State of California
Air Resources Board

Proposed Amendments to the Commercial Harbor Craft Regulation

Resolution 22-6

March 24, 2022

Agenda Item No.: 22-5-1

Whereas, Health and Safety Code sections 39600 and 39601 authorize the California Air Resources Board (CARB or Board) to adopt standards, rules and regulations, and to do such acts as may be necessary for the proper execution of the powers and duties granted to, and imposed upon, the Board by law;

Whereas, Health and Safety Code section 43013, subdivision (b) authorizes the Board to adopt standards and regulations for off-road and nonvehicular engine categories, including marine vessels such as commercial harbor craft (CHC), to the extent permitted by federal law;

Whereas, Health and Safety Code section 43018, subdivisions (a) and (d)(3) direct the Board to endeavor to achieve the maximum degree of emission reductions possible from vehicular and other mobile sources, including marine vessels, in order to accomplish the attainment of the state ambient air quality standards at the earliest practicable date;

Whereas, in Health and Safety Code section 39650, the Legislature finds and declares that it is the public policy of the State that emissions of toxic air contaminants should be controlled to levels that prevent harm to the public health;

Whereas, Health and Safety Code sections 39658, 39659, and 39666 authorize the Board to establish airborne toxic control measures (ATCMs) for substances identified as toxic air contaminants in accordance with specified criteria;

Whereas, on August 27, 1998, the Board identified particulate matter from diesel-fueled engines (diesel PM) as a toxic air contaminant pursuant to article 3 (commencing with section 39660), division 26, part 2, chapter 3.5 of the Health and Safety Code;

Whereas, in identifying diesel PM as a toxic air contaminant, the Board determined that there is not sufficient scientific evidence to support identification of a threshold level for diesel PM below which no significant adverse health effects are anticipated; this is codified in title 17, California Code of Regulations (CCR), section 93000;

Whereas, for toxic air contaminants for which the Board has not specified a threshold exposure level, Health and Safety Code section 39666 subdivision (c) requires the development of ATCMs designed to reduce emissions of toxic air contaminants from nonvehicular sources to the lowest level achievable through the application of best available control technology (BACT) or a more effective control method, considering factors specified in section 39665, unless the Board determines, based on an assessment of risk, that an alternative level of emissions reduction is adequate or necessary to prevent endangerment of public health;

Whereas, pursuant to Health and Safety Code section 39669.5, subdivision (a), the Office of Environmental Health Hazard Assessment listed diesel PM as possibly causing infants and children to be especially susceptible to illness;

Whereas, the Legislature has enacted the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Stats 2006, ch. 488, Health and Safety Code section 38500 et seq.) which declares that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California;

Whereas, in enacting the California Global Warming Solutions Act of 2006, the Legislature additionally found that the potential adverse impacts of global warming include "the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other health-related problems."

Whereas, California is already experiencing the adverse effects of climate change, which include increases in the occurrences of wildfire, drought, and heatwaves, reductions in in spring runoff volumes as a result of the declining snowpack, and an increase in ocean acidification on marine organisms, and projections indicate that these effects will continue and worsen over the coming centuries.

Whereas, Health and Safety Code section 38505 defines "greenhouse gas" (GHG) or "greenhouse gases" for purposes of Division 25.5 of the Health and Safety Code as including all of the following gases: carbon dioxide (CO2), methane (CH4), nitrous oxide, hydrofluorocarbons (HFC), perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride;

Whereas, Health and Safety Code section 38510 designates CARB as the State agency charged with monitoring and regulating sources of GHG emissions that cause global warming in order to reduce such emissions;

Whereas, section 38560 of the Health and Safety Code directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions from sources or categories of sources;

Whereas, Health and Safety Code section 38566 directs the Board to ensure that in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions authorized by Division 25.5 of the Health and Safety Code, that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030;

Whereas, Health and Safety Code section 38580 requires the Board to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism adopted by CARB pursuant to Division 25.5 of the Health and Safety Code;

Whereas, Health and Safety Code section 39730 requires the Board to identify measures to reduce short-lived climate pollutants (SLCP), which are powerful climate forcers that can have an immediate and significant impact on climate change;

Whereas, Health and Safety Code section 39730.5 requires the Board to implement measures to reduce emissions of methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, and requires CARB to approve and implement the Short Lived Climate Pollutant Strategy (SLCP Strategy) and the measures identified in the SLCP Strategy;

Whereas, Health and Safety Code section 41511 authorizes CARB to adopt rules and regulations to require the owner or operator of any air pollution emission source to take reasonable actions for the determination of the amount of such emission from such source;

Whereas, Health and Safety Code section 43019.1 authorizes CARB to adopt a schedule of fees to cover all or a portion of its reasonable costs associated with the certification, audit, and compliance of, off-road or nonvehicular engines and equipment, aftermarket parts, and emissions control components sold in the State;

Whereas, CHC are nonvehicular sources that emit significant amounts of air pollutants, including diesel particulate matter (DPM), fine particulate matter (PM2.5), oxides of nitrogen (NOx), oxides of sulfur (SOx), and reactive organic gases (ROG);

Whereas, the Board approved at its November 2007 hearing the initial CHC regulation in Resolution 07-47, and the initial CHC regulation became effective on November 19, 2008;

Whereas, the initial CHC regulation identified Regulated California Waters as a region of water, including all California internal waters, estuarine waters, ports, and coastal waters generally within 24 nautical miles of California's coast, which is a subset of the California Coastal Waters (title 17, CCR, section 70500(b)(1)). The Board previously determined, in Resolutions 05-63, and 07-47, through extensive studies of meteorological, wind, and atmospheric conditions, that emissions of air pollutants within the California Coastal Waters are likely to be transported to coastal communities and have adverse impacts on human health and welfare and the environment;

Whereas, the Board approved amendments to the CHC regulation in June 2010, which became effective on July 20, 2011, which are hereby referred to as the "Current Regulation";

Whereas, the Current Regulation will be fully implemented by the end of 2022 and there will be additional need to reduce emissions from CHC;

Whereas, despite substantial progress in reducing emissions from CHC over the last decade, CHC emissions continue to impact nearby communities, including communities located in ozone and PM2.5 nonattainment areas. In addition, the DPM emissions from CHC impact communities located adjacent to those operations, as well as people living and working miles away;

Whereas, the air pollutants emitted by diesel engines on CHC pose serious health concerns to nearby communities due to near source exposure to such toxic pollutants;

Whereas, DPM is particulate matter (PM) emitted from diesel fueled engines and is composed of carbon particles, such as black carbon (BC or "soot"), and over 40 known cancer causing organic substances;

Whereas, DPM is a toxic air contaminant that can substantially increase the risk of developing cancer and other health problems such as increased respiratory illnesses, risk of heart disease, and premature death;

Whereas, DPM can be inhaled into the upper airways and lungs, creating respiratory ailments leading to public health concerns;

Whereas, NOx emissions from diesel engines on CHC can and do undergo chemical reactions in the atmosphere leading to the formation of PM2.5 and ozone, which have harmful effects on the respiratory system;

Whereas, because NOx is a precursor to both ozone and to secondary PM2.5 formation, reductions in NOx emissions will also provide benefits for meeting the PM2.5 standards;

Whereas, in October 2015, U.S. Environmental Protection Agency adopted a more stringent 70 parts per billion (ppb) ozone standard with an attainment date of 2037 that will likely result in additional areas of the State being classified as nonattainment and therefore requiring even further emission reductions in California's existing nonattainment areas;

Whereas, coastal areas throughout the State continue to be impacted by emissions generated from the approximately 3,159 CHC operating in Regulated California Waters, especially near California seaports and marine terminals;

