



National Transportation Safety Board

Washington, D.C. 20594

October 11, 2017

Spencer Schilling
Herbert Engineering Corp.
1040 Marina Village Parkway, Suite 200
Alameda, CA USA 94501

Re: Tech review of the Nautical Operations Group Factual Report

Mr. Schilling:

The NTSB investigative team has reviewed all factual comments submitted by the parties as part of the technical review and has decided on a disposition for each one, as reflected below.

All editorial suggestions have been considered and will be incorporated as appropriate.

Best Regards,
Brian Young
Investigator in Charge
National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, DC 20594

NTSB Draft Factual Report for Tech. Review

Page/Line	NAME OF PARTY COMMENTS	NTSB – Disposition of Party Comments
4/6	The El Faro had one of several possible configurations for Ro/Cons. A more accurate sentence would be “A Ro/Con vessel has separate areas for both lift on/lift off container stowage and roll-on/roll-off (Ro/Ro) cargo (such as trailers and automobiles). The El Faro had dedicated container stowage on the upper deck and Ro/Ro stowage in its lower decks.”	AGREE, revised.
19/2	“The boundaries were the port and starboard sides (hull) of the ship on the , the second deck, the bottom of the hold (the inner bottom tank top aka Deck 4), and the forward and aft watertight bulkheads of the hold. The <u>stowage area on the second deck</u> , which was not a <u>watertight space</u> , was the highest deck where Ro/Ro cargo was stored.	AGREE. Revised.
22/footnote 38	The CargoMax had been reviewed/approved by ABS for the El Faro (8 Feb 2008), but the version being used at the time of the casualty had not been resubmitted to ABS for review following minor updates to interface features that did not impact stability calculations. The approved test conditions from 2008 were still applicable and the CargoMax in use in 2015 still produced results matching these test conditions.	AGREE. Wording revised consistent with request.
39/14	Re list problems before departure. I believe it was reported that the list problems were corrected before departure. If so, this should be stated in the report.	AGREE. Revised.
General	Suggest including any observations recorded on the VDR about RoRo securing failures, or the lack thereof. I believe there were comments recorded on the VDR about inspections of the cargo on the 2 nd deck and no mention of significant loose cargo dangers. I don’t believe there is any VDR evidence that container securing failed until the ship was foundering as containers were then spotted in the water.	Did not see any reference to “inspections” being made or results of cargo inspections on VDR transcript. Also, we know autos broke free and a trailer was leaning against the side of the vessel on the 2nd deck.