R. E. STAITE ENGINEERING INC.
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November 15, 2021

Clerks' Office
California Air Resources Board
1001 I Street
Sacramento, California 95814

Attn: Ms. Liane Randolph, Chair, California Air Resources Board

RE: Public Comments

Subject: Proposed Amendments to the Regulation to Reduce Emissions from Diesel Engines on Commercial Harbor Craft Operated within California Waters and 24 Nautical Miles of the California Baseline

Dear Chairperson Randolph:

R.E. Staite Engineering, Inc. (RES) has reviewed the materials included with the Proposed Amendments to the Regulation to Reduce Emissions from Diesel Engines on Commercial Harbor Craft (CHC) Operated within California Waters and 24 Nautical Miles of the California Baseline that the California Air Resources Board (CARB) is considering on November 19, 2021. R.E. Staite Engineering, Inc. is strongly opposed to the Proposed Amendments to the Commercial Harbor Craft (CHC) Regulations. RES requests that the Board deny the CHC Proposed Amendments. Governor Newsom's Executive Order N-79-20 directed CARB and other State agencies to transition off-road vehicles and equipment to 100 percent zero-emission by 2035 where feasible and cost effective. **The CHC Proposed Amendments are not feasible, nor cost effective.**

If the CHC Proposed Amendments (dated September 21, 2021) are not denied, we request that CARB suspend the suspend the rulemaking and address the following items in order to comply with the direction of Executive Order N-79-20:

1. Allow Reasonable Time For Upgrades
2. Provide Flexibility In Grant Application Requirements
3. Implement Incentive Based Compliance (Fleet Averaging / Best Available Control Technology (BACT))
4. Include a Small Business Phasing Plan

R.E. Staite Engineering, Inc. has participated in the review of the amendment process, provided information to CARB staff and has made reasonable suggestions for change. The Proposed Amendments will have a devastating impact on our company; R.E. Staite Engineering, Inc. will likely go out of business. **As a small business, we do not feel heard or understood.** Our suggestions have not been incorporated into the draft proposals, our company data has not been used in a way that we understand, and we have serious concerns about a majority of the data and assumptions used for parts of the analysis. The Proposed Amendments require unrealistic

goals in the timeframe provided. For clarity, we have divided our response into four sections: I. Introduction/Background, II. Concerns, III. Solutions and IV. Conclusions. Appendix A has been provided with more detailed information that is referenced in our letter.

I. INTRODUCTION/BACKGROUND

The review process for the Proposed Amendments was initiated at the beginning of the pandemic in March 2020. Many, if not all of the companies affected by the CHC Proposed Amendments were struggling to keep their doors open and employees working. In companies across the marine sector, all hands were on deck and devoted to keeping crews safe and making adjustments to the workplace. To date, the pandemic is still an issue in California. Business is not "back to normal" yet. The fact that the CARB Board is not meeting in person is just one example of that.

As an industry we have tried diligently to gather information, meet with CARB Staff and elected officials to explain our situation and ultimately try to decide what the potential impact the Proposed Amendment will have on our businesses. The majority of us that are impacted by the regulations are not scientists, economists or health professionals. We are contractors, fishermen and maritime service providers. The majority of us do not have lobbyists or lawyers to spend time on the analysis and data review. Most of us have spent a considerable amount of time just trying to understand what is being proposed and how it affects our fleets, making sure that we are heard and understood, and that regulations can be implemented in a reasonable manner that allow us to both protect the health of Californians and stay in business.

A. OUR COMPANY

R.E. Staite Engineering, Inc. (RES) is a small, family owned, marine construction business that has been in business for over 80 years, since 1938. RES is headquartered in San Diego. Our office, yard and wharf are within the designated SB 535 Disadvantaged Communities and AB 1550 Low-Income Communities of Barrio Logan. RES works in San Diego, and along the west coast, with our fleet homeported in San Diego.

RES is a recognized and respected dredger and heavy marine construction contractor within the industry. Our company has 50 employees or less for the majority of the year. RES specializes in projects for government agencies with an emphasis on dredging and pier/wharf infrastructure construction and repairs. The majority of our work falls under the construction and maintenance of essential infrastructure, which includes public works construction. R.E. Staite is self certified as a small business enterprise in the Federal System for Award Management (SAM) for a variety of NAICS codes. It is important to note that in order to maintain the designation, as a small business dredging contractor, our income must be $30M or less (over a three year average).

R.E. Staite's marine equipment includes tug boats, derrick barges, crane barges, flat deck barges with 50 to 450 ton crawler cranes, dump scows, support barges, Flexi-Float barge units and work boats. RES also maintains equipment for land-based construction that includes long reach excavators, cranes, forklifts and other ancillary equipment. It is a diverse spread of equipment that is subject to several CARB programs/regulations including Commercial Harbor Craft (CHC), In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation/DOORS), and the Portable Equipment Registration Program (PERP). All of these programs have different regulations, fees and tracking systems. RES has up-tiered 27 marine engines since the original

CHC regulations were implemented. Most of the engines have been up-tiered at our own expense. The majority of the engines in our fleet are Tier 2, 3 and 4.

