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November 15, 2021

Mr. David C. Quiros
Manager, Freight Technology Section
Transportation and Toxics Division
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Re: California Air Resources Board's (CARB) Proposed Regulations for Commercial Harbor Craft in California

Dear Mr. Quiros:

We appreciate the opportunity to comment on the Proposed Amendments to the Commercial Harbor Craft Regulation. We are disappointed that CARB has decided to break from years of collaboration with the maritime industry and have completely ignored the comments Sause Bros. and others have submitted. Sause Bros. has participated in and collaborated with CARB officials and harbor craft reporting regulations since its inception. Sause Bros. has diligently upgraded vessel engines on time, and in many instances ahead of schedule. This success was based on close partnership with CARB. By CARB abandoning this approach, results in an increased risk of creating requirements that do not achieve the desired outcome and potential unintended consequences.

CARB seems to be rejecting input from stakeholders or even ports who have published studies on effective methods of emissions reduction (See: Case Study of the San Pedro Bay Ports' Clean Air Action Plan 2006-2018):

> "In the early days of the CAAP's deployment, the SPBP supported end-of-tailpipe technologies (e.g., diesel particulate filters) on existing, in-use diesel engines. These technologies provided immediate emission reductions at relatively low cost, but their benefits could be shortlived, especially if the retrofit equipment were not properly maintained. Over time, the Ports and partners moved toward engine and vehicle replacements with cleaner diesel technologies, which were more expensive investments but also more robust"

Given the time (and opportunity) to actually engage and collaborate with CARB, industry stakeholders and CARB could achieve more sustainable alternatives than what is being implemented in the regulations (including the use of DPF filters).

While work shops were held in December 2018 the input that was provide was clearly ignored. CARB chose to hold a workshop to discuss the Draft Proposed Amendments to the Commercial Harbor Craft Regulation on March 16, 2021. The actual Draft Proposed were not released until April 1, 2021. This was completely unacceptable as it provided no time for a thoughtful and thorough review of the proposal allowing for meaningful comments on these extensive regulations. Previously, CARB's projected vessel count increases in the emission inventory did not match the projected increases laid out in the cost benefit analysis. CARB acknowledged the variance between the emission inventory and cost benefit counts, stating that the assumptions in each document now match (as of March 16, 2021). How the corrections were applied, and how this impacts the findings, has not been discussed, therefore no time was given to do a meaningful review to understand the change.

The first time industry was provided with the actual information CARB used to justify this rule was September 21, 2021. Sause Bros. strongly support reducing air emissions for DAC's; however, regulations that come at a high cost warrant scientific data, robust exploration of all options (especially those which are sustainable, and attainable), as well as community and stakeholder involvement and feedback. Less than two months is not enough time to provide meaningful input to these new rules that would help improve them and ensure that they achieved their goal.

Sause Bros. strives to be ahead of the industry standards. That being said, the proposed regulation and deadlines will be impossible to meet. I have below provided our comments and suggestions into sections. Tug Engine Repowers Feasibility and Alternatives, Costs Associated with proposed tug and barge engine repowers, CARB's Proposed Fee Concept, CARB's Vessel Count, and Safety Related Concerns of DPF On Tank Barges.

Tug Engine Repower Feasibility and Alternatives

Sause Bros. owns and operates two types of tugs: ocean-going and harbor/assist tugs. We strongly believe ocean-going vessels should be treated differently than harbor/assist Tugs under the new rules. The Cal Maritime study only examined push tugs and did not consider, examine, or detail how ocean-going tugs could feasibly install DPF units. Before CARB subjects ocean-going tugs to new harbor craft rules and implementation guidelines, Cal Maritime and CARB officials need to study and diagram the engine room of an ocean-going tug. Sause Bros. would be happy to provide an ocean-going tug(s) for CARB and Cal Maritime to study and diagram: Issues outlined below.

1. Push/Assist tugs. Sause Bros. has 4 assist tugs that operate exclusively in SCAQMD's district (Redondo, Cabrillo and Arapaho and Pono). Three of the four Long Beach based assist tugs (Redondo, Cabrillo and Arapaho) could be repowered fairly easily. These three tugs have the engine room space to accommodate Tier 4 engines and DPF's per the Cal Maritime study. Repowering these three tugs is feasible given CARB's proposed timeline. However, the fourth assist tug (Pono) will be highly problematic to repower since it wasn't originally designed to be an assist tug, it is actually an ocean-going tug subject to tonnage requirements with limited engine room space.

2. Ocean-going tugs. Sause Bros. believes ocean-going tugs should be exempt. Ocean-going tugs and barges, spend minimal in California waters spending most of their time far off shore. CARB has arbitrarily chosen to exempt approximately 1,570 commercial fishing vessels based on this same operational characteristic.

