One comment expressed concern that the NPRM does not provide incentives to tanker owners for pursuing and adopting new technologies. The comment stated that shipowners' budgets generally do not include monies for pure research, and without clear incentives to embrace new technologies, there is a small chance that vessel owners will use them. The comment urged the Coast Guard to amend the proposed rule to include specific incentives to encourage the industry to develop and adopt such technologies. Another comment stated that many vessel owners already are operating with double hull vessels and/or SBTs. The comment stated that companies using these vessels should receive pollution credits. Additionally, the comment contended that pollution credits should be issued to owners who build new tankers or significantly upgrade existing tankers. The comment stated that these credits could be traded for debits to continue using existing tankers with little modification. Similarly, another comment stated that owners who build new tankers should receive tax credits. Issuing monetary incentives for company research, granting pollution credits to a company to support uneven implementation of oil outflow reduction measures among their fleet, or granting tax credits for companies that comply with requirements are beyond the authority and scope of this rulemaking.

7. Regulatory Assessment—General Comments

Several comments questioned the assumptions made in the Regulatory Impact Analysis (RIA) performed by Mercer Management Consulting, Inc. for the NPRM. One comment stated that the RIA for the NPRM does not take into account the barrels of oil saved from spillage by other OPA 90 rules. The Coast Guard has developed a wide range of regulations mandated by OPA 90 to implement provisions pertaining to spill prevention, mitigation, cleanup, and liability. To facilitate the rulemaking process, the Coast Guard has divided rulemaking requirements into relatively small, individual rulemaking projects and has prepared regulatory, environmental, regulatory flexibility, and paperwork analyses for each project. To expedite effective rulemaking, the Coast Guard analyzed each project as a stand alone rulemaking. Recognizing that there are interactive effects of the suite of OPA 90-derived regulations, the Coast Guard has begun a programmatic regulatory assessment for the OPA 90 rulemaking projects.

One comment stated that the RIA for the NPRM assumed that all the work for structural modifications can be done during a normal drydocking period. The comment contended that this is not correct because the cleaning for hot work entails a much higher degree of cleaning and more lost service time. The Coast Guard recognizes that additional cleaning and gas freeing would be necessary to perform structural modifications and has included the cost of an extended drydock in the regulatory assessment for this SNPRM.

One comment disagreed with the assumption that some existing ships will be replaced rather than converted. The results of the assessment conducted for this SNPRM indicate that no vessels are expected to be replaced early as a result of the measures researched.

One comment disputed the size of the international vessel population assumed in the RIA. The comment stated that the international fleet affected by the NPRM would range from 1,500 to 2,000 vessels, not the 300 or 400 assumed in the RIA. The regulatory assessment in this SNPRM revises the NPRM vessel population numbers, based on the number of tankships applying for a Certificate of Financial Responsibility, excluding certain tankships such as double hull tankships. The RIA for this SNPRM estimates that there are a total of 1,085 existing tankships likely to be affected by this SNPRM.

Several comments stated that the assumption made in the NPRM RIA that newer vessels that comply with MARPOL Regulation 13G will be allocated to U.S. trades in the same proportion as non-complying vessels is inaccurate. The comments went on to state that the number of newer vessels operating in the U.S. trade is higher because of the Port and Tanker Safety Act of 1978. The comments contend that the existing fleet of vessels meeting either MARPOL PL/SBT standards or having double hulls is already sufficient to carry all U.S. cargo. One comment stated that the NPRM proposals would have a devastating impact on the product tanker market. Another comment stated that there was no consideration in the NPRM for a company's ability to secure adequate capital to replace existing vessels with double hull vessels. The vessel population and U.S. coastal trade population affected by this rulemaking were reconsidered for the regulatory assessment in this SNPRM. Build dates were also researched and correlated with trade estimates. Neither the ability of the existing fleet of double hull or MARPOL PL/SBT tankers to meet U.S. import needs nor a company's ability to

secure funding is influential for this rulemaking. Comments are solicited on the specific economic feasibility of these measures on product tankers.

8. Regulatory Assessment—Costs

Comments on the Existing Vessels NPRM and from the public meeting expressed concern about the accuracy of the costs and benefits stated in the Regulatory Impact Assessment (RIA). The comments indicated that the costs, in some cases, were not fully developed. Comments included concern over using only two ship sizes to calculate the cost, the assumption that there will be minimal cargo capacity loss across the fleet, the gross underestimate of compliance costs for tank barges, the potential adverse costs to vessels which carry non-persistent oils, and the 3-year phase-in costs as compared to following the MARPOL 73/78, Regulation 13G schedule. After reviewing the comments, the Coast Guard redirected its approach, expanded the vessel models used in the cost analysis, and revised its assessment to reflect these comments.

The Coast Guard received several comments regarding the economic feasibility of the regulations. One comment stated that Congress made it clear that all regulations should be economically feasible. The comment stated that requiring industry to spend \$573 million over a 3-year period for unknown environmental benefits would be pressing the intent of Congress. Another comment stressed that a requirement that a measure be economically feasible does not mean that it must be the least expensive. Pollution prevention benefits are measured as a ratio of cost per barrel of oil not spilled. The most desirable measures would be those that prevent the spillage of the greatest number of barrels of oil at the lowest cost. The Coast Guard recognizes that a measure can be costly; however, if it provides a significantly improved degree of protection in terms of barrels of oil not spilled, it may still be cost effective. The Coast Guard solicits comments on the cost effectiveness of the measures presented in this SNPRM.

One comment noted that when retrofitting PL/spaces on vessels in the 80,000 dwt to 300,000 dwt range, there is a loss of approximately 15 percent of the cargo volume. The comment further stated that for an 80,000 dwt vessel without SBT, there is a loss of approximately 29 percent of the cargo volume. A tank vessel owner commented that if the company's VLCCs were required to be converted to PL/SBT or PL/spaces, the company