As a small business contractor, RES has two current Multiple Award Construction Contracts (MACC) with the Navy, the first contract is the Indefinite Delivery Indefinite Quantity (IDIQ) Multiple Award Construction Contract (MACC) For New Construction, Repair, And Renovation of Waterfront Facilities at Various Government Installations Located In California, Arizona, Nevada, Utah, Colorado, and New Mexico; RES is one of eight marine contractors in this MACC. The second contract is the Waterfront Multiple Award Contract (WF MACC) for Naval Facilities Engineering Command (NAVFAC) Northwest Area of Responsibility; RES is one of eight marine contractors in this MACC. These contracts are multi-award, multi-year contracts for new construction, repair and maintenance of Naval infrastructure. Between the two contracts work can occur along the west coast between the boarders of Mexico and Canada and stretch into the interior states. As part of our obligation, we identified equipment that was ready and available. The CHC Proposed Amendments put us in jeopardy of not having equipment available to fulfill our potential contracts.

II. OUR CONCERNS

We are concerned that the CHC Proposed Amendments are not feasible or cost effective in meeting the goals and values established by Executive Order N-79-20. R.E. Staite Engineering, Inc. has identified issues with safety, data validation, health, feasibility, environmental, financial and small business in the supporting documents that have been provided along with the Proposed Regulations. RES has summarized our concerns below and have provided examples of specific issues attached in Appendix A.

A. Safety - It has not been demonstrated to the industry that the new technology is safe in the proposed applications, therefore, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**

B. Data Validation -The data provided to justify the Proposed Amendments may be faulty and is not representative of the industry making **the CHC Proposed Amendments as drafted not feasible or cost effective.**

C. Health - Without an accurate count of vessels and a solid understanding of how emissions are generated at each port, the impacts on health cannot be quantified, thus, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**

D. Feasibility- There is not a "one-size fits all" solution to CHC emission reduction. Because the technology required does not exist and the costs cannot be quantified in a manner that allows companies to plan for the impacts, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**

E. Environmental -The conclusion that the environmental impacts could be "Less Than Significant or Potentially Significant and Unavoidable" is not acceptable. There is not enough verifiable information in order to approve the Draft Environmental Analysis (EA). The Draft EA should be denied and as such**, the CHC Proposed Amendments as drafted are not feasible or cost effective.**

F. Financial -The costs of implementation are impractical without significant assistance in the form of grants and other funding relief in order to meet the timeline goals of the Executive Order N-79-20. For this reason, **the CHC Proposed Amendments as drafted are neither feasible or cost effective.**

G. Small Business - The impacts on small business are unacceptable. The only way for a small company to survive is to pass the upgrade costs on to future clients. If a small business cannot do that in a reasonable manner they will go out of business. A plan that does not make accommodations for small business is not a working plan for California, and **the CHC Proposed Amendments as drafted are not feasible or cost effective.**

For reasons related to safety, data validation, health, feasibility, environmental, financial and small business, the CHC Proposed Amendments should not be implemented as drafted and are NOT FEASIBLE OR COST EFFECTIVE.

III. SOLUTIONS

A. ADDITIONAL TIME FOR UPGRADES

Our most pressing concern with the Proposed Amendments is that there is not enough time or funding available and dedicated to have all of our engines up-tiered to Tier 3 or 4 plus a diesel particulate filter (DPF) by the proposed compliance dates. The compliance dates are unattainable and unrealistic for our small business.

The marine industry, and R.E. Staite in particular, have made significant good faith investments in upgrading vessels to meet the current CHC regulations. Since the initial CHC regulations were adopted in 2008, the industry has had time to plan for improvements, industry has had technology that was known and available for installation, and industry was told that once the changes were made that we would be in compliance, allowing the industry to amortize the upgraded equipment over a longer period of time. Even with time and technology on our side, it has not been an easy task. We have replaced 27 of our engines, most at our own expense. Our equipment has been repowered with the majority of our engines upgraded to Tier 2 and Tier 3. We have some Tier 4 engines and also some engines that are registered as low use. To comply with the CHC Proposed Amendments means starting over with repowering our fleet. In order to repower our fleet we will need time to:

- Research Equipment Options
- Perform Marine Architecture Studies
- Schedule Vessels for Dry Dock
- Plan for Funding / Obtain Loans
- Apply for Grants
- Plan for Work and Equipment Availability

Repowering a marine engine is not a small task All of the tasks identified above are substantial and will take time to complete before an engine can be repowered and be back in service. Compliance with Executive Order N-79-20 is NOT FEASIBLE AND NOT COST EFFECTIVE.

