

Crowley's¹ Written Comments for the July 25-26, 2020 CARB Board Meeting:

**The Case for Including Large Articulated Tug Barges
In the At-Berth Rule**

Crowley submits that it would be serious regulatory mistake for California to exclude articulated tug-barges (ATBs), especially those capable of carrying more than 120,000 bbls., from the emissions reduction requirements of the proposed At-Berth Rule.² CARB currently proposes to append a specific ATB exclusion to the Rule's definition of ocean-going tankers, a definition that would otherwise clearly apply to ATBs of more than 120,000 bbl. capacity.³

From an environmental perspective, CARB should seek to adopt a regulation that, as a matter of policy, is as comprehensive as possible. The citizens of California, including, not the least, the disadvantaged communities living in the vicinity of the State's port facilities, are owed such a regulation. The exclusion of ATBs from the At-Berth Rule is inconsistent with this goal.

ATBs account for more than half of the Jones Act tank vessel fleet carrying clean petroleum products (CPP) on the U.S. West Coast.⁴ Annually, ATBs carry at least 15%, by volume, of the total CPP transported by sea to and from California ports; Crowley's ATBs alone carried 32,072,420 bbls. of CPP in California from January 2019 through April 2020.⁵ By any measure, ATBs are a major part of ocean-going tanker traffic in California today. To exclude ATBs from the At-Berth Rule therefore makes no sense.

The only rationale offered for the proposed ATB exclusion is the following comment, set forth in the Initial Statement of Reasons ("ISR"):

"When an articulated tug barge is fully connected, it may meet the definition of an ocean-going vessel, as defined in this chapter (Section 93130.2(b)). However, despite being defined as a subcategory of tankers, articulated tug barges are considered a barge and a tug separately." [ISR, p. IV-6.]

¹ "Crowley" refers herein to Crowley Maritime Corporation and its affiliates. Crowley is a privately-held family- and employee-owned diversified U.S. maritime company. One of Crowley's business segments owns, operates and manages conventional and dual fuel (LNG) vessels, including tankers, container ships, multipurpose, tugboats and barges. See, www.crowley.com.

² The Proposed Control Measure for Ocean-Going Vessels at Berth ("the At-Berth Rule").

³ 17 California Code of Regulations, section 93130.2(b) provides a definition of "ocean-going vessel", which, but for the specific exclusion, would clearly apply to ATBs with more than 120,000 bbl. capacity. Moreover, the definition of an ocean-going vessel is referred to in the Initial Statement of Reasons, specifically the requirement that the vessel be "generally greater than 400 feet, weigh more than 10,000 gross tons, and have per-cylinder engine displacement of greater than 30 liter/cylinder", *exactly describes* Crowley's 550 and 650 Class ATBs.

⁴ There are 9 ATBs and 7 Medium Range (MR) tankers currently operating in the U.S. West Coast Jones Act clean petroleum product trade.

⁵ These figures are based on Crowley's internal analysis and up to date data.

The ATB exclusion is evidently based on the last part of the second sentence: that ATBs are “considered a barge and a tug separately”.

This comment is unattributed and unsupported by reference to any industry studies. Most importantly, as applied to operations of ATBs at berth, this statement is untrue. Indeed, it betrays a fundamental misconception of what an ATB is and what it does.

Operationally, there can be no justification for discriminating between an ATB of at least 120,000 bbl. capacity and any other ocean-going tank vessel. While in transit, maneuvering, and at anchor, ATBs fully comply with all Federal and California requirements applicable to all tankers of similar capacity, including CARB’s Vessel Clean Fuel Regulation. While at berth, a 120,000 bbl. capacity ATB is undoubtedly the functional equivalent of a tanker.⁶

Crowley, a leader in the U.S. maritime industry, has developed an unrivaled ATB fleet that includes the newest and most sophisticated U.S.-flagged ATBs of more than 120,000 bbl. capacity. As an interested person and through its experience and expertise, Crowley is uniquely positioned to provide CARB with the information it needs to understand these ATBs.

