U.S. Department of Homeland Security

United States Coast Guard

Director
National Vessel Documentation Center

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16713/5/2
August 1, 2011

Greggory B. Mendenhall, Esq.
Sheppard Mullin
30 Rockefeller Plaza
New York, NY 10112-0015

Dear Mr. Mendenhall:

This is in response to your letter of April 15, 2011, with enclosures, wherein you requested a U.S. build determination pursuant to 46 C.F.R. § 67.95 for the proposed construction of a flat deck, self-loading/unloading, container barge ("Barge") by General Dynamics' National Steel and Shipbuilding Company ("NASSCO").

In general, and as described, NASSCO intends to employ a similar design, material procurement, and build process for this Barge construction program as it did for an earlier program for the construction of PC-1 tankers. Those tankers, and the build program described in connection with their construction, were the subject of an ultimately favorable determination by this office. As in that earlier case, NASSCO proposes to (i) purchase the Barge design from Daewoo Shipbuilding Engineering Company ("DSEC"), the engineering subsidiary of Daewoo Shipbuilding and Marine Engineering ("DSME") and (ii) purchase from DSEC (sourced from DSME suppliers, all of which are outside the United States) most of the equipment and material necessary to construct the Barge, with the exceptions of the gantry crane, weld rod, and paint.

Upon delivery, NASSCO intends the Barge to be documented under the United States flag with a coastwise endorsement entitling it to be operated in the domestic trades of the United States. Your letter clearly reflects your understanding that, in order for that to occur, the Barge must be deemed to have been built in the United States and that, in order for that to be the case, its construction must satisfy both of the requirements of 46 C.F.R. § 67.97; namely:

"To be considered built in the United States a vessel must meet both of the following criteria:

(a) All major components of its hull and superstructure are fabricated in the United States; and
(b) The vessel is assembled entirely in the United States."

Consistent with that understanding, you have indicated that all major components of the hull and superstructure (excluding only certain non-major structural items, as to which further discussion will follow below) will be fabricated at NASSCO's shipyard in San Diego, CA and that the Barge will be assembled entirely at that same shipyard.

Against the background of this broad statement of NASSCO's intentions, your letter proceeds to raise, and request determinations as to, certain specific aspects of the proposed construction. As an aid to our review of certain of those issues, we requested a review and analysis by the Coast Guard's Naval Architecture Division ("NAD") and the report of their findings, dated July 15, 2011, is attached hereto as Exhibit A and incorporated herein by reference.

(i) Steel Plate and Bulb Flats

NASSCO proposes to procure steel plate and steel bulb flats from DSEC. However, all fabrication and assembly processes, including without limitation, marking, cutting, drilling, beveling and bending will be performed in the United States at NASSCO's shipyard in San Diego.

The Coast Guard has long held, as it did in the case of NASSCO's PC-1 tankers, that there is no regulatory or statutory limit on the amount of foreign materials, such as steel, which may be used in the construction of a vessel provided that the steel has not been worked in any way and that it is imported in standard shapes and sizes as produced at the mill. However, any manufacturing or fabrication of those standard mill shapes, if not done in the United States, would potentially disqualify the steel from Jones Act use.

In light of NASSCO's proposal as described, the use of foreign produced steel plate and steel bulb flats would not present this problem.

(ii) Foreign Fabricated Items of Hull and Superstructure

You have correctly noted that the Coast Guard has long held that foreign components amounting to less than 1.5% of a vessel's steelweight are not considered "major" as that term is used in 46 C.F.R. § 67.97(a). Your submission reported the total weight of such items in this case as 17.337 metric tons, or 0.70% of the steelweight of the barge, reported by your submission to be 2,461 metric tons.

As your initial submission did not provide calculations in support of the reported steelweight of the barge we requested that you provide that information. You did so by e-mail dated June 10, 2011, which presented a revised discounted steelweight of 2,496 metric tons. Although the NAD report indicates that they could not definitively confirm the calculation offered, it also indicated the expectation that the method employed "would yield reasonably accurate estimates." Moreover, the estimated weight did not include the container/container rack pedestals which the NAD report determined to be load-bearing foundations and were estimated to account for an additional 60 metric tons. Consequently, it was concluded that "the revised discounted steel weight of 2,496 Mtons conservatively underestimates the actual weight." We believe that this weight, as a conservative underestimation, is sufficiently precise for our purposes.

Moreover, as you included certain internal (non-load line) closures, not generally viewed as part of the flotation envelope of the hull (see the definition of "hull" at 46 C.F.R. § 67.3 and

the discussion of these items in the NAD report), your estimate of 17.337 metric tons may actually have overestimated the total weight of these items, or, at the very least, may have conservatively erred, if at all, on the high side.