Whereas, the emissions from CHC directly impact five air basins or counties in California - the San Francisco Bay Area, the San Joaquin Valley, the Ventura County, the South Coast, and the San Diego Air Basins – that are not in attainment with the federal National Ambient Air Quality Standards (NAAQS) for PM2.5 and ozone NAAQS;

Whereas, in 2018, CARB staff presented a scoping evaluation for the Ports of Los Angeles and Long Beach that indicated CHC were one of the top contributors to near source cancer risk in 2016, and would pose an even larger cancer risk in 2023;

Whereas, CHC also emit greenhouse gas (GHG) pollutants and short-lived climate pollutants (SLCP) such as BC;

Whereas, BC, or soot, is emitted from burning fuels such as coal, diesel, and biomass, as well as from various forms of non-fuel biomass combustion;

Whereas, CHC engines could also emit CH4, a SLCP that has an average lifetime of 12.4 years and a global warming potential (GWP) that equals 25 times higher than CO2 emissions over a 100 year time horizon;

Whereas, although some provisions of the Proposed Amendments to the CHC regulation (Proposed Amendments) may result in increased GHG emissions, such as requiring use of DPFs that are generally associated with a small fuel penalty, the Proposed Amendments will result in reduced GHG emissions due to the proposed requirements to use cleaner tiered engines and zero-emission and advanced technology requirements;

Whereas, the Legislature enacted Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017), which highlights the need for further emission reductions in communities with high exposure burdens, such as those located near facilities where CHC operate;

Whereas, the October 2018 Community Air Protection Blueprint (Blueprint) adopted by the Board to implement AB 617, identifies the introduction of new cleaner standards for CHC to reduce emissions and exposure in disproportionately burdened communities throughout the State;

Whereas, Executive Order N-79-20 set a goal to transition to 100 percent zero-emission off-road vehicles and equipment by 2035, where feasible, to put the State on the path to carbon neutrality;

Whereas, to achieve additional emission reductions from CHC, CARB staff has Proposed Amendments, as set forth in Appendix A to the Staff Report: Initial Statement of Reasons (September 2021 Staff Report) released to the public on September 21, 2021;

Whereas, on October 1, 2021, CARB issued an Errata to the September 2021 Staff Report to reflect corrections to the methodology for implementing existing cost inputs and assumptions, and references to subsection numbers of the Proposed Amendments;

Whereas, the Proposed Amendments were discussed at six public workshops/webinars, as well as hundreds of outreach meetings and teleconferences with stakeholders including: industry representatives, public agency staff, vessel operators, ports' staff, environmental justice groups, nearby community members impacted by CHC emissions, other interested parties, and the general public; which were held between December 2018 and March 2022;

Whereas, the Current Regulation does not impose in-use requirements on engines on existing workboats, pilot vessels, commercial fishing vessels, commercial passenger fishing vessels (CPFVs), research vessels, and all barges (towed or pushed) over 400 feet in length or otherwise meeting the definition of an ocean-going vessel;

Whereas, the Proposed Amendments would expand the vessel categories subject to in-use vessel requirements to include tank barges, pilot vessels, workboats, research vessels, CPFVs, and commercial fishing vessels;

Whereas, the Proposed Amendments would require new excursion vessels to be built with zero emission capable hybrid technology starting December 31, 2024, and require both new build and in-use short run ferries to adopt zero-emission and advanced technology by December 31, 2025;

Whereas, the Proposed Amendments would incentivize the early adoption of zero-emission and advanced technology where not required, by providing additional compliance time for an engine in the same fleet as the vessel with zero-emission and advanced technology;

Whereas, the Proposed Amendments are anticipated to result, through mandates and incentivized through credits and alternative plans, in in the deployment of 109 vessels with zero-emission and advanced technology;

Whereas, the Current Regulation exempts engines from in-use emission standards with a power rating of less than 50 hp;

Whereas, approximately 24 percent of auxiliary engines on CHC are rated below 50 hp, and emissions from such engines contribute approximately 9 percent of total auxiliary engine DPM emissions;

Whereas, the Proposed Amendments would remove the current exemption of engines with a power rating of less than 50 hp, from the in-use emission standards;

Whereas, a comparison between CARB's self-reported harbor craft database and the United States Coast Guard's Merchant Vessel list indicates that about one-third of the State's harbor craft have not satisfied the reporting requirements of the Current Regulation;

Whereas, unreported CHCs may have non-compliant engines, and will impede CARB's ability to locate, identify, and ensure that such vessels are compliant with the regulation or are achieving the intended emission reductions;

Whereas, the Proposed Amendments contain a number of compliance flexibilities to accommodate situations that would impair the ability of a CHC owner to comply with provisions of the Proposed Amendments, including a provision providing flexibility for CHC with compliance dates on or before December 31, 2024, if disruptions from the global situation that began in 2020 remain longer than expected;

Whereas, the Proposed Amendments would specifically provide extensions in situations where the engines or emission control technology required by the Proposed Amendments is not feasible on an in-use vessel and operator cannot afford to purchase a new, compliant vessel. Unlimited extensions would be available for dedicated workboats, up to eight years of extensions would be available for excursion, ferry, and CPFVs with compliance deadlines on or before December 31, 2024, and up to six years of extensions (not to extend past December 31, 2034) would be available for all other regulated in-use vessel categories;

Whereas, the Proposed Amendments would establish an Alternative Control of Emissions (ACE) option that would allow owners and operators to comply with the Proposed Amendments by implementing alternative emission control strategies that achieve equivalent or additional emission reductions relative to requirements of subsection (e)(12) of the Proposed Amendments;

Whereas, some CHC vessels operate up to 40 percent of all operational hours (over the lifetimes of their engines) in engine idling modes;

Whereas, the Proposed Amendments would prohibit CHC from idling propulsion engines or operating auxiliary generator engines for more than 15 minutes when docked, berthed, or moored, or 30 minutes for the initial start up of each day or new working shift;

Whereas, The Proposed Amendments would require CHC to use at least 99 percent Renewable Diesel (R99 or R100) as a direct replacement for fossil fuel diesel fuel;

Whereas, CHC are forecasted to use approximately 55 million gallons of fuel in 2023;

Whereas, discussions with renewable diesel producers, and recent news that large oil companies are transitioning their refineries to produce solely R100 indicates that there will be enough renewable diesel available to accommodate the increase in demand from the requirements of the Proposed Amendments;

Whereas, an analysis by CARB staff showed that a 10 percent NOx emission reduction and a 30 percent PM emission reduction will be achieved by using renewable diesel fuel compared to the use of fossil based CARB diesel fuel. In addition, renewable diesel has significantly

lower lifecycle carbon intensity than standard CARB low sulfur diesel fuel, and its use will result in reduction of GHG emissions;

Whereas, the Current Regulation does not have any mechanism that allows CARB to require an operator of a CHC that is exhibiting visible emissions to identify the cause of the visible emissions and take corrective action;

Whereas, the Proposed Amendments would require all main propulsion diesel engines on harbor craft to be opacity tested and to meet applicable opacity limits whenever the test procedure is administered;

Whereas, the Proposed Amendments would require CHC to be labeled with CARB assigned Unique Vessel Identifiers by January 1, 2024;

Whereas, currently there is insufficient infrastructure to support the widespread deployment of zero emission and other advanced technologies, some CHC operating in California are currently capable of zero-emission operation, but limited infrastructure is available to maximize the use of zero emission operation and reduce emissions;

Whereas, the introduction of zero emission power systems is expanding, from both new and established marine powertrain manufacturers;

