

Does shipping need its own ammonia rules?

Ammonia is already using for other appliances like refrigeration. Some experts say shipping should seek to utilise the safety practices in these industries rather than create new ones

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The ability to safely use ammonia on ships will be a key factor for its success in the maritime industry. Should the industry be building up its own rules in this area or try to emulate those successfully developed elsewhere?



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THE safe development of alternative fuels and their supply chains should be a priority for everyone across their value chain, but when it comes to ammonia, reinventing the wheel may be unnecessary.

Ammonia as a bunker fuel is widely expected to become one of the future pillars of maritime decarbonisation, especially for deep sea transport, prompting commercial initiatives to develop ammonia-powered ships and ultimately a full-fledged supply chain.

However, concerns about its safety, and particularly its potential to become toxic, has led to a debate over the length of time it will take to develop safe supply and handling processes and technologies for the use of the substance in the maritime industry.

Trevor Brown, executive director at the Ammonia Energy Association, believes that the insistence to build up ammonia regulations and safety processes from the ground up shows a knowledge gap within the industry, given how widely used it is in other sectors already.

“What you have is a tremendously well-developed set of code and standards, regulations for handling and safe use. This is not to say ammonia is not a hazardous substance. Sure it is. But we know how to mitigate that,” he said.

The use of ammonia, particularly in refrigeration systems where he described it as a working fluid that changes form, temperature and pressure, all while people are in close proximity, is evidence of industries knowing how to handle ammonia.

“The challenge for the maritime industry is not to build regulations from the ground up,” said Mr Brown.

Rather it is how to transfer in existing regulations and make appropriate applications in the maritime industry, harnessing the professional know-how, technological developments, operational practices and problem solving expertise that are already available.

Mr Brown is a co-principal at Carbon Neutral Consulting, a strategy firm focused on climate change and energy transition policies.

It [has published a report](#) urging the maritime sector to make the use of ammonia a core component of their business strategies going forward, given the intensifying decarbonisation pressures.

Unlike other reports that seek to promote the pilot uptake of the zero carbon fuel or first mover experimentation, the CNC's ammonia report targets all businesses that have to adapt to changing expectations and future circumstances.

“You don’t need to be a first mover to understand what is happening,” Mr Brown said.

Looming large over the industry are both the International Maritime Organization's target of reducing greenhouse gas emissions by at least 50% by 2050 compared to 2008 and the much more immediate pressures from shareholders, financiers, and consumers for a reduction in emissions and the adoption of broader sustainability strategies.

Steve Crolius, co-principal at the CNC, said that while he believes that ammonia could emerge as the dominant fuel in maritime, the important thing is that companies incorporate it as an option within their strategies.

"The whole sector clearly will need to come together around whatever fuels lead the way with energy transition," he said.

Mr Crolius said companies should seek to be active players in this changing landscape, and not passive observers, seeking to help define it rather than let it define them.

Joining forces with other companies to engage more meaningfully with regulatory authorities, a phenomenon that seems more and more common nowadays, is a step in the right direction, Mr Crolius believes.