



TESTIMONY BY:

JADE T. BUTAY
DIRECTOR

Deputy Directors
ROSS M. HIGASHI
EDUARDO P. MANGLALLAN
PATRICK H. MCCAIN
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 1, 2022
3:00 P.M.
State Capitol, Teleconference

S.B. 3162
RELATING TO AUDIBLE VEHICLE REVERSE WARNING SYSTEMS

Senate Committee on Transportation

The Department of Transportation (DOT) submits **concerns** with this bill which requires the replacement of current audible reverse warning systems (back-up beepers) on construction, agricultural, and industrial vehicles with more effective broadband reversing alarms by January 1, 2025. The DOT supports all efforts to improve safety in operations, and has been made aware of several concerns voiced by local industry:

- The potential costs associated with this measure.
- The replacement of original equipment with an aftermarket device could void existing warranties.
- The existing universal tonal reverse warning sound is immediately identifiable and familiar to all. Utilizing a different reverse warning system could compromise the safety of workers that are unfamiliar or visiting from other areas.
- The consistent enforcement of the proposed measure that would involve, not just construction, but other industries as well.

Thank you for the opportunity to provide testimony.



**TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
THIRTY-FIRST LEGISLATURE, 2022**

ON THE FOLLOWING MEASURE:

S.B. NO. 3162, RELATING TO AUDIBLE VEHICLE REVERSE WARNING SYSTEMS.

BEFORE THE:

SENATE COMMITTEE ON TRANSPORTATION

DATE: Tuesday, February 1, 2022 **TIME:** 3:00 p.m.

LOCATION: State Capitol, Via Videoconference

TESTIFIER(S): Holly T. Shikada, Attorney General, or
Yvonne R. Shinmura, Deputy Attorney General

Chair Lee and Members of the Committee:

The Department of the Attorney General provides the following comments on this bill.

The bill adds a new section to part II of chapter 291, Hawaii Revised Statutes (HRS), "Traffic Violations," that requires replacement of audible reverse warning systems with ones that emit a sound other than one using broadband technology.

Although the new section prohibits vehicles from using an "audible reverse warning system" that emits a specific type of warning sound, the section fails to define what constitutes an "audible reverse warning system." This new section would benefit from a definition of "audible reverse warning system" being added to the definition section of part II of chapter 291, HRS.

Further, there is no penalty or sanction indicated in connection with the failure to have a compliant audible reverse warning system. This problem may be addressed by amending the bill to include the new section under one of the existing penalty sections in part II of chapter 291, HRS, or to create a new penalty section to accompany the new section.

Thank you for the opportunity to provide these comments.

1065 Ahua Street
Honolulu, HI 96819
Phone: 808-833-1681 FAX: 839-4167
Email: info@gcawhawaii.org
Website: www.gcawhawaii.org



GCA of Hawaii

GENERAL CONTRACTORS ASSOCIATION OF HAWAII

Quality People. Quality Projects.

Uploaded via Capitol Website

January 31, 2022

TO: HONORABLE CHRIS LEE, CHAIR, HONORABLE LORRAINE INOUYE,
VICE CHAIR, COMMITTEE ON TRANSPORTATION

SUBJECT: **OPPOSITION OF S.B. 3162, RELATING TO AUDIBLE VEHICLE REVERSE WARNING SYSTEMS.** Requires the replacement of current audible reverse warning systems (back-up beepers) on construction, agricultural, and industrial vehicles with more effective broadband reversing alarms by January 1, 2025.

HEARING

DATE: Tuesday, February 1, 2022
TIME: 3:00 p.m.
PLACE: Video Conference

Dear Chair Lee, Vice Chair Inouye and Members of the Committee,

The General Contractors Association of Hawaii (GCA) is an organization comprised of approximately five hundred (500) general contractors, subcontractors, and construction related firms. The GCA was established in 1932 and is the largest construction association in the State of Hawaii. Our mission is to elevate Hawaii's construction industry and strengthen the foundation of our community.

GCA is in **opposition** of S.B. 3162, which requires the replacement of current audible reverse warning systems (back-up beepers) on construction, agricultural, and industrial vehicles with more effective broadband reversing alarms by January 1, 2025.

We have concerns because the broadband reversing alarms for current vehicle owners is an aftermarket electric device that could void existing warranties. We are also concerned with potential costs associated with this mandate. Currently, the existing tonal reverse warning sounds complies with OSHA standards.

It is unclear if the measure puts the cost and responsibility on the current vehicle owner, which should not be the case. If the Committee feels that this is a matter of motor vehicle safety, they should treat this exactly how the National Highway Traffic Safety Administrations (NHTSA) treats safety-related defects. When there are safety related defects, the NHTSA requires manufacturers to remedy the problem at no charge to the owner.

If the Committee decides to move this measure, we respectfully request that the measure be amended to mandate that all manufacturers replace/install the broadband technology audible reverse beepers (similar to a recall).



**SENATE COMMITTEE ON TRANSPORTATION
State Capitol, Via Videoconference
415 South Beretania Street
3:00 PM**

February 1, 2022

RE: SB 3162 - Relating to Audible Reverse Warning Systems

Chair Lee, Vice Chair Inouye, and members of the committee:

My name is Daryl Takamiya, 2022 President of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities we all call home.

BIA-Hawaii is in opposition to SB 3162, which would require the replacement of current audible reverse warning systems on construction, agricultural, and industrial vehicles by 2025.

While we understand that reverse warning noise from industrial and construction vehicles may be noisy and annoying in certain areas, they exist for safety reasons. Unfortunately, there have been accidents, injuries, and even fatalities where a person was unaware of a reversing industrial vehicle. Further, we have concerns about the cost of replacing a fleet of vehicles or equipment in order to comply with this mandate.

The cost of housing in Hawaii is extremely high, with Oahu's median price of homes being currently over \$1 million. Adding more mandates to the cost of building will only serve to further raise this price.

Thank you for the opportunity to share our concerns.

Testimony of Matson Navigation Company, Inc.
Opposition to SB3162
Before the Committee on Transportation
February 1, 2022

Dear Chair Lee, Vice Chair Inouye, and Members of the Committee on Transportation,

Matson Navigation Company, Inc. (Matson) respectfully opposes SB3162. This measure would require certain vehicles to use only “broadband technology” audible reverse warning systems effective January 1, 2025. These vehicles would be prohibited from using tonal audible reverse warning systems.

Matson’s marine terminal operations use a fleet of specialized heavy machinery including truck tractors, forklifts, and specialized lifting machines, which generally use a tonal audible reverse warning system. The utility of this equipment is limited to our container yards in the commercial harbors so the impact on residential areas from our tonal audible reverse warning systems is minimal.

The existing tonal reverse warning sound is immediately identifiable and familiar to our cargo operations team and complies with current OSHA standards. The broadband reverse warning system emits a sound that could be easily confused with airbrakes. Requiring marine terminal equipment to utilize a different reverse warning system could compromise the safety of our employees and may result in other adverse consequences.

Should your Committee choose to pass this measure, Matson respectfully requests that the measure be amended to exempt marine terminal equipment as described in section 286-26(h)(3).

Thank you for considering this testimony in opposition.



February 1, 2022

The Honorable Senator Chris Lee, Chair
The Honorable Senator Lorraine R. Inouye, Vice Chair
Senate Committee on Transportation

RE: Senate Bill 3162 – RELATING TO AUDIBLE VEHICLE REVERSE WARNING SYSTEMS
Hearing date: February 1, 2022, 3:00 p.m.

Aloha Chair Lee, Vice Chair Inouye, and Members of the Senate Committee on Transportation:

Thank you for allowing me to submit testimony on behalf of Young Brothers ("YB") offering **OPPOSITION** on Senate Bill 3162 – Relating to Audible Reverse Warning Systems.

This measure would require that, effective January 1, 2025, for certain vehicles, no audible reverse warning be used, sold, or leased unless that reverse warning system uses "broadband technology".

YB's marine terminal cargo handling operations are supported by a fleet of specialized heavy machinery which generally use a tonal audible reverse warning system. The existing tonal audible reverse warning systems are familiar to and well understood by YB operations staff and comply with current OSHA safety standards. YB is concerned that requiring a change of this nature may unintentionally compromise the safety of its employees and customers or have other unintended consequences.

YB requests that, should this measure move forward, the scope of "vehicles" subject to this new requirement be limited to clearly exclude vehicles that are used exclusively at marine terminals.

Thank you for your service to the State of Hawaii, and for the opportunity to testify in support of this measure.