Whereas, the majority of facilities have docks or slips that are equipped with shore power capabilities that enable harbor craft auxiliary engines to operate using electricity while at dock;

Whereas, the Proposed Amendments would require facility owners and operators to be jointly responsible for the installation and maintenance of shore power infrastructure of up to 99 kW to support the power requirements of visiting CHC vessels by January 1, 2024;

Whereas, the September 2021 Staff Report, as amended by the Errata issued on October 1, 2021, identifies and explains the need and appropriate degree of regulation necessary to reduce emissions of diesel PM, NOx, and other pollutants from CHC;

Whereas, the September 2021 Staff Report, as amended by the Errata issued on October 1, 2021, projected that the Proposed Amendments will reduce cumulative Statewide emissions of diesel PM by 1,680 tons from 2023 through 2038;

Whereas, the Proposed Amendments are projected to reduce total diesel PM emissions by approximately 39 tons per year (90 percent) and 52 tons per year (91 percent) for the South Coast Air Basin and San Francisco Bay Area Air Basin, respectively in 2038;

Whereas, the September 2021 Staff Report, as amended by the Errata issued on October 1, 2021, further discussed that by 2038, the Proposed Amendments would decrease maximum cancer risks of greater than 900 chances in a million to less than 50 chances per million in the San Francisco Bay Area Air Basin, and to less than 100 chances per million in the South Coast Air Basin;

Whereas, the September 2021 Staff Report, as amended by the Errata issued on October 1, 2021, indicated that reductions in exposure to diesel PM and NOx emissions from the Proposed Amendments would result in the reduction of approximately 531 premature deaths, 161 avoided hospital admissions, and 236 avoided emergency room visits between

2023 and 2038. The total statewide valuation due to such avoided health outcomes between 2023 and 2038 is $5.25 billion;

Whereas, the September 2021 Staff Report, as amended by the Errata issued on October 1, 2021, the total estimated statewide costs of the Proposed Amendments from 2023 to 2038 are $1.98 billion (amortized costs);

Whereas, the September 2021 Staff Report, as amended by the Errata issued on October 1, 2021, proposed regulatory language, and other required documents were made available to the public for at least 45 days prior to the public hearing to consider the proposed regulatory action;

Whereas, in consideration of the above facts, circumstances, and analyses, staff has proposed the Amendments to the Commercial Harbor Craft Regulation for adoption by the Board;

Whereas, the Board has considered the impact of the proposed Amendments on the economy of the state and the potential for adverse economic impacts on California business enterprises and individuals;

Whereas, CARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and CARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60005);

Whereas, CARB prepared a draft environmental analysis under its certified regulatory program for the Proposed Amendments, entitled *Draft Environmental Analysis Prepared for Proposed Amendments to the CHC Regulation* (Draft EA), and circulated it for comment as Appendix D to the Staff Report for a 45-day public comment period from September 24, 2021, through November 8, 2021, and released an errata document on October 1, 2021, and extended the comment period until November 15, 2021;

Whereas, the Draft EA concluded that the implementation of the Proposed Amendments have the potential to result in less than significant impacts to long-term air quality, energy demand, greenhouse gases, land use and planning, mineral resources, population, employment and housing, public services, recreation, and wildfire. Implementation of the Proposed Amendments has the potential to result in potentially significant and unavoidable adverse impacts to aesthetics, agriculture and forestry resources, short-term construction-related impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, traffic and transportation, tribal cultural resources, and utilities and service systems;

Whereas, staff described the Proposed Amendments to the existing Commercial Harbor Craft Regulation and the Draft EA prepared for the proposal to the Board at the Board's November 19, 2021 public hearing;

Whereas, during the November 19, 2021 hearing the Board directed staff to conduct additional outreach including providing information regarding incentive opportunities, explore opportunities for simplification of the extension request process, commit to conducting technology assessments in the future to report on technology advancement

progress, and explore opportunities for CHC zero-emission contingency measures to include in the State Implementation Plan;

Whereas, due to the unique construction, design, and material of many inspected CPFVs and lack of feasibility to upgrade to the proposed performance standards today, early adoption of engines meeting Tier 3 standards provides early emission reductions and a path forward to cooperate with industry to advance zero-emission and advanced technology;

Whereas, staff reviewed written comments received on the Draft EA and prepared written responses to those comments in a document entitled *Response to Comments on the Environmental Analysis Prepared for the proposed Amendments to the Commercial Harbor Craft Regulation* (Response to EA Comments);

Whereas, on March 14, 2022**,** staff posted on the rulemaking page the Final EA, which includes minor revisions, and the Response to EA comments;

Whereas, prior to the duly noticed public hearing held on March 24, 2022, staff presented the Final EA and the Response to EA Comments, as released to the public on March 14, 2022;

Whereas, a public hearing and other administrative proceedings have been held according to the provisions of Chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

1) Whereas, in consideration of the ISOR, written comments, and public testimony, the Board finds that: Despite advances in reducing emissions from mobile sources, stationary sources, and area sources, California still has the most severe air pollution problems in the United States.
2) To meet federal and California Clean Air Act emission reduction requirements, CARB must continue to seek reductions from all sources under its authority, including marine vessels.
3) Emissions from CHC are a significant contributor to air pollution and associated health impacts in many impacted seaport communities.
4) Meteorological patterns can carry CHC pollution many miles to far inland communities (i.e., under the Current Regulation, the 1 chance per million cancer risk isopleth in the South Coast Air Basin extends to inland communities more than 50 miles from the coastline).
5) Additional emission reductions are needed from CHC to further reduce emissions of diesel PM and the associated localized cancer risk in communities surrounding seaports, marinas, harbors, and marine terminals.
6) Additional emissions reductions of NOx and PM2.5 are needed from CHC to support regional attainment of the health-based NAAQS for ozone and PM2.5, and to reduce GHG emissions that contribute to global climate change.
7) Additional reductions of NOx emissions from CHC are needed to assist the South Coast and San Joaquin Valley Air Basins in attaining national air quality standards.
8) Reducing GHG emissions from CHC will help to achieve California's goals to reduce emissions of both GHGs and SLCPs.

9) Anthropogenic climate change is a significant and growing problem that must be addressed to avoid more serious effects in the near future.

10) To reduce the mounting impacts of climate change, it is important to lower emissions of GHGs and SLCPs from vessels.

11) California is already experiencing the adverse effects of climate change, which include increases in the occurrences of wildfire, drought, and heatwaves, reductions in in spring runoff volumes as a result of the declining snowpack, and an increase in ocean acidification on marine organisms, and projections indicate that these effects will continue and worsen over the coming centuries.

12) Expanding the CHC vessel categories subject to in-use vessel requirements is needed to further reduce emissions from CHC, including diesel PM and NOx, to the greatest degree possible.

13) More stringent low-use exemption thresholds are needed for CHC that operate in areas located near disadvantaged communities to further reduce CHC emissions that impact disadvantaged communities.

14) The Proposed Amendments contain provisions that establish compliance extensions that provide flexibility for vessel owners and operators to comply with the regulation for feasibility, financial, and scheduling issues in aligning with their unique business and operational decisions.

15) Requiring CHC to reduce idling by shutting off engines or by plugging into shore power will reduce emissions of GHG and criteria pollutants, will reduce near source exposures to DPM and NOx, as well as operator fuel expenses.

16) Requiring CHCs to use renewable diesel will result in reductions of DPM and NOx emissions from CHC engines.

17) Requiring all main propulsion diesel engines on CHC to perform and comply with opacity testing limits will allow CARB to require CHC operators to identify the cause(s) of excess emissions and to take necessary corrective actions.