3. Tier 4 feasibility study flawed. Sause Bros.' understanding CARB has based the proposed regulations on a Tier 4 feasibility study. Note pp. 95 of the Cal Maritime report stating, "This vessel is used to push a specific barge in inland waters. It is not used for coastal voyages." Sause Bros. ocean-going tugs do not operate on inland waters. Push tugs are vastly different than ocean-going tugs. Push tugs have expansive engine rooms while ocean-going tugs are subject to tonnage requirements with extremely limited engine room space. With the exception of Redondo, Cabrillo and Arapaho the rest of our tugs simply do not have the space to accommodate DPF units. Sause Bros. engineers are currently struggling to fit SCR's into new tug designs. Naval architects and Sause Bros. engineers will be able to detail why DPF's are not feasible for installation on ocean-going tugs. Also, it's highly unlikely we could repower any of our ocean-going tugs as our engine manufacturer, MTU doesn't currently offer a tier 4 option.

There is a hindrance with crew and supply boat repowers. Sause Bros. operates 3 crew/ supply vessels (Ford, Hermosa and Ranger) Under CARB's proposed concept, crew boats will not need to be repowered until 2029. No technology currently exists to repower these boats to Tier 4 + DPF standards.

The biggest hurdle the proposed concepts poses for Sause Bros. is the timeline to repower our ocean-going tugs, home ported outside of CA. Even if the engineers and naval architects are able to find a way to fit a DPF unit into these tugs Sause Bros. would be unable to meet the proposed timeline. Under CARB's proposed concept the Chinook, Cochise, Klihyam and Mikiona would all need to have their main engines repowered by 12/31/2024.

It is not easy to replace main engines. It involves months of planning in addition to 3-6 months to repower. One of our vessels is currently having the very smallest of our main engines (12 Cylinder 1800 RPM) removed to be rebuilt. It had to be substantially torn down prior to removal. This requires that Sause Bros. to totally disassemble the factory assembled and bench tested rebuilt engine to then be re-inserted. Without significant deconstruction of the house and vessel we find it cost and time prohibitive to remove and install new equipment only to find that displacement and ancillary equipment on many of the new Tier engines has grown to meet both emission and HP requirements.

Costs associated with tug and barge engine repowers-

With regard to modeling and cost analysis Sause Bros. concludes the proposed "tug" costs noted in the Cal Maritime study grossly misrepresents the total costs involved for repowering ocean-going tugs. Conservative figures acutely under estimate the true costs associated with the changes to engines and vessel systems. The lack of suitable replacement vessel equipment with the ability to replace our fleet that meets customers vetting requirements will make taking vessels out of the fleet for retrofit very difficult from both an operations and cost standpoint. Costs vary significantly from vessel to vessel with those requiring significant changes reaching near the cost of a new build figure of 6 million. New tug construction for our ocean-going tugs is almost 3 times the estimated figure at $16,300,000 (We have built two in the last year so these are very recent and correct figures). Finally, the replacement timeline is extremely aggressive. Sause Bros. recently launched a new tug under CARB's proposed timeline this new tug would be required to undergo major reconstruction to meet even basic Tier 4 requirements in a matter of 7 years after construction which is absolutely unrealistic and unacceptable. This requirement would erode the ability to compete with other transportation options in your area.

CARB's Proposed Fee Concept-

We believe any new Harbor Craft rules and regulations need to clarify the difference between PERP and Harbor Craft engines. All of the engines on our barges are currently registered, paid for and inspected

under the PERP program. However, they're also registered, tracked and inspected by Harbor Craft. Numerous Harbor Craft/CARB officials have admitted barge engines aren't portable and shouldn't be subject to PERP regulations. Unfortunately, SCAQMD enforcement officials believe these barge engines should be enrolled in PERP, and subject PERP fees and inspection regulations. Sause Bros. suggests Harbor Craft adopt the PERP fee model. The barge engines, currently enrolled, paid for and inspected should be able to roll over into a Harbor Craft fee structure at the engines next renewal date. Industries with models such as our, should not be subject to **both** Harbor Craft and PERP registration, fee and inspection programs. Further, it is a gross redundancy to re-register and immediately pay a Harbor Craft fee for barge engines currently enrolled and paid for under the PERP program. Harbor Craft could easily use a form similar to PERP's to register and pay for tug engines. Each tug engine would be issued a color coded placard with a Harbor Craft sticker that's valid for 3 years. The PERP model, fee structure and inspection program has proven workable over the years.

The per vessel and per main engine proposed fee structure is illogical. A lower fee for a single vessel fleet instead of a multiple vessel fleet just encourages separating out fleets into single vessel operations. Charging more for a low use exemption makes no sense as these engines by definition do not operate frequently in California.

