

**DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD**

U.S. COAST GUARD
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NVC 7-73
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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 7-73

Subj: Main Propulsion Boiler Automation

1. Purpose. The purpose of this circular is to draw the attention of all interested and affected members of the marine community to certain problems being encountered as the result of the automation of existing main propulsion boilers. Guidance for the avoidance of these problems is also provided.
2. Background. Many existing vessels are currently undergoing boiler control system changes, in most cases in conjunction with automation for reduced manning in accordance with NVC 1-69. These automation changes often require that modifications be made to the boiler itself. In many instances this has resulted in the boilers not operating within design limits and in operating procedures having to be changed significantly. The problems include, but are not limited to:
 - a. Excessive superheat temperatures.
 - b. Forced draft fans required to be run constantly at full speed due to wind box modifications.
 - c. Improper flame patterns in the furnaces due to burner modifications.
 - d. Bailer response time not matching the flexibility of the newly installed system.

3. Discussion. It is believed that many of these problems could be avoided by closer coordination between the ship owner, automation contractor and boiler manufacturer prior to submission of drawings to the Coast Guard for approval. To this end the Commandant has contacted the major boiler manufacturers, presenting a summary of the problem and asking if they would review proposed installations, if requested by the owner or his agent, and comment on the feasibility of achieving the desired automation without causing the boiler performance to vary from design conditions. All boiler manufacturers have indicated they would participate in such an effort, noting however that their comments would constitute guidance only and not approval or guarantee of boiler performance with the new equipment. It is not a requirement of Coast Guard regulations that such guidance be obtained. However, when combined with the normal plan review of boiler modifications required by 46 CFR 52 and 59, it can greatly assist the owner in Obtaining a reliable installation.



W. F. REA, III

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Dist: (SDL 96)

A: None
B: n(45); c(10); q(6); eg(3); bp(1)
C: o(6); m(4); y(2); g(1)
D: i(2); K(1)
E: o(3)
F: ar(1)
List CG-12