Consequently, your calculation that these components would amount to 0.70% of the steelweight of the Barge may, if anything, be conservatively high and the true percentage may actually be lower.

For these reasons we confirm that the installation of these foreign fabricated items of hull and superstructure will not present an impediment to the Barge's status as U.S. built.

(iii) Foreign Fabricated Equipment and Outfitting Components (General)

Putting aside for the moment consideration of the proposed gantry crane and container racks as non-structural items of outfit, which we will discuss below and were the primary cause for our request for review by the NAD, NASSCO proposes to incorporate into the Barge certain equipment and outfitting units and sub-assemblies of piping, machinery and electric outfitting, of foreign manufacture. As such items will be free-standing, self-supporting and independent of the Barge's structure we do not find that the requirements of 46 C.F.R. § 67.97(a) are implicated, in general.

However, we note that certain closures listed in this category of items (specifically; item #7 ("Bosun's hatch and davit"), item #8 ("Bosun's Door (P&S)") and item #11 ("Hatch")), if they are load-line required closures, ought to be more appropriately listed among the foreign fabricated items of hull and superstructure discussed above. However, as their total weight is only 12.6 metric tons and, as already noted, the total weight of listed items of hull and superstructure may have been overestimated by the inclusion of certain closures there and fell well below 1.5% of the Barge's total steelweight in any event, we do not find any need to revise this list.

Finally, in light of our past determination in connection with the PC-1 tankers, as well as the decision in Philadelphia Metal Trades Council v. Allen, 2008 WL 4003380 (E.D. Pa., August 21, 2008), we do not find that the requirements of 46 C.F.R. § 67.97(b) are implicated by the use of foreign manufactured units or sub-assemblies.

(iv) Foreign Fabricated Container Rack Stowage System

You have described a container rack stowage system in which (i) "the container racks will be fabricated and assembled...by DSEC" and as to which "DSEC will provide the entire container rack units (truss structure) to NASSCO, except for the foundations" but that (ii) "NASSCO will be responsible for the construction, fabrication and assembly of the Barge's supports, internal structures and foundations..." Citing past determination letters with regard to container racks you have requested our determination in this case that the container racks described and depicted in your submission should not be considered structural components of the hull or superstructure and that, as outfit, provided that they are installed at NASSCO's

shipyard as is planned, their foreign fabrication would not result in the loss of coastwise trading privileges.

Notwithstanding past determinations which have considered container racks and have found as you have indicated, we did not want to assume, without further inquiry, that all container rack systems necessarily share the same structural, or non-structural, characteristics and, thus, that prior determinations approving the use of foreign fabricated container racks on other vessels necessarily meant that all container rack systems should be treated in the same manner. It was for this reason, in particular, that we requested the NAD to review the container rack system proposed to be installed in this case.

After review, the NAD offered the following findings as to the proposed container racks:

"*Container racks/cell guides*: also regardless of size, we consider the container racks to be functionally equivalent to any cargo stowage arrangement found on other ships, such as guide posts, lash-down or lock-down systems, etc. As above, [a reference to its corresponding discussion of the gantry crane] we would consider any structural reinforcement in way of cargo stowage loads to be part of the vessel's structural integrity."

Further:

"With respect to the subject vessel, the structural reinforcements of deck and hull in way of the...container stowage will be built into the barge below deck, and the above-deck...container/container rack pedestals are considered load-bearing foundations."

And finally, that:

"Within the parameters discussed...we concur that [the container racks] are outfitting items."

In light of these findings, and provided that construction is accomplished consistent with the parameters which govern these findings, as we understand has been proposed, we find no cause to treat these container racks, or this container rack system, any differently than has been the case in past determinations. Consequently, we find that, provided that they are installed at NASSCO's shipyard, as is planned, and provided that all foundations and structural reinforcements associated therewith will be built into the Barge's hull and superstructure during construction at NASSCO's shipyard, as is also planned, the fact of their foreign fabrication will not result in the loss of coastwise trading privileges for this Barge.

(v) <u>Foreign Manufactured Gantry Crane</u>

Our concerns with respect to the foreign manufactured gantry crane were similar to the concerns already expressed as to the container rack system and also occasioned our request for review by the NAD. However, after review, the NAD offered the following findings:

"*Gantry crane system:* regardless of size, we consider a gantry crane and its rails to be functionally equivalent to any cargo-handling arrangement found on other ships, such as

winches & booms, kingposts, cranes, etc. However, we consider any structural reinforcement of hull, deck, or superstructure which transfers and distributes the cargo-handling loads to be part of the vessel's structural integrity..."

