
The 200 foot long NDC #261 deck barge will support Norfolk Dredging Company's mechanical and clamshell division.

# Q&A: 10 MINUTES WITH SHERWIN-WILLIAMS ON MARINE COATINGS TECHNOLOGY

What are the latest technological developments in the world of marine paints, coatings and surface preparation? Are there more environmentally friendly options when it comes to painting or repainting a vessel or barge? Which companies, including shipyards, have new or updated blast and paint facilities? We ask these questions and more to Matt Heffernan, commercial marine business manager of North America for Sherwin-Williams Protective & Marine.

**Marine Log (ML): Sherwin-Williams has a long history of being involved in the marine shipbuilding process. Can you tell us more about what the company provides to shipyards?**

Matt Heffernan (MH): The Sherwin-Williams Company has a long, proud history as a trusted coatings manufacturer in the maritime industry. Our product offerings, business service model and a dedicated marine team intently focused on solving our customers' most pressing challenges set us apart. Our solutions are geared at serving customer needs, especially in time-sensitive situations, such as during dry dockings or pier side availability. Operating within a dedicated marine division of the company, our team is keenly aware of vessel owners' requirements from product performance and availability to timely local distribution and delivery, and the technical service and oversight required to ensure sound surface preparations and product applications.

We work closely with the vessel owner to determine the scope of work that will be performed during maintenance and new construction activities. That means first writing a detailed coatings specification that outlines key factors such as surface preparation, application timelines and application thickness for each coat. A strong coatings specification ensures a focused scope of work and helps eliminate unexpected costs. Next, we ensure products get to the shipyard on time. Sherwin-Williams stores are located no more than 20 miles from most shipyards.

Next, we work with shipyards and fabricators to confirm the written specification with our dedicated local team of NACE-trained technical service reps surveying the vessel and ensuring the scope of work and specification are accurate. Thereafter, our team is on site for critical hold points, including surface preparation, product application and a final walk-through. This thoroughness gives the asset owner the peace of mind that the coating system will perform as expected.

**ML: Sherwin-Williams recently worked on the Norfolk Dredging Company projects NDC #260 & NDC #261. What services did you provide to those projects and what can you tell us about the dredge?**

MH: Both the NDC #260 and NDC #261 turned out fantastic. The two assets are true workhorse showpieces. LAD Services, a full-service marine fabrication, repair and construction

Photo Credit: Sherwin-Williams Company

company based in St. Mary Parish, La., did great work in fabricating the vessels, and it was a pleasure working with them on these projects for Norfolk Dredging Company (NDC). The NDC #260 and NDC #261 will be primarily used as dredging operation support platforms. The NDC #260 is a 200- by 60-by 12-foot deck barge that will support the dredging company's pipeline and hydraulic division. The NDC #261 is a same-size deck barge that will support the company's mechanical and clamshell division.

Coastal areas should also keep an eye out for the NDC #262, which is expected to be launched near the end of 2022. The Norfolk Dredging Company has been a great partner over the past couple of years, and we look forward to our continued relationship.

In working with Norfolk Dredging Company and LAD Services, the new vessel fabrication project started with Sherwin-Williams Protective & Marine developing a coatings specification for the dredges, followed by technical representatives being on site for critical hold points and later overseeing the final walk-throughs. Steel plates for new vessel fabrications and shipyard repairs typically arrive at the shipyard already blasted per the SSPC-SP 10 Near-White Metal Blast Cleaning method and primed with a pre-construction zinc primer (PCP), such as Sherwin-Williams Zinc Plate Ultra II PCP. Preparing the steel panels offsite in a controlled environment provides a more uniform surface preparation, profile and near exact primer application. Following on-site vessel fabrication work for the NDC #260 and NDC #261, our team worked with the shipyard to ensure the new steel was ready to coat for Norfolk Dredging.

