

## UPDATED INFORMATIVE DIGEST

### PUBLIC HEARING TO CONSIDER ADOPTION OF PROPOSED REGULATIONS TO REDUCE EMISSIONS FROM COMMERCIAL HARBOR CRAFT OPERATED WITHIN CALIFORNIA WATERS AND 24 NAUTICAL MILES OF THE CALIFORNIA BASELINE

**Sections Affected:** Adoption of section 2299.5, title 13, and section 93118.5, title 17, California Code of Regulations (CCR), incorporating: (1) International Standard ISO 8178-4(E):1996, "Reciprocating Internal Combustion Engines – Exhaust Emission Measurement – Part 4: Test Cycles for Different Engine Applications"; (2) International Standard ISO 8178-2(E):1996, "Reciprocating Internal Combustion Engines – Exhaust Emission Measurement – Part 2: Measurement of Gaseous and Particulate Exhaust Emissions at Site;" (3) U.S. EPA Marine Engine standards, Tier 1 and Tier 2, as set forth in "Control of Emissions of Air Pollution from New Marine Compression Ignition Engines at or Above 37 kW" (64 Federal Register (FR) 73299-73373, December 29, 1999)(40 Code of Federal Regulation (CFR) Part 94); (4) U.S. EPA Marine Engine Standards, Tier 3 and Tier 4, as set forth in "Final Rule: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters Per Cylinder" (73 FR 25245 et seq., May 6, 2008); (5) the following National Oceanic and Atmospheric Administration (NOAA) Nautical Charts, as authored by the NOAA Office of Coast Survey: (A) Chart 18600, Trinidad Head to Cape Blanco (January 2002), (B) Chart 18620, Point Arena to Trinidad Head (June 2002), (C) Chart 18640, San Francisco to Point Arena (August 2005), (D) Chart 18680, Point Sur to San Francisco (June 2005), (E) Chart 18700, Point Conception to Point Sur (July 2003), (F) Chart 18720, Point Dume to Purisima Point (January 2005), and (G) Chart 18740, San Diego to Santa Rosa Island (April 2005); (6) ASTM D975-81, "Standard Specification for Diesel Fuel Oils" (as modified in May 1982); and (7) "Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines," 13 CCR §2700-2710.

#### Background

Over 90 percent of Californians breathe unhealthful air at times. To improve air quality and human health, the Air Resources Board (ARB or Board) establishes requirements to reduce emissions from new and in-use on-road and off-road vehicles, engines, and other sources. To reduce emissions from off-road sources, such as marine vessels, ARB has adopted a series of regulations since 2004 that: (1) require diesel fuel sold for use in harbor craft comply with ARB diesel fuel specifications<sup>1</sup>, and (2) require ocean-going vessels with diesel auxiliary engines to comply with specified diesel fuel and other requirements while operating in Regulated California Waters<sup>2</sup>. Additionally, in July 2008, the Board approved a regulation for adoption that requires ocean-going

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<sup>1</sup> ARB's fuel standards for harbor craft are codified at title 13, CCR, section 2299.

<sup>2</sup> ARB's fuel standards and other requirements for diesel auxiliary engines on ocean-going vessels are codified at title 13, CCR, section 2299.1 and title 17, CCR, section 93118.

vessels with diesel main, auxiliary, and auxiliary boiler engines to comply with specified diesel fuel and other requirements while operating in Regulated California Waters.<sup>3</sup> Although those regulations are reducing air pollution from marine vessels, significant opportunities exist to further reduce emissions from the thousands of commercial harbor craft vessels that operate within the State and in Regulated California Waters.

### *Control of Criteria Air Pollutants*

Health and Safety Code (HSC) sections 43013 and 43018 direct ARB to adopt standards and regulations that the Board has found to be necessary, cost-effective, and technologically feasible for various mobile source categories, including off-road diesel engines and equipment such as marine vessels, through the setting of emission control requirements. Specifically, HSC section 43013(b) directs ARB to adopt such standards and regulations for marine vessels to the extent permitted by federal law.