18) Requiring enhanced vessel reporting and new facility reporting requirements will help CARB ensure that CHC and facility owners and operators comply with the Proposed Amendments.

19) Requiring short-run ferries and excursion vessels to use zero-emission technology at California ports and harbors will achieve reductions of toxic air contaminants, criteria pollutants, and GHGs meeting the directive of EO N-79-20.

20) Assessing fees is needed to recover CARB's costs associated with receiving and processing vessel owner or operator and facility reports, including outreach and follow-up with regulated parties, reviewing and approving compliance extension requests, and enforcing the regulation.

21) The Proposed Amendments are projected to reduce cumulative Statewide emissions of diesel PM by 1,680 tons from 2023 through 2038.

22) The Proposed Amendments are projected to reduce cumulative Statewide emissions of NOx by 34,340 tons from 2023 through 2038.

23) The Proposed Amendments are projected to reduce cumulative Statewide emissions of reactive organic gases (ROG) by 2,460 tons from 2023 through 2038.

24) The Proposed Amendments are projected to reduce cumulative Statewide emissions of GHG by 415,060 metric tons from 2023 through 2038.

25) The Proposed Amendments are consistent with CARB's environmental justice goals of reducing exposure to air pollutants and reducing adverse health impacts from toxic air contaminants in all communities, especially those historically overburdened by air pollution sources.

26) The Proposed Amendments were developed in an open public process, in consultation with affected parties, through numerous public workshops, individual meetings, and other outreach efforts, and these efforts are expected to continue as the regulation is implemented and future revisions to it are considered;

Whereas, the Board further finds, based on its independent judgment and analysis of the entire record before it, including the September 2021 Staff Report, the October 1, 2021 Errata to the September 2021 Staff Report, the written comments, and the public testimony it has received, that:

The Proposed Amendments meet the statutory requirements to adopt standards and regulations, in-use performance standards and other regulations for nonvehicular engine categories that are necessary, cost-effective and technologically feasible, as identified in section 43013, subdivisions (a) and (b) of the Health and Safety Code;

The Proposed Amendments meet the statutory requirement to reduce NOx emissions from marine vessels which significantly contribute to air pollution problems as expeditiously as feasible, as identified in section 43013, subdivision (h) of the Health and Safety Code;

The compliance schedules established by the Proposed Amendments are necessary, cost-effective, and technologically feasible;

The Proposed Amendments contain numerous provisions that provide additional flexibility for vessel owners and operators to comply with the regulation for feasibility, financial, and scheduling issues;

The economic and fiscal impacts of the Proposed Amendments have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in Chapter IX of the Staff Report, as supplemented by staff's presentation at the hearing of this item;

No reasonable alternatives to the Proposed Amendments considered to date, or that have otherwise been identified and brought to the attention of CARB, would be more effective at carrying out the purpose for which the Proposed Amendments is proposed, or would be as effective and less burdensome, to affected entities businesses than the Proposed Amendments;

The reporting requirements applicable to businesses in the Proposed Amendments are necessary for the health, safety, and welfare of the people of the State;

The Proposed Amendments are necessary, appropriate, and technologically feasible;

The Proposed Amendments are consistent with CARB's environmental justice policies and do not disproportionately impact people of any race, culture, income, or national origin;

The Board recognizes the need for the compliance extensions to incorporate flexibility, which will enable staff to consider factors regarding the technical availability of engines and emission control devices, the technical feasibility of modifying existing vessels to accommodate such engines and emission control devices, scheduling issues, and the financial capabilities of owners.

Now, therefore, be it resolved that the Board hereby certifies that the Final EA, as released to the public on March 14, 2022, was completed in compliance with CARB's certified regulatory program to meet the requirements of CEQA, reflects the agency's independent judgment and analysis, and was presented to the Board whose members reviewed and considered the information therein before taking action to approve the Proposed Amendments.

Be it further resolved that the Board approves the Response to EA Comments as released to the public on March 14, 2022, as well as the Supplemental Response to EA Comments provided to the Board during the March 24, 2022 hearing and set forth in Attachment B to this resolution.

Be it further resolved that in consideration of the Final EA, the Response to EA Comments, and the entirety of the record, the Board adopts the Findings and Statement of Overriding Considerations set forth in Attachment A to this resolution.

Be it further resolved that the Board hereby approves for adoption amendments to section 2299.5, title 13, California Code of Regulations, and amendments to section 93118.5, title 17, California Code of Regulations, as set forth in Appendix A to the Initial Statement of Reasons released to the public on September 21, 2021.

Be it further resolved that the Board hereby directs the Executive Officer to take the following actions:

a. Work with stakeholders to identify and to provide information needed to assist regulated entities in complying with the amendments to section 2299.5, title 13, California Code of Regulations, and the amendments to section 93118.5, title 17, California Code of Regulations, including, but not limited to, potential incentive program opportunities and technical documentation.

b. Establish a technical working group to assess the commercial availability of lower-emitting combustion engines and zero-emission technology for all categories of harbor craft. Using input from this technical working group and other data provided by industry, report back to the Board by December 31, 2024 and thereafter, no less frequently than biennially through December 31, 2032, on the status of cleaner combustion and zero-emission technology available for harbor craft.

c. Modify regulatory language to include an additional extension pathway option through 2034 for CPFVs that have replaced all onboard engines to meet Tier 3 or newer standards by the end of 2024.

d. No later than 2028, conduct a Midterm Review on the requirements for the CPFV fleet, and return to the Board to present findings and recommendations based on those findings. The Board can then consider such findings and recommendations and could direct staff to develop proposed regulatory amendments to address approved recommendations beginning in 2028.

e. Consider further options to provide additional flexibility in the provisions that establish compliance extensions to qualifying applicants.

f. Explore the feasibility of including zero-emission technology requirements for commercial harbor craft as a contingency measure in future SIPs.

Be it further resolved that the adopted regulatory text may be further revised with non-substantial or grammatical changes, which will be added to the rulemaking record and indicated as such.

Be it further resolved that the Board directs the Executive Officer to determine if additional sufficiently related modifications to the amendments to section 2299.5, title 13, California Code of Regulations, and to section 93118.5, title 17, California Code of Regulations, as set forth in Appendix A to the Initial Statement of Reasons released to the public on September 21, 2021, are appropriate, and that if no additional modifications are appropriate, the Executive Officer shall take CARB's final step for final approval of such amendments through submittal of the Board-approved rulemaking package to the Office of Administrative Law. If the Executive Officer determines that additional sufficiently related substantial modifications are appropriate, the modified regulatory language shall be made available for public comment, with any additional supporting documents and information, for at least 15 days, and the Executive Officer shall consider written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days. The Board delegates to the Executive Officer the authority to both (1) either approve or disapprove proposed changes in regulatory language under Government Code section 11346.8(c), and (2) conduct any appropriate further environmental review associated with such changes, consistent with the Board's Certified Regulatory Program regulations, at California Code of Regulations, title 17, sections 60000-60008, for those sufficiently related substantial modifications. Alternatively, rather than taking action on the proposed modifications, the Executive Officer may instead present the modifications, and any appropriate further environmental review associated with the modifications, to the Board for further consideration, if the Executive Officer determines further Board consideration is warranted.

Be it further resolved that the Board directs the Executive Officer to finalize the Final Statement of Reasons, submit the completed rulemaking package to the Office of Administrative Law, and transmit the Notice of Decision to the Secretary of the Natural Resources Agency for posting.

Be it further resolved that the Board hereby determines that the amended regulations adopted herein will not cause California's off-road engine emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards.

