

Mitchell, Stephen

From: Brett Hubrig <brett@minomarine.com>
Sent: Thursday, May 13, 2021 12:49 PM
To: Mitchell, Stephen
Cc: Imbrie Packard; Rachel Kenney; Ruiz-Garcia, Jose; Rick Dupont; Richard Heausler; Kenneth Humphreys
Subject: RE: COR 026 - Additional Work on the Jackson Avenue Barge while at the shipyard

Steve,

For a barge intended for service as a ferry landing, I would characterize the hull repairs identified during the site visit on 05/03/2021 as necessary. And, I would agree that these repairs are required for temporary use, but the term “temporary use” can be somewhat disingenuous. The project refers to the Jackson Avenue barge as the temporary barge and used for temporary service, but the Jackson Avenue barge will be the landing used until the Canal Street barge is delivered—it may be temporary, but the Jackson Avenue barge is the ferry landing until it isn’t.

The UT survey (hull diminution) is absolutely good marine practice and among the most common methods used along with visual inspection when determining the extent of hull repairs when vessels are in drydock. The allowable limit set for the amount of measureable hull corrosion/pitting (steel wastage) was 25% of the original hull thickness, which also conforms with US Coast Guard’s NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 7-68 (Notes on Inspection and Repair of Steel Hulls), which in part reads...

(C) CORROSION LIMITS - GENERAL

Service experience of the classification society, which forms the basis for their rules on the construction of ships, indicates that for most portions of a vessel, without other weakening factors, a local thickness deterioration of up to about 25 percent may be accepted before replacement is necessary. This is based in part on the condition usually found aboard ship that all structural members do not deteriorate uniformly. This means, in the application of this percentage, considerable judgement is called for depending upon the location and extent of wasted material. Localized wastage of some portions of plates or structural members in excess of 25 percent may be accepted in many cases, if the condition of the adjacent material is sufficiently good to maintain an adequate margin of strength. In these instances, careful attention should be given that a local deterioration does not result in a radical change in section or general weakening which could act as a notch. On the other hand, there may be instances where either general or localized wastages of less than 25 percent would call for replacement of material. These exceptions are dealt with in paragraphs (D) through (G) and in the discussions of the individual major hull components.

The frequency of shots/gauges along the port and starboard side shell, and the hull bottom that exceeded the 25% wastage warrant the scope to crop and renew the sections of hull plate identified during the site visit. Which is to say that the repairs are required per the approved Statement of Work (350300). Coincidentally, these hull repairs not only check the box for the immediate objective to use the Jackson Avenue as the ferry landing until the Canal Street landing is delivered, but the hull repairs made now (i.e. crop/renew steel and blast/paint) also extends the service life of the barge in general.

And, the scope to crop/renew steel is consistent with the comment, “RTA has been very clear that we should only be doing work necessary for temporary use, and not long term”, as the scope to crop/renew focuses on the sections of the hull where the measurements exceeded the 25% limit. More long term repairs would have taken into account those measurements which were less than 25%.

That being said, the owner has the authority to decline/amend the hull repairs as this is an uninspected vessel, but the UT data and the visual inspection indicate that the amount of steel wastage along the side shell and hull bottom requires some degree of refurbishment. And, the extent of steel to crop/renew estimated by C&C corresponds with the existing condition of the hull.

Conversely, the bare minimum hull repairs would be to patch the holes found in the side shell and waive the blast/paint as well. Which is where the risk calculation becomes significant. The probability that the landing's seaworthiness becomes an issue is relatively higher with the bare minimal repairs compared to crop/renew steel estimated by C&C.

Keep in mind that the barge must maintain a specific draft condition to facilitate embarking passengers. The hull repairs noted above provides a reliable degree of confidence that the landing's seaworthiness will remain intact, notwithstanding an incident. However, the reliability that the existing hull condition will remain watertight with the bare minimal hull repairs is the calculation. And, should the Jackson Avenue barge sustain flooding as a result of steel wastage while it is operating as a ferry landing, then there should be some expectation as well to discontinue ferry landing service to make corrective maintenance repairs on site, as opposed to doing the preventative maintenance now to minimize the probability and frequency of corrective maintenance while the Jackson Avenue barge is in service.

Should the RTA have further inquiries about the hull repairs please let me know.