From the start of the rulemaking process, Crowley has urged CARB to reexamine the ATB exclusion. Crowley personnel have repeatedly, and in a timely manner, brought to the attention of CARB staff and Board Members the problematic issues of excluding ATBs from the At-Berth Rule and have consistently responded fully to all questions from CARB on this topic.

For instance,

-- At CARB public meetings in February 2019 regarding the At-Berth Rule, Crowley raised the issue about the inclusion of ATBs in the emissions inventory, and were told that, at that stage, ATB emissions were not included.⁷ Following those meetings, Crowley reached out to CARB in April 2019 and arranged a face to face meeting with CARB Staff in May 2019 to explain the sense of including ATBs in the At-Berth Rule, and Crowley subsequently submitted a letter and ATB information and data to CARB.⁸

⁶ The ISR defines tanker vessels as those vessels “designed to carry liquid or gaseous products, including crude oil or other hydrocarbon products, such as Liquid Liquefied Petroleum Gas (LPG), Liquid Natural Gas (LNG); chemicals, such as ammonia, chlorine, and styrene monomer, asphalt, and even fresh water. [ES-2] As with the definition of ocean-going vessels, this exactly describes Crowley’s 550 and 650 Class ATBs.

⁷ It remains unclear if any statistics relating to ATBs, for instance, data as to vessel calls, were ultimately been included by CARB in the analysis set forth in the ISR. This is crucially important, for there is an obvious problem with excluding ATBs from data relating to calls and emissions from other ocean-going tankers: not taking into account over half of the Jones Act West Coast CPP fleet when drawing up the emissions inventory would distort and obscure the true situation -- specifically, by understating the overall emissions from ocean-going vessels and understating the percentage contribution of non-ATB tank vessels. Any analysis that excludes ATBs will be misleading.

⁸ Letter dated May 31, 2016 from Bill Metcalf, Vice President, Crowley Shipping, to CARB Staff. The May 31, 2016 letter enclosed detailed data demonstrating the similarities between the operations of three Crowley ATBs, and three Crowley-managed ocean-going tankers.

-- Crowley was in contact with CARB during June, July and October 2019, and on hand should CARB need further information regarding ATB operations and regulation.

-- In December, 2019, Crowley submitted formal comments on initial At-Berth Rule⁹, and thereafter submitted comments on the 15-day changes¹⁰, and the CARB Commercial Harbor Craft concepts.¹¹

-- In April and May 2020¹², Crowley has consistently been in contact with CARB about this issue. U.S. Representative Garamendi has also reached out to CARB to give his view that the exclusion of ATBs makes no sense.¹³

The removal of the ATB exception from the At-Berth Rule is crucial for the continuation of Crowley's ATB operations in California. As its comments and communications demonstrate, Crowley is committed to the regulation of its ATB fleet under the At-Berth Rule because it believes that this is best for strengthening California's air quality regulatory scheme, and for the sake of fairness among the maritime industry. Including ATBs in the At-Berth Rule would allow for consistency in the regulations applied to all other ocean-going tank vessels, and it just makes common sense. Crowley will therefore continue to press for the adoption of the correct regulation, including, if necessary, by petitioning for a specific amendment to remove the ATB exclusion and, if no action is taken, by resorting to legal options.

Section 93130.2(b) of the proposed regulation defines an ATB as "a tanker barge that is mechanically linked with a paired tug that functions as one vessel".¹⁴ But an ATB is much more than that.

An ATB is an innovative, highly efficient, and flexible form of modern tank vessel. Crowley's ATBs, developed over years of research, testing and partnering with customers, are designed to operate and perform at service speeds of up to 12 knots for the 550 and 650 class. Cargo is carried in a hydrodynamically-efficient tank barges with a double hull configuration, and built under ABS SafeHull program for maximum environmental protection, which are equipped with sumped cargo tanks, remote radar gauging, two ballast pumps, a dual-mode inert gas vapor

⁹ Crowley Comment dated December 6, 2020.

