Engineering Control Center (ECC) means the centralized engineering control, monitoring, and communications location.

Failsafe means that upon failure or malfunction of a component, subsystem, or system, the output automatically reverts to a pre-determined design state of least critical consequence. Typical failsafe states are listed in Table 62.10–1(a).

TABLE 62.10–1(a)—TYPICAL FAILSAFE STATES

System or component	Preferred failsafe state
Cooling water valve	As is or open.
Alarm system	Annunciate.
Safety system	Shut down, limited, or as is & alarm.
Burner valve	Closed.
Propulsion speed control	As is.
Feedwater valve	As is or open.
Controllable pitch propeller	As is.
Propulsion safety trip	As is & alarm.
Fuel tank valve	See § 56.50–60(d).

Flooding safety refers to flooding detection, watertight integrity, and dewatering systems.

Independent refers to equipment arranged to perform its required function regardless of the state of operation, or failure, of other equipment.

Limit control means a function of an automatic control system to restrict operation to a specified operating range or sequence without stopping the machinery.

Local control means operator control from a location where the equipment and its output can be directly manipulated and observed, e.g., at the switchboard, motor controller, propulsion engine, or other equipment.

Manual control means operation by direct or power-assisted operator intervention.

Monitor means the use of direct observation, instrumentation, alarms, or a combination of these to determine equipment operation.

Remote control means non-local automatic or manual control.

Safety trip control system means a manually or automatically operated system that rapidly shuts down another system or subsystem.

System means a grouping or arrangement of elements that interact to perform a specific function and typically includes the following, as applicable:

A fuel or power source.
Power conversion elements.
Control elements.
Power transmission elements.
Instrumentation.
Safety control elements.
Conditioning elements.

Vital system or equipment is essential to the safety of the vessel, its passengers and crew. This typically includes, but is not limited to, the following:

Fire detection, alarm, and extinguishing systems.

Flooding safety systems.

Ship service and emergency electrical generators, switchgear, and motor control circuits serving vital electrical loads.

The emergency equipment and systems listed in § 112.15 of this chapter.

Propulsion systems, including those provided to meet § 58.01–35.

Steering systems.

Subpart 62.15—Equivalents

§ 62.15–1 Conditions under which equivalents may be used.

(a) The Coast Guard accepts a substitute or alternate for the requirements of this part if it provides an equivalent level of safety and reliability. Demonstration of functional equivalence must include comparison of a qualitative failure analysis based on the requirements of this part with a comparable analysis of the proposed substitute or alternate.

Subpart 62.20—Plan Submittal

§ 62.20–1 Plans for approval.

(a) The following plans must be submitted to the Coast Guard for approval in accordance with § 50.20–5 and § 50.20–10 of this chapter:

(1) A general arrangement plan of control and monitoring equipment, control locations, and the systems served.

(2) Control and monitoring console, panel, and enclosure layouts.

(3) Schematic or logic diagrams including functional relationships, a written description of operation, and sequences of events for all modes of operation.