

MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

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<p>1. Statement of the need for the proposed major regulation.a</p> <p>The Proposed Regulation is designed to accomplish two main goals:</p> <p>1) Achieve public health and air quality benefits: Action is needed to further reduce diesel particulate matter and the localized cancer risk in communities surrounding ports and marine terminals, cut nitrogen oxides and fine particulate matter (PM 2.5) emissions to support regional attainment of federal health-based air quality standards for ozone and PM2.5, to reduce emissions of reactive organic gases, and to support statewide emissions reduction goals set forth by SB 32 to reduce the GHG emissions that contribute to climate change.a</p> <p>2) Address implementation challenges with the Existing Regulation. While implementing the Existing Regulation, CARB staff have been made aware of numerous operational challenges that make compliance with the Existing Regulation difficult to achieve.a</p>		
<p>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.a</p> <p>The directly affected entities are ports, terminals, and vessel operators. The costs to directly regulated parties may include one-time equipment capital and installation costs and recurring costs for maintenance, labor, air pollution control services (rental of capture and control barge-based systems), fuel, electricity, and administrative costs, depending on the emission control strategy used for compliance.</p> <p>State, local and federal agencies may also be impacted by needs for project review and permitting.</p> <p>The Proposed Regulation would not result in any direct costs to individuals. However, staff anticipates the Proposed Regulation would result in indirect costs to individuals to the extent that compliance costs are passed through to the ultimate consumers of cargo, fuel, and cruise vessel passengers.</p>		
<p>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).a</p> <p>Direct costs are estimated for all directly affected entities. They consist of one-time and ongoing costs related to: shore power retrofits and maintenance for berths and vessels, barge and land based capture and control, remediation fund, and administrative costs. The cost to these affected entities from 2020 to 2032 is \$2.3 billion, with annual costs ranging between \$376 million to \$283 million.</p> <p>Benefits: The Proposed Regulation may increase demand for businesses such as capture and control system manufacturers, crane manufacturers, barge manufacturers, component suppliers (including ducts and piping), electrical suppliers, design, engineering, and construction firms. The Proposed Regulation will also provide benefits to individuals in the form of localized cancer risk reduction and decreases in incidence of cardiopulmonary mortality, hospitalizations, and emergency room visits. The health benefits of the Proposed Regulation are estimated to be \$2.64 billion. In addition, the Proposed Regulation will provide benefits through decreased GHG emissions.</p>		
<p>4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed a \$50 million.a</p> <p>Impacts of the proposed regulation were analyzed between 2020 to 2032. The Proposed Regulation results in economic impacts greater than \$50 million dollars in multiple years between 2020 to 2032. For example, Regional Economic Models, Inc (REMI) results estimate the largest increase in California's output growth, \$1.1 billion, to occur in 2026. The largest annual decrease in California output growth, \$585 million, is estimated to occur in 2032.</p>		

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5. Description of the agency's baseline:

The Baseline scenario assumes full compliance with the Existing Regulation in 2020. In addition, the Baseline scenario assumes full compliance with the Vessel Clean Fuel Regulation and the International Maritime Organization emission standards for vessel engines. The Baseline scenario assumes that after 2020, both the Existing Regulation and the CARB Vessel Clean Fuel Regulation will continue to provide reductions consistent with full implementation of the regulations. For forecast years in the inventory, staff applied growth forecasts based on the U.S. Federal Highway Administration's Freight Analysis Framework (FAF). In two instances port specific forecasts were available and used instead of the FAF.

CARB utilized REMI Policy Insight Plus Version 2.2.8 to estimate the macroeconomic impacts of the Proposed Regulation on the California economy. CARB uses the REMI single-region, 160-sector model with the model reference case adjusted to reflect the Department of Finance conforming forecasts. These forecasts include California population figures dated May 2019, U.S. real GDP forecast, and civilian employment growth numbers dated April 2019.

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: Shore Power Only Compliance Pathway

- a. Alternative 1 results in net costs of \$3.8 billion from 2020 through 2032, which is \$1.4 billion higher than the Proposed Regulation.
- b. Alternative 1 was rejected because it has significantly higher costs and is less cost effective to implement than the Proposed Regulation. Also, a 100 percent shore power mandate would not be as practical for all vessel types as the Proposed Regulation's allowance for vessel and terminal operators to choose the most favorable compliance option for their business interests and industry practices.

Alternative 2: Exclude Ro-Ro Vessels From the Regulation

- a. Alternative 2 results in net costs of \$2.2 billion from 2020 through 2032, which is approximately \$141 million lower than the Proposed Regulation.
- b. Alternative 2 was rejected because, while it has a lower cost, it also would result in lower emission reductions. The lost emissions reductions under Alternative 2 would have a negative health impact on the communities surrounding the ports due to higher exposure to cancer-causing DPM. Alternative 2 would also provide fewer NOx reductions to aid attainment of the National Ambient Air Quality Standards in the South Coast Air Basin.

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

During the course of the rulemaking for the Proposed Regulation since late 2014, CARB staff conducted more than 60 individual meetings with members of impacted communities, environmental justice advocates, air districts, industry stakeholders (including vessel operators, ports, terminal operators, industry associations, alternative technology operators), U.S. Coast Guard, California State Lands Commission, and other agencies. Meeting formats included public workshops, work group meetings, community meetings, and individual meetings with stakeholders.

Staff also held various meetings, teleconferences, and webinars with a wide range of stakeholders.

CARB staff conducted workshops open to the public to discuss the developments of the Proposed Regulation. All of the workshops were announced with issuance of a public workshop notice at least three weeks prior to their occurrence. The public notices were posted to the program's website at <https://www.arb.ca.gov/ports/shorepower/shorepower.htm> and sent to over 3,800 subscribers of the Ocean-Going Vessels and Shorepower for Ocean-Going Vessels public email List serves.

Full description of the methods CARB used to seek public input is included in the SRIA.

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 Proposed Regulation is simulated in REMI by adjusting production costs for directly affected entities to reflect the costs of installing, maintaining and using emissions control equipment and to reflect other costs such as remediation fees and administrative costs. The support activities for transportation industry (NAICS 488) is used to represent ports and terminals and costs to vessels are modeled as increased production costs to all REMI industries that rely on water transportation. The compliance costs to the directly affected entities will result in changes in demand for other industries, and is modeled as a change in final demand. The impact on state, local, and federal government agencies are modeled using REMI's government employment and government spending policy variables. The years of analysis are 2020 through 2032 to simulate the impacts of the Proposed Regulation 12 months post full implementation.

Agency Signature

Date

8/1/2019

Agency Head (Printed)

Richard W. Corey