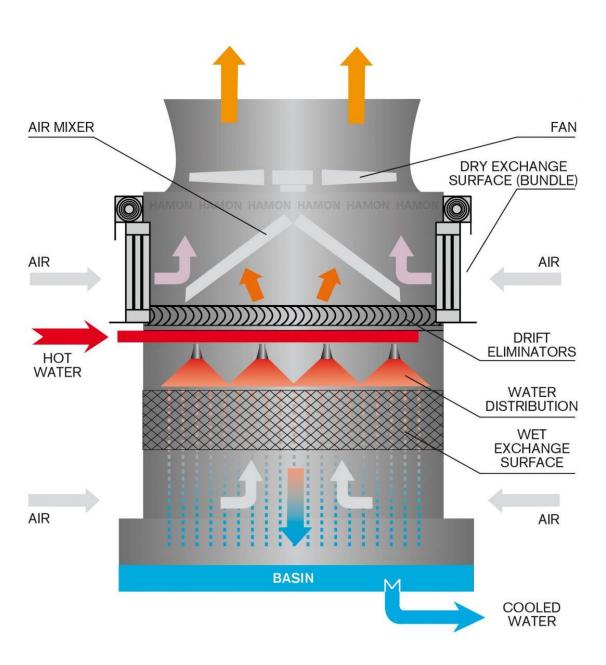
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Cooling Tower Blowdown











What's Out – Non-Exempt Wastes



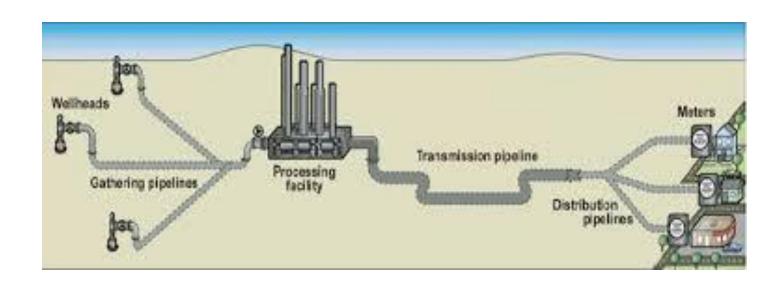
- 1. Unused frac fluids or acids
- 2. Sandblast media
- 3. Waste solvents
- 4. Used lubricating oil
- 5. Waste compressor oil and filters
- 6. Oil & gas service company wastes (spent solvents, drum rinsate, spilled chemicals, waste acids)

What's Out – Even More Non-Exempt E&P Wastes



- Transportation is not exempt
- BUT in-field "flowlines/gathering lines" are <u>not</u> transportation

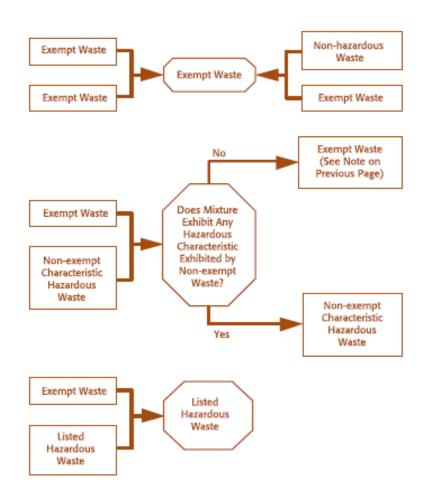




Just to Complicate Things: Mixing E&P Exempt Wastes



Possible Waste Mixtures and Their Exempt and Non-Exempt Status



Examples





1. The White Gasoline Thief



2. The On-site E&P Waste Refiner



3. EPA Enforcement Initiative on Fracking Wastes

NRDC v. EPA: Litigating the E&P Exclusion





Initial petition – Sept. 8, 2010

NATURAL RESOURCES DEFENSE COUNCIL

September 8, 2010

By FedEx and e-mail

The Honorable Lisa Jackson Administrator United States Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460

Re: Petition for Rulemaking Pursuant to Section 6974(a) of the Resource Conservation and Recovery Act Concerning the Regulation of Wastes Associated with the Exploration, Development, or Production of Crude Oil or Natural Gas or Geothermal Energy.

Dear Administrator Jackson:

To best protect human health, food sources, and our environment from the toxicity of contaminants found in wastes associated with the exploration, development and production of oil, gas, and geothermal energy, we believe it is appropriate for the

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- RESULT: Consent Decree entered in ate December 2016
 - New Deadline for Decision: March 2019





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