



MANAGEMENT SYSTEM MANUAL

ARM 8.5 R/V Armstrong Main Engine Safety Shutdown Procedures

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1. Purpose

The purpose of this procedure is to set forth guidelines for conducting tests of the main engine safety shutdowns.

2. Responsibility

It is the responsibility of the Chief Engineer to ensure that the safety shutdowns for the main engines are tested in accordance with Coast Guard Regulations.

3. References

- a. R/V Neil Armstrong PSTP (Periodic Safety Test Procedures) H12199
- b. Cummins Marine Application Bulletin 0.15.00, Controls Gauges & Alarms, Witness Test Procedure for QSK Series Engines with MCRS

4. Procedure

The following shutdowns are provided on the Cummins QSK38DM engines: Over speed, Intake manifold Temperature, Lube Oil Pressure, Fuel Temperature, Coolant Temperature, Coolant Level, and Coolant Pressure. The INSITE/ Calterm III program is required in order to perform the tests noted below.

Over speed – Use the DCU410 Panel ‘over-speed test’ button

Intake Manifold Temperature – simulated test with INSITE program

Lube Oil Low Pressure – manual test with hydraulic test pump

Coolant High temperature - simulated test with INSITE or manual test with sensor heater

Coolant Pressure - manual test with hydraulic test pump

Follow the procedures as described in reference (b) when testing these shutdowns.

5. Reporting

Tests of the main engines are recorded in NS5 or in the (PSTP) Periodic Safety Test Procedure when verifying these events as part of the testing.