Kind regards,

Brett Hubrig
Project Engineer & Shipyard Liaison
MiNO Marine
504.218.8162 (o)

From: Mitchell, Stephen [mailto:smitchell@rtaforward.org]
Sent: Thursday, May 13, 2021 8:33 AM
To: Rick Dupont <rick@dupontleorgne.com>; Brett Hubrig <brett@minomarine.com>; Mitchell, Stephen <smitchell@rtaforward.org>; Richard Heausler <rheausler@labmarferry.com>
Cc: Imbrie Packard <ipackard@royalengineering.net>; Rachel Kenney <rkenney@infinityec.com>; Ruiz-Garcia, Jose <jruizgarcia@rtaforward.org>
Subject: RE: COR 026 - Additional Work on the Jackson Avenue Barge while at the shipyard

Thank you Brett,

I'm confused as we understood differently at our meeting last week. I raised a similar question and was told that these repairs were required for temporary use.... What information is needed to evaluate safety risk? Woodward-APC is requesting an additional 7 weeks on top of the current delay....

FTA has been very clear that we should only be doing work necessary for temporary use, and not long term.

Steve

----- Original message -----

From: Rick Dupont <rick@dupontleorgne.com>
Date: 5/12/21 7:53 PM (GMT-06:00)

To: Brett Hubrig <brett@minomarine.com>, "Mitchell, Stephen" <smitchell@rtaforward.org>
Cc: Imbrie Packard <ipackard@royalengineering.net>, Rachel Kenney <rkenney@infinityec.com>, "Ruiz-Garcia, Jose" <jruizgarcia@rtaforward.org>
Subject: RE: COR 026 - Additional Work on the Jackson Avenue Barge while at the shipyard

Brett

Thanks for the quick turnaround and excellent summary of our conversation.

Rick

Sent from my Galaxy

----- Original message -----

From: Brett Hubrig <brett@minomarine.com>

Date: 5/12/21 6:11 PM (GMT-06:00)

To: "Mitchell, Stephen" <smitchell@rtaforward.org>

Cc: Imbrie Packard <ipackard@royalengineering.net>, Rachel Kenney <rkenney@infinityec.com>, "Ruiz-Garcia, Jose" <jruizgarcia@rtaforward.org>, Rick Dupont <rick@dupontlecorgne.com>

Subject: RE: COR 026 - Additional Work on the Jackson Avenue Barge while at the shipyard

Steve,

I received a call from Rick Dupont this afternoon regarding the UT inspection performed on the Jackson Avenue barge. Rick had a few questions about the whether the scope to crop and renew steel is more of a short-term fix (1 – 2 years) to satisfy the duration of temporary service, or is the scope to crop and renew steel sufficient for extended service (5+ years). Rick also asked if the hull repairs could be postponed to a date after temporary service to minimize the impact to schedule and price to the current repair availability.

My understanding of the extent of steel to crop and renew is not a short-term fix, but rather a quantitative approach to repair the hull for an extended period and in keeping with industry standards.

And, the question about postponing the hull repairs seems more of a risk calculation than interpreting the UT test data. For instance, the UT test data alone is only one data point. The original steel plate thickness, condition of hull coatings and anodes, the type of water (fresh or salt) the vessel operates in, and the type of service are all relevant factors.

I am available to continue the conversation about the hull repairs with Rick and others via a Teams meeting or a site visit.

Attachment: NVI UT Report PONTOON B REV 1 - SIGNED

Kind regards,

Brett Hubrig

Project Engineer & Shipyard Liaison

MiNO Marine

504.218.8162 (o)

From: Brett Hubrig
Sent: Friday, May 07, 2021 2:50 PM
To: Rick Dupont <rick@dupontlecorgne.com>
Cc: Imbrie Packard <ipackard@royalengineering.net>; Rachel Kenney <rkenney@infinityec.com>; Mitchell, Stephen <smitchell@rtaforward.org>
Subject: RE: COR 026 - Additional Work on the Jackson Avenue Barge while at the shipyard

Rick,

The maximum allowable diminution criteria used for the Jackson Avenue barge was 25% of the original steel plate thickness. For the below Items 1 through 4, the original steel thickness was 0.375 inches (3/8”), which means any measurements (gauges) taken that were less than 0.28125 inches failed the allowable limits set forth for corrosion/pitting.

The original drawings for the Jackson Avenue barge (Pontoon B), reference ‘Plans for the Purchase of Pontoon Barges for the Mississippi River Bridge Authority of the State of Louisiana’, are dated 1976.

Kind regards,

Subject: RE: COR 026 - Additional Work on the Jackson Avenue Barge while at the shipyard

Steve and Rachel,

Please see the following review comments of the new Work Items identified in, “CE #076 - Revisions to Temporary Barge Scope of Work Based on 05/03/21 Shipyard Meeting”:

Item No. 1: Crop & renew (C/R) lower half of formed side and bilge knuckle for barge length (shoreside).

Item No. 1 is recommended.