### *Control of Toxic Air Contaminants*

The California Toxic Air Contaminant Identification and Control Program (Air Toxics Program), established under California law by Assembly Bill 1807 (Stats. 1983, ch. 1047) and set forth in HSC sections 39650 through 39675, requires ARB to identify and control air toxics in California. The identification phase of the Air Toxics Program requires ARB, with participation of other State agencies such as the Office of Environmental Health Hazard Assessment, to evaluate the health impacts of, and exposure to substances, and to identify those substances that pose the greatest health threat as toxic air contaminants (TACs). The ARB's evaluation is made available to the public and is formally reviewed by the Scientific Review Panel (SRP) established under HSC section 39670. Following ARB's evaluation and the SRP's review, the Board may formally identify a TAC at a public hearing. Following identification, HSC sections 39658, 39665, and 39666 require ARB, with participation of the air pollution control and air quality management districts (districts), and in consultation with affected sources and interested parties, to prepare a report on the need and appropriate degree of regulation for that substance (a "needs assessment") and to adopt airborne toxic control measures (ATCMs).

In 1998, the Board identified diesel PM as a TAC with no Board-specified threshold exposure level. A needs assessment for diesel PM was conducted between 1998 and 2000, which resulted in ARB staff developing and the Board approving a Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Diesel RRP) in 2000. The Diesel RRP presented information that identified the available options for reducing diesel PM and recommended control measures to achieve further reductions. The scope of the Diesel RRP was broad, addressing all categories of engines, both mobile and stationary, and included control measures for private and public fleets of off-road diesel engines, such as those covered by the

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<sup>3</sup> ARB's fuel standards and other requirements for diesel main, auxiliary, and auxiliary boiler engines on ocean-going vessels will be codified at title 13, CCR, section 2299.2 and title 17, CCR, section 93118.2 but have not yet been finalized.

proposed regulations. The ultimate goal of the Diesel RRP is to reduce California's diesel PM emissions and associated cancer risks from 2000 baseline levels by 85 percent by 2020.

The purpose of this proposed regulatory action is to reduce emissions of diesel PM and NOx. Diesel PM emission reductions are needed to reduce the potential cancer risk and other adverse effects from PM exposure to people who live in the vicinity of California's major ports, harbors, and shipping lanes. Reductions in diesel PM and NOx (which forms "secondary" nitrate PM in the atmosphere) will also contribute to regional PM reductions that will assist in California's progress toward achieving State and federal air quality standards. Reductions in NOx, an ingredient in the formation of ozone pollution, will also help reduce regional ozone levels.

Diesel engines on commercial harbor craft vessels are a significant source of diesel PM and NOx emissions in California. A recent ARB exposure study for the ports of Los Angeles and Long Beach showed commercial harbor craft to be the third highest source for elevated cancer risk at the ports. The United States Environmental Protection Agency (U.S. EPA) has promulgated "Tier 3" standards for new marine engines, such as those used in commercial harbor craft, beginning in 2009 and more stringent "Tier 4" standards for new engines beginning in 2014.<sup>4</sup> However, the U.S. EPA standards apply only to new marine engines and would not affect in-use engines. Thus, significant opportunities exist to further reduce emissions from the approximately 1,900 diesel engines on in-use ferries, excursion vessels, tugboats, and towboats that currently operate in the State.

#### *Attainment of Ambient Air Quality Standards*

The federal Clean Air Act (CAA) requires U.S. EPA to establish National Ambient Air Quality Standards (standards) for pollutants considered harmful to public health, including fine particulate matter (PM<sub>2.5</sub>) and ozone. Set to protect public health, the standards are adopted based on a review of health studies by experts and a public process. Ambient PM<sub>2.5</sub> is associated with premature mortality, aggravation of respiratory and cardiovascular disease, asthma exacerbation, chronic and acute bronchitis and reductions in lung function. Ozone is a powerful oxidant. Exposure to ozone can result in reduced lung function, increased respiratory symptoms, increased airway hyper-reactivity, and increased airway inflammation. Exposure to ozone is also associated with premature death, hospitalization for cardiopulmonary causes, and emergency room visits for asthma.

