Friends of the Earth

October 24, 2007

Mary D. Nichols, Chairwoman
California Air Resources Board
Headquarters Building
1001 I Street
Sacramento, CA 95812

Re: Proposed Harborcraft Regulation

Dear Ms. Nichols:

Friends of the Earth would like to take this opportunity to provide comments on the recent revisions to the proposed Harborcraft Regulations (regulation)[1] released September 11, 2007. Given California Air Resources Board's (ARB) Diesel Risk Reduction and Goods Movement Emission Reduction Plan[2] goals, as well as ARB's efforts to attain state and federal air quality objectives, institute AB32 early action measures, and comply with the state's Health and Safety Code,[3] ARB must move quickly to address the under-regulated marine vessel sector and commit to maximum emission reductions from this regulation.

In California, marine sector diesel particulate matter (DPM) and nitrogen oxide (NOx) emissions are significant.[4] Furthermore, emissions from particular marine vessels, such as harborcraft, have gone largely unregulated.[5] In light of the public health and regulatory implications in not controlling this emission stream, ARB has set goals for reducing these pollutants, including the Goods Movement Emission Reduction Plan, which calls for 25 percent reductions in DPM and NOx by 2010 compared to baseline 2001 levels,[6] and the ARB's Diesel Risk Reduction Plan, which commits to decreasing the risk from diesel pollution by 75 percent by 2010. In accord

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[1] Emission Limits and Requirements for Diesel Engines on Commercial Harbor Craft Operated within California Waters and 24 Nautical Miles of the California Baseline; Airborne Toxic Control Measure for Diesel Engines on Commercial Harbor Craft Operated within California Waters and 24 Nautical Miles of the California Baseline [hereinafter regulation].

[2] Part of the Goods Movement Action Plan (Action Plan).

[3] California Health and Safety Code sections 39666, 39667, 43013, and 43018. California Air Resources Board, Technical Support Document: Initial Statement of Reasons for Proposed Rulemaking—Proposed Regulation for Commercial Harbor Craft, (September 2007), at VII-1 and VII-2 [hereinafter Technical Report].

[4] California Air Resources Board, Staff Report: Initial Statement of Reasons for Proposed Rulemaking—Proposed Regulation for Commercial Harbor Craft, (September 2007), at ES 1 [hereinafter Staff Report] (roughly 3.3 tons per day of DPM and 73 tons per day of NOx are expelled from diesel engines on commercial harbor craft in California); Emission Reduction Plan for Ports and Goods Movement in California, (2006), at 22-23 (marine emissions, as a percentage of goods movement emissions, account for approximately 30 percent of DPM and 20 percent of NOx emissions in California).

[5] Staff Report, at ES 1 ("Approximately 80 percent of all harbor craft engines are unregulated diesel engines").

[6] *Id.*, at 2; *Compare with* Technical Report, at VII-3 (22 percent emission reductions for DPM and 19 percent emission reductions for NOx from 2004 baseline).

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with these general Action Plan goals, the proposed regulation will eventually eliminate a substantial amount of marine vessel pollution. We commend the hard work and dedication of ARB staff who crafted the regulation, conducted workshops, and provided supplemental, clarifying information. Nevertheless, the proposed regulation does not go far enough in achieving specific Action Plan goals due to the regulation's lengthy compliance timeline, modest ferry emissions standard, exemptions, and compliance extensions. We request therefore that ARB revise the regulation to increase DPM and NOx emission reductions in the near term, strengthen the ferry emission standard, shorten the engine compliance timeline, and eliminate unnecessary compliance extensions and exemptions. In addition, we ask that the regulation be divided into separate DPM and NOx rules, so as to facilitate their adoption by other states.

We support the adoption of the regulation subject to the above-requested changes. The lengthy compliance schedule and prolonged rulemaking process have delayed critical environmental and public health benefits. Further postponement will not only detrimentally impact affected communities and natural resources, but also inhibit technological development and do little to address future costs.