¹⁰ Crowley Comments dated April 24, 2020.

¹¹ Crowley Comments regarding Concepts, dated April 29, 2020.

¹² See, correspondence May 6-11, 2020 between Art Mead, Crowley Vice President and Chief Counsel Government and Regulatory and CARB Board Member DeLaTorre, particularly Crowley's email dated May 6, 2020 headed "ATB Differentiation and Path Forward for CARB Compliance". See, also, correspondence dated May 6, 2020 from Dan Smith, Crowley Director of Sustainability, to David Quiros of CARB, and enclosed scope of work cold ironing analysis for Crowley's ATB, supplementary data to the reclassification request and data regarding Crowley barge and tug engines, a response to Mr. Quiros' email of May 4, 2020.

¹³ Rep. Garamendi letter dated April 6, 2020.

¹⁴ Section 93130.2(b)(5); ISR, p. IV-6.

collection system for maximum safety, and other systems designed for safety and efficiency. The vessel cargo systems are designed to provide maximum flexibility and cargo integrity while also allowing for transfer rates of up to 20,000 to 30,000 barrels per hour, depending on vessel class.

ATBs are propelled and maneuvered by a high-horsepower tug that is physically a part of the whole vessel, positioned in a notch in the stern of the barge, and attached by rigid, articulating pins. Through this attachment, ATBs function as a single unit in a system that allows for improved maneuverability and sea-keeping.

Crowley operates seven of the nine ATB class vessels currently operating on the U.S. West Coast; three 550 Class ATBs¹⁵ three 650 Class¹⁶, and a newer ATB that is currently operated primarily in the Alaska market.¹⁷

The 550 Class ATBs were developed and designed specifically for West Coast operations and weather conditions, with advanced safety features such as double hulls, segregated ballast and radar gauging systems. The 550 Class ATBs have a capacity of 155,000 barrels at 96% capacity; they are designed to carry clean petroleum products, and provide maximum cargo flexibility. 550 Class ATBs include several innovative safety features.

The three 650 Class ATBs are part of a fleet of ten 650 Class vessels.¹⁸ Each 650 Class ATB has a capacity of 178,000 barrels at 96% capacity. The 650 Class ATBs have a proven design for full ocean service, coupled with systems that enable multiple trading capabilities, so allow for use in the U.S. Gulf to West Coast, and West Coast trades. The 650 Class ATBs are designed to carry clean petroleum products, and heated cargoes to provide maximum cargo flexibility. Crowley's ATBs feature other safety features, including a cargo pump in each of the 14 cargo tanks to assure maximum cargo integrity and segregation flexibility.

During operations in California waters, which include transit, maneuvering, at anchor and operations at berth, Crowley ATBs do not detach the tug from the barge and the tug does not come out of the notch of the barge. At berth, an ATB of over 120,000 bbl. capacity functions as an ocean-going tanker. Under the circumstances, CARB's stated reason for excluding ATBs from the At-Berth Rule -- that ATBs are "considered a barge and a tug separately"¹⁹ -- is clearly incorrect. To base the ATB exclusion on such a statement would be arbitrary and capricious. In the absence of any justifiable reason, the CARB exclusion should be removed from the regulation.

¹⁵ Sea Reliance /550-1, Sound Reliance /550-2, and Ocean Reliance / 550-3.

¹⁶ Vision/ 650-10, Gulf Reliance / 650-2 and Commitment / 650-6.

¹⁷ The Aveogan/Oliver Leavitt, an Alaska Class 100,000 bbl. capacity ATB used to transport multiple clean petroleum products for the Alaska market.

¹⁸ For business reasons, Crowley requires that all of its 10 650 Class ATBs be California-compliant. Therefore, in calculating its total potential costs of complying with California regulations, Crowley takes into account all 10 vessels in the 650 Class fleet.