Be it further resolved that the Board hereby determines, in accordance with section 209, subdivision (e)(2) of the Clean Air Act (CAA), that California needs its off-road engine emissions control program to meet compelling and extraordinary conditions.

Be it further resolved that, to the extent necessary, the Executive Officer shall, upon adoption, forward the regulations to the Environmental Protection Agency with a request for an authorization or confirmation that the regulations are within the scope of an existing authorization pursuant to section 209, subdivision (e)(2)(A) of the CAA, as appropriate.

I hereby certify that the above is a true and correct copy of Resolution 22-6 as adopted by the California Air Resources Board.

Katie Estabrook, Board Clerk

Resolution 22-6

March 24, 2022

Identification of Attachments to the Board Resolution

Attachment A: Findings and Statement of Overriding Considerations

Attachment B: Supplemental Responses to Comments on the Environmental Analysis prepared for the Proposed Amendments to the Commercial Harbor Craft Regulation

ATTACHMENT A

PROPOSED

FINDINGS and STATEMENT OF OVERRIDING CONSIDERATIONS

Introduction

The California Air Resources Board (CARB), as the lead agency for the *Proposed Amendments to the Commercial Harbor Craft Regulation* (Proposed Amendments or Proposed Project), prepared a Draft Environmental Analysis (EA) in accordance with its certified regulatory program (Cal. Code Regs., tit. 17, §§ 60000 – 60008) to comply with the requirements of the California Environmental Quality Act (CEQA) (Pub. Resources Code, §21000, *et seq.*). The Draft EA, entitled *Draft Environmental Analysis prepared for the Proposed Amendments to the Commercial Harbor Craft Regulation*, included as Appendix D to the Staff Report (Initial Statement of Reasons) for the Proposed Amendments, provided an analysis of the potential environmental impacts associated with the Proposed Amendments. Following circulation of the Draft EA for a public review and comment period from September 24, 2021, through November 15, 2021, CARB prepared the *Final Environmental Analysis prepared for Proposed Amendments to the Commercial Harbor Craft Regulation* (Final EA) which includes minor revisions to the Draft EA. While updates have been made to the EA to ensure it reflects the Proposed Amendments as accurately as possible, these changes merely clarify, amplify, or make insignificant modifications to the otherwise-adequate Draft EA. These modifications would not result in any new reasonably foreseeable significant environmental impacts or substantially increase the severity of an identified environmental impact. The Draft EA's findings, overall significance conclusions, mitigation measures and alternatives adequately address the environmental review for the proposed modifications. Therefore, there is no significant new information that would require the EA to be recirculated. The Final EA was posted on CARB's webpage on March 14, 2022.

This statement of findings and overriding considerations was prepared to comply with CEQA's requirement to address the environmental impacts identified in the Final EA. (Pub. Resources Code, §§ 21081, 21081.6, Cal. Code Regs, tit. 14, §§ 15091, 15093.) The Final EA is based on the expected compliance responses of the regulated entities covered by the Proposed Amendments. Although the policy aspects and requirements of the Proposed Amendments would not directly change the physical environment, there are potential indirect physical changes to the environment that could result from reasonably foreseeable actions undertaken by entities in response to the Proposed Amendments. These indirect impacts are the focus of the programmatic-level impacts analysis in the Final EA.

Collectively, across all categories, the Final EA concluded that the reasonably foreseeable compliance responses associated with the Proposed Amendments could result in the following short-term and long-term impacts: less than significant or no impacts to air quality (operational impacts or long-term), energy demand, greenhouse gas emissions and climate change, land use, mineral resources, population, employment and housing, public services,

recreation and wildfire; and potentially significant adverse impacts to aesthetics, agriculture and forestry resources, air quality (construction related or short-term), biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise and vibration, transportation and traffic, tribal cultural resources and utilities and service systems. The potentially significant and unavoidable adverse impacts are disclosed for both short-term, construction-related activities and long-term operational activities, which is why some resource areas are identified above as having both less-than-significant impacts and potentially significant impacts.

CARB's certified regulatory program requires that before adoption of an action for which significant adverse environmental impacts have been identified during the review process, CARB consider feasible mitigation measures and alternatives that could substantially reduce the impacts. (Cal. Code Regs, tit. 17, §60004.2.) CEQA places the burden on the approving agency to affirmatively show that it has considered feasible mitigation and alternatives that can lessen or avoid identified impacts through a statement of findings for each identified significant impact. (Pub. Resources Code, §21081.) CEQA Guidelines section 15091 provides direction on the content of the statement of findings. That section states that one or more of the following findings should be identified for each impact:

- Changes or alterations have been required in, or incorporated into, such projects which avoid or substantially lessen the significant environmental effect as identified in the final environmental impact report.

- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report.

The potential adverse impacts identified in this programmatic level EA are potential indirect impacts associated with the compliance responses reasonably foreseeable in response to the Proposed Amendments based on currently available information. The ability to determine site- or project-specific impacts of projects carried out by third parties and the authority to require feasible mitigation lies with those agencies with authority to approve such actions, e.g. local permitting authorities in city or county governments and local air districts. CARB does not have the ability to determine with any specificity the project level impacts, nor the authority to require project-level mitigation in approving the Proposed Amendments, as discussed in the findings below.

An agency may approve a project with unavoidable (unmitigated) adverse environmental impacts. When doing so, CEQA requires the agency to make a statement in the record of its views on the ultimate balancing of the merits of approving the project despite the environmental impacts in a "statement of overriding considerations". (Pub. Resources Code, §21081(b); Cal. Code Regs, tit. 14, §15093.) The following presents the CARB

Board's (Board) statement of findings for each significant adverse impact identified in the Final EA, accompanied by a brief explanation, and its statement of overriding considerations.

STATEMENT OF FINDINGS

The Board has independently reviewed and considered the entire record, including the information contained in the Final EA, public testimony, written comments received, and the written responses to environmental comments, all of which are hereby incorporated by reference. The Board makes the following written findings for each significant adverse impact identified, accompanied by a brief explanation of the rationale for each finding. These findings are supported by substantial evidence in the record.

Aesthetics

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on aesthetic resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. The compliance responses described here could adversely affect visual resources by adding new equipment and structures.

The Final EA includes Mitigation Measures 1-1 and 1-2, which identify existing statutes and regulations and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore,

the Board finds that the authority to implement Mitigation Measures 1-1 and 1-2 are within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 1-1 and 1-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Impacts may be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval at a later stage. But at this stage, the Board lacks full details on the design of potential programs and associated required mitigation. Consequently, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Agriculture and Forestry Resources

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on agriculture and forestry resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. The compliance

responses described here could potentially occur in areas currently zoned for or supporting agriculture and forestry resources.

The Final EA includes Mitigation Measure 2-1, which identifies existing statutes and regulations and construction and operating permit requirements as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 2-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 2-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Impacts may be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval at a later stage. But at this stage, the Board lacks full details on the design of potential programs and associated required mitigation. Consequently, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Air Quality

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land Based) impacts on air quality. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power

meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. The construction of these facilities and functions could result in some amount of short-term increased emissions.

As described in greater detail in the Final EA, it would be expected that the primary sources of construction-related emissions would occur from soil disturbance and use of construction equipment. It is expected that during the construction phase for any new project, criteria air pollutants (e.g., oxides of nitrogen (NOx), oxides of sulfur (SOx), and particulate matter (PM)) and toxic air contaminants (TACs) could be generated from a variety of activities and emission sources, such as equipment use and worker commute trips.

The Final EA included Mitigation Measure 3-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 3-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 3-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This impact potential is overridden by the project's benefits as set forth in the statement of overriding considerations.