In this context, we list below our concerns regarding the new, revised regulatory framework, including:

- Phase-in timeline
- New ferry standards and Best Available Control Technology determinations
- Compliance schedules and determination of engine model year
- Alternative Compliance Plan
- Separate NOx and DPM rules
- Regulatory compliance for ocean-going tugboats and towboats, and for crew boats, supply boats, and work boats
- Compliance extensions
- New ferries and Best Available Control Technology consultation and public process

High-Level Priority Concern

The Phase-In Timeline Must be Expedited to Meet ARB's Action Plan Goals

The compliance timeline, as drafted, is extremely lengthy and should be shortened as much as practicable. No explanation has been provided for why the compliance deadline is 2022[7] despite the urgent need to reduce harborcraft emissions.

In keeping with a condensed compliance timeline, at a minimum we support the second alternative considered in the September 2007 CARB Staff Report. In this alternative, total DPM emissions reductions:

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[7] Regulation, at A-25.

> …would be significantly more than with the proposed schedule, 6.0 million pounds during the 14 years from 2009 to 2022…. The total NOx reduction of this same time would be 46,000 tons, nearly 20 percent more than with the proposed regulation. This alternative would produce earlier reductions than the current proposal, with a cost-effectiveness similar to the current proposal.[8]

This alternative was rejected due to concerns about statewide engine replacement capacity. However, possible alternatives exist to address these concerns including out-of-state engine replacement locations, financial inducements (such as the Carl Moyer Memorial Air Quality Standards Attainment Program),[9] and subsidized increased capacity arrangements. These possible alternatives should be evaluated to accelerate and augment needed vessel emission reductions.

Recommendation: ARB should accelerate and compress the compliance schedule. At a minimum, ARB should duplicate the compliance schedule for the South Coast Air Quality Management District statewide.

New Ferry Standards and Best Available Control Technology Determinations

As described in our June 8, 2007 comments, we ask ARB to specify emissions reduction standards and compliance dates, by engine type, that are stand alone and independent of the EPA's final rulemaking. This is necessary because the EPA rulemaking is not final, and the ARB regulation must be implemented regardless of whether EPA's rulemaking is ever finalized.

Further, we urge that all newly built ferries comply with an additional propulsion engine standard that is, at a minimum, equivalent to the San Francisco Bay Area Water Transit Authority's (Bay Area Authority) standard of 85 percent cleaner than EPA tier 2, or equivalent to proposed US EPA Tier 4 standards. We prefer the more stringent Tier 4 standard option. We support strong emission standards for ferries because their emissions are predominately near shore[10] and adversely impact the health and welfare of coastal populations, especially marginalized communities.

Furthermore, the 85 percent standard should apply separately to NOx and PM to achieve the most health protective levels, rather than allowing averaging. We contend that if the Bay Area Authority can institute this requirement and has a ferry under construction expected to meet the

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[8] Staff Report, at 24.

[9] *See* Technical Report, at VI-4 ("Staff also anticipate that some vessel owner/operators will replace their engines early in order to be eligible for incentive funding. These voluntary early repowers would shift the distribution of repowers and more evenly distribute the workload on the industry"); *See Id.*, at VI-5 (additional grant information), and at VIII-28 (table of projected annual in-use engine replacements).

[10] *See* Chengfeng Wang, Commercial Harbor Craft Emission in California, Commercial Harbor Craft Workshop, (June 27, 2007), at slide 21 (ferry and excursion vessels have a 59 percent spatial emission allocation for near-shore areas (<=3 nm) in California, and 100 percent allocation in the Bay Area district).

standard, then the State of California should be able to adopt the same standard.[11] Moreover, while acknowledging potential design challenges for new technology, the successful operation of a Staten Island ferry since 2005 with the same technology (Selective Catalytic Reduction and a diesel oxidation catalyst) as the ferry currently being built by the Bay Area Authority argues in favor of adopting the 85 percent standard.[12]

We are extremely disappointed that ARB has backtracked on the ferry standard. The proposed case-by-case Best Available Control Technology (BACT) option does not have specific standards to drive industry toward existing or new technology that achieves the highest emission reductions. We strongly disagree with this approach. Selective Catalytic Reduction and diesel oxidation catalyst technology are available commercially, so by not requiring that ferries use it, ARB may be eliminating greater market development for this technology in California and out-of-state.

