

or floating platforms located beyond 12 nautical miles from nearest land, if such waste is passed through a screen with openings no greater than 25 millimeters (approximately one inch) in diameter. Because vessels and fixed and floating platforms must comply with these limits, EPA believes that all coastal facilities are able to comply with this limit. While not all coastal facilities are located on platforms, compliance with a no garbage standard should be as achievable, if not more so for shallow water or land based facilities that have access to garbage collection services. Further, the final drilling permit promulgated by Region VI for coastal Texas and Louisiana incorporates these Coast Guard regulations.

Since these BCT, BAT and NSPS limitations for domestic waste are already in either existing NPDES permits or Coast Guard regulations, these limitations will not result in any additional compliance cost, and thus these limits are economically achievable. Also, these limits and standards will have no additional non-water quality environmental impacts. There are no incremental costs associated with the BCT limitations; therefore, it is considered to pass the two part BCT cost reasonableness test.

No discharge of visible foam is required by Region X's NPDES permit for Cook Inlet drilling. No discharge of floating solids is included in the Region X's BPT Cook Inlet general permit, the Region X's drilling permit and Region IV's general permit for coastal operators.

Pretreatment standards are not being developed for domestic wastes because they are compatible with POTWs.

#### G. Sanitary Wastes

Sanitary wastes from coastal oil and gas facilities are comprised of human body wastes from toilets and urinals. The volume of these wastes vary widely with time, occupancy, and site characteristics. A larger facility, such as an offshore platform, typically discharges about 35 gallons of sanitary waste daily. Sanitary discharges from coastal facilities would be expected to be less than this value since the manning levels at most coastal facilities is less than that at offshore locations.

Existing BPT limitations for facilities continuously manned by 10 or more people requires sanitary effluent to have a minimum residual chlorine content of 1 mg/l, with the chlorine concentration to remain as close to this level as possible. Facilities intermittently manned or continuously manned by fewer than 10 people must comply with a BPT prohibition on the discharge of floating solids. EPA's Regions VI and IV

NPDES general permits for coastal facilities also impose limits on the discharge of TSS, fecal coliform count, BOD and floating solids. EPA's Region X general NPDES permit for Cook Inlet also requires limitations for these same parameters in addition to requirements for foam and free oil.

EPA considered zero discharge of sanitary wastes based on off-site disposal to municipal treatment facilities or injection with other oil and gas wastes. Off-site disposal would require pump out operations, that while available to certain land facilities, are not available to remote or water-based operations. Because sanitary wastes are not exclusively associated with oil and gas operations, which are routinely injected in Class II wells, zero discharge based on Class II injection was not considered for sanitary wastes. EPA solicits comments on the selected option for sanitary wastes regarding the pollutant regulated, the limitation itself, and other possible disposal options, including marine sanitation devices that are designed to prevent discharge (Type III, 33 CFR 159.3(s)).

EPA is proposing to limit sanitary waste discharges for BCT and NSPS equal to BPT limitations. Sanitary waste effluents from facilities continuously manned by ten (10) or more persons must contain a minimum residual chlorine content of 1 mg/l, with the chlorine level maintained as close to this concentration as possible. Coastal facilities continuously manned by nine or fewer persons or only intermittently manned by any number of persons must comply with a prohibition on the discharge of floating solids.

Since there are no increased control requirements beyond those already required by BPT effluent guidelines, there are no incremental compliance costs or non-water quality environmental impacts associated with BCT and NSPS limitations for sanitary wastes. Since these limitations are equal to BPT, they are available and economically achievable. In addition, the BCT limitation is also considered to be cost reasonable under the BCT cost test. Since the POTW test result and the industry cost-effectiveness test results are both zero (and therefore pass their respective tests), the limitation is cost reasonable.

EPA is not establishing BAT effluent limitations for the sanitary waste stream because no toxic or nonconventional pollutants of concern have been identified in these wastes.

Pretreatment standards are not being developed for sanitary wastes because they are compatible with POTWs.

## VII. Economic Analysis

### A. Introduction

EPA's economic impact assessment is presented in the Economic Impact Analysis of Proposed Effluent Limitations and Guidelines, and Standards for the Coastal Oil and Gas Industry (hereinafter, "EIA"). This report details the investment and annualized costs of compliance with the rule for the industry as a whole and the impacts of the compliance costs on affected wells, platforms, and operators in the coastal oil and gas industry, both existing and future. The report also estimates the economic effect of compliance costs on Federal and State revenues, balance of trade considerations, and inflation.

EPA also has conducted an analysis of the cost-effectiveness of alternative treatment options. The results of the cost-effectiveness analysis are expressed in terms of the incremental costs per pound-equivalent removed. Pound-equivalents account for the differences in toxicity among the pollutants removed. Total pound-equivalents are derived by taking the number of pounds of a pollutant removed and multiplying this number by a toxic weighting factor. The toxic weighting factor is derived using ambient water quality criteria and toxicity values. The toxic weighting factors are then standardized by relating them to a particular pollutant, in this case copper.

Cost-effectiveness is calculated as the ratio of incremental annualized costs of an option to the incremental pound-equivalents removed by that option. This analysis, Cost-Effectiveness Analysis of Effluent Limitations Guidelines and Standards for the Coastal Oil and Gas Industry (hereinafter, the "CE Report"), is included in the record of this rulemaking. Since the discharges are primarily to a marine or brackish environment, salt-water toxic weighting factors (which typically are lower than freshwater toxic weighting factors, thus they generate lower pound-equivalents overall) were used wherever they were available.

Cost-effectiveness is a measure of costs and relative economic efficiency of the technology options being considered to remove toxic pollutants. EPA includes direct compliance costs, such as capital expenditures, operations and maintenance costs and in some cases monitoring costs (*i.e.*, direct compliance costs), when estimating cost-effectiveness. EPA has not included in previous effluent guidelines and standards costs associated with the economic impact of the technology