Sincerely,

Kris Nakagawa
Vice President, External and Legal Affairs

LATE

THE SENATE
THIRTY-FIRST LEGISLATURE, 2022
STATE OF HAWAII

S.B. NO. 3162

JAN 26 2022

A BILL FOR AN ACT

RELATING TO AUDIBLE VEHICLE REVERSE WARNING SYSTEMS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that in order to reduce
2 urban noise pollution caused by reversing alarms of commercial
3 and construction vehicles and to ensure safer reversing, it is
4 necessary to transition to newer technology for audible reverse
5 warning systems. Commonly referred to as back-up beepers, most
6 audible reverse warning systems use a tonal sound over a single
7 frequency that humans hear as "beep-beep-beep." Broadband
8 alarms, on the other hand, use a pulsed acoustic signal that
9 comprises a range of frequencies producing a noise that is heard
10 as "pshh-pshh-pshh." Broadband alarms are sometimes called
11 quackers, croakers, and wooshers.

12 The legislature further finds that the federal Occupational
13 Safety and Health Administration (OSHA), requires the use of
14 reversing alarms on construction vehicles to protect people from
15 accidental injury and death, or alternatively the use of an
16 observer to signal to the vehicle driver when it is safe to
17 reverse. If using a reversing alarm, it must be "audible above



1 the surrounding noise level." For specific earthmoving or
2 compacting equipment, such as a bulldozer or grader, the alarm
3 must be "distinguishable from the surrounding noise level."
4 Title 29 C.F.R. sections 1926.601(b)(4) and 1926.602(a)(9).

5 Significantly, the legislature notes, OSHA regulations do
6 not specify a particular type or sound of alarm, which allows
7 for flexibility. In several OSHA interpretation letters, the
8 agency reaffirmed that its regulations do not specify that a
9 particular reversing alarm be used or that the sound be of the
10 single-tone type. Per OSHA, any alternatives to a conventional
11 back-up alarm may be used so long as they "provide adequate
12 warning to workers in the path of the vehicle, and to workers
13 walking towards the path of the vehicle in time to avoid
14 contact."

15 Various reports and studies have explored the deficiencies
16 of single-tone back-up beepers, including a 2017 study titled
17 "Perceptions of Key Stakeholders Regarding the Utilization of
18 Locatable Sound for the Prevention of Occupational Pedestrian
19 Injuries and Fatalities." This study compared the use of
20 broadband sound reversing alarms to traditional tonal sound
21 alarms across a range of criteria - audibility, propagation,



1 frequency content, and sound pressure maps - and concluded that
2 broadband sounds for reversing alarms are nearly two thirds more
3 effective than their tonal equivalents. The broadband sound is
4 both better in preventing workplace fatalities and reducing
5 noise pollution in the surrounding area due to the broadband
6 sound system that allows for a variety of sounds and the
7 focusing of the alarm's sound. A New York State Fatality
8 Assessment and Control Evaluation investigation determined that
9 a traditional tonal back-up beeper had been inefficient in
10 alerting the deceased worker to a reversing vehicle, stating,
11 "Often people who work regularly near back-up beepers become
12 accustomed to their sound and become desensitized to them as
13 warning signals."

14 The purpose of this Act is to protect Hawaii's residents
15 from disruptive noise pollution and utilize safer vehicular
16 reversing practices by requiring the use of broadband reversing
17 alarms instead of tonal alarms, by January 1, 2025.

18 SECTION 2. Chapter 291 Hawaii Revised Statutes, is amended
19 by adding a new section to part II to be appropriately
20 designated and to read as follows:



1 "§291- Audible reverse warning systems. Effective
2 January 1, 2025, no vehicle shall use an audible reverse warning
3 system that emits a warning sound other than one using broadband
4 technology. No audible reverse warning system, whether in use
5 before or after January 1, 2025, shall be used, sold, or leased
6 unless the system complies with this section.

7 For purposes of this section, "vehicle" shall include
8 earthmoving and compacting equipment such as scrapers, loaders,
9 crawler or wheel tractors, bulldozers, off-highway trucks,
10 graders, agricultural and industrial tractors, and similar
11 equipment."

12 SECTION 3. New statutory material is underscored.

13 SECTION 4. This Act shall take effect upon its approval.

14

INTRODUCED BY: 



S.B. NO. 3162

Report Title:

Audible Reverse Warning Systems; Broadband Sound

Description:

Requires the replacement of current audible reverse warning systems (back-up beepers) on construction, agricultural, and industrial vehicles with more effective broadband reversing alarms by January 1, 2025.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