Recommendation: ARB should specify marine vessel emission standards independent of EPA rulemakings. ARB should also adopt a Tier 4 or, at a minimum, 85 percent below Tier 2 emission standard for ferries built as of January 1st, 2009.

Compliance Schedules and Determination of Engine Model Year

With respect to the regulation's provision for Compliance Schedules and Determination of Engine Model Year and its "Engine's Model Year + 5" method (e)(6)(C), we have reservations concerning the limited amount of pollution control that could trigger a compliance extension, thus potentially vitiating overall emission reductions. For example, an owner can achieve a 25 percent reduction in DPM and a 9 percent increase in NOx for a net emissions reduction of 14 percent and thus have a legitimate emissions control strategy, entitling him or her to use of the "Engine's Model Year + 5" method.[13] In some instances, the election of this method can postpone compliance requirements two years.[14] The overall benefits of this alternative compliance strategy seem questionable, and the strategy furthermore offers another way in which an owner or operator can extend his or her compliance timeline—timelines, which as referenced previously, have already been pushed back and prolonged considerably. We suggest that this alternative compliance option be altered to mandate emission reductions equivalent to those realizable from replacing existing engines with Tier 2 and 3 engines.

Recommendation: ARB should reform its "Engine's Model Year + 5" method so that emissions reductions are equivalent to those achievable from engine replacement (repowering).

Alternative Compliance Plan

We reiterate our opposition, expressed in our comments of July 8, 2007 to elements of the Alternative Control of Emissions (ACE) program. We remain concerned that Fleet Averaging

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[11] Staff Report, at 24.
[12] Technical Report, at VI-10, VI-12.
[13] Regulation section (e)(6)(C)(2).
[14] *Id.*, (e)(6)(C)(2)(c).

may create disproportionate impacts. Further, we believe that several of the provisions allowable in an ACE should be required, as opposed to optional. These provisions include engine modifications, exhaust treatment control, engine repower, use of alternative fuels or fuel additives and shore-side power, especially shore-side power for tugboats. If these provisions are listed as possible elements of an ACE, staff should explore each for possible inclusion as a mandatory component of this rule.

Recommendation: ARB should evaluate whether ACE methods can be made mandatory elements of this rule.

Dividing the proposed regulation into separate NOx and DPM rules

ARB's regulation of in-use marine diesel emissions is also extremely important to states other than California, because it will provide one of the few opportunities available to them to mandate emission reductions from nonroad marine diesel engines. Due to the limited legal options available to other states to reduce nonroad emissions and protect their citizens, it is critical that California regulations be promulgated in a form that can be adopted by other states. Specifically, we request the Board to split the proposed harborcraft regulation into two separate parts—one addressing NOx emissions, the other addressing DPM. Such a separation of the proposed harborcraft regulation into distinct NOx and DPM rules would provide states other than California with much needed flexibility to consider adoption of one or the other of these rules, depending on their particular air quality situation. We note that the Board accepted a similar recommendation and adopted this approach recently by dividing its regulation for In-Use Off-Road Diesel Vehicles into separate rules for NOx and DPM.

Recommendation: We urge ARB to divide the proposed ARB harborcraft regulation into separate NOx and DPM rules, thereby facilitating the adoption of in-use marine diesel emission reduction measures by other states around the nation.

Mid-Level Priority Concern

Ocean-Going Tugboats and Towboats

We support ARB's decision that ocean-going tugboats and towboats should be covered under the regulation and subject to all compliance requirements. ARB correctly notes that these ocean-going tugboats "are functionally equivalent or otherwise very similar to their harbor tugboat counterparts."[15] To delineate between the tugboat types for purposes of this regulation would unfairly burden harbor tugboats and advantage ocean-going tugboats on overly narrow technical grounds, which importantly do not address the significant contributions of each classification to marine vessel pollution, especially near-shore pollution. Finally, ARB asserts that ocean-going tugboats made over 500 visits to California ports in 2006.[16] This sizeable contribution to port pollution rightly cannot be ignored.

