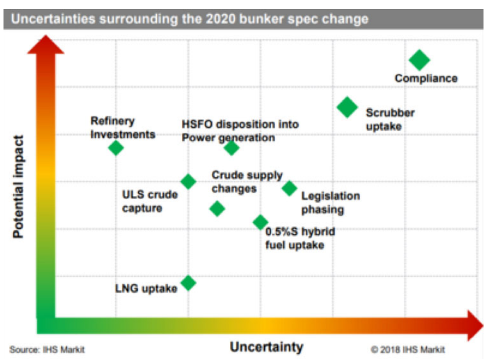
# Low-sulfur rule unknowns come into view

The many uncertainties over the implementation of the new low-sulfur emission regulations to take effect in 2020 include whether enough low-sulfur fuel will be available, how the rules will be enforced, and whether shippers will feel an impact beyond higher prices, speakers said at a forum on the impact on the supply chain on Thursday.

Ocean carriers are expected to adopt a variety of methods to meet the International Maritime Organization's (IMO's) mandate that they reduce vessel sulfur emissions, among them the use of low-sulfur fuel, scrubbers to reduce the emissions from regular fuel, or using ships powered by natural gas. The IMO mandate calls for a reduction in sulfur emissions to 0.5 percent from 3.5 percent beginning on Jan. 1, 2020.

## Will there be enough low-sulfur fuel?

Yet it's far from clear whether there will be enough low-sulfur fuel to meet the needs of the shipping industry, Beth Rooney, assistant director of the port division of the Port Authority of New York and New Jersey, told a Rutgers Business School forum on the IMO mandate Thursday in New Bruns-wick, New Jersey. Only a relatively small number of ocean carriers have said they will use scrubbers, which reduce sulfur emissions produced by the use of regular fuel, leaving a large portion of the sector likely looking to use low-sulfur fuel.




"One of the greatest fears out there is, is there enough supply?" Rooney said, adding that trying to find out is not easy. Low-sulfur fuel providers that are preparing for the start of the mandate need to be more "transparent," and communicate more to the shipping industry about what supply can be expected and whether it will be available in key locations, she said.

"New York-New Jersey is a huge bunker port," she said. "And when we talk to suppliers up here in New York and New Jersey right now, they are not seeing that there will be sufficient supplies."

The IMO rule is estimated to add from $5 billion to tens of billions of dollars to the annual container shipping industry fuel bill, and ocean carriers are struggling to prepare for the mandate, even though it won't take effect for more than a year.

Four global container lines — Maersk Line, Mediterranean Shipping Co., CMA CGM, and Hapag-Lloyd — have separately outlined bunker adjustment factors (BAFs) that will help pay for the additional cost of meeting the requirements. Hapag-Lloyd has calculated the regulation could add $184 to $264 per TEU, depending on the prevailing price of fuel, and CMA CGM has put the cost per TEU at $160.

Others are looking at slow-steaming to bring down the costs of using the fuel, which is expected to be 50 percent more expensive than the current high-sulfur variant. APL confirmed this week at TPM Asia in Shenzhen that slowing ships would be a strategy employed to cope with the cost hike. Maersk Line has also said it will use the strategy.

## Possibility that ocean carriers could skip ports

Speaking at the forum, Rudolf Leuschner, associate professor at Rutgers University's Department of Supply Chain Management, suggested that the added cost could prompt ocean carriers to focus on serving only two or three ports, including the largest, on the US East Coast, rather than stopping at several ports as a vessel moves along the coast.

"If I am a ship [carrier] now stopping at every major port, starting in Jacksonville, Savannah, Charleston, etc., as I make my way up to New York, New Jersey, I think I am going to consider skipping some of these ports if every time I am wasting miles, wasting fuel," he said. "We are going to see a selection process where some of the more important, or bigger, ports are going to receive more traffic while the smaller ports are going to see a decrease in traffic."

Michael Bohlman, a maritime consultant and former chairman of the Chamber of Shipping of America, said concern over a shortfall in low-sulfur fuel also surfaced when certain countries, among them the United States, adopted the IMO's 0.1 percent sulfur fuel standard in 2015, which applied to ships within 200 miles of their borders. Once it took effect, however, there was no shortage, Bohlman told the forum, which was organized by the school's Center for Supply Chain Management.

Still, one big difference between the 0.1 percent mandate and the IMO's 2020 mandate that could cause a problem is that there is currently no standard defining the characteristics of 0.5 percent low-sulfur fuel, as there was in the past, he said. The absence of a standard could initially disrupt some vessel operations unless low-sulfur providers come together and come up with a standard, he said.

"The fuel you get from Port A, and the fuel you get from Port B may not be compatible, even if they are both 0.5 percent sulfur," he said. "If you mix them in the same tank, you have got a significant potential for problems."

Initially, he said, "You are going to have some [ship] delays because of those compatibility issues. It may be a day late getting into port. There are going to be some issues with reliability."

## Non-compliance consequences

What happens if carriers don't comply with the new rules is also unclear, he said. Ensuring that ocean carriers keep to the IMO's mandate is the responsibility of the country under which a ship's flag is registered, and also the ports at which a ship calls, speakers at the forum said.

In general, ships will have to create an energy efficiency plan and countries will have the right to audit the ship to ensure it is keeping to the plan, Bohlman said. Data on a ship's compliance will then be submitted to a global registry that shows "ships that are typically compliant and ships that aren't typically compliant," he said.

Severe offenders could be detained by authorities, or have their flag pulled, he said. Still, only a small number of ships will likely be inspected, and it's not clear what enforcement actions can be taken.

"The problem is that those parameters, when you detain a ship, when you pull its flag, aren't defined," he said. "So it's a very much open question right now as to how far this will really go and how severe it will be."

Rooney, however, said the extensive anxiety over the low-sulfur mandate may turn out to be misplaced. She predicted that the issue may cause less of a disruption to the industry than feared, in the way that past industry changes — most recently the IMO's Safety of Life At Sea, or SOLAS rules, that took effect in 2016 — turned out to be.

"There will certainly be a cost to shippers of low-sulfur fuel. But I believe that the impact on the shippers will not be material when it comes to the efficiency of the supply chain, the time in which containers are moving," she said. "Shippers will just adjust."

Typically, in past scenarios, "the industry adapts, and reacts, and when we are in the midst of planning for it, it seems like something that is just monumental and catastrophic and, "Oh my gosh how are we going to deal with this?'," she said. "And then ultimately, the industry is very resilient and figures it out."

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