

CONCURRENCE IN SENATE AMENDMENTS

AB 1122 (Bains)

As Amended July 3, 2024

Majority vote

SUMMARY

Requires any diesel particulate filter (DPF) installed on a commercial harbor craft (CHC) to be equipped with an emergency bypass system and delays the compliance dates for towing vessel CHCs to replace or retrofit their engines until their next regularly scheduled inspection by the U.S. Coast Guard (USCG).

Senate Amendments

- 1) Requires any DPF retrofitted onto the engine of a CHC to include an override or bypass safety system that ensures the CHC can maintain a safe level of propulsion in the event of an emergency situation. This system shall be:
 - a) Designed and installed by its manufacturer as part of the DPF;
 - b) Designed so that the DPF's operation may resume immediately after the emergency situation has ended; and,
 - c) Equipped with an electric monitoring and tracking system to track each time the bypass system is used.
- 2) Authorizes the owner or operator of the CHC to activate the override or bypass safety system during an emergency situation. Within 30 days of the system's use they shall report to the manufacturer of the system and to the California Air Resources Board (CARB):
 - a) The emergency situation that triggered the use of the system;
 - b) The operational time that the override or bypass system was in use;
 - c) When the override or bypass system was deactivated; and,
 - d) How using the system mitigated the emergency situation.
- 3) Requires the owner and operator of the CHC to maintain a record regarding the use of the system that shall be made available to CARB upon request.
- 4) Exempts towing vessels that are CHCs from having to comply with requirements to install a new engine or retrofit an existing engine pursuant to CARB's CHC rules until the vessel's next inspection by the USCG or an authorized classification society or until 30 months from the otherwise operative date of compliance, whichever is sooner.

COMMENTS

The transportation sector is responsible for about 40% of GHG, 80% of nitrous oxides (NO_x), and 90% of diesel particulate matter emissions (DPM) in California. Vessels make up a relatively small portion of the transportation sector's GHG emissions, about 3%. However, the diesel engines used by vessels contribute a high proportion of other toxic air contaminants, such as NO_x and DPM that can increase the risk of developing lung cancer and other health problems. A 2021 CARB emissions inventory of ocean-going vessels found that vessels were responsible

for about 20% of statewide NO_x emissions and estimated that this would grow to 30% by 2037, unless action was taken to reduce emissions. There is no similar inventory for CHC, but CARB has reported that CHC emissions at the Port of Los Angeles and the Port of Long Beach were the second-largest contributor of near-source cancer risk in 2016 and would become the largest source of seaport emissions at those ports by 2023.

The U.S. Environmental Protection Agency (EPA) has established nationwide emissions standards for vessel engines that have become more stringent as emission control technologies have improved. The EPA established Tier 1 and Tier 2 standards in 1999 and Tier 3 and Tier 4 emissions standards in 2008. Their stringency generally requires engines to utilize after-treatment technologies. For example, DPFs are installed on engine exhaust systems and use a porous ceramic material or metallic filter to physically trap DPM and remove it from the exhaust stream. After DPM is collected by the filter, it is reduced to ash during filter regeneration. DPFs verified by EPA and CARB are effective at reducing PM emissions by 85 to 90% or more.

CARB Clean Harbor Craft Rules. CHCs include any private, commercial, government, or military marine vessel that does not otherwise meet the definition of ocean-going vessels. This includes ferries, barges, tugboats, crew and supply vessels, research vessels, commercial fishing vessels, and research vessels. CHCs are a vital part of California's economy and are essential to moving cargo and people throughout its various ports, harbors, and marinas. These vessels are predominantly powered by diesel engines that emit significant amounts of harmful pollutants.

In 2008, CARB adopted initial CHC regulations, which established new and in-use engine emissions limits for engines on certain CHC vessels. These regulations reduced NO_x and PM emissions by requiring in-use CHCs to meet Tier 1 - 3 marine engine standards. The initial CHC regulation was amended in 2010 and was updated again in 2022. The regulation currently requires upgrading most CHC engines to Tier 4 engines with DPF filters. The oldest engines must upgrade between 2024-2026. After that different classes of vessels must upgrade beginning with tugboats and ferries, followed by excursion vessels and commercial passenger fishing vessels, then dredges, barges, and workboats. The final upgrade requirements phase in by 2033.

CARB estimated that the new rule would further reduce statewide emissions by approximately 1,560 tons of DPM, 33,110 tons of NO_x, and 375,490 metric tons of GHGs. Based on these emissions reductions, CARB estimates reducing 501 premature deaths, 153 hospital admissions, and 224 emergency room visits over the implementation period. This would save the state \$4.95 billion in healthcare costs. Because these emissions are localized in the ports, the benefits would be concentrated in nearby disadvantaged communities.

Vessel engine safety. While the EPA and CARB are responsible for evaluating the emissions of engines, it is the task for the U.S. Coast Guard and their authorized classification societies to evaluate vessels for safety. The USCG preapproves several types of equipment for safety including fire detection systems, life rings, and radar systems. However, it does not pre-approve vessel engines. Instead, vessel engine types, locations, and features are regulated under broader Coast Guard regulations and standards for safe vessel design. This is because an engine that may be suitable in one vessel design may be unsuitable in another, such as an engine that would be dangerously heavy in a smaller vessel. The USCG is required to approve and inspect (once they have been installed) retrofits and engine replacements, such as those required under the CHC regulations, to ensure safety.

If a vessel engine loses power, it will not be able to steer and can crash into other vessels or structures to disastrous result. Because engine performance and safety are so critical, the USCG sent a letter to CARB while the new CHC regulations were being drafted raising concerns about the DPF requirements. The initial CHC regulations adopted by CARB make no allowance for override systems for vessel DPFs. However, after continued discussions with USCG, CARB sent another letter at the end of last year acknowledging the unique safety concerns and committed to issuing an executive order that would allow for the installation of an emergency bypass on a vessel's DPF. The Coast Guard replied in a letter thanking CARB for the "outstanding working relationship" and stated that the proposed order would address their concerns.

Allowing versus requiring a bypass system. This bill uses the criteria laid out in CARB's letter to require all DPFs retrofitted onto a vessel be equipped with a bypass system. This goes further than the Coast Guard's letter requested or the proposed executive order, which would allow, rather than require, vessel owner/operators to install a bypass. Requiring, rather than allowing, such a safety feature may be premature given the lack of evidence of risk for vessel DPFs. The downside to requiring a bypass system is that it will increase the cost of DPFs and that it will likely delay implementation of the regulations as manufacturers will have to develop entirely new systems and have them approved by CARB. The advantage is that it could potentially prevent a disaster in the event of a DPF failure.

Implementation delays. Also, this bill prohibits CARB regulations from requiring installation of a DPF on a towing vessel until its regularly scheduled Coast Guard dry-dock inspection. For most vessels, this could delay implementation of the requirement by up to two and a half years and up to five years for the small portion of vessels not regularly exposed to salt water. Industry advocates argue this is necessary to save time and costs, as retrofitting an engine requires dry-docking, which is time when the boat is not generating revenue and its crew is not being paid for their work.

Delaying installation is not the only way to align these schedules. Any major retrofit of an engine requires a final inspection by the Coast Guard for approval. A vessel owner or operator could arrange for the vessel inspection to be done during the same period as the engine inspection. Delays in repowers/retrofits would result in a significant loss of emission reductions and associated health benefits for communities statewide and especially those near ports.

Compliance extensions. CARB's CHC rules include numerous extensions for vessels compliance. For example, if a vessel had no space in which to install an engine that could safely house a DPF away from a wooden hull, the owner could apply for an E3 extension and not be subject to the rule for two years. Vessels are eligible for unlimited E3 extensions until December 31, 2034. While these extensions are renewable they are not full exemptions, so the owner and operator must verify that no new DPFs have been approved in the intervening time that can be safely installed. There are also extensions in the event that dry-dock space is not available to perform the retrofit. These extensions are designed to address the safety and scheduling concerns raised by the industry, but require reapplying for extensions and CARB approval for the extensions. This bill would give the towing vessel industry more certainty in planning their upgrades by removing CARB's discretion and instead requiring certain delays.

Committee comments. CARB has addressed the primary concerns this bill seeks to remedy. On November 12, 2023, CARB committed to releasing an Executive Order that allows for the installation of an override systems for DPFs and CARB intends to post the EO on their website by September 30, 2024.

This bill also would result in delays in installation of DPFs and thus a loss of emission reductions and associated health benefits. The loss of air quality benefits for impacted communities and could jeopardize the state's attainment of federal National Ambient Air Quality Standards, which could result in federal sanctions and the loss of billions in federal transportation funding. Under the Clean Air Act, CARB must seek a waiver from the US EPA to enforce their regulations. Enactment of this bill would require CARB to amend the CHC regulation for which the US EPA is considering a waiver. As a result, this would delay and possibly jeopardize the waiver approval needed to enforce these regulations.

According to the Author

"I share CARB's goal to reduce air pollution from California's ports. But as a doctor, I also took the Hippocratic Oath to do no harm. Sometimes, we have to have enough common sense to realize when the medicine is worse than the illness. Endangering the lives of mariners, increasing the chance of oil spills off our coasts, and hiking the price of food and basic necessities by disrupting trade in our ports is not the right medicine. CARB is coming at this problem in reverse. The board adopted broken and dangerous requirements, and now it is working backward to fix the problems it created. That is the wrong strategy and it leaves the safety of mariners hanging in the balance. This is a problem of the state's own making, and the Legislature must act to ensure that CARB adequately prioritizes the safety of those who keep our ports and waterways flowing."

Arguments in Support

"AB 1122 responds to the safety concerns raised by requiring a federal safety review process that is standard in the industry to protect mariners, vessels, and the marine environment. This safeguard ensures that any change to a propulsion system is compatible with vessels and does not undermine federally required safety and performance standards. It also requires any add-on devices that could jeopardize the propulsion system of a vessel to contain an override or bypass features to ensure vessels can maintain power and maneuverability in the event of an equipment malfunction or regeneration."

Arguments in Opposition

"AB 1122 would delay certain requirements for towing CHCs under the regulation adopted by the California Air Resources Board in 2021 following years of public process with significant involvement by industry, CHC operators, and other stakeholders. AB 1122 would also require diesel particulate filters (DPF) on certain CHCs to include an override safety system with reporting requirements for operation in this mode. These and many other provisions allowing for safety, extensions, and technology readiness are already included in the CHC regulation, but this legislation would limit the CARB's discretion to implement this critical clean air rule.

FISCAL COMMENTS

According to the Senate Appropriations Committee, "CARB reports total ongoing costs of approximately \$2.4 million annually for 11.0 PY of staff to develop and adopt amendments to the CHC regulations, including IT and administrative staff to support this workload. Staff notes that it is unclear that CARB would require this level of staffing to update the CHC regulations

pursuant to the bill's requirements, and that the resources would likely only be required on a temporary basis (Certification and Compliance Fund).”

VOTES:

ASM HEALTH: 15-0-0

YES: Wood, Waldron, Aguiar-Curry, Arambula, Boerner Horvath, Wendy Carrillo, Flora, Vince Fong, Maienschein, McCarty, Joe Patterson, Rodriguez, Santiago, Villapudua, Weber

ASM APPROPRIATIONS: 15-0-1

YES: Holden, Megan Dahle, Bryan, Calderon, Wendy Carrillo, Dixon, Mike Fong, Hart, Lowenthal, Mathis, Papan, Pellerin, Sanchez, Weber, Ortega

ABS, ABST OR NV: Robert Rivas

ASSEMBLY FLOOR: 77-0-3

YES: Addis, Alanis, Alvarez, Arambula, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Bryan, Calderon, Juan Carrillo, Wendy Carrillo, Cervantes, Chen, Connolly, Megan Dahle, Davies, Dixon, Essayli, Flora, Mike Fong, Vince Fong, Friedman, Gabriel, Gallagher, Garcia, Gipson, Grayson, Haney, Hart, Holden, Hoover, Irwin, Jackson, Jones-Sawyer, Kalra, Lackey, Lee, Low, Lowenthal, Maienschein, McCarty, McKinnor, Muratsuchi, Stephanie Nguyen, Ortega, Pacheco, Jim Patterson, Joe Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Reyes, Luz Rivas, Robert Rivas, Rodriguez, Blanca Rubio, Sanchez, Santiago, Schiavo, Soria, Ta, Ting, Valencia, Villapudua, Waldron, Wallis, Ward, Weber, Wicks, Wilson, Wood, Zbur, Rendon

ABS, ABST OR NV: Aguiar-Curry, Mathis, Papan

SENATE FLOOR: 39-0-1

YES: Allen, Alvarado-Gil, Archuleta, Ashby, Atkins, Becker, Blakespear, Bradford, Cortese, Dahle, Dodd, Durazo, Eggman, Glazer, Gonzalez, Grove, Hurtado, Jones, Laird, Limón, McGuire, Menjivar, Min, Newman, Nguyen, Niello, Ochoa Bogh, Padilla, Portantino, Roth, Rubio, Seyarto, Skinner, Smallwood-Cuevas, Stern, Umberg, Wahab, Wiener, Wilk

ABS, ABST OR NV: Caballero

UPDATED

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