Further:

"With respect to the subject vessel, the structural reinforcements of deck and hull in way of the gantry...will be built into the barge below deck and the above-deck crane rail box coamings are considered load-bearing foundations."

And finally, that:

"Within the parameters discussed... we concur that [the gantry crane] (is an) outfitting item(s)."

In light of these findings, and provided that construction is accomplished consistent with the parameters which govern these findings, as we understand has been proposed, we similarly find no reason to treat the proposed gantry crane any differently than has been the case in past determinations with respect to cranes. Consequently, we find that, provided that it is installed at NASSCO's shipyard, as is planned, and provided that all foundations and structural reinforcements associated therewith will be built into the Barge's hull and superstructure during construction at NASSCO's shipyard, as is also planned, the fact of its foreign fabrication will not result in the loss of coastwise trading privileges for the Barge.

* * * *

Based upon all of the foregoing we confirm that construction of the Barge as described will not adversely affect its eligibility to be documented with a coastwise endorsement and used in the domestic trades of the United States.

Sincerely,

Timothy V. Skuby
CAPT, USCG Retired
Director

Enclosure: Exhibit A

EXHIBIT A

U.S. Department of Homeland Security
United States Coast Guard

Commandant (CG-5212)
United States Coast Guard

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16713
July 15, 2011

MEMORANDUM

From: Jaideep SIRKAR
Chief, Naval Architecture Division (CG-5212)

Reply to Attn of: CG-5212 (202) 372-1366

To: National Vessel Documentation Center

Subj: **NASSCO container barge – U.S. BUILD DETERMINATION**

Refs:
(a) D. Cameron (NVDC) e-mail of 19 April 2011, to J. Sirkar (CG-5212), forwarding ref (b)
(b) Sheppard Mullen letter (with 7 enclosures) of April 15, 2011, to NVDC
(c) USCG (CG-5212) memo of 19 Dec 2007 to NVDC, wrt NASSCO PC-2 tanker project
(d) USCG (CG-5212) memo of 5 Feb 2009 to NVDC, wrt NASSCO containership project
(e) Bauer, Moynihan & Johnson letter of July 12, 2001, to NVDC, wrt container racks
(f) NVDC determination in response to reference (e), dated July 19, 2001
(g) G. Mendenhall (Sheppard Mullen) e-mail of June 10, 2011 (with ref (h) attached) to NVDC
(h) Discounted steel weight spreadsheet (undated)

1. Reference (a) requests our review and comment regarding a self-loading/unloading container barge designed by Daewoo Shipbuilding and Marine Engineering of Korea, to be built by NASSCO at their San Diego shipyard. In addition to our general review, we are particularly asked our opinion whether or not the gantry crane and container racks are superstructure components "above the main deck."

2. As described in reference (b), this will be a 400 ft x 88 ft x 23 ft deck barge with above-deck container stowage (there are no below-deck cargo holds). The containers will stacked 5-high and secured between 42-foot-tall container racks/cell guides, and loaded/unloaded by a gantry crane that straddles the containers and rolls fore/aft on rails. NASSCO intends to utilize a certain amount of foreign source steel, machinery, and other outfitting items in the construction of the barge. This is essentially the same strategy used by NASSCO to build the PC-2 tankers and containerships, which we previously reviewed per references (c) and (d). References (e) and (f) pertain to a NVDC determination in 2001 regarding similar foreign-fabricated container racks. Reference (g) provided additional information regarding the steel weight estimate of the hull (reference (h)).

3. **Characterization of gantry crane and container racks:** Reference (b) categorizes the gantry crane and container racks as "outfitting;" reference (a) specifically requests our opinion whether or not these might be superstructure components "above the main deck." Within the parameters discussed below, we concur that they are outfitting items:

- *Gantry crane system:* regardless of size, we consider a gantry crane and its rails to be functionally equivalent to any cargo-handling arrangement found on other ships, such as winches & booms, kingposts, cranes, etc. However, we consider any structural foundations or reinforcement of hull, deck, or superstructure which transfers and distributes the cargo-handling loads to be part of the vessel's structural integrity;
- *Container racks/cell guides:* also regardless of size, we consider the container racks to be functionally equivalent to any cargo stowage arrangement found on other ships, such as guide posts, lash-down or lock-down systems, etc. As above, we would consider any structural foundations or reinforcement in way of cargo stowage loads to be part of the vessel's structural integrity.

With respect to the subject vessel, the structural reinforcements of deck and hull in way of the gantry and container stowage will be built into the barge below deck, and the above-deck crane rail box coamings and container/container rack pedestals are considered load-bearing foundations.