Areas in the State that exceed the standards are required by federal law to develop State Implementation Plans (SIP) describing how they will attain the standards by certain deadlines. The NOx emission reductions are needed because NOx leads to formation in the atmosphere of both ozone and PM<sub>2.5</sub>; diesel PM emission reductions are needed because diesel PM contributes to ambient concentrations of PM<sub>2.5</sub>. At this

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<sup>4</sup> "Final Rule: Control of Emissions of Air Pollution from Locomotive and Marine Compression-Ignition Engines Less Than 30 Liters Per Cylinder" (73 FR 25245 et seq., May 6, 2008) (40 CFR Part 1042)

time, the South Coast and San Joaquin Valley air basins are both required to attain the PM2.5 standard by 2015. The U.S. EPA further requires that all necessary emission reductions be achieved one calendar year sooner – by 2014 – in recognition of the annual average form of the standard. By contrast, San Joaquin Valley and South Coast air basins are expected to have until 2023 to attain the federal ozone standard, by invoking the “bump-up” provision in the CAA.

The ARB and the districts have submitted ozone and PM2.5 SIPs for coastal and inland port areas to U.S. EPA and are awaiting approval. Air quality modeling reported in the plans indicates that significant reductions of NOx are crucial to help meet both these standards. Staff estimates that a 56 percent reduction in NOx emissions from 2006 levels (i.e., a total reduction of over 500 tons per day) and a 16 percent reduction in direct PM2.5 emissions will be necessary for attainment of the PM2.5 standards in the South Coast Air Basin. In the San Joaquin Valley, emissions of NOx and PM2.5 must decline by 50 percent and 25 percent, respectively, to attain the federal PM2.5 standard. While all sources of NOx emissions are important contributors to PM2.5, marine vessels, which include commercial harbor craft engines, constitute one of the key categories that will determine whether California is able to meet the 2014 deadline for PM2.5 attainment in the South Coast Air Basin.

#### *Control of Emissions from Goods Movement-related Activities*

In January 2005, a Goods Movement Cabinet Workgroup, created by Governor Schwarzenegger and led by the California Environmental Protection Agency and the Business, Transportation and Housing Agency, established a policy for goods movement and ports to improve and expand California’s goods movement industry and infrastructure while improving air quality and protecting public health. The workgroup worked collaboratively with the logistics industry, local and regional governments, neighboring communities, business, labor, environmental groups, and other interested stakeholders to create a two-phased Goods Movement Action Plan (GMAP), which outlines a comprehensive strategy to address the economic and environmental issues associated with moving goods via the State’s highways, railways, and ports. In a related activity, the Board adopted the Goods Movement Emission Reduction Plan (GMERP) in April 2006. The GMERP identified a variety of measures to be investigated by ARB for reducing goods movement-related emissions, including regulations for commercial harbor craft. The final phase of the GMAP was completed in January 2007 and includes a framework for action, which identifies projects needed to reduce emissions from goods movement-related sources, including those from commercial harbor craft engines.

#### *The California Global Warming Solutions Act of 2006*

The California Global Warming Solutions Act of 2006 established the first-in-the-world comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases (GHG).<sup>5,6</sup> The legislation

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<sup>5</sup> Established under California law by Assembly Bill 32 (Stats. 2006, ch. 488) and set forth in HSC

gave ARB responsibility for monitoring and reducing GHG emissions. The statute requires ARB to adopt regulations and other requirements that would reduce by 2020 statewide greenhouse gas emissions to the equivalent of 1990 levels.

Some actions required by the proposed regulations may result in slightly increased carbon dioxide (CO<sub>2</sub>) for some applications. This may occur, for example, if vessel operators choose to comply with the regulations by using exhaust treatment technologies that use vessel power (e.g., scrubbers, selective catalytic reduction), increase the weight of the vessel, or require a larger engine to be installed on the vessel. However, other actions required by the rule will likely offset this effect. For instance, the accelerated phase in of newer engines, which employ modern, less polluting technologies, should reduce GHG emissions from each new engine relative to the older, in-use engines. In addition, the proposed regulations will reduce emissions of black carbon (a component of diesel PM and a likely contributor to global warming), which will further offset the minor increases in CO<sub>2</sub> emissions that may occur in some applications. Thus, staff expects the proposed regulations to have an overall negligible effect on global warming.

#### *Authority*

The ARB has authority under California law to adopt the regulations. Health and Safety Code sections 43013(b) and 43018 provide broad authority for ARB to adopt emission standards and other regulations to reduce emissions from new and in-use vehicular, nonvehicular and other mobile sources. Under HSC sections 43013(b) and 43018, ARB is directly authorized to adopt emission standards and other regulations for marine vessels, as expeditiously as possible and to the extent permitted by federal law, to meet State ambient air quality standards. The ARB is further mandated by California law under HSC section 39666 to adopt ATCMs for new and in-use nonvehicular sources, including marine vessels such as commercial harbor craft, for identified TACs such as diesel PM.