Biological Resources

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on biological resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to

vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. The potential for adverse construction-related effects related to these activities on biological resources would mainly be limited to pile driving, installation of piping and staging areas associated with facility modifications. Direct mortality could result from destruction of dens, burrows, or nests through ground compaction, ground disturbance, debris, or vegetation removal within port facility and marine terminal sites. Indirect impacts to species could result from construction noise disturbance that might cause nest or den abandonment and loss of reproductive or foraging potential around the site during construction, transportation, or destruction of equipment and existing structures. Long-term operation of these facilities would often include the presence of workers; movement of automobiles, trucks, and heavy-duty equipment; and operation of stationary equipment. As is generally the case, this environment would generally not be conducive to the presence of biological resources located on-site or nearby.

The Final EA included Mitigation Measures 4.-1 and 4.-2, which identify existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 4.-1 and 4.-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 4.-1 and 4.-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This impact potential is overridden by the project's benefits as set forth in the statement of overriding considerations.

Cultural Resources

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on cultural resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. Presence of new infrastructure may change the visual setting of the surrounding area, which could adversely affect historic resources and districts with an important visual component. For example, although it is unlikely such a facility would be sited in a historic district, a new industrial building or control system may not be consistent with the visual character of a historic district. As a result, construction and operational impacts would be potentially significant.

The Final EA included Mitigation Measure 5-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county

governments. Therefore, the Board finds that the authority to implement Mitigation Measure 5-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 5-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Geology and Soils

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on geology and soil resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. These activities would

have the potential to adversely affect soil and geologic resources. There is inherent uncertainty surrounding the location and magnitude of such facilities, which could be located outside of California. As such, it is conceivable that a facility could be located on soils incapable of supporting facility generated wastewater. Hard rock lithium ion extraction, which would be expected to occur outside of the state and U.S., would have adverse effects to erosion from potential loss of forests and soil disturbance.

The Final EA included Mitigation Measure 7-1, which identifies existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 7-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 7-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Hazards and Hazardous Materials

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially short-term construction-related (land based) impacts and long-term operational-related (land based) impacts on hazards and hazardous material resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells.

An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. As described in greater detail in the Final EA, construction activities generally use heavy-duty equipment requiring periodic refueling and lubricating fluids. It is during the transfer of fuel that the potential for an accidental release is most likely. Although precautions would be taken to ensure that any spilled fuel is properly contained and disposed, and such spills are typically minor and localized to the immediate area of the fueling (or maintenance), the potential remains for a substantial release of hazardous materials into the environment. The long-term operation of new infrastructure and facilities associated with the Proposed Amendments would result in the routine transport, use, and disposal of hazardous materials. Harmful substances can enter the environment in several ways throughout the entire cycle of alternative fuel production, manufacturing, transportation, storage, distribution, and usage.

The Final EA includes Mitigation Measures 9-1 and 9-2, which identify existing statutes and regulations and construction and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 9-1 and 9-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 9-1 and 9-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource is inherently uncertain.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Hydrology and Water Quality

Finding and Explanation

The Final EA found reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction related (land based) impacts and long-term operational (land based) impacts on hydrology and water quality resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. As described in greater detail in the Final EA, construction activities could require disturbance of undeveloped areas, such as clearing of vegetation, earth movement and grading, trenching for utility lines, erection of new buildings, and paving of parking lots, delivery areas, and roadways. Specific construction projects would be required to comply with applicable erosion, water quality standards, and waste discharge requirements (e.g., NPDES, Stormwater Pollution Prevention Plan [SWPPP]). With respect to depleting groundwater supplies, new facilities are not anticipated to result in substantial groundwater demands. The increased demand for lithium-ion batteries would slightly increase the demand for mined lithium. Lithium is mainly obtained from areas outside of the United States, where State and federal laws and regulations are not enforced. Thus, water quality impacts related to mining could occur because of implementation of the reasonably foreseeable compliance responses associated with the Proposed Amendments.

The Final EA included Mitigation Measures 10-1 and 10-2, which identify existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation

Measures 10-1 and 10-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 10-1 and 10-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Noise

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on noise resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. As described in greater detail in the Final EA, implementation of the Proposed Amendments could result in the generation of short-term

construction noise levels in excess of applicable standards or that result in a substantial increase in ambient levels at nearby sensitive receptors, and exposure to excessive vibration levels. New sources of noise associated with implementation of Proposed Amendments could include operation of manufacturing facilities and mining operations.

The Final EA included Mitigation Measures 13-1 and 13-2, which identify existing statutes and regulations and construction and operational permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 13-1 and 13-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 13-1 and 13-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Transportation and Traffic

Finding and Explanation

The Final EA found that reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction-related (land based) impacts and long-term operational (land based) impacts on transportation and traffic resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling,

refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. As described in greater detail in the Final EA, construction of new infrastructure and facilities would result in short-term construction traffic (primarily motorized) in the form of worker commute and material delivery trips. Depending on the amount of trip generation and the location of new facilities, implementation could conflict with applicable programs, plans, ordinances, or policies (e.g., performance standards, congestion management); and/or result in hazardous design features and emergency access issues from road closures, detours, and obstruction of emergency vehicle movement, especially due to project-generated heavy-duty truck trips. Long-term operational-related activities associated with deliveries and distribution of goods could result in the addition of new trips, which could affect roadway service levels. New facilities may result in additional egress/ingress points or increased traffic that would result in hazardous conditions on local roadways. Inadequate access may impede emergency vehicle access to new facilities.

The Final EA included Mitigation Measures 17-1 and 17-2, which identify existing statutes and regulations and construction permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measures 17-1 and 17-2 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measures 17-1 and 17-2 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Tribal Cultural Resources

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction related (land based) and long-term operational related (land based) impacts on tribal cultural resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. As described in more detail in the Final EA, the Proposed Amendments could result in construction of a variety of facilities, including for use of alternative fuels, which would require ground disturbance. In general, harbors and marinas are in industrial, previously disturbed locations. Regardless, there is a possibility that they may be in or adjacent to a region that is a tribal cultural resource or that contains a tribal cultural resource. Facilities outside of harbors and marinas may also be in areas that are or contain these resources. Presence of new infrastructure may change the setting or other attributes of the surrounding area, which could adversely affect tribal cultural resources, as determined by a California Native American Tribe. The increased demand for lithium-ion battery storage and fuel cells could result in an extremely small increase in lithium and platinum mining. Ground disturbing activities from hard rock and continual brine mining activities could affect areas and resources that are considered tribal cultural resources, particularly if that location is considered a sacred place of cultural value to a Tribe.

