



MANAGEMENT SYSTEM MANUAL

OCN 8.7 R/V Oceanus Testing and Running of the Emergency Generator

Originator:	Approved By:
Richard F. Morris	J.L. Coburn, Jr.

1. Purpose

The purpose of this procedure is to set forth the guidelines for the operation the Emergency Generator aboard the R/V Oceanus as required in the ISM system.

2. Responsibility

It is the responsibility of the Chief Engineer to maintain guidelines for operating the Emergency Generator.

3. General

This procedure is to be used for Emergency Generator operations.

Emergency Generator Operating Procedures

Normal operating procedure for at sea is to have the engine in Auto stand-by mode.

To set up engine for Auto Stand-by have the following switches lined up:

1. Engine Control switch on Emergency switchboard in the "Auto" position.
2. Digital engine control switch mounted on the generator in the "Auto" position.
3. "Unit in Auto Start" should be displayed.

With these two switches in the auto position, the generator will monitor the normal power feed and will automatically start and transfer the emergency circuits to the emergency switchboard if there is a loss of power. When last tested, the time from start up to transfer of load was approximately 15 seconds.

To manually start the engine and transfer the load of the emergency switchboard to the emergency generator perform the following steps:

1. Check over engine. Check oil in engine, day tank, and water level in expansion tank.
2. Set the switchboard engine control switch to "Auto".
3. Start the engine using the digital engine control switch (right side toggle switch) flip up to "Run". Engine should start up when the switch is put in the run position.



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4. At the emergency switchboard, you should see two indicating lights; one showing "Normal" verifying that you have normal power available. The second showing that "Emergency" power is available.

Now the generator can be put on the bus by one of two ways, Automatically or Manually.

Automatically:

Press and hold black push button labeled "Press and hold for auto transfer" which in a few seconds will trip the main bus tie and close the emergency bus tie breaker automatically. Note you will interrupt the emergency circuits momentarily.

Manually:

Using the push button circuit breakers, first open the normal buss tie breaker and then close the emergency bus tie breaker push button. Note you will interrupt the emergency circuits momentarily.

To transfer the emergency switchboard back to the main bus, first assure that normal power is available. Then using the circuit breaker, push buttons open emergency bus tie breaker then close the main bus tiebreaker. There will be a momentary loss of power on the emergency circuits.

To secure the engine once the load has been transferred to the main bus, go to the digital engine controls panel and flip the right hand switch to the off position. Note the engine will shutdown at a predetermined time (approx. 5 minutes.) If you need to shut it off immediately, hold the left hand toggle switch up to "Timer Off" to bypass and secure immediately.

When in port, the ship's engine is left off so it will not start in case of an interruption in shore power. This is because it has to be manually transferred back to normal power and manually shutdown.

4. Tests

The emergency generator must be test-run once a month, under load, for two hours.

5. Reporting

Tests of the Emergