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(4) The means to pass propulsion orders required by §113.30–5 and §113.35–3 of this chapter; and

(5) The means required by paragraph (d) of this section to achieve control location transfer and independence.

(c) Main navigating bridge propulsion control. (1) Navigating bridge remote propulsion control must be performed by a single control device for each independent propeller. Control must include automatic performance of all associated services, and must not permit rate of movement of the control device to overload the propulsion machinery.

(2) On vessels propelled by steam turbines, the navigation bridge primary control system must include safety limit controls for high and low boiler water levels and low steam pressure. Actuation of these limits must be alarmed on the navigating bridge and at the maneuvering platform or ECC.

(3) On vessels propelled by internal combustion engines, an alarm must annunciate on the navigating bridge and at the maneuvering platform or ECC, if provided, to indicate starting capability less than 50% of that required by §62.35–35. If the primary remote control system provides automatic starting, the number of automatic consecutive attempts that fail to produce a start must be limited to reserve 50% of the required starting capability.

(d) Transfer of control location. Transfer of control location must meet section 4–9–2/5.11 of the ABS Steel Vessel Rules (incorporated by reference; see 46 CFR 62.05–1). Manual alternative-propulsion-control locations must be capable of overriding, and of operating independent of, all remote and automatic propulsion-control locations.

(e) Control system details. (1) Each operator control device must have a detent at the zero thrust position.

(2) Propulsion machinery automatic safety trip control operation must only occur when continued operation could result in serious damage, complete breakdown, or explosion of the equipment. Other than the overrides mentioned in §62.25–10(a)(4) and temporary overrides located at the main navigating bridge control location, overrides of these safety trip controls are prohibited. Operation of permitted overrides must be alarmed at the navigating bridge and at the maneuvering platform or ECC, as applicable, and must be guarded against inadvertent operation.

(3) Remote propulsion control systems must be failsafe by maintaining the preset (as is) speed and direction of thrust until local manual or alternate manual control is in operation, or the manual safety trip control operates. Failure must activate alarms on the navigating bridge and in the machinery spaces.

§ 62.35–10 Flooding safety.

(a) Automatic bilge pumps must—

(1) Be provided with bilge high level alarms that annunciate in the machinery spaces and at a manned control location and are independent of the pump controls;

(2) Be monitored to detect excessive operation in a specified time period; and

(3) Meet all applicable pollution control requirements.

(b) Remote controls for flooding safety equipment must remain functional under flooding conditions to the extent required for the associated equipment by §56.50–50 and §56.50–95 of this chapter.

(c) Remote bilge level sensors, where provided, must be located to detect flooding at an early stage and to provide redundant coverage.

§ 62.35–15 Fire safety.

(a) All required fire pump remote control locations must include the controls necessary to charge the firemain and—

(1) A firemain pressure indicator; or

(2) A firemain low pressure alarm.

§ 62.35–20 Oil-fired main boilers.

(a) General. (1) All main boilers, regardless of intended mode of operation, must be provided with the automatic safety trip control system(s) of paragraphs (h)(1), (h)(2)(i), (h)(2)(ii), and (i) of this section to prevent unsafe conditions after light off.

(2) Manual alternate control of boilers must be located at the boiler front.