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15 Staff Report, at 25.

16 *Id.*

Recommendation: Exemptions should only be extended in rare cases and for compelling reasons. ARB should continue to require full-regulatory compliance for ocean-going tugboats and towboats.

Crew Boats, Supply Boats, and Work Boats

We believe that crew boats, supply boats, and work boats should comply fully with this regulation.[17] Due to issues of equity and cumulative environmental impact,[18] these categories of marine vessels should be subject to all requirements set forth in the regulation.

Recommendation: ARB should eliminate the exemption for crew boats, supply boats, and work boats in the regulation; or, in the alternative, ARB should quickly gather and/or reconsider data about these boats' impacts and subsequently reevaluate their exempt status.

Low-Level Priority Concern

Compliance Extensions

We wish to emphasize that, while it is necessary to ensure adequate flexibility for the regulated community, extensions should be granted prudently. In light of the availability of numerous compliance extensions (e.g., change in annual hours of operation, installation difficulties) and exemptions (e.g., temporary replacement vessels, near-retirement vessels) included in this regulation, it is imperative that this regulatory latitude is not abused or unnecessarily broadened. One way of ensuring that this does not occur is for ARB to create a process that evaluates the cumulative emissions impacts from compliance extensions so as to assure their contributions are not significant and do not forestall expected public health improvements and the attainment of regulatory goals. The regulations should be clear that if ARB finds that compliance extensions are hindering regulatory objectives, the agency is reserving the right to scale back, cap, or eliminate those extensions, as needed.

Lastly, we renew our objection to compliance extensions offered to owners or operators possessing multiple vessels in the same fleet. While some extensions are reasonably provided for -- such as those pertaining to the absence of suitable replacement engines—assisting owners and operators who own multiple vessels is neither essential nor arguably equitable.

Recommendation: ARB should evaluate compliance exemptions and extensions to ensure that they do not interfere with the regulation's goals.

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[17] *See* comments from Larry Allen, President, California Air Pollution Control Officers Association, submitted September 14, 2007, to ARB (detailing the impacts of crew and supply boats in Ventura and Santa Barbara County waters, as well as comparing crew and supply boats with "excursion vessels" that are not exempt from the regulation).

[18] *See* Staff Report, at 3 (based on 2004 data, crew boats, supply boats, and work boats emit 1.9 tons per day of NOx, or approximately 694 tons per year).

New Ferries and Best Available Control Technology Consultation and Public Process

ARB may consider revising section (e)(5) to enhance BACT decision-making and improve the public process surrounding that decision. If ARB goes forward with the rather ambiguous case-by-case BACT approach, we propose that section (e)(5) be amended to include an informal inter-agency or inter-stakeholder consulting process -- potentially consisting of state and federal pollution control officials, scientists, and academics -- which would help to ensure that a diesel emission control strategy achieves the "greatest reduction feasible of NOx or diesel PM when used with the ferry's propulsion diesel engine."[19] We also propose that feasibility considerations be predominately technological as opposed to economic, and that ARB define the term "feasible" in the regulation.

In addition, in contrast to section (f) regarding Alternative Compliance Plans and section (e)(6)(E) concerning Compliance Extension requirements, the BACT determination does not include a sufficiently thorough public process.[20] With due consideration given to proprietary and other sensitive business information, Section (e)(5) should be revised to incorporate sufficient public process such that interested stakeholders can review and publicly comment on the BACT application before it being decided upon by the Executive Officer.

Recommendation: ARB should allow for public comments on BACT applications before they are decided upon, and, if needed, create an inter-agency or inter-stakeholder body to most effectively determine BACT.

Thank you for considering these comments.

Sincerely,

John Kaltenstein

John Kaltenstein
Friends of the Earth

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19 Regulation section (e)(5)(C)(1).

20 *Id.*, (e)(5)(D)(2). Public process appears restricted to an approved BACT being made available to the public on ARB's internet site.