

of this practice, EPA investigated an option requiring capture of the "first flush", or most contaminated portion of, deck drainage. Depending on whether the deck drainage is generated from drilling or production (actual hydrocarbon extraction) operations, this first flush would be subject to the same limitations as would be imposed on either produced water or drilling fluids and cuttings based on the assumption that these two wastestreams could be commingled. Thus, for deck drainage during production, EPA considered as an option zero discharge for the first flush everywhere except in Cook Inlet, where oil and grease limitations would apply. Zero discharge would be required for the first flush captured at drilling operations everywhere. After capturing the first flush, BPT limitations would apply to any remaining deck drainage at either production or drilling operations. Capture of all of deck drainage to meet zero discharge requirements would be impractical due to relatively heavy precipitation that occurs in the Gulf areas.

EPA considered employing a 500 barrel tank to capture the first flush. A tank of this size would be installed at production facilities, and would provide enough storage capacity to capture most, if not all, of the rainfall generated during a 3.5 inch rainfall event at an average size facility. Tanks smaller than 500 bbls would not be large enough to effectively capture the first flush of contaminated drainage. Tanks larger than this would be too costly to install. A 3.5 inch, 24 hour rainfall event would generally only be exceeded once per year in southern Louisiana (the coastal area receiving the most rainfall), and at most, two to three times. After collection, the 500 barrels (or less depending on the size storm event) of deck drainage would be directed through the produced water treatment and would be subject to the same limitations as required for produced water.

For drilling operations, the first 500 barrels would be subject to zero discharge. The basis for this requirement would be that the deck drainage would be directed to on-site drilling waste collection vessels or levees where they would be sent off-site for commercial disposal.

After collection and treatment of the first 500 bbls of deck drainage, any remaining discharge would be subject to the BPT limitations on free oil as measured by the visual sheen test.

The first flush option for deck drainage is estimated to eliminate discharge of more than 9 million bpy of deck drainage (about 78 percent of the

total currently discharged) resulting in the removal 82,000 pounds per year of oil and grease.

5. BCT Option Selection

EPA conducted the BCT cost test (described previously in Section VI) for the two deck drainage options. The first flush option did not pass the POTW cost test. The result of this test analysis ranged from \$2.13 to \$3.45 per pound, and to pass the test, this value must be less than \$0.534 per pound.

Thus, EPA has selected BPT, or a limitation prohibiting the discharge of free oil as the BCT limit, for deck drainage. This is a no-cost option because it reflects current practice. It is cost reasonable under the BCT cost test because the POTW test result and the industry cost-effectiveness test results are both zero (and therefore pass their respective tests).

6. Rationale for Selection BAT, NSPS, PSES and PSNS

a. Cost.

No costs are incurred by compliance with the option to require BPT limits for deck drainage. Costs to comply with the first flush option for operations in the Gulf of Mexico would be approximately \$13.5 million per year. This includes the costs for both production and drilling operations to comply with a zero discharge requirement for the first flush followed by BPT for any remaining discharge after that. Costs to comply with this option for the Cook Inlet would be approximately \$699,000 per year. This includes the costs of treating the first flush of deck drainage with produced water to meet oil and grease limitations of 29 mg/l 30-day average, and 42 mg/l daily maximum, followed by BPT for any remaining discharge after that. Total costs for this option would be approximately \$14.2 million per year.

b. Rationale for Selection of BAT and NSPS.

EPA has selected BPT as its preferred option for BAT and NSPS for deck drainage. Since free oil discharges are already prohibited under BPT, there are no incremental compliance costs, pollutant removals, or non-water quality environmental impacts associated with this control option. Since this preferred option limits free oil equal to existing BPT standards, it is technologically available and economically achievable.

EPA has rejected the first flush option for control of deck drainage for several reasons primarily relating to whether this option is technically available to operators throughout the coastal subcategory. Deck drainage is currently captured by drains and flows via gravity

to separation tanks below the deck floor. However, the problems associated with capture and treatment beyond gravity feed, power independent systems, are compounded by the possibilities of back-to-back storms which, may cause first flush overflows from an already full 500 bbl tank. In addition, tanks the size of 500 barrels are too large to be placed under deck floors. Installation of a 500 bbl tank would require construction of additional platform space, and the installation of large pumps capable of pumping sudden and sometimes large flows from a drainage collection system up into the tank. The additional deck space would add significantly, especially for water-based facilities, to the cost of this option. Further, many coastal facilities are unmanned and have no power source available to them. Deck drainage can be channelled and treated without power under the BPT limitations.

Capturing deck drainage at drilling operations poses additional technical difficulties. Drilling operations on land may involve an area of approximately 350 square feet. A ring levee is typically excavated around the entire perimeter of a drilling operation to contain contaminated runoff. This ring levee may have a volume of 6,000 bbls, sufficient to contain 500 bbls of the first flush. However, collection of these 500 bbls when 6,000 bbls may be present in the ring levee would not effectively capture the first flush. Costs to install a separate collection system including pumps and tanks, would add significantly to the cost of this option.

While costs are significant, the technological difficulties involved with adequately capturing deck drainage at coastal facilities is the principal reason why this option was not selected. EPA has selected the option requiring no discharge of free oil for BAT and NSPS control of deck drainage. EPA has determined that these limitations and standards properly reflect BAT and NSPS levels of control. EPA did not identify any other available technology for this waste stream. EPA solicits comments on the existence and practicality of treatment systems other than BPT.

EPA's proposed option does not include best management practices (BMPs) for this wastestream as part of these guidelines. EPA currently believes that current industry practices, in conjunction with the requirements as proposed in the proposed general stormwater rule (58 FR 61262-61268, November 19, 1993), would be sufficient to minimize the introduction of contaminants to this wastestream to the extent possible. These stormwater