B. GRANT FLEXIBILITY

The reference materials and Standardized Regulatory Impact Assessment (SRIA) all note that grant funding is available, but based on the criteria for grant eligibility, R.E. Staite may not be able to take advantage of the funding, leaving a large amount that must be self-financed. It should be noted that most grants also require that projects be funded up front by the Owner and then reimbursed when the project has concluded.

We appreciate the opportunity for funding to offset some of the costs we will incur. If there is a way to allow CARB Staff more discretion to approve requests for waivers/variances when there is a benefit to the public (improved emissions), it may allow for more projects to be completed in an accelerated fashion without actually changing the grant criteria or programs.

R.E. Staite Engineering, Inc. strongly supports the recommendations suggested by the San Luis Obispo County Air Pollution Control District Board (letter from SLO APCD dated October 5, 2021) in order to promote more meaningful grant opportunities:

> *"For the vessels with new regulatory replacement schedules where engine replacement is feasible, we have the following regulatory recommendations:*
>
> 1. *Add compliance flexibility to the CHC Regulation for coastal areas that are in federal attainment for ambient air quality standards, similar to the flexibilities provided in the CARB "In-use On-road and Off-road" Regulations.*
> 2. *Any new replacement compliance dates should be set at least eight years from the effective date of the regulation, and not sooner than December 31, 2030, so air districts can provide meaningful grant funding for vessels with new regulatory schedules;*
> 3. *The replacement schedules should factor in time needed for engine manufacturers to complete the development and deployment of additional Tier 4 engines and DPFs, and the certification of these new technologies by CARB, the U.S. Coast Guard, and if necessary, Cal OSHA; and*
> 4. *The replacement schedules should allow flexibility for possible delays in Tier 4 and DPF deployment due to delays in production, certification, or industry limitations in repower specialists. "*

In addition to the suggestions above, R.E. Staite would also encourage the ability to "grant stack" – being able to add several funding sources together in order to create a larger funding source for the more costly upgrades in our fleet. As the grant packages stand, it is difficult to piece together enough money to do one engine, let alone a whole fleet.

Based on the number of vessels that have to be repowered or purchased, reducing the matching fees a company would have to contribute would also get more vessels upgraded and in compliance in a faster timeframe. Some grant programs allow Government funding of 100%. Allowing 100% funding for the private industry as an incentive for targeted projects or targeted areas, such as Disadvantaged Communities (DACs) would put the focus on problem areas and assist with swifter implementation.

C. IMPLEMENT INCENTIVE BASED COMPLIANCE (FLEET AVERAGING / BEST AVAILABLE CONTROL TECHNOLOGY (BACT))

The compliance tables in the CHC Proposed Amendments require that engines be replaced based on their model year. This does not give a company any discretion, other than using a low

use waiver, to decide when equipment should be upgraded or taken out of the fleet for improvements. In our case, just based on model years, we will have two of our largest tug boats, the workhorses of our fleet, needing to be dry-docked the same year. Basing upgrades on engine model years does not afford an Owner any control over his assets or his ability to use his owned equipment as an advantage when bidding projects. RES is located within a Disadvantaged Community (DAC), which further penalizes our company by slashing low use hours by half of other vessels in other parts of the state. An incentive-based compliance system would be welcome.

D. CARB Off-Road Diesel Program (DOORS)

CARB has another program that has a similar goal of removing the dirtiest engines out of circulation under its Off-Road Diesel program. The Off-Road Diesel program uses a method called fleet averaging and Best Available Control Technology (BACT). The DOORS program (the name of the Off-Road compliance program) allows companies to meet a fleet average each year. If they are not able to do that, they are responsible for meeting a Best Available Control Technology (BACT) target. The average and the target are reduced each year until the goal is met at the end of the compliance period. The fleet averaging/BACT allows a company to strategically phase their replacements so that if you need to keep an older engine running, you can, BUT, but you may have to make other choices about vessel upgrades to offset that choice, such as upgrading another (or several) vessels to Tier 4 technology, or perhaps retiring a vessel so that you meet your average or target each year. BACT credits are awarded for early compliance and those credits can also be used to phase in the other vessels. This program has different target dates for large, medium and small companies, so that the less horsepower a company has, the longer the compliance period, acknowledging that different sized companies have different thresholds for sustainability. The result of using fleet averaging/BACT is the same as using a compliance table, but in a way that allows a company more control over how it is accomplished.

E. SMALL BUSINESS PHASING

The proposed regulations make no concessions for a small business to remain competitive with the larger companies. In fact, the way the compliance is set up, the small businesses will likely be the first to go out of business. As suggested Section III-D above, allowing for a small / medium / large category for business size based on total CHC horsepower along with the fleet averaging / BACT compliance methods would allow for small businesses to upgrade to cleaner technology while still remaining competitive.

