

"Additional Technologies Considered" of this section, EPA is continuing to evaluate toxicity test results and volumes and any other data for drilling fluids used and discharged in Cook Inlet in an effort to derive a more specific limitation and resulting revisions of costs and loadings. A supplemental notice presenting the data and revised results and soliciting comment would be necessary prior to promulgation.

Option 3 would prohibit the discharge of drilling fluids and cuttings from all coastal oil and gas drilling operations. This option utilizes grinding and injection and onshore disposal as a basis for complying with zero discharge of drilling fluids and cuttings.

The technology Options 1 and 2 for Cook Inlet have been developed taking into consideration the possibility that Cook Inlet operations are unique to the industry due to a combination of climate, transportation logistics, and structural and space limitations that interfere with the drilling operations. These options are based on a degree of recycling and reuse, onshore disposal and/or grinding and injection of a portion of the wastes if they cannot meet the limitations, in addition to product substitution in order to attain the limitations and be able to discharge a portion of the generated wastes.

EPA solicits comments on the two discharge options containing specific data on the toxicity levels achievable for drilling fluids compositions and drill cuttings and why the more toxic of the compositions must be used in order to successfully drill. Also, information is solicited on the degree to which zero discharge all would interfere with drilling operations in Cook Inlet, given the estimate of a limited amount of drilling planned.

5. BCT Options Selection

a. BCT Cost Test Methodology.

The methodology for determining "cost reasonableness" was proposed by EPA on October 29, 1982 (47 FR 49176) and became effective on August 22, 1986 (51 FR 24974). These rules set forth a procedure which includes two tests to determine the reasonableness of costs incurred to comply with candidate BCT technology options. If all candidate options fail either of the tests, or if no candidate technologies more stringent than BPT are identified, then BCT effluent limitations guidelines must be set at a level equal to BPT effluent limitations. The cost reasonableness methodology compares the cost of conventional pollutant removal under the BCT options considered with the cost of conventional pollutant removal

at publicly owned treatment works (POTWs).

BCT limitations for conventional pollutants that are more stringent than BPT limitations are appropriate in instances where the cost of such limitations meet the following criteria:

- The POTW Test: The POTW test compares the cost per pound of conventional pollutants removed by industrial dischargers in upgrading from BPT to BCT candidate technologies with the cost per pound of removing conventional pollutants in upgrading POTWs from secondary treatment to advanced secondary treatment. The upgrade cost to industry must be less than the POTW benchmark of \$0.53 per pound (\$0.25 per pound in 1976 dollars indexed to 1992 dollars).

- The Industry Cost-Effectiveness Test: This test computes the ratio of two incremental costs. The ratio is also referred to as the industry cost test. The numerator is the cost per pound of conventional pollutants removed in upgrading from BPT to the BCT candidate technology; the denominator is the cost per pound of conventional pollutants removed by BPT relative to no treatment (i.e., this value compares raw wasteload to pollutant load after application of BPT). The industry cost test is a measure of the candidate technology's cost-effectiveness. This ratio is compared to an industry cost benchmark, which is based on POTW cost and pollutant removal data. The benchmark is a ratio of two incremental costs: the cost per pound to upgrade a POTW from secondary treatment to advanced secondary treatment divided by the cost per pound to initially achieve secondary treatment from raw wasteload. The result of the industry cost test is compared to the industry Tier I benchmark of 1.29. If the industry cost test result for a considered BCT technology is less than the benchmark, the candidate technology passes the industry cost-effectiveness test. In calculating the industry cost test, any BCT cost per pound less than \$0.01 is considered to be the equivalent of de minimis or zero costs. In such an instance, the numerator of the industry cost test and therefore the entire ratio are taken to be zero and the result passes the industry cost test.

These two criteria represent the two-part BCT cost reasonableness test. Each of the regulatory options was analyzed according to this cost test to determine if BCT limitations are appropriate.

b. BCT Cost Calculations and Options Selection.

(i) Other than Cook Inlet.

In addition to considering setting the BCT limitations equal to BPT, EPA

considered two additional BCT options for control of conventional pollutants in drilling fluids and drill cuttings. Both of these options would require zero discharge of drilling fluids and drill cuttings throughout the subcategory except in Cook Inlet. Because all operators throughout the entire subcategory, except in Cook Inlet, are currently meeting a zero discharge requirement, or in the case of dewatering effluent, are practicing zero discharge already, there is zero cost and zero removal of conventional pollutants for this limitation. Thus, EPA has determined that zero discharge passes the BCT cost tests and other statutory factors and proposes a BCT limitation equal to zero discharge for all areas except Cook Inlet.

(ii) Cook Inlet.

In Cook Inlet, EPA considered either zero discharge (Option 3, above), or allowing discharge based on requirements identified in Option 2, above. EPA did not consider Option 1 for Cook Inlet, allowing discharge at the current Offshore Guidelines limitations with a toxicity limit of 30,000 ppm (SPP), as a distinct BCT option because the amount of removal of the conventional pollutant oil and grease, as oil, from discharge by this level of toxicity could not be determined from that removed by the current BPT requirement of no free oil.

The POTW test (first part of the two part cost-reasonableness test) is calculated by comparing the cost per pound of conventional pollutant removed in upgrading from BPT to the BCT candidate options. EPA determined the costs of each BCT option for drilling fluids, drill cuttings, and drilling fluids and drill cuttings combined.

EPA included only oil and grease and TSS in the BCT analysis. EPA did not include BOD because it is not a parameter normally measured in wastewaters from this industry since it is associated with the oil content, e.g., oil and grease measurement. The use of BOD and oil and grease would result in double-counting, thus giving erroneous results. EPA did not include the parameter of settleable solids in the BCT analysis because settleable solids are not a conventional pollutant.

EPA calculated cost of the BPT limitations for drilling fluids and drill cuttings for Cook Inlet using the model well characteristics and disposal costs used for the offshore wells (in the development of the Offshore Guidelines). The volume of wastes (drilling fluids and cuttings) was based on the 1993 Coastal Oil and Gas Questionnaire data for Cook Inlet. EPA based the costs associated with meeting