#### *Emission Reductions and Public Health Benefits Projected*

The regulations will significantly reduce emissions of diesel PM from in-use commercial harbor craft engines. Diesel PM emission reductions are needed to reduce premature mortality, cancer risk, and other adverse impacts from exposure to this TAC. The regulations will help achieve the 2020 goal set forth in the 2000 Diesel RRP of reducing diesel PM by 85 percent from 2000 baseline levels and the 2015 and 2020 goals of the GMAP. Staff projects that by 2020, the regulations, in conjunction with U.S. EPA cleaner marine new engine standards, use of low sulfur fuel in harbor craft, port clean air plans, engine replacement incentive programs, and a negative growth factor for California's fishing fleet, will reduce in-use commercial harbor craft diesel PM emissions

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§ 38500 et seq.

<sup>6</sup> Greenhouse gases are those that tend to increase average global temperatures through absorption of infrared radiation or other mechanisms. These include, but are not limited to, carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>).

about 70 percent and NOx emissions about 60 percent relative to the 2004 baseline. These emission reductions will occur in areas along waterways and ports and those communities nearby where environmental justice concerns are especially prevalent, as well as further inland.

The regulations will also reduce diesel PM and NOx emissions that contribute to exceedances throughout the State of ambient air quality standards for both PM2.5 and ozone. These reductions will assist California in its goal of achieving State and federal air quality standards.

The diesel PM and NOx emission reductions from the regulations, along with the other efforts and factors mentioned above, will reduce the number of people exposed to a cancer risk of 10 in a million within the 20 square miles surrounding the Los Angeles and Long Beach Ports from 1.7 million in 2004, to 940,000 in 2015, and 630,000 in 2020. Statewide, the emission reductions due specifically to the regulations will prevent 310 premature deaths and 8,100 cases of asthma-related and other lower respiratory symptoms by the year 2025, as well as other health benefits. The economic benefit for these avoided premature deaths and health costs is estimated to be \$1.3 to \$2.0 billion.

### **Description of the Regulatory Action**

The Board adopted a regulation, pursuant to its authority under HSC sections 43013 and 43018, that applies to the emissions from diesel engines on commercial harbor craft operating within any of the Regulated California Waters (as defined in the regulation). The Board also adopted essentially identical provisions as an ATCM, pursuant to its authority under HSC section 39666, which complements the regulation and provides maximum notice to the regulated community of the regulatory requirements on commercial harbor craft. These measures will hereinafter sometimes be referred to collectively as “the regulations.”

#### *Applicability*

The regulations apply to any person who owns or operates a commercial harbor craft operating within any of the Regulated California Waters, which include all California inland waters, all California estuarine waters, and all waters within a zone 24 nautical miles seaward of the California coastline, except for specified areas along the Southern California coastline. Regulated California Waters also include all ports, roadsteads, and terminal facilities in California. In general, commercial harbor craft include a variety of vessel types such as ferries, excursion vessels, tugboats, ocean-going tugboats, tow boats, crew vessels, work boats, fishing boats, barges, and others. Industries that use these vessels, such as those providing ferry services, offshore platform suppliers, commercial fishing, touring and excursion services, and many others will be subject to these regulations. Government agencies that own or operate diesel powered harbor craft, such as those engaged in fire protection, dam inspections and repair, marine research and education, and ferry services operated by local municipalities will also be affected.

The regulations include language explicitly stating and clarifying that they do not change or supersede any existing United States Coast Guard (U.S.CG) regulations and that vessel owners and operators are responsible for ensuring that they meet all applicable U.S.CG regulations, as well as the regulations.

### *Exemptions*

The regulations include a number of exemptions. First, they do not apply to vessels that travel within the 24 nautical mile boundary off California's coastline without stopping or anchoring. This exemption includes vessels that stop or anchor within 24 nautical miles only under limited situations, such as when the vessel is in distress or must stop to comply with U.S.CG regulations. Also, the following vessel types are exempted from the regulations in their entirety: temporary emergency rescue/recovery vessels, recreational vessels, ocean-going vessels that are not ocean-going tugboats (i.e., ocean-going tugboats and tow boats are subject to the regulations), vessel engines registered with the ARB Portable Engine Registration Program at the time the regulations are approved by the Office of Administrative Law, military tactical support vessels, and all U.S.CG vessels. Further, temporary replacement vessels and registered historic vessels are exempt from the engine standards and compliance schedules but are otherwise subject to all other requirements. Similarly, low-use engines (i.e., those used less than 300 hours per year) will not be subject to the engine standards and compliance schedules but are otherwise subject to all other requirements.