IV. CONCLUSION

R.E. Staite Engineering, Inc. has been an engaged partner in the review of the Proposed Amendments to the current CHC regulations. We have provided information about our company, identified our concerns and have proposed reasonable solutions. As an important company in the construction, repair and maintenance of marine infrastructure and waterways, we expect to be heard and our solutions considered. We are a small company trying to survive and evolve with change. We ask that we be treated with consideration and respect and that the Board and Staff engage with us to come to a more workable solution than the one this has been proposed. That includes:

1. Allowing Reasonable Time For Upgrades
2. Providing Flexibility In Grant Application Requirements
3. Implementing Incentive Based Compliance (Fleet Averaging / Best Available Control Technology (BACT))

4. Including a Small Business Phasing Plan

Many representatives in our industry have participated in the review process as well. R.E. Staite Engineering, Inc. fully supports the statements and requests submitted by other companies and representatives of our industry specifically The American Waterways Operators (AWO), the Pacific Merchant Shipping Association (PMSA), the Sportfishing Association of California (SAC), the Truck and Engine Manufacturers Association, the San Diego Port Tenants Association as well as other industry representatives.

If the items identified by our company and others noted above are not considered and implemented, it is more than likely that our small maritime business will not be able to comply with the Proposed Amendments to the CHC regulations and will be forced out of the marine construction industry.

If there is other information that would be helpful to you to further understand our situation and our company, please let us know how we can help. I can be reached at rayc@restaite.net or via phone at 619/233-0178.

Thank you for your consideration.

Sincerely,

R.E. STAITE ENGINEERING, INC.

R.A. Carpenter
President

Kristin Joseph
Estimating/Special Projects

Attachments:
Appendix A – Detailed List of Concerns

APPENDIX A – DETAILED LIST OF CONCERNS

A. Safety It has not been demonstrated to the industry that the new technology is safe used in the prosed applications, therefore, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**	
Is the Proposed Technology Safe?	Safety is our #1 concern. Heavy marine construction is inherently dangerous. We have been tracking many of the issues manufacturers have been having with their Tier 4 marine equipment. We understand that there has been some communication with the Coast Guard related to the safety issues of the proposed technology. Before a regulation is approved, it is important that the safety concerns be shared with all stakeholders. Allowing more time for implementation allows more time for safety trials and testing. The middle of the ocean is a dangerous place for a mishap, and anything our company can do to send our crews out with every safety advantage ahead of time is our goal. Allowing more time for safety is a must.
Opacity Testing	We have concerns about the requirements and costs for opacity testing. Our tug boats are specially tuned for performance to provide the power, maneuverability, and braking necessary to operate safely while maneuvering heavy loads, towing equipment or operating in tight quarters. We agree with the American Waterways Operators conclusion that “Tuning the engine to minimize smoke during the transitional phase could compromise engine integrity when the operator needs maximum responsiveness to ensure safe operation.”

B. Data Validation The data provided to justify the Proposed Amendments may be faulty and is not representative of the industry, **making the CHC Proposed Amendments as drafted not feasible or cost effective.**	
Number of Vessels	The number of CHC vessels has been a point of contention with the maritime industry since the Proposed Amendment was introduced. Appendix H, 2021 Update to the Emission Inventory for Commercial Harbor Craft: Methodology and Results details how CARB Staff determined their numbers, but does not address the numerous questions from the industry about possible discrepancies. The number of vessels is the basis for many of the studies and conclusions, particularly about health and environmental impacts. Until the number of vessels can be verified, the conclusions drawn in the Standardized Regulatory Impact Assessment (SRIA), Draft Environmental Analysis (EA) and the Staff Report: Initial Statement of Reasons (ISOR) regarding health outcomes may not be valid.

Major Cost Inputs	R.E. Staite provided CARB Staff with proprietary data about the costs to upgrade our vessels to Tier 4 + DPF technology. We shared our rough order of magnitude information with the CARB Staff in one letter and an e-mail (October 30, 2020 and December 18, 2020), as well as what we thought an estimated loan would cost us if we had to obtain one for vessel upgrades. This information was incorporated into the Standardized Regulatory Impact Assessment (SRIA), Appendix A, Table II-A: Major Cost Inputs by CHC Category. It should be noted that our data was referenced on 17 pages of the SRIA and along with the California Maritime Academy (CMA) study and the Sause Bros (tug category), as a primary source of data for the major cost input for the following vessel categories: Push/Tow Tug category, the Dredge category, Other Barge category and Workboat category. We clearly stated that since we did not have any cost information or data for DPF, that the numbers were estimated and were rough order of magnitude. None of our notes regarding the numbers being estimates and rough order of magnitude numbers are noted in the document. It is inconceivable that such a small data set was allowed to be representative of these major vessel categories. Reviewing all the categories there appears to be very little industry participation. Since there is not adequate industry data provided in the study, the results are not representative of the true costs of the CHC Proposed Amendments.
DPF Data	We question the numbers and the methods used to arrive at the Major Cost Inputs by Category in the SRIA. The data we provided included an estimate for a marine Tier 4 engine plus DPF. CARB staff deconstructed that estimate and arrived at a separate cost for the engine and a separate cost for the DPF. We communicated that it was highly unlikely that a company that had to upgrade an engine to a Tier 4 + DPF would upgrade the engine, then add the DPF in a separate transaction, but that is what the numbers seem to imply. The regulations should remain as is until there is actual technology and actual costs to attribute to the required changes.
Replace-ment Costs	For the Push/Tow Tug category, the SRIA suggests that $440/hp is adequate for replacement costs. For 3301 hp, that would equate to $1,452,440 for the purchase of a push/tow tug replacement vessel. It would be enough to cover the replacement of a <u>used</u> tug with Tier 1 engines, but not even close to the $8M - $10M a new small tug (60' or less) might cost, not to mention the time to build the new tug and the lost revenue waiting for the replacement. We question the results of the analysis in the SRIA as they relate to replacement costs. A larger tug may cost $15M - $18M to purchase new. The replacement costs need to be reviewed again with more industry input.