The Final EA includes Mitigation Measure 18-1, which identifies existing statutes and regulations and construction and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county

governments. Therefore, the Board finds that the authority to implement Mitigation Measure 18-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 18-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource is inherently uncertain.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Utilities and Service Systems

Finding and Explanation

The Final EA found that the reasonably foreseeable actions associated with implementation of the Proposed Amendments could result in potentially significant short-term construction related (land based) and long-term operational related (land based) impacts on utilities and service systems resources. Reasonably foreseeable compliance responses to the Proposed Amendments include vessel replacement, vessel engine replacement, modifications to vessel engines, and vessel retirement. Production of the majority of new vessels is expected to occur outside of California, and most retired vessels are expected to be sold out of state. For both excursion vessels and short-run ferries, the most likely technology to be used is battery electric. Battery-electric technology could result in an extremely small increase demand for lithium-ion based batteries, similarly increasing manufacturing and recycling activities at existing facilities domestically and abroad as well as increasing lithium mining and exports from countries with raw mineral supplies. It is possible that compliance responses may contribute at some level to demand for fuel cells. An increase in demand for fuel cells could result in an extremely small increase in platinum mining and exports from source countries or other states and increased recycling, refurbishment, or disposal of hydrogen fuel cells. All-electric vessels would require high power charging at one or both sides of their routes. This could result in construction of new infrastructure or modification of existing infrastructure (e.g., high voltage cable lines, power meters, and circuit breaker main cabinets, pile driving to reinforce docks) to facilitate shore power. Implementation of the Proposed Amendments could also require substantial new and improved infrastructure (e.g., pipelines, compressor stations, export terminals, fueling stations) to support the use of alternative fuels, Tier 4 engines, and fuel cells. In addition, the Proposed Amendments could result in new construction or modification of existing infrastructure to support vessel shore power requirements; however, these activities are not anticipated to include structural modification to docks or terminals. As described in greater detail in the Final EA,

depending on the location, new facilities may require new utility service lines and connections. At this time, the specific location, type, and number of new facilities that would be developed is not known and would be dependent upon a variety of market factors that are not within the control of CARB. Therefore, the ultimate magnitude and location of demand for utilities such as water and wastewater cannot be known. However, common impacts to utilities and service systems could include exceedances in wastewater treatment requirements of the applicable Regional Water Quality Control Board, requiring the construction of new wastewater treatment infrastructure and/or plants as well as new or expanded stormwater drainage facilities, producing water demand in exceedance of available water supplies, and generating levels of solid waste that exceeds an existing landfill's capacity.

The Final EA includes Mitigation Measure 19-1, which identifies existing statutes and regulations and construction and operating permit requirements, as well as other recognized practices designed to reduce these potentially significant impacts. The Board finds that the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Therefore, the Board finds that the authority to implement Mitigation Measure 19-1 is within the responsibility and jurisdiction of other public agencies, and that the requirements and practices in Mitigation Measure 19-1 should be adopted by those agencies. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible. Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to this resource is inherently uncertain.

Consequently, at this stage without full details on the design of potential programs and associated required mitigation, while impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts to this resource associated with the proposed actions in the Proposed Amendments would be potentially significant and unavoidable. This potential impact is overridden by the project's benefits as set forth in the statement of overriding considerations.

Cumulatively Considerable Impacts

The applicable plan containing the appropriate summary of projections for considering cumulative impacts of the Proposed Amendments is the Community Air Protection Blueprint. The analysis of cumulative impacts for the Proposed Amendments included a summary of the cumulative impacts found for each resource area in this plan, and a conclusion regarding whether the Proposed Amendments could result in a cumulatively considerable contribution to an existing significant cumulative impact.

The Final EA concluded the Proposed Amendments could result in a cumulatively considerable contribution to significant cumulative impacts to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils,

hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, tribal cultural resources and utilities and service systems. While suggested mitigation is provided within the respective resource areas of the Final EA analyses that could address the contribution of the Proposed Amendments to each of these potentially cumulatively considerable impacts, the Board finds that because these adverse impacts are potential indirect impacts associated with the compliance responses of covered entities, the authority to determine site- or project-specific mitigation is within the purview of jurisdictions with land use approval and permitting authority, such as city or county governments. Public agencies with the requisite authority can and should implement the identified measures to the degree feasible.

Because the authority and responsibility to determine project-level impacts and require project-level mitigation lies with land use and/or permitting agencies for individual projects, and the programmatic level of analysis associated with the Final EA does not attempt to address project-specific details of mitigation, there is inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts to these resources. Consequently, while cumulative impacts could be reduced to a less-than-significant level by land use and/or permitting agency conditions of approval, the Board takes a conservative approach in its post-mitigation significance conclusion and finds the cumulatively considerable contribution of the Proposed Amendments to existing significant cumulative impacts to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, tribal cultural resources and utilities and service systems to be potentially significant and unavoidable.

Findings on Alternatives to the Project

In addition to the No-Project Alternative, the Final EA considered a reasonable range of potentially feasible alternatives that could potentially reduce or eliminate the significant adverse environmental impacts associated with the Proposed Amendments, while accomplishing most of the basic project objectives.

The Board finds the alternatives analysis is sufficient to inform the Board and the public regarding the tradeoffs between the degree to which the alternatives could reduce environmental impacts and the corresponding degree to which the alternatives could achieve the project objectives.

Based upon a full evaluation of the alternatives, and the entirety of the record, the Board finds that adoption and implementation of the Proposed Amendments is the most desirable, feasible, and appropriate action for achieving the objectives of the project, and the Board rejects the other alternatives because they either fail to meet most project objectives, or are infeasible based on consideration of the relevant factors identified in the Final EA and briefly described below. Please see the Final EA for a more in-depth discussion and analysis regarding project alternatives.

Alternative 1: No Project Alternative

Alternative 1 in the EA describes a reasonably foreseeable scenario if CARB did not approve the Proposed Amendments. Under Alternative 1, the Proposed Amendments would not be implemented. Owners and operators of vessels subject to the Existing CHC Regulation would maintain their operations, business as usual, without addressing the additional emissions reductions needed to reduce health and environmental burdens of CHC operation Statewide. No additional set of actions would be required to reduce emissions from CHC while operating in and around ports, marinas, or docks, or in Regulated California Waters. There would be no requirements for owners and operators of additional vessel categories to reduce emissions or requirements for owners and operators of CHC to upgrade engines to meet more stringent Tier 3 or 4 + DPF performance standards or adopt Zero-Emission and Advanced Technologies (ZEAT) on their vessels.

The Board finds that the No-Project Alternative would fail to meet most of the project objectives listed in Chapter 2 of the Final EA. No additional CHC vessel categories would be required to reduce emissions and there would not be more stringent requirements for the vessel categories already included in the existing CHC Regulation. Alternative 1 would fail to expand in-use engine standards for CHC and would not help to reduce California's dependence on petroleum. This alternative would not support additional CHC GHG emission reductions by requiring use of renewable and low carbon diesel fuels. Under the No-Project Alternative, heavily burdened communities near ports, harbors, and marinas would not receive the much-needed health benefits of further reducing emissions from CHC as is achieved with the Proposed Amendments. Additionally, Alternative 1 would not assist in attaining SIP requirements. Finally, by not amending the existing CHC Regulation, there would be limited advancement in zero-emission and clean combustion marine technologies in California, including goals of Executive Order N-79-20. For these reasons, the Board rejects this alternative.

Alternative 2: CHC Amendments Without Vessel Owner/Operator Idling Limits and Facility Shore Power Infrastructure Requirements

Alternative 2 would result in implementation of amendments like the Proposed Amendments except it would not include the vessel owner/operator idling limits or facility shore power infrastructure requirements. Most, if not all, CHC that require operation of auxiliary engines while at a dock would comply by the use of shore power. By removing idling requirements, an incentive to install shore power at ports, harbors, and marinas throughout the state would be removed. Additionally, removing idling requirements would eliminate the estimated 12.2 percent of all CHC vessels expected to use shore power statewide as a compliance response.

Although Alternative 2 would meet some of the basic project objectives, it would not meet most of the project objectives as compared to the Proposed Amendments. Specifically, Alternative 2 would not meet the project's objectives of reducing the emissions of harmful air pollutants from harbor craft that especially impact the disadvantaged communities located near seaport operations as effectively as the Proposed Amendments. . Removing idling requirements and associated shore power requirements would marginally decrease the additional public health benefits to communities near where CHC vessels operate

compared to the Proposed Amendments. Additionally, Alternative 2 would not result in as many of the near-source exposure benefits to travelers, workers and other residents as the Proposed Amendments because emissions at marinas would not be reduced as much as under the Proposed Amendments due to lack of shore power. For these reasons, the Board rejects this alternative.