C/R lower half of formed (starboard) side and knuckle coincides with the UT Report (UT-321-0711); reference ‘Page 1’ and NVI sketch on PDF page 11.

Approximately 95% of the hull gauges that exceeded the maximum allowable diminution (25% of the original steel thickness) are located at or below the lower half of the side shell.

Recommend that the shipyard confirm that the, “lower half of formed side”, is equivalent to 3’-3” up from lower knuckle.

Item No. 2: C/R lower half of formed transom and bilge knuckle for barge width (downriver end).

Item No. 2 is recommended.

C/R lower half of formed transom and knuckle coincides with the UT Report (UT-321-0711); reference ‘Page 4’ and NVI sketch on PDF page 19.

Approximately 97% of the hull gauges that exceeded the maximum allowable diminution (25% of the original steel thickness) are located at or below the lower half of the transom.

Recommend that the shipyard confirm that the, “lower half of formed side”, is equivalent to 3’-6” up from baseline.

Item No. 3: C/R slope sheet and 3’-00” of #1 bottom for barge width (upriver end).

Item No. 3 is recommended.

C/R slope sheet and 3’ of #1 bottom coincides with the UT Report (UT-321-0711); reference Page ‘3-1’ and NVI sketch on PDF page 17.

Recommend confirming with the shipyard that Item No. 3 includes C/R the shell plate for the port and starboard skeg features in way of the raked bow.

Item No. 4: C/R (1) 3/8” x 6’-0” x 10’-0” section of flat bottom (on C/L, forward of midship).

Item No. 4 is recommended.

C/R 6’ x 10’ section of bottom plate on C/L forward of midships coincides with the UT Report (UT-321-0711); reference ‘Page 3-1’ and sketch of gauges found on PDF page 19. Item No. 4 will repair wasted steel in way of hull gauge numbers 84 through 90, all of which exceeded the maximum allowable diminution.

Item No. 5: Gouge and weld 725’-0” of longitudinal and transverse bottom weld seams.

Item No. 5 is recommended.

Although the UT report does not specifically address weld seams, after the visual inspection of the underwater body performed on 05/03/2021 the scope of work covered by Item No. 5 is appropriate.

Item No. 6: Crop fenders and extensions from forward and aft ends of river-facing side of barge – Included in original scope.

MiNO: No comment.

Item No. 7: Crop longitudinal beams near fenders and extensions in Item No. 5 – Included in original scope.

MiNO: No comment.

Item No. 8: Blast and paint sides and ends below water line and flat bottom.

Item No. 8 is recommended.

The data from the UT report confirms that there is significant corrosion/pitting at and below the waterline. Although the above Item Nos. 1 through 5 provides the necessary steel remediation, the original scope does not account for any underwater coatings. All of the steel remediation covered by Item Nos. 1 through 5 must be blasted and painted. And, given the extent of hull steel corrosion below the waterline it is good marine practice to blast and paint the underwater body in its entirety for: (1) preventative maintenance to extend the life of the existing/new steel, and (2) the cleaning/blasting process provides the necessary substrate profile for the new coating system to adhere to.

Item No. 9: Seal-off all penetrations and skip-welds in beams in way of ramp recess.

Item No. 9 is questionable. Defer to LABMAR to confirm whether Item No. 9 is necessary.

Sealing-off all penetrations includes the holes located across the top as well.

Item No. 10: Remove, furnish, and install steel door and frame at entrance to machinery space.

Item No. 10 is recommended.

Item No. 11: Eliminate all trip hazards along main deck.

Item No. 11 is recommended.

Note that the SOW (350300-1), Work Item 602, includes removal of four (4) deck stools. Likewise, recommend confirming with the shipyard that Item No. 11 is for tripping hazards other than these four (4) deck stools.

Item No. 12: Crop (2) areas of spill containment and above deck piping – cap piping below deck, insert deck penetrations.

Item No. 12 is recommended.

Item No. 13: Straighten and re-weld all above-deck vent piping.

Item No. 13 is recommended.

Item No. 14: Furnish and install additional anodes (if necessary) - \$130.00 per added Anode (Not included in COR total).

Note that the SOW (350300-1), Work Item 606, includes twenty (20) zinc anodes (22 pounds each). Likewise, recommend confirming with the shipyard that Item No. 14 is for anodes exceeding the twenty (20) per the SOW.

Kind regards,

Brett Hubrig

Project Engineer & Shipyard Liaison

MiNO Marine

504.218.8162 (o)

From: Imbrie Packard [<mailto:ipackard@royalengineering.net>]

Sent: Wednesday, May 05, 2021 2:02 PM

To: Rachel Kenney <rkenney@infinityec.com>; Brett Hubrig <brett@minomarine.com>