C. Health Without an accurate count of vessels and a solid understanding of how emissions are generated at each port, the impacts on health cannot be quantified, thus, **the Proposed Amendment as drafted is not feasible or cost effective.**	
Verification of Vessel Data	The verification of the vessel data as mentioned above is critical in estimating health benefits or declines from CHC emissions.
Compre-hensive Emissions/	To our knowledge, there is not a comprehensive health study that specifically identifies CHC emissions as the highest source of pollutants that impact health. In San Diego in particular, there are a variety of pollution sources such as the

Health Study	Highway 5 freeway and car and truck traffic that run through the neighborhoods adjacent to the Port that likely contribute to the impact on health in the immediate area in addition to marine vessels. It is recognized that everyone benefits from reduced emissions, but the drastic measures that are being targeted at CHC vessels is not the whole solution to the issue. It has been acknowledged that each port in California is unique and may have other contributing factors to emissions besides CHC. We would like to see a study done that looks at all of the sources of pollution that contribute to health impacts before regulations are changed. We would like a study of each port and the contributing emission sources so that a better picture of CHC emissions can be generated and solutions can be created that are in proportion to the pollution.
Question Health Benefits	Page 5 of the Public Notice reads (underline ours for emphasis): *"The Proposed Amendments are expected to improve California residents' health benefits, especially those in communities located near California's seaports and marine terminals. Many of these communities are disadvantaged and bear a disproportionate health burden due to their close proximity to emissions from CHC (at dock, and in transit) and other emission sources including trucks, locomotives, and terminal equipment serving the seaports. These improvements in health benefits are anticipated to include reductions of <u>531 premature deaths reduced, 73 hospital admissions for cardiovascular illness, 88 hospital admissions for respiratory illness and 236 emergency room visits.</u> The total statewide valuation due to avoided health outcomes between 2023 and 2038 totaled $5.25 billion."* We agree that any improvement in someone's health or preventing a premature death is very important, however, the numbers referenced above are shockingly small for a time span of 15 years that covers the entire state of California. We question the results, are the gains really that small?

D. Feasibility There is not a "one-size fits all" solution to CHC emission reduction. Because the technology required does not exist and the costs cannot be quantified in a manner that allows companies to plan for the impacts, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**	
Technology Required in Proposed Amendment Does Not Exist for Tier 4 Marine Applications	Is the Proposed Amendment feasible? Much of technology that is being required does not exist. Contractors like certainty in a very uncertain business. We review historical data, track trends and try to base our estimates on what we know to be true. In this case we are guessing about the costs, we are not sure about how the technology will integrate with our vessels and are very uncertain about the safety of the applications. We do not have the opportunity to see how the technology is applied in a real world situation. We can't ask questions of the installers or colleagues in the industry, because no one else has the technology either. It is not tested or vetted. As of February 2021, there is one possible verified level 3 DPF. Page E-42 of Appendix E, Technical Support Document and Assessment of Marine Emission Control Strategies, Zero-Emission, and Advanced Technologies regarding CARB Verified Level 3 VDECS (DPFs) states the following (underline for emphasis, ours):