Once application started—both internally for voids and externally for the underwater hull and topsides—we measured both the wet film thickness and dry film thickness of the applied coatings to ensure they were within specifications. Keeping an eye on those parameters helped to ensure the coatings will perform as intended. We also monitored the weather and environmental conditions, as they can drastically impact coating applications.

**ML: Sustainability is a huge topic of concern for the maritime industry at the moment. How has Sherwin-Williams addressed "going green" and are there new technologies coming online to help facilitate more eco-friendly paints and coatings processes?**

MH: Sustainability has always been at the heart of Sherwin-Williams efforts to protect the environment and the communities in which we operate. One key way Sherwin-Williams Protective & Marine demonstrates this is by manufacturing, specifying and supplying coatings with low to zero levels of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). A not-so-evident example of our efforts to reduce environmental footprint is our commitment to extending vessel service lives, which helps to reduce the total amount of coatings used on a vessel over the course of its service life. Extended service life coatings, such as Sherwin-Williams Fast Clad ER and Sherplate PW allow for ballast and potable water tank service lives of 15-20 years in marine environments.

For exterior service, using Sherwin-Williams Sher-Loxane 800 will extend the color and gloss of an exterior asset for multiple years beyond what traditional polyurethane offers, while also providing corrosion protection. Extended coating service lives reduce the number of times an owner or captain must paint to keep a vessel free of corrosion and looking well maintained.

From a pollution perspective, the use of these extended service life products and systems reduces the amount of hazardous waste generated, including used and contaminated blasting media, used paint buckets, throwaway plastic trays and brushes, and solvent generated from application and cleaning activities. Such waste adds up with frequent blasting and coating intervals required when using standard coating systems with just five- to seven-year service lives.

**ML: Is the bulk of your marine work in the government shipbuilding sector or are you fairly spread out in terms of the types of vessels you frequently work on (i.e. ferries, tugs, towboats, barges, cargo ships, etc.)?**

MH: Sherwin-Williams Protective & Marine has been a strong supplier to the government marine sector—both in the U.S. and abroad. In the U.S., we work closely with the U.S. Navy, U.S. Coast Guard, U.S. Army Watercraft Inspection Branch, the National Oceanographic and Atmospheric Administration (NOAA) and the U.S. Army Corps of Engineers. Working with and suppling these entities has allowed us to demonstrate that our coatings perform under the most critical requirements. We then leverage these successful applications from the government marine sector to benefit the commercial marine industry. Not surprisingly, many fleet managers and owners that have served in the armed forces or have attended maritime academies are familiar with our coatings from their time in service.

In the commercial marine industry, we are trusted experts for a wide array of vessel owners, shipyards and application contractors. For example, lately we have become true subject matter experts in the dredging industry. This industry has found that our coatings perform well for its specific needs, and we now service some of the largest companies in the market.

The dredging industry encompasses all types of vessels—tugs, scows, barges and specific types of dredges, such as hydraulic, hopper, cutter suction and mechanical. We also service some of the largest passenger ferries, cruise vessels and entertainment vessels in the country. Providing this dynamic range of vessels with both products and support gives us excellent knowledge that positions us as a leader in maritime coatings.

**ML: What are the latest trends in the world of marine paints and coatings, and how do you see that changing over the next five years?**

MH: The industry is constantly developing better products for the environment without sacrificing any performance. We are in fact increasing performance. And therefore, owners and fleet managers can take advantage of coatings that extend the service life of their assets, which in turn makes for less costly downtime, all while keeping their assets protected from corrosion and looking good.

One technology example of note is the growing use of Sherwin-Williams SeaVoyage Copper-Free Antifouling Paint, which protects against both soft and hard fouling using a combination of biocides that are non-persistent in the environment. The biocides simply degrade into non-toxic components in 24 hours in seawater, preventing heavy metal accumulation in ports and harbors. This copper-free coating is in use on a wide array of vessels, including Spearhead-class high-speed expeditionary fast transport vessels.

Matt Heffernan

Photo Credit: Sherwin-Williams Company