

are not controlled. EPA proposes to exercise its discretion not to regulate these pollutants because EPA has not detected them in more than a very few of the samples within the subcategory and the pollutants when found are present in trace amounts not likely to cause toxic effects. This is consistent with EPA's findings in the Offshore Guidelines. (See EPA's data base for these fluids in the Coastal Technical Development Document).

3. Control and Treatment Technologies

Current practice in the control of discharges from these fluids is to meet the BPT limitations of no free oil (using the visual sheen test). EPA's final general permit applicable to the discharges from coastal oil and gas drilling operations in Texas and Louisiana further prohibits discharges of treatment, workover and completion fluids to freshwater areas. Methods for treatment and discharge, reuse or disposal include:

- * Treatment and disposal along with the produced water
- * Neutralization for pH control and discharge to surface waters
- * Reuse
- * Onshore disposal and/or treatment and discharge in coastal or offshore areas.

4. Options Considered

EPA has considered two options for the treatment of treatment, workover, and completion fluids. These are (1) Prohibit the discharges of free oil (equal to the BPT limits) and prohibit the discharges of these fluids to freshwaters of Texas and Louisiana, (2) Limit the discharges equal to EPA's preferred options for produced waters. For produced water BAT limits, EPA is proposing zero discharge everywhere except Cook Inlet, where the proposed produced water control option is to meet limitations on oil and grease of 42 mg/l daily maximum and 29 mg/l 30-day average. For NSPS, PSES, and PSNS, EPA is proposing zero discharge everywhere for produced water.

There are no additional costs to comply with Option 1 because it reflects the current requirements imposed on the industry.

Option 2 would require for BAT, that zero discharge be met for treatment, completion, and workover fluids for all areas except the Cook Inlet, where operators are currently commingling these wastes with produced water, and would be required to meet oil and grease limitations of 29 mg/l 30-day average and 42 mg/l daily maximum. This would annually remove 72,000 pounds of conventionals, 709 pounds of

priority toxic pollutants and an additional 3.4 million pounds of nonconventional pollutants. For NSPS, EPA would require zero discharge everywhere, including Cook Inlet. This would remove annually 9,400 pounds of conventionals, 92 pounds of priority toxic pollutants and an additional 440,000 pounds of nonconventional pollutants. EPA is not applying a separate cost in Cook Inlet to comply with this option because these costs are already included in the costs of complying with the produced water option for Cook Inlet (oil and grease limits of 29 mg/l 30-day average/42 mg/l daily maximum).

However, for the Gulf, costs attributed to this option would be operating and maintenance costs associated with commingling with produced water and on-site injection, or hauling off-site to a commercial disposal facility if commingling is not possible. In costing this option for the Gulf, EPA estimated that 77 percent of treatment, workover and completion fluids currently being discharged would be commingled with produced water. This estimate comes from information indicating that 77 percent of produced water discharges are flows greater than 110 bpd (See Section VI) and would be disposed of by onsite injection because flows greater than 110 bpd will be large enough to accommodate the introduction of treatment, workover and completion fluids without fouling the produced water treatment system. The other 23 percent are less than 110 bpd and therefore it would be more cost effective to send the produced waters off-site for disposal rather than install an injection well. (See the Coastal Technical Development Document, Section XII).

Based on these estimates, EPA calculated the costs of compliance with Option 2. These costs included operating and maintenance costs on a dollar per bbl basis for on-site commingling and injection with produced water, and costs of transportation and disposal for commercial disposal. The BAT limits would cost approximately \$610,000 annually in the Gulf.

Costs for NSPS requiring zero discharge for treatment, workover and completion fluids were calculated based on EPA's estimate that 187 new wells will be drilled per year in the Gulf Coast (this estimate was obtained from the 1993 Coastal Oil and Gas Questionnaire results). Of these 187, EPA estimated that 76 percent (142 facilities) would be located in Louisiana freshwaters and would not discharge due to state water quality standards (this estimate is also based on the Questionnaire results). The

remaining 45 facilities would each generate approximately 800 bbls of treatment, workover and completion fluids per year. Costs to meet zero discharge, based on commingling these fluids with produced water or directing them separately to commercial disposal facilities, are estimated to be approximately \$520,000 per year over the next 15 years. These costs are only for the Gulf coast operations. No new sources are expected to be installed in Cook Inlet.

5. Rationale for Selection of Proposed Regulations

a. BCT, BAT, and NSPS.

EPA is proposing to establish BCT limitations equal to BPT, prohibiting the discharge of free oil in well treatment, workover, and completion fluids. Compliance with this limitation would be determined by the static sheen test. Since BPT reflects current practice, this proposed BCT limitation is cost reasonable under the BCT cost test. Based on the available data regarding the levels of conventional pollutants present in these wastes, EPA did not identify any other options which would pass the BCT cost test other than establishing BCT equal to the existing BPT limits. Additional information regarding the results of the BCT cost test for these wastes is presented in the Coastal Technical Development Document. There are no costs or non-water quality environmental impacts associated with this proposed BCT limitation and, since it is equal to BPT, it is technologically available and economically achievable.

EPA is co-proposing both options considered for well treatment, workover, and completion fluids for BAT and NSPS. EPA has determined that both options are technologically and economically achievable and have acceptable non-water quality impacts.

However, due to the high cost effectiveness results for Option 2 (requiring the same limitations as proposed for produced water) a preferred option has not been selected. EPA solicits comment on the appropriateness of either option. Option 1, which would prohibit the discharge of free oil and prohibit the discharge of treatment, workover and completion of fluids to freshwaters of Texas and Louisiana, reflects current regulatory requirements and thus will incur no additional compliance costs, economic or non-water quality environmental impacts. This option would result in no incremental removal of pollutants from this wastestream beyond the existing BPT requirements.