4. With respect to the definitions of *"hull"* and *"superstructure"* in 46 CFR 67.3, and consistent with our previous reviews of this nature:

(a) We consider any door or hatch cover to be an essential part of the "floatation envelope" of the hull if load line regulations require it to be weathertight or watertight. In general, this includes weather-exposed doors and hatches on the lower tiers of a superstructure or deckhouse (but excludes such doors and hatch covers on higher tiers, and interior doors);

(b) We consider "superstructure" to include deckhouses and pilothouses, but not breakwaters, crane or mast houses, or ventilation or exhaust trunks (these being "outfitting" components); and

(c) We consider any component to be part of the vessel's "structural integrity" if it is essential to the overall longitudinal/transverse strength of the hull, superstructure, or deckhouse. In general, this includes hull plating, exterior superstructure and deckhouse plating (and associated stiffeners), decks, and internal load-bearing bulkheads and columns (but excludes non-load-bearing bulkheads that essentially only serve to partition interior spaces). As discussed in paragraph (3) above, this also includes load-bearing foundations and reinforcements of hull, deck, or superstructure in way of cargo handling or stowage arrangements.

5. Our general review comments are:

(a) **Scope of work**: from the submittals, it is our understanding that:

- The barge hull will be constructed by NASSCO, using foreign source steel (plating and stiffeners); all marking, cutting, shaping, etc, of the steel will be done by NASSCO. Welding rod and paint will be furnished by NASSCO.
- All structural components supporting the gantry crane will be constructed, fabricated, and installed by NASSCO, including the above-deck box coamings and crane rails.
- The gantry crane itself will be of foreign fabrication. It will be procured by the vessel owner and delivered to the shipyard for installation and commissioning by NASSCO.
- The container racks will also be of foreign (Korean) fabrication and shipped to San Diego for installation by NASSCO. The above-deck foundation pedestals for the containers and container racks will be fabricated and installed by NASSCO.
- Many of the machinery, ventilation, and piping systems, including components (i.e., pumps, fans, controls, etc) will be furnished by Daewoo in pre-assembled units, to be installed by NASSCO. These units are described in reference (b) as *"free-standing, self-supporting, and independent of the barge's structure."*

(b) **Discounted steel weight of the vessel *(reference (h))***: reference (b) initially presented a discounted steel weight of 2,461 metric tons (Mtons). However, this was subsequently superseded by reference (h), which presents a revised discounted weight of 2,496 Mtons, based upon a weight breakdown of 8 hull sections, 5 bulkheads, and the above-deck box coamings. We note that reference (h) is only a summary table of these 14 weight units; we cannot further confirm these without more-detailed information, but we expect that this approach would yield reasonably accurate estimates. We also note that the weight estimate does *not* include the container/container rack pedestals (115 by our count), which are load-bearing foundations as discussed in paragraph (3) above. We roughly estimate this weight to be at least another 60 Mtons. Therefore, the revised discounted steel weight of 2,496 Mtons conservatively underestimates the actual weight. If a more-precise weight determination is required, the owner/operator should submit a additional detailed weight estimates.

(c) **Weight estimate of foreign-source hull & superstructure components *(enclosure (2))*:** this enclosure lists various doors and hatches (both internal and exterior) that will be installed on the barge. As noted in paragraph 4(a) above, we consider only load line-required closures to be part of the floatation envelope of the hull; non-load line closures do not need to be listed. The total weight of these components is given as 17.337 Mtons, or 0.69 percent of the discounted steel weight. However, to the extent that this enclosure lists non-load line closures (such as internal doors and hatches), it conservatively overestimates the total weight of this component set.

(d) **Weight estimate of foreign-source outfitting components *(enclosure (3))*:** this enclosure lists various foreign source hull, machinery, and electrical components; these items are not counted as part of the hull weight. With respect to the "Hull outfitting" table, we note that the container racks are not listed (however, because these are cargo outfitting items, their omission does not affect the relevant hull weight determinations). Also on the "Hull outfitting" table, we note certain closures that are included on the list, specifically: items #7 ("Bosun's hatch and davit"), #8 ("Bosun's Door (P & S)") and #11 ("Hatch"). If these are load line-required closures, then they should properly be listed in enclosure (2). However, noting that these closures total less than 13 Mtons, recognizing that enclosure (2) includes non-load line closures and therefore overestimates its total weight, and finding that the hull component weights are still conservatively below the 1.5 percent threshold, we do not believe that either of these enclosures needs to be revised.

(e) **Other comments:** We note that the total weight of the crane rails and pinion gear racks (which are installed atop the box coamings) is 48.9 Mtons. Consistent with paragraph (3) above, we consider them to be part of the cargo handling equipment and therefore do not affect the relevant hull weight determinations.

6. If you have any questions, please contact me or Mr. Thomas JORDAN at the above.

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