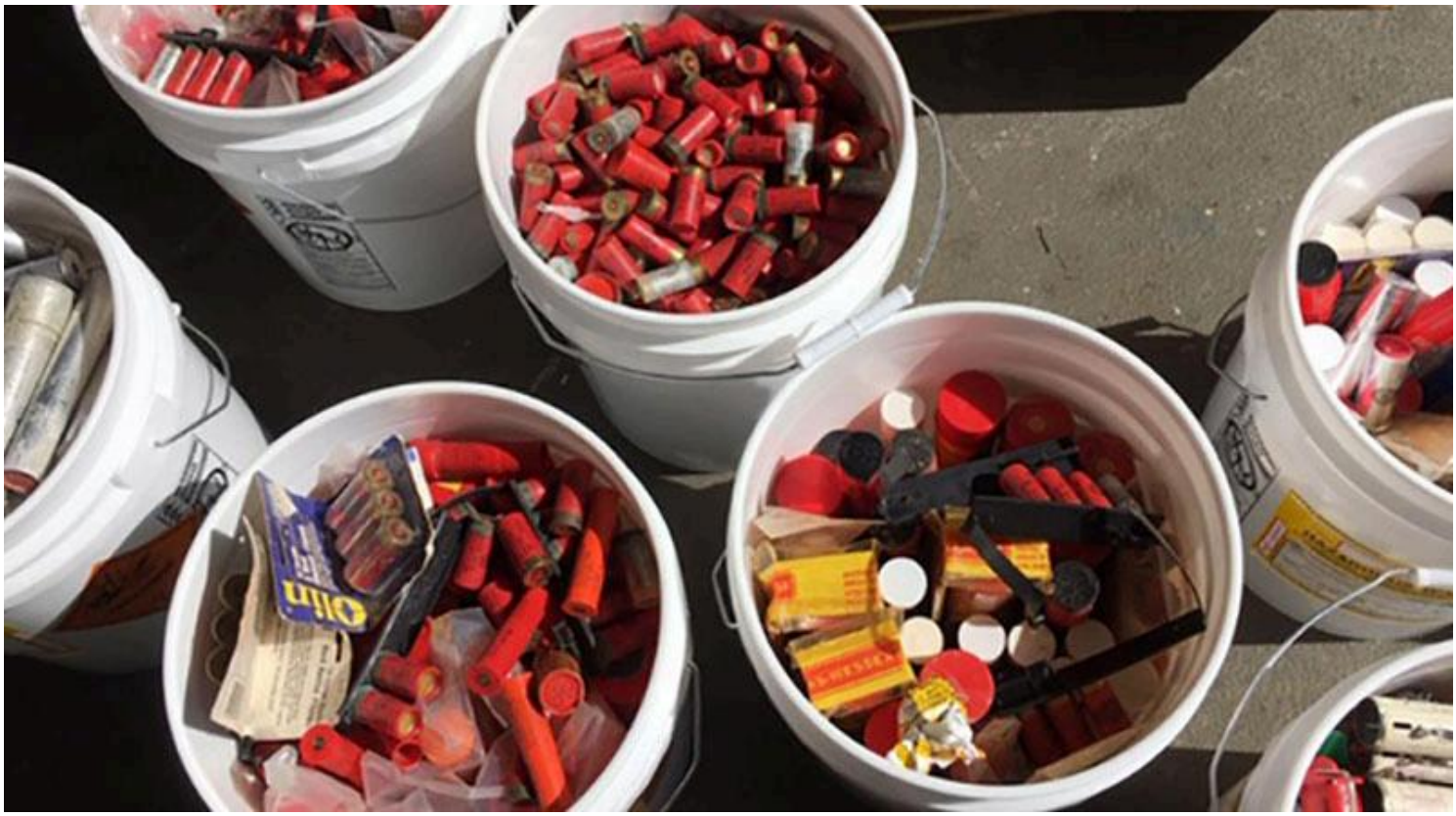

Wasted pyrotechnic marine flares. Image courtesy of Sirius Signal

Proposed Legislation on Marine Flares May Prompt Reflection by Seafarers

Katherine M. Clements April 24, 2024

California State Sen. Catherine Blakespear on Feb. 12 introduced Senate Bill 1066, which aims to establish a program in which producers and manufacturers take responsibility for marine flares, defined as pyrotechnic devices used as visual distress signals on marine vessels. Manufacturers would be responsible for developing a plan for end-of-life management that would be approved by the Department of Toxic Substances Control (DTSC). For marine flares, the plan could include the provision of necessary equipment for existing household hazardous waste (HHW) facilities to accept flares year-round, as well as annual and periodic collection events at high-use areas such as marinas, where allowed. The DTSC would oversee the implementation through regulations effective from Jan. 1, 2027.

“SB1066 follows the Extended Producer Responsibility (EPR) policy approach which requires producers/manufacturers to fund and operate the flare take-back system,” said Heidi Sanborn, founding director of the National Stewardship Action Council and the Stewardship Action Foundation, in an email to the *Log.*” The NSAC advocates for an equitable, circular economy.

“This cost can be completely absorbed by the producer, or it can be passed down to the consumer via the product price,” explained Sanborn. “Rather than the cost of marine flare disposal being socialized onto all garbage ratepayers and/or the environment via pollution as it is currently, the producers can choose to pass all or some of the collection costs through the product price. SB1066 follows California’s 16-year history of shifting these costs from general taxpayers to the producers, as (was) already done with medications and needles, mercury thermostats, loose batteries, etc.”

Within nine months of the regulation’s effective date, the producer responsibility organization (PRO) must submit a plan to DTSC, including funding mechanisms. DTSC would approve, partly approve or reject the plan within 90 days of submission. The PRO must then implement the plan within another 90 days, ensuring equitable distribution of costs among producers based on sales volumes.