¹⁹ ISR, p. IV-6.

The existing California regulations, as they are applied to ATBs, are far from ideal. Until now, CARB has chosen to regulate the engines on ATB tugs under the Commercial Harbor Craft rule. Even if intended only as an interim measure prior to the extension of the At-Berth Rule, this was never a perfect solution.

Crowley's ATBs perform only a fraction of their activities in California waters and, when they do, their California operations are functionally the same as other ocean-going tankers; most notably, the ATB tug is not detached from the ATB and is part of a single unit. Under the circumstances, regulating the engines on ATB tugs as if the tugs were performing the same operations as harbor tugs is nonsensical when the At-Berth Rule provides a better alternative.

In addition, the operations conducted on Crowley ATB barges are not regulated under California rules at all. While federal and international standards apply to such operations, California has not adopted a regulation to cover the at-berth operations of an ATB barge of at least 120,000 bbl. capacity.

There are several aspects of that proposed At-Berth Rule that provide the opportunity to correct these anomalies, and to regulate ATBs properly. The Rule will now extend to ocean-going tanker operations in California ports, of which, as discussed above, ATBs are a substantial portion. The Rule also recognizes the need to regulate not only the emissions from main engines on tankers, but also emissions from diesel auxiliary engines that provide the vessel's electrical power needs and product pumping requirements while the vessel is at berth. ATBs should be regulated in a similar fashion. Finally, the proposed regulation also provides for flexibility in using shore power or alternative controls, including capture and control systems and onboard technologies, that may be an effective way to reduce at-berth emissions. It therefore makes sense to regulate ATBs under the At-Berth Rule.

There is no objective evidence to suggest that it would be environmentally preferable to retain the regulation of ATBs under the Commercial Harbor Craft Rule. CARB does not refer to any study based on empirical research that addresses potential emissions from ocean-going ATBs conducting operations at berth in California. The decision to not to include ATBs in the At-Berth Rule appears based only on an arbitrary choice that reflects a misunderstanding of the nature and operations of ATBs, especially those of more than 120,000 bbl. capacity.

Under the circumstances, if ATBs are included, the At-Berth Rule would represent a substantial step forward for California. By contrast, if ATBs were excluded, the effectiveness of the At-Berth Rule would be undermined.

Removing the ATB exclusion, in addition to being common sense, would strengthen both the At-Berth Rule and the Commercial Harbor Craft regulation, which otherwise may be open to legal challenge on Constitutional grounds. Crowley's ATBs are engaged in commercial operation for major U.S. companies. As U.S. flag vessels, they operate coastwise and carry petroleum products between terminals in other states and California marine terminals. ATBs of at least 120,000 bbl. capacity are thus vitally important articles of interstate commerce. In this case, if the practical effect of excluding Crowley ATBs from the At-Berth Rule is that ATB engines must comply with the new proposed Commercial Harbor Craft rules, it is possible that Crowley would no longer be in a position to operate at least some of its ATBs economically in California.²⁰

Therefore, if the At-Berth Rule were to exclude ATBs, the effect of California's regulatory scheme for ATBs may be to exclude from the U.S. West Coast trade a notable portion of the vessels currently carrying clean petroleum products. If so, the ATB exclusion from the At-Berth Rule may, in addition to other defects, be found to constitute an impermissible discrimination or a disruption of interstate commerce, and, on this ground, may be unenforceable.

There is a simple, common sense solution: remove the ATB exclusion from the At-Berth Rule. The exclusion is based on an arbitrary, capricious, unsupported and unsupportable rationale that makes no common sense. The text of the At-Berth Rule should be amended to remove the ATB exclusion, either now or by subsequent amendment following the submission of a petition to amend.

²⁰ Crowley has previously disclosed to CARB, (see, Comment on Commercial Harbor Craft concept dated April 29, 2020) the likely costs of retrofitting or replacing the engines on its ATB fleet.