	"As of February 2021, CARB has verified a variety of devices for various sectors including on/off-road, stationary, transportation refrigeration unit (TRU), auxiliary power unit (APU), cargo handling equipment, and marine applications.63 <u>There is one verified device for marine applications, the Rypos ADPF</u>… *Success of possible retrofit requirements is contingent upon the technology developers applying for and receiving verification from CARB for their diesel emissions controls strategies (DECS). There are currently three established companies who are interested in submitting their products for CARB verification. The number of options for retrofits should increase as requirements for DPFs are adopted and more products penetrate the market."* It should be noted that a Tier 4 DPF for marine application is not on the market. In the timeframe proposed for compliance, it would be foolish to retrofit your vessel with a Tier 4 engine and then install a DPF in a separate transaction. The loss of time in installation and the increase in cost would not be justified.
CMA Study & Compliance Options	Page 42 – 44 of Appendix E, Technical Support Document and Assessment of Marine Emission Control Strategies, Zero-Emission, and Advanced Technologies, California Maritime Academy Feasibility Study indicates the following (underline ours for emphasis): *"CARB commissioned the California State University Maritime Academy (CMA) to evaluate the feasibility of repowering and retrofitting in-use harbor craft with Tier 4…The overall conclusion from the study is that there are a number of feasible compliance options for a broad range of different CHC types evaluated. However, because many vessels have unique designs, no assumptions can be made about the technological feasibility regarding a specific vessel without a thorough analysis of its design to determine what engine and after treatment options are available. In some cases where changes are required to a vessel's structure, the repower project will require a design review by a naval architect to ensure the modifications will not negatively affect the vessel's stability or seaworthiness. <u>The technological capability of repowering with engines and aftertreatment to meet the Tier 3 or 4 + DPF emissions performance standard is dependent</u> <u>on many variables and must be thoroughly evaluated on a case-by-case basis for every vessel.</u> Therefore, CARB staff used the study to evaluate the likelihood of a vessel needing to be replaced to meet the proposed emissions performance standard in the cost and economic analyses, and in developing the Proposed Amendments."* There is not a "one size fits all solution" to upgrading vessels. Owners need time to evaluate options when they are available on the market in order to decide what is the best approach in terms of safety, feasibility and practicality for each company. It has been noted that there are compliance extensions available if the technology is not available within the compliance timeframe.

	The extensions may keep a fleet in compliance, but they still do not allow adequate time for analysis and installation once the technology is available. Once the technology is available, there is a year for installation once the product comes on the market. That is not enough time to come up with funding or installation arrangements.
Low Use Compliance is Not Feasible for Operators in DAC	The CHC Proposed Amendments allow for a low use compliance pathway, however, if a company is within an area of Disadvantaged Communities (DAC) the low-use compliance thresholds would be half of other areas of the State. This puts Owners in these areas at a huge disadvantage in terms of competing for business and being able to take advantage of low use options. It becomes very impractical to maintain a marine vessel every year for only half of the allowable hours of use. A pre-tier 1 engine could be used 40 hours, just barely a week of work. This is definitely not a compliance pathway that is cost effective or practical. **Engine Tier** / **Pre-Tier 1** / **Tier 1** / **Tier 2** / **Tier 3 or 4** DACs (hours/year) / 40 / 150 / 200 / 350 All Other Areas (hours/year) / 80 / 300 / 400 / 700

E. Environmental The conclusion that the environmental impacts could be "Less Than Significant or Potentially Significant and Unavoidable" is not acceptable. There is not enough verifiable information in order to approve the Draft Environmental Analysis (EA). The Draft EA should be denied and as such, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**	
Please Review Section IV. Impact Analysis and Mitigation Measures , Section 3, Air Quality of the Draft Environmental Analysis (EA)	A thorough review of Section IV. Impact Analysis and Mitigation Measures , Section 3, Air Quality of the Draft Environmental Analysis needs to be completed. Environmentally this is probably the most important section of the Draft Environmental Assessment and there are statements throughout the document that several modeling options are not available and that in many cases it is not possible to predict improvements regarding air quality. The sentences below are out of context, but are not meant to be misleading, only illustrative of the difficulties of pin-pointing air quality gains or degradations. *Page D-37:"It is not possible to predict exactly where project related improvements would occur or what each project would involve."* *Page D-38: "The ability for CARB staff to correctly estimate the location, amount, and types of projects which could occur in response to increased vessel repowers and new builds, has been determined to be too speculative for a thorough evaluation."* *Page D-39: "Therefore, modeling emissions associated with the manufacturing and delivery of marine vessels is not possible. For calculating increased emissions associated with vessel repowers and new builds, the industry standard CalEEMod is thus not a viable modeling option."*