Alternative 3: CHC Amendments Without Requiring Zero Emission Technology for Short-Run Ferries and New Excursion Vessels

Alternative 3 would result in implementation of the Proposed Amendments, except it would not require ZEAT for short-run ferries and new excursion vessels, or the associated requirement to install ZEAT related infrastructure at ports, harbors, or marinas throughout the state. Approximately 16 short-run ferries, 79 other vessels, and 14 excursion vessels are expected to be built or modified to use zero emission powertrains under the Proposed Amendments.

Alternative 3 would not meet the basic project objectives, because the ZEAT requirement is a key component of California's strategy to: reduce the public's exposure to toxic air contaminants; achieve California's State Implementation Plan (SIP) commitments to attain National Ambient Air Quality Standards (NAAQS); meet California's GHG emissions reduction targets; and to accelerate the adoption of zero-emission technology in the marine sector, consistent with Governor Newsom's Executive Order (EO) N-79-20, which directs CARB and other state agencies to develop strategies to achieve 100 percent zero-emission from off-road vehicles and equipment by 2035 where feasible. For these reasons, the Board rejects this alternative.

STATEMENT OF OVERRIDING CONSIDERATIONS

CARB expects that many of the significant adverse impacts identified in the Final EA will be avoided or mitigated; however, since uncertainty exists as to the extent of mitigation that other agencies will require at the site- and project-specific level, the Board is conservatively considering certain impacts to be potentially significant and unavoidable. The Board finds that despite the potential for adverse environmental impacts associated with the Proposed Amendments benefits of the proposed actions are determined to be overriding considerations that warrant approval of the Proposed Amendments and outweigh and override its unavoidable significant impacts. Each benefit set forth below constitutes an overriding consideration warranting approval of the project, independent of the other benefits, despite each and every unavoidable impact. These benefits include:

1. Reducing exposure of air pollution in the most impacted communities by increasing the stringency of performance standards for harbor craft engines under AB 617 (Health & Safety Code Sections § 40920.6, 42400, 42402, 39607.1, 40920.8, 42411, 42705.5, and under Assembly Bill 617);

2. Minimizing near-source exposure and health risk from identified toxic air contaminants, including DPM, produced by fuel combustion pursuant to the Toxic Air Contaminant Identification and Control Act, which established California's program to reduce exposure to air toxics. (Health and Safety Code § 36950 - 36975, Assembly Bill No. 1807, 1983);

3. Attaining the National Ambient Air Quality Standards (NAAQS) for Ozone and PM in all regions of California, as required by the Federal Clean Air Act. The current standards are 80 parts per billion (ppb) 8-hour ozone by 2023, 75 ppb 8-hour ozone by 2031, 12 micrograms per cubic meter annual PM2.5 by 2021 to 2025, and lastly the new federal ozone standard of 70 ppb with attainment dates through 2037. (California Air Resources Board, Revised Proposed 2016 State Strategy for the State Implementation Plan; Health and Safety Code § 39003);

4. Ensuring commercial harbor craft are complying with existing opacity standards set forth in California's HSC section 41701 in California's regulated waters;

5. Requiring, incentivizing, and supporting emerging zero-emission technology that will be needed to achieve CARB's SIP goals;

6. Achieving emission reductions consistent with the Global Warming Solutions Act (Heath and Safety Code Sections 38550 et seq.);

7. Spurring technology advancement and economic activity for control system manufacturers, aftertreatment device manufacturers, component suppliers (including ducts and piping), electrical suppliers, design and engineering and construction firms;

8. Taking steps to ensure all Californians can live, work, and play in a healthful environment free from harmful exposure to air pollution, including protecting and preserving public health and well-being, and preventing irritation to the senses, interference with visibility, and damage to vegetation and property (Health & Safety Code Section 43000(b)) in recognition that the emission of air pollutants from motor vehicles is the primary cause of air pollution in many parts of the State (Health & Safety Code Section 43000(a); 43013(b));

9. Achieving reductions in GHGs, ROG, DPM, Nox, and black carbon emissions, supporting California's climate change goals;

10. Reducing potential cancer risk exposure for portside communities, and passengers and crew onboard commercial harbor craft;

11. Advancing research and development for cleaner marine technologies which can be translated on a global scale;

12. Helping support shore power use and provides health benefits to portside communities where shore power technology is used;

13. Reducing noise pollution to port communities as a result of vessel engines required to be shut down while at dock and provides better on-board comfort while at port;

14. Providing fuel and cost savings for vessels using shore power; and

15. Providing additional health benefits relating to avoided hospitalization, reduced mortality, and reduced emergency room visits. The total statewide valuation due to

avoided health outcomes between 2023 and 2038 total $5.25 billion, which outweigh the regulatory cost at $1.98 billion.

LOCATION AND CUSTODIAN OF THE RECORD

The documents and other materials that constitute the record of proceedings on which these findings are based are located at 1001 I Street Sacramento, CA 95814. The custodian for these documents is the California Air Resources Board Legal Office, inquiries can be submitted to CaliforniaEnvironmentalQualityAct@arb.ca.gov.

Attachment B

Supplemental
Responses to Comments

on the

Environmental Analysis

Prepared for the

Proposed Amendments to the Commercial Harbor Craft Regulation

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Nearly all of the comments provided today raise issues that have previously been submitted and considered by staff. Specifically in regard to environmental comments received we have already provided you with comprehensive responses to those comments in our Response to Comments on the Draft Environmental Analysis, which include comments submitted again today. Staff has not identified any new significant information in the comments submitted today that have not already been addressed.

Staff would, however, like to provide an additional response to the comment letter submitted today from Clean Fuels Alliance America and California Advance Biofuels Alliance. While the letter does not identify a significant environmental effect of the regulation, it states that the responses we provided to comments 3196-1 and 3196-2 in the Response to Comments document appear to have been based on misconceptions and misunderstandings regarding the R99 proposal. Specifically the letter states that the proposed R99 requirement would result in fewer PM emission reductions versus R80/B20.

Staff believes the responses provided for comments 3196-1 and 3196-2 in the Final EA Response to Comments document reflect the most recent information and accurately reflect the reductions of PM, NOx, and lifecycle GHG benefits that would be achieved by the proposal to require use of R99 or higher blends of renewable diesel. We are aware that there may be some PM reductions from an R80/B20 blend compared to R99 or greater, but those potential benefits must be weighed against the potential relative NOx increases from the biodiesel in the blends, in addition to other performance concerns (see response to comments 3235-4 in the Final EA Response to Comments document). There is no other diesel fuel blend than R99 or higher that provides a greater amount of NOx reductions, and as outlined in our staff presentation, there is a shortfall on the NOx reductions needed to meet goals of the State SIP Strategy. Comments regarding PM reduction benefits from use of B80/B20 do not indicate that a significant environmental effect would be cause by the proposed Regulation.

In addition to achieving less NOx reductions, use of blends of biodiesel by more than 5 percent would not comply with the standards for CARB diesel according to ASTM D-975. The Proposed Amendments require use of verified diesel emission control strategies verified pursuant to 13 CCR 2700-2711 et seq, which requires additional analysis and testing for use of alternative diesel fuels, such as biodiesel. Use of biodiesel could also conflict with requirements of vessels that travel internationally or into international waters, such as the MARPOL ANNEX VI Regulation 18 requirements that require testing to ensure no increases in NOx emissions.