

MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

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1. Statement of the need for the proposed major regulation.

Under the Current Commercial Harbor Craft (CHC) Regulation, vessel owner/operators have made considerable investments to replace older engines with newer, cleaner engines. However, the near-source cancer risk and local pollution contribution from CHC still remains high. CHC continue to impact nearby communities, including those in ozone and PM2.5 nonattainment areas, which include the San Francisco Bay Area, San Joaquin Valley, Ventura County, South Coast, and San Diego. In addition, Diesel PM (DPM) emissions from CHC impact communities located adjacent to those operations, as well as people living and working miles away. In addition, emissions from CHC engines are expected to become even more significant as emissions from other mobile sources decrease due to more stringent regulations and cleaner technologies. The emissions from CHC impose uncompensated health and environmental costs to the coastal communities and it is necessary to reduce this risk as much as possible.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

The direct costs of the Proposed Amendments are estimated to be approximately \$1.8 billion (amortized) and \$2.1 billion (non-amortized) from 2023 through 2038.

The parties that would incur direct costs under the Proposed Amendments include public and private CHC fleet owner/operators and owner/operators of vessel facilities where CHC dock or moor. The following vessel categories would bear the corresponding costs to comply with the Proposed Amendments from 2023-2038 (in millions, USD). Ferry (Catamaran) \$219, Ferry (Monohull) \$55, Ferry (Short-Run) \$102, Pilot Boat \$17, Push/Tow Tug \$197, Escort/Ship Assist Tug \$165, ATB Tug \$122, ATB Barge \$44, Research Vessel \$18, Commercial Passenger Fishing \$195, Excursion \$281, Dredge \$11, Bunker Barge \$3, Other Barge \$19, Towed Petrochemical Barge \$5, Crew Supply \$87, Workboat \$210, and Commercial Fishing \$66.

The Proposed Amendments would not result in any direct costs to individuals. The Proposed Amendments would result in indirect costs to individuals to the extent that compliance costs are passed through to consumers of services and cargo. The pass through costs could be as high as \$1.81 per passenger for a High-Speed Ferry trip and between \$26 to \$93 dollars per passenger/day on commercial passenger fishing trips.

3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

Direct costs and cost savings of repowering vessel engines and installing Diesel Particulate Filters (DPF) include capital costs, labor and installation costs, operational costs, loss of use costs, and fuel savings from Tier 4 main and auxiliary engines. Costs and cost savings for vessel replacements/new-build vessels include capital costs, labor and installation costs, operational costs, and revenue generated from the resale replaced vessels. For the Zero-Emission and Advanced Technologies (ZEAT) requirements applicable to certain in-use and new vessel categories, direct costs and cost savings include electricity costs, charging infrastructure costs, and cost savings from reductions in fuel used during operation. Deploying ZEAT is often associated with lower operational costs, may be funded partially with air quality and other grants, and is associated with ancillary brand image benefits for being a green company. In addition, voluntary ZEAT deployment may be eligible for regulatory flexibility, such as additional compliance time on other vessels in the fleet, which may reduce costs during the implementation period of 2023-2037. Additional costs include infrastructure costs for shore power, opacity testing, compliance fees, vessel labeling, costs associated with compliance extension requests for instances where meeting performance standards is not feasible, including costs to provide financial feasibility and Naval Architect reports as supporting documentation, a one-time cost to CHC fleet owner/operators to interpret regulatory requirements in the Proposed Amendments, and recordkeeping and reporting costs.

From 2023 through 2038, the Proposed Amendments are estimated to have \$2.0 billion in costs (amortized) and \$229 million in cost savings. A net direct cost of \$1.8 billion. The Proposed Amendments will result in decreased greenhouse gas and air pollutant emissions. The avoided negative health outcomes are valued at over \$4.9 billion.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed \$50 million.

