

**These are examples but not limited to what would result in a CAT I deficiency on NOAA Vessels prior to getting underway or during underway trials:**

### **ENGINEERING/MECHANICAL**

- Engine fails to start or stop.
- Overheating propulsion or electrical generator engine at any point while the engine is operating. Overheating is defined as “engine manufacturers overheat alarm point has been reached.”
- Low lube oil pressure on propulsion or electrical generator engine at any point the engine is operating. Low lube oil pressure is defined as “engine manufacturers low lube alarm set point has been reached.”
- Metallic/non-metallic noise: metal on metal/fuel-knock/bearing/clicking.
- Excessive shaft or engine vibration.
- Loss of engine speed control or engine shutdown control.
- Reduction gear fails to engage or disengage (forward or reverse).
- Water in engine or reduction gear lube oil (emulsified white milky oil).
- Lube oil in engine jacket water that is more than a light sheen or floating unmixed lube oil separated from the water.
- Steering system inoperative.
- Engine motor-mount hardware loose or missing.
- Excessive propulsion shaft packing leak. Excessive defined as a “steady stream while rotating or more than 15 drops per minute while stopped.”
- Any fuel or lube oil dripping\* on a hot surface. A hot surface is defined as “a surface greater than 400 degrees, even if covered by insulation.”
- Any diesel fuel oil drop\* falling within 10 minutes from a hose or pipe connection, *not* on a hot surface.
- Cracked and/or leaking fuel tanks.

\* To determine if any drop(s) have occurred, a clean sheet of paper may be placed under a suspected leak for up to ten minutes to collect and detect any drops that fall.

- Any gasoline fuel leak however slight.
- Failure of required bilge ventilating blowers or fume detector(s).
- Any anti-freeze, raw water, or lube oil leaks greater than 15 drops per minute.
- Any hydraulic leak in a machinery space or on deck that has a direct path to sea.
- Emergency alarms inoperative (fire, bilge, lube oil pressure, high water temp).
- Bilge pumps inoperative.
- Missing exhaust lagging or system blankets.
- Emergency Fuel shut-off valves do not close.

### **WATERTIGHT INTEGRITY/STABILITY**

- Removal or addition of installed equipment resulting in greater than a 2% addition or subtraction of weight determined by the vessels lightship displacement stated in the vessels stability letter (if vessel has inclining experiment).
- Holes/cracks in a watertight deck/bulkhead/hull.
- Cracks through a watertight scuttle/hatch.
- Failure of a watertight closure to seal below the main deck as determined by a light test, water test or chalk test as appropriate. Use ABYC standard H 3.7.3 as a guide.
- Any gap in a watertight closure gasket seam that would cause the failure of the device to pass a test as described above.
- Hull valves below the waterline that do not close or open.
- Excessive oil or water accumulated in the bilges of any compartment.

### **ELECTRICAL/NAVIGATION**

- Failure of the charging system to charge starting or house batteries.
- Continuous electrical breaker trip.
- Electrical arcing and sparking or unguarded AC terminals, and missing/incorrect grounding in AC installations.

- Navigation light/s inoperative, missing, or not configured in compliance with Navigation Rules.
- Deviation table missing for vessels equipped with binnacle mounted or traditional “magnetic compass”. A fluxgate compass shall be calibrated at the interval required by the manufacturers’ requirements which shall be provided onboard.
- Any required VHF radio inoperative.
- Required depth sounder inoperative.
- Required GPS inoperative.
- Required radar inoperative.

### **LIFESAVING/SAFETY**

- Incomplete number of required lifejackets (passenger count may be reduced).
- Required EPIRB Battery, hydrostatic release, or registration expired.
- Boat pyrotechnics missing or expired.
- Liferaft service date expired.
- Lifefloats unserviceable or missing critical equipment such as painters or weak links.
- Missing liferings or waterlights.
- Missing or unserviceable portable fire extinguishers.
- Installed fixed gas fire extinguishing system inoperative. This includes inoperative/missing air inlet closure devices, or automatic engine shutdown(s) as required. See VIB 01-10.

Non-required (excess) lifesaving, firefighting or safety equipment that is found onboard expired or unserviceable shall be removed until it is serviced and in compliance.

### **OPERATIONAL**

- Failure to possess required credentials for operation of the vessel.
- Failure of presented crew to have completed required drills.