CARB Vessel Count

Fundamental to the proposed regulations is an understanding on behalf of CARB staff that, over one third of subject vessels, as stated in Initial Statement of Reasons, operating in California have not satisfied the reporting requirements of CARB's regulations. This number is arrived at by comparing the number of vessels that report to CARB and vessels that list a California hailing port on their U.S. Coast Guard Certificate of Documentation as of May 2019. This understanding is wrong on several fronts. It does not recognize how hailing port is determined, it includes vessels that are not operating and it does not recognize that many of these vessels have no engines at all. Additionally, while it includes fishing vessels in the count it does not propose in-use requirements for this type of vessel. This misconstruing of the data makes the assumptions on impacts of the emissions from vessels and benefits of the proposed regulations nebulous.

While it would be concerning if a significant number of vessels are not meeting the existing CARB reporting requirements, there is no actual evidence that this is actually happening. CARB has had the USCG vessel data since May of 2019 which includes the address for all of these vessels owners that are supposedly not reporting. CARB has done nothing to reach out to the vessel owners to find out why. It is hard to believe CARB is genuine in their concern about under reporting when they have done nothing with the information they currently have to enforce their existing requirements.

Without examples of the purported widespread under reporting the justification for the burdensome Facility Reporting Requirements and Vessel Identifiers and the very justification of the proposal based on Emission Inventory Methodology is all suspect based on the vessel count provided by CARB.

Under U.S. Coast Guard vessel documentation regulations Hailing Port is not closely defined and does not necessarily mean the Port in which the vessel operations. 46 CFR 67.119 Hailing port designation only requires that the owner of a vessel must designate a hailing port to be marked upon the vessel and that the hailing port must be a place in the United Sates and include the State, territory, or possession in which it is located. Generally, this is the port in which the managing owner of the vessel has their office, or which is nearest to their office; the home port of a vessel. This means the hailing port has more to do with the vessel ownership then where it operates. This is not always consistent and when vessels are

sold the hailing port does not always get updated to reflect this change. Due to the constantly changing operations of vessels, the hailing port is rarely updated just because the vessel starts operating in a different port. Relying on hailing port as a measure provides an inaccurate count of vessel potentially subject to CARB regulations as many of these vessels do not operate in California.

Of the vessels on the U.S. Coast Guard list with a valid COD, 1,069 are Commercial Fishing vessels. These vessels represent nearly 30% of the overall fleet included in the count of vessels that are not reporting to CARB and as vessels that contribute to the overall emission inventory yet they are not being included in the proposed "in-use" requirements. CARB's rational for excluding Commercial Fishing vessels is based on "the small profit margins in the industry, demonstrated lack of feasibility for Tier 4 repowers and retrofits, competition with out of State and global markets, and tendency to conduct the majority of their operations far from the coast." This is equally applicable to ocean going tug boats and is not justifiable if they represent such a significant part of the overall fleet.

As reported to CARB already, commercial vessels have many unique identifying numbers including the USCG Documentation Number, the International Maritime Organization number, Call Sign Number and Maritime Mobile Service Identify Number. It seems that CARB intends for people on shore to ignore all of these other identifying features and instead look for the 5" high number that was assigned by CARB. This notion reflects how out of touch CARB is with the maritime industry. Instead of creating an entirely new numbering system CARB should develop a methodology that utilizes existing technology and databases of these numbers to create an accurate vessel count. If a unique number needs to be created simply provide the vessel with a certificate it can show to a terminal or inspector as evidence that they are registered.

Safety concerns regarding DPF Installation on Tank Barges -
Sause Bros. has significant concerns on the safety and design perimeters of installing DPF's on oil tank barges. Sause Bros. would like to see CARB more closely examine having DPF's on oil tank barge engines. ABS, USCG, and OCIMF should weigh in on the safety issues prior to rule making.

In conclusion, thank you for taking the time to consider our suggestions. Sause Bros. has been working steadily for the last two years to prepare our current class of ocean-going tugs for Tier 4 requirements and expect our next build to meet federal Tier 4 requirements utilizing DEF. Our preferred MFG is utilizing DEF and will not be integrating DPF. In addition, DPF is not a feasible solution for our ocean-going tugs due to limited engine room space and US tonnage requirements. We believe due to the technical inability ocean-going tugs should be exempted from the current proposed requirements for Tier 4+ DPF. That said, we do see the feasibility of meeting these requirements in our harbor/assist tug fleet, though we do not currently know of an engine manufacturer that is factory installing DPF equipment and serious questions about warranty with the addition of aftermarket DPF technology remains in both over and under 600KW engines.

Respectfully,

Ross McDonald

Ross McDonald
Director Safety, Quality, Environment & Security
Sause Bros.