### *Emission Limits*

A regulated diesel engine generally will be limited to the U.S. EPA marine engine standards in effect at the time the engine is due to be brought into compliance with the regulations' requirements. The regulations specify the compliance schedule for regulated engines.

### *Newly Acquired Engines and Vessels*

The regulations include requirements for newly acquired commercial harbor craft vessels and those engines acquired for use on a vessel after the vessel's initial purchase. These requirements cover both the acquisition of diesel engines for use in harbor craft and the acquisition of new and in-use harbor craft vessels. These requirements are included to ensure that California's commercial harbor craft fleet becomes cleaner as vessels are added to the California fleet and engines are replaced. The regulations require that only engines meeting the applicable U.S. EPA marine engine standards on the date of engine acquisition (e.g., date when a contract for the purchase of the engine by the vessel owner was executed) be sold for installation on in-use commercial harbor craft. A limited sell-through provision is included in the regulations. The engines on new harbor craft will be required to meet the standards in effect on the date of vessel acquisition (e.g., date when a contract to buy the vessel was

executed). The sale of in-use vessels will be subject to the engine compliance schedule but will not be otherwise restricted. The propulsion engines on new ferries will have additional requirements for NOx or PM emissions to be cleaner than the U.S. EPA marine engine standards in effect on the date of vessel acquisition.

### *In-Use Vessels*

In addition to the above, the regulations will require that currently unregulated (a.k.a. "Tier 0") and Tier 1 in-use propulsion and auxiliary marine engines on ferries, excursion vessels, tugboats, and towboats meet emission limits equal to or cleaner than the U.S. EPA marine engine standards in effect for the year that in-use engine compliance is required under the regulations. In other words, engines that are not currently subject to any emission standards (Tier 0) will eventually be brought into compliance with standards specified in the regulations. A compliance schedule, designed to clean up the oldest, dirtiest high-use engines first, will be based on the in-use engine model year and hours of operation. The regulations include an accelerated compliance schedule for harbor craft with homeports in the South Coast Air Quality Management District to provide early benefits for the South Coast Air Basin, which is in non-attainment for both ozone and PM2.5.

While there are other options available in the regulations, ARB staff believes that most owners and operators of regulated harbor craft will choose to replace their existing engine with a new Tier 2 or Tier 3 engine. However, some operators may choose one of the other compliance options, such as demonstrating that the current engine meets the applicable emission limits. Options are also provided to extend the compliance date, such as implementing an emission control strategy and demonstrating that the engine was previously rebuilt to a cleaner standard. The regulations also include a provision governing the failure of a diesel emission control strategy employed through an elected compliance option.

### *Compliance Extensions*

The regulations provide for owners and operators to apply to ARB for an extension of the compliance date in certain cases. These circumstances are specified in the regulations and include situations when a vessel is near retirement, there is a change in operation or ownership, there is no suitable replacement engine available, difficulties occur in obtaining or installing a replacement engine, and owners with multiple vessels will need to comply in the same year for all the vessels.

### *Recordkeeping*

Starting on January 1, 2009, owners or operators of commercial harbor craft operating within the Regulated California Waters will be required to maintain specified records for a minimum of three years.



### *Monitoring, Reporting, and Recordkeeping*

The regulations will require that diesel engines on all commercial harbor craft have a properly operating, non-resettable hour meter installed so that hours of operation can be monitored.

The recording and maintenance of specified information would begin on January 1, 2009. All owners or operators of commercial harbor craft will be required to submit an initial report containing specified information by February 28, 2009. A plan for compliance will need to be reported by February 28 of the year engine compliance is required. An additional report will be required upon compliance with the required engine emission limits, upon changes in engine or vessel operation, or if there are changes in ownership or use. This required reporting will provide staff with more complete up-to-date information on commercial harbor craft vessels to be used in developing the emission inventory and for the consideration of further regulatory measures. Owners or operators of commercial harbor craft will also need to supply additional information as requested that may be necessary to determine regulatory compliance. The specified information that owners or operators will be required to record and maintain will have to be supplied to an agent or employee of ARB upon request. Finally, for enforcement purposes, owners or operators will have to provide vessel access to ARB employees or officers or the local air districts.