The PRO must annually report its activities to DTSC and the public, maintain records and undergo audits. Any reports to DTSC must be provided under penalty of perjury. Producers, through the PRO, must pay an annual administrative charge to cover DTSC's costs, with penalties for violations. Revenue from these charges and penalties would fund the Marine Flare Recovery Fund for DTSC's implementation and enforcement costs.

The bill includes legislative findings and specifies that no reimbursement is required for its implementation.

For the full bill, please visit https://legiscan.com/CA/text/SB1066/id/2925488.

Sanborn and NSAC's plan of action dates back many years, when they first became engaged with this issue while Sanborn was director of the California Product Stewardship Council. "I had heard from local governments that marine flare disposal was a significant issue, so we advocated for CalRecycle to include marine flares as part of their Household Hazardous Waste grant program, then partnered with local governments and applied for the grants," said Sanborn. "Seven years and over a quarter million dollars of state grant funding later, we have learned even more about how boaters currently manage flares, have hosted events, collected data, and have developed strategies for reducing costs. Now that there is enough data about the problem and a proposed solution, we are advocating for the solution to be codified in law using a policy approach embraced by the California legislature for nearly two decades."

SB 1066 survived review by the Senate Judiciary Committee on April 3 and the Senate Appropriations Committee on April 16 where nine legislators were present and ultimately concluded with a vote of 11-0 at the end of the hearing. The final vote is documented on Leginfo under votes and can be viewed at https://leginfo.legislature.ca.gov/faces/billVotesClient.xhtml?bill_id=202320240SB1066.

"[The bill] now goes to the Senate Appropriations, or fiscal, Committee," said Jordan Wells, Director of Advocacy and Communications for NSAC. "Once it passes it out of the Senate Appropriations

Committee, it will be taken up for a vote on the Senate Floor, then will go into the second house – the Assembly and those committees and then the Assembly Floor. If there are substantial amendments made in the second house, it will need to return to the Senate for a concurrence vote."

The April 16 committee hearing can be watched here: https://www.youtube.com/watch?v=PGYFyxZ7Wq8.

More about Pyrotechnic Flares

For decades, pyrotechnic marine flares have been a trusted tool for signaling distress or attracting attention in emergencies. However, beneath their luminescent glow lies a host of downsides and considerations that merit careful reflection by seafarers and regulators alike.

It's crucial to understand that SB1066 isn't about favoring one visual distress method over another; its focus lies solely on managing expired or unwanted marine flares, a pressing issue for both residents and local governments burdened with their disposal. NSAC backs the U.S. Coast Guard-approved alternative for nighttime distress signals, the battery-operated electronic signal, without endorsing any specific visual distress method within SB1066, although they are USCG-approved options.

Pyrotechnic marine flares, while effective in signaling distress, pose inherent safety risks to both users and the environment because of their combustible nature and the requirement of meticulous handling to prevent accidents. Mishandling or improper storage can lead to fires, burns or even explosions on board, exacerbating an already perilous situation at sea.

One of the lesser-known drawbacks of pyrotechnic marine flares that SB1066 would address is their limited shelf life. Manufacturers typically specify an expiration date, beyond which the reliability and effectiveness of the flares diminish significantly. This shelf-life limitation necessitates regular replacement, adding to the financial burden of maritime safety equipment maintenance.

For infrequent boaters or vessels operating on tight budgets, the cost of regularly replenishing pyrotechnic flares can become prohibitive. This financial strain may tempt some to keep expired flares, thereby compromising safety standards and increasing the likelihood of failure during emergencies.

The regulatory landscape surrounding pyrotechnic marine flares is complex and varies across jurisdictions. While these devices are recognized as essential safety equipment by maritime authorities worldwide, the standards for their manufacture, storage and use differ significantly.

This lack of uniformity poses challenges for maritime operators navigating international waters or operating in multiple jurisdictions. Compliance with varying regulations can be burdensome, leading to confusion and potential legal repercussions in the event of non-compliance.

In an era of heightened environmental consciousness, the ecological impact of pyrotechnic marine flares warrants closer scrutiny. The chemicals and materials used in flare composition, including perchlorates and heavy metals such as lead and chromium, pose significant risks to marine ecosystems.

Discharged flares can introduce pollutants into the water, soil and air, potentially causing harm to aquatic life and contaminating coastal habitats. Additionally, carbon emissions produced during flare combustion contribute to atmospheric pollution, exacerbating climate change and its associated environmental consequences.

Acknowledging the drawbacks associated with pyrotechnic marine flares, there is a growing interest in exploring alternative signaling technologies. Electronic distress beacons, such as Emergency Position Indicating Radio Beacons (EPIRBs) and Personal Locator Beacons (PLBs), offer reliable and long-lasting signaling capabilities without the safety hazards or environmental concerns associated with traditional flares. Sirius Signal, a San Diego-based company, offers two-color electronic Visual Distress Devices (eVDSD) that fulfill USCG night, day and audible distress signal requirements. The two-color features

offer a different visual that is easier to identify when set off against contrasting backgrounds such as cityscapes, making it easier to spot the signal.

While pyrotechnic marine flares have long been regarded as indispensable safety tools for seafarers, their use is not without its drawbacks. From safety risks and limited shelf life to environmental concerns and regulatory challenges, the downsides of traditional flares underscore the need for innovation in maritime distress signaling.

As technology continues to evolve, embracing alternative solutions that offer enhanced safety, reliability and sustainability is imperative. By prioritizing the development and adoption of next generation signaling technologies, the maritime industry can help boaters navigate the hazards of the open sea with greater confidence, ensuring the safety of crews and the preservation of marine ecosystems.

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