	Page D-43 "However, the exact location and magnitude of specific health impacts that could occur as a result of project-level construction-related emissions in specific air basins is infeasible to model with any degree of accuracy with the level of information known about the Proposed Amendments."
Are Impacts Less Than Significant Or Potentially Significant And Unavoidable?	The following statement repeats throughout the Draft Environmental Analysis (example taken from EA pg D-27): *"Because the authority to determine project-level impacts and require project-level mitigation lies with local land use and/or permitting agencies for individual projects, CARB finds it legally infeasible to implement and enforce this measure. Moreover, due to the programmatic analysis of this EA, which does not allow project-specific details of potential impacts and associated mitigation, there is inherent uncertainty in the degree of mitigation that lead agencies may ultimately implement to reduce the potentially significant impacts if they approve these potential projects.* *Consequently, while impacts could likely be reduced to a less-than-significant level with mitigation measures imposed by the land use and/or permitting agencies acting as lead agencies for these individual projects under CEQA, if and when a project applicant seeks a permit for compliance-response related project, this Draft EA takes the conservative approach in its post-mitigation significance conclusion and discloses, for CEQA compliance purposes, that short-term construction-related and long-term operational impacts to aesthetics associated with the Proposed Amendments would remain* ***potentially significant and unavoidable*****."** Are impacts less than significant or potentially significant and unavoidable? While we understand the limits of authority to impose mitigation, the EA should provide more direction in terms of environmental impacts of the Proposed Amendments**.**
Selling Vessels Out of State	The Page D-13 of the Draft Environmental Analysis states: *"CARB staff predicts most retired vessels would be sold out of state, not scrapped. Based on preliminary conversations with industry leaders, CARB staff expects many vessels to be sold or moved to other states or countries on the North American West Coast. Larger, more costly, or other specialty vessels could be sold and transferred to regions around the globe."* Our understanding of the Proposed Amendments are to reduce emissions in order to improve the health of those in impacted polluted areas. By selling vessels out of state, the problem would just be shifted elsewhere. Emissions may be reduced in California, but the impact to global warming would remain. In addition, most areas that have maritime commerce already have vessels.

	A glut of used vessels flooding the out of state market would drive down pricing, leaving owners with a fraction of the value to offset new vessel purchases or repowers in California. As much as we would like to be able to sell our assets somewhere else to offset new vessel costs, this solution seems contrary to the spirit of the regulations.

F. Financial The costs of implementation are impractical without significant assistance in the form of grants and other assistance in order to meet the timeline goals of 2035. For this reason, **the CHC Proposed Amendments as drafted are not feasible or cost effective.**	
Costs Analysis Inputs Are Not Representative of the Industry	Appendix A of the SRIA, Cost Analysis Inputs and Assumptions for Standardized Regulatory Impact Assessment should be reviewed thoroughly. There are very few industry stakeholders referenced in the analysis. The primary source of information seems to be the California Maritime Academy study for all vessel categories with 1-2 industry contacts (including RES) that have shared company costs, which is hardly representative of the industry as a whole. See Section B Data Verification Above.
R.E. Staite Engineering, Inc. Estimated Costs	R.E. Staite Engineering, Inc. estimated our up-tier costs based on the difference between a Tier 3 engine quote and a Tier 4 engine quote we had received from a vendor as we were preparing a grant for one of our tug boats. A DPF for the marine engines we are looking at is not available, so the DPF cost that we provided to CARB Staff was estimated. Our <u>ESTIMATED, ROUGH ORDER OF MAGNITUDE</u> costs to up-tier all of our engines is approximately $12 million dollars, assuming we are not purchasing new vessels. Seven of the engines would need to be up-tiered by 2024. The remainder of the engines are spread between 2024 and 2030 with another larger cluster that would need up-tiering in 2028. We are already too late to apply for Carl Moyer funding for the 2024 engines as we need a three-year window between the grant application and when the compliance is mandatory.
Administrative Fees	The administrative and compliance fees are extraordinary. The first year of fees for our company is estimated to be <u>at least</u> $23,004 and could be as much as $91,904+. Note that the fees and compliance estimates were derived from the SRIA. Some of the fees such as opacity testing, record keeping and reporting may be more or less depending on the actual amount of time expended or the service provider used. The “Possible Additional Costs” would apply if we request a compliance extension (the amount noted would be for one vessel, the number would increase if we needed additional reports). It is not clear if the $7500 regulation interpretation costs identified as a possible cost in the SRIA would be charged the first year of implementation. Added together, the total potential cost the first year is $91,904. It is acknowledged that this number could be much less if we do not request a compliance extension for any of the vessels, but is should also be noted that it is possible this number could be much more if we request extensions for several vessels. These fees and costs could better be put towards upgraded engines and reducing emissions.