Staff assumes that the costs incurred by the regulated parties and CARB would start in 2023, which is the first implementation date. The Proposed Amendments would be fully implemented in 2037: The compliance dates for the Proposed Amendments range from 2023 through 2032, with lower engine tiers and older model years having earlier compliance dates. If vessel owner/operators choose to apply for and receive compliance extensions due to lack of feasible technology (a maximum of six years), the compliance timeframe range would extend to 2037.

The cost analysis extends through 2038 to capture a full 12 months after the potential 2037 compliance actions. The Proposed Amendments are a major regulation requiring a SRIA because the estimated direct cost will exceed \$50 Million in each year starting in 2024.

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5. Description of the agency's baseline:

The requirements of the Current CHC Regulation will be fully implemented by December 31, 2022. Therefore, the baseline for the cost analysis is full implementation of the Current Regulation, and costs calculated for the Proposed Amendments are incremental to the baseline.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:

- a. All costs and all benefits of the alternative
- b. The reason for rejecting alternative

Alternative 1 would require all vessels to meet the performance standards specified in the Proposed Amendments for the appropriate vessel category, engine year, and engine size. Unlike the Proposed Amendments, there would be no low-use exception and no compliance extension for vessels with Tier 4 engines and limited operating hours. Alternative 1 would be estimated to cost \$237 million more than the Proposed Amendments (increasing the overall cost of the Proposed Amendments by 13 percent), while achieving 2 percent more reductions of NOx, and 3 percent more reductions of DPM and PM2.5 from 2023 to 2038 (increasing the benefit of avoided health impacts by \$117 million relative to the Proposed Amendments). For these reasons, CARB staff believes that under Alternative 1, the additional burden on owners of vessels that operate infrequently would be greater than the emission reductions achieved.

Alternative 2 would include all of the requirements of the Proposed Amendments, with the exception that it does not include emission control requirements for commercial fishing vessels. Alternative 2 would be estimated to cost \$43 million less than the Proposed Amendments (decreasing the overall cost of the Proposed Amendments by 2 percent), and achieve 7 percent fewer reductions of NOx and 8 percent fewer emission reductions of DPM and PM2.5 (decreasing the benefit of avoided health impacts by \$253 million relative to the Proposed Amendments). Alternative 2 was rejected because excluding emission control requirements for commercial fishing vessels would forgo feasible and cost-effective emission reductions and result in fewer health benefits to the local communities, compared with the Proposed Amendments.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).

The rulemaking process for the Proposed Amendments began in 2018. During this process, CARB staff conducted more than 370 meetings, conference calls, and site visits with members of impacted communities, environmental justice advocates, public agencies at federal, state, and local levels, and industry stakeholders (including vessel operators, ports, marine terminals, industry associations, as well as manufacturers of emission control, zero emission, and advanced technology systems). The format of these conversations included agency working groups, public workshops, community meetings, and meetings with individual stakeholders. In Spring 2020, all meetings transitioned to remote formats such as webinars and web conferences. CARB staff conducted five public workshop webinars to discuss the development of the Proposed Amendments, as well as one question and answer session for additional inquiries. All of these meetings were announced with a public workshop notice, which was issued at least two weeks prior to their occurrence. These notices were posted to the CHC programs website, and were sent out to over 4,000 subscribers on CARB's Harbor Craft (Commercial Harbor Craft Regulatory Activities) email list. These workshops were open to all members of the public.

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).

The economic impact is estimated using the REMI PI+ model based on the estimates of direct costs and benefits described above. The costs estimated for businesses are input into the model as increases in production costs to CHC fleets and facilities in the water transportation, scenic and sightseeing transportation and support activities for transportation, fishing, and construction industries. The costs incurred by businesses result in corresponding changes in final demand in several major sectors including manufacturing, public utilities, services, and construction. Fiscal costs and direct changes in government employment are input into the model as changes in state and local government spending and changes in state government employment. The portion of public health benefits which are monetized based on cost-of-illness methods are input into the REMI model as a reduction in consumer spending on hospitals, with a corresponding increase in spending on other goods, services, and savings. The years of the analysis are 2023 through 2038.

Agency Signature

Signature is on file

Date

6/30/2021

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Richard Corey