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United States Senate

SPECIAL COMMITTEE INVESTIGATING
THE NATIONAL DEFENSE PROGRAM

Ship Building

February 2, 1943

MEMORANDUM

TO: SENATOR KILGORE

FROM: MR. ROBINSON

Pursuant to your request, the following memorandum is submitted to reflect the suggestions made by various individuals associated with the MacEvoy Shipbuilding Corporation concerning the feasibility of installing power units in the concrete barges now under construction.

From an examination of the final contours of the concrete barges, it is apparent that they are laid out along the same lines as ordinary ship construction. The bow and stern contours appear to follow the orthodox pattern to the extent that the term "barges" appears to be a misnomer when applied to the general appearance of these vessels.

The aft section of the barge was inspected by yourself and Senator Ball, and it was noted that adequate room is provided for the installation of a power unit. Whether or not the vessel can be adapted to single screw or twin screw propulsion would appear to involve a question which could best be settled by a marine designer. Full consideration should be given to the fact

that after the war, when the critical situation with respect to diesel motors, etc., is relieved, it will undoubtedly be advisable to install propulsion in the present barges. This may well be a factor which will be necessary in order to enable the concrete barges to compete efficiently with other barges having a lower dead-weight tonnage.

Because of the fact that the hull of the barge is made up of a monolithic pour, alterations would undoubtedly be costly in order to install such power units. Opinions expressed to you orally by some of the people engaged in the construction of these barges, and concurred in by others, and regarding which you and Senator Ball expressed yourselves of the opinion that they possess considerable merit and warranted further consideration, would indicate that serious consideration should be given to making the necessary simple installations at the time the barge is poured, the cost of which would offset much of the conversion cost if it were later desired to convert the barges.

According to information furnished to you, these preliminary precautions would involve only casting two sleeves either side of the rudder to accommodate the drive shaft to the propeller, and which sleeve should be installed now at the time the barge is being poured, and it can be properly "sealed off" but would be available when needed later. Another change which might be necessary would be to provide a hatch of sufficient size on the aft section so that the propelling engine could be installed in the hold without completely dismantling it, and it would be

necessary to provide a concrete base on which the engine could be installed.

Opinions were advanced that the engine vibration would be lessened in a concrete barge because of the absorption nature of concrete as compared against steel, and proof of this fact can be found in the usual method of mounting power units on concrete bases rather than on steel bases.

In view of the small addition of cost involved in making the installations, it is believed that the matter should be given serious consideration by the Maritime Commission and by Marine architects in order that all arguments pro and con can be fully evaluated.