	Administrative Fees – First Year Annual Fee / Vessel $486 / vessel Annual Fee/ Engine $396 / engine Record Keeping & Reporting $200 / assumed Vessel Labeling (Est Every 5 Years) to replace $150 / assumed every 5 years Opacity Testing / Biennially $200 / assumed cost, biennially **Total Cost Based On Engines/Fleet Size $23,004** **Possible Additional Costs** Regulation Interpretation Costs $ 7,500* Naval Architect Report $61,000** Financial Feasibility Reports (Compliance Extensions) $ 400** **Total Estimated $68,900** **Estimated Possible Fees and Compliance Costs – First Year 2023 $91,904** **SRIA pg 95 - Staff assumes this would be a one-time cost per fleet occurring in 2023, and represents administrative time needed to understand the regulation during the first year the Proposed Amendments would be in effect. Staff assumed a per-fleet cost of $7,500 which represents 100 personnel hours with a personnel hour cost of $75.* ***SRIA pg 93 - Staff assumed that the cost of a Naval Architect Report would be approximately $61,000, and the cost of a Financial Feasibility Report would be $400.*
Questions About Fees and Costs	We have questions about the fees and costs that we will incur. • Why are there separate fees per vessel and per engine? Why not a single fee per vessel? • Why is there no cap on the fees per company? • Why is there not a sliding scale for company size? • Why is opacity testing every two years? Why not a baseline test and a final test at the end of the program? • Will there be a $7500 regulation interpretation fee imposed in 2023? This is a large sum of money and should already be factored into the annual fees for program implementation. • Vessel labeling – why do it? As one of our colleagues noted in previous correspondence, each CHC vessel has a unique identifying number already assigned (COR #, CDF#, IMO). Why add another along with its associated costs? The $150 fee for the label is not the only cost that would be associated with that fee. Labor would be involved in ordering and affixing the label, likely doubling the cost and time taken to implement the requirement. • Will any of the fees be put towards a more efficient tracking system? Right now reporting is very cumbersome. The DOORS (Off-Road Diesel Program) program has a electronic system that is much easier to use and keep information current and track compliance, we would suggest using the same system.

Construction and Modification of Vessels Out of State	The following statement was made on page D-2 of the Draft EA: *"Construction and modification of vessels would likely occur both inside and outside of California. As outlined in Section IV.E of Appendix E to the ISOR, CARB staff performed a survey of existing shipyards in California, Oregon, and Washington, which confirmed there is sufficient capacity to repower, retrofit, and build new vessels in response to the Proposed Amendments. The survey identified capacity for 23 percent of repowers and retrofits (82 out of 353 repowers per year), and capacity for 73 percent of new ship builds (72 out of 98 new builds per year) in either Oregon or Washington. Therefore, the majority of new vessel builds are expected to occur outside of California. This may be particularly likely because labor can be cheaper in other states."* Why are we not planning for these retrofits and new vessels to occur in California? We thought the idea was to create jobs and strengthen California's economy. Aside from jobs, the cost to mobilize a vessel to Oregon or Washington is prohibitive. For example, when estimating costs for a tug boat repower in the San Francisco Bay Area, the cost to transit our tug boat between San Diego and Alameda was between $40,000 - $50,000. Double that or 4x that for a trip to Oregon or Washington.
Mitigation Costs Identified in the Draft EA	EA Mitigation 3-1 The costs of mitigation measures associated with construction projects related to the Proposed Amendments have not been incorporated into the SRIA. While the EA states that CARB does not have the jurisdiction to impose mitigation measures, any mitigation that is approved by a responsible agency will have a financial impact and should be included in the overall costs for the Proposed Amendments.

G. Small Business The impacts on small business are unacceptable. The only way for a small company to survive is to pass the upgrade costs on to future clients. If a small business cannot do that in a reasonable manner they will go out of business. A plan that does not make accommodations for small business is not a working plan for California, and **the CHC Proposed Amendments as drafted are not feasible or cost effective.**	
Impacts on Small Business	Page IX-6 of the Staff Report: Initial Statement of Reasons (ISOR) states the following as it relates to Small Business: *Creation or Elimination of Businesses* *The Proposed Amendments do not directly result in business creation or elimination. However as discussed in Chapter E of the SRIA, changes in outputs of different sectors might indicate the creation or elimination of businesses in the State.* *Based on the modeling of output changes, many sectors, such as shipyards and ship and boat building industry may experience an increase in output which may result in the creation of new businesses.*

	Industries that operate CHC would face costs and see net decreases in output growth and employment. Some of these businesses are large and would not be anticipated to face business elimination. However, many are small businesses and may face substantial compliance costs. If these businesses are unable to pass on the costs of the Proposed Amendments to customers or if there is a significant change in demand for services, it is possible that some businesses would be eliminated. It would be extremely difficult to pass costs to our clients. We have an estimated $12M of potential expenses (assuming we have all re-powers, the cost is significantly more if we have to purchase new vessels). If we spread that cost over the projects that we bid, we would likely not be very competitive, reducing our volume of projects each year which translates to reduced profits and income to spend on repowers or new purchases.
Reasonable Alternatives to Lessen the Impact on Small Business	Page X-6 of the Staff Report: Initial Statement of Reasons (ISOR) states the following as it relates to Small Business: *Small Business Alternative* *The Board has not identified any reasonable alternatives that would lessen adverse impact on small businesses while still achieving necessary emission reductions.* Small business is a vital part of the California economy. Small businesses are a small percentage of the marine construction sector. R.E. Staite has suggested several reasonable solutions(Section III) that would reduce the impact on small business. Making concessions for small business based on size of fleet, amount of horsepower in fleet or number of employees would improve the potential outcome for some businesses if the Proposed Amendments are approved.