### *Alternative Control of Emissions*

The regulations contain an alternative control of emissions (ACE) option, which will allow an owner or operator to submit for approval by the Executive Officer an alternative compliance approach. Under the ACE, owners or operators will be required to achieve and demonstrate equivalent or greater emission reductions than that which would have been achieved with direct compliance with the emission limits. Alternative emission control strategies may include any feasible and enforceable strategy not otherwise required by law, regulation, or statute. The detailed application process is specified and includes substantial public participation.

### *Fuel Requirement*

The regulations will require that commercial harbor craft engines be fueled with diesel fuel meeting ARB's on-road diesel fuel standards (CARB diesel), an alternative diesel fuel, a diesel fuel meeting ARB's Verification Procedure requirements, a CARB diesel used with fuel additives that meets the requirements of the Verification Procedure, or any combination of the above.

### *Test Methods and Other Incorporated Documents*

The regulations incorporate by reference Parts 2 and 4 of International Standard ISO 8178, as revised in 1996 by the International Organization for Standardization (ISO). This standard includes test methods for reciprocating internal combustion

engines. The regulations also incorporate by reference the U.S. EPA marine engine standards, Tiers 1 and 2, as set forth in 40 Code of Federal Regulation (CFR) Part 94, and the U.S. EPA Marine Engine standards, Tiers 3 and 4, as set forth in 73 Fed. Reg. 25245 et seq. (May 6, 2008).

### *Violations*

The regulations specify that any violation of the requirements or other provisions will subject the person who committed the violation to the penalties, injunctive relief, and other remedies available under Health and Safety Code section 42400 et seq., other applicable sections of the Health and Safety Code, and other applicable provisions of California law for each violation. The regulations further specify that each failure to meet a requirement, criteria, or provision of the regulations will constitute a single, separate violation for each hour that a person operates the commercial harbor craft within Regulated California Waters until the provision, criteria, or requirement has been met.

### *Severability*

The regulations state that if any part of the regulations is held to be invalid, the remainder of the regulations shall continue to be effective.

## **Comparable Federal Regulations**

As noted above, U.S. EPA has already promulgated Tier 1, Tier 2, Tier 3, and Tier 4 standards for new marine engines. Tier 3 and Tier 4 standards for new marine engines become effective beginning in 2009 and 2014, respectively. However, no federal standards have been promulgated addressing emission reductions from in-use commercial harbor craft engines. Under federal Clean Air Act (CAA) section 213, U.S. EPA is without authority to adopt in-use standards for nonroad engines, including marine engines.<sup>7</sup>

California is the only governmental entity in the United States authorized by the CAA, in the first instance, to adopt emission requirements for in-use off-road engines.<sup>8</sup> Section 209(e)(1) of the CAA conclusively preempts states, including California, from adopting requirements for new off-road engines less than 175 horsepower that are used in farm or construction equipment. However, the regulations address off-road engines used in marine vessels, rather than those used in farm or construction equipment. Under section 209(e)(2), California may adopt and enforce emission standards and other requirements for off-road engines and equipment not conclusively preempted by section 209(e)(1), so long as California applies for and receives authorization from the Administrator of U.S. EPA. To obtain authorization, the Board must make a finding that the California adopted standards will be, in the aggregate, at least as protective of

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<sup>7</sup> The California term “off-road” and the federal term “nonroad” refer to the same sources and are used interchangeably.

<sup>8</sup> See *Engine Manufacturers Association v. U.S. EPA* (D.C. Cir. 1996) 88 F.3d 1075, 1089-1091.

public health and welfare as applicable federal standards.<sup>9</sup> The Administrator must grant a request for authorization from California unless he finds that ARB's protectiveness finding is arbitrary and capricious, that California does not need the standards to meet compelling and extraordinary conditions, or that the standards and accompanying enforcement procedures are not consistent with CAA section 209.

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<sup>9</sup> CAA section 209(e)(2)(A). Other states may subsequently opt into the California program, but their regulations must be identical to California's requirements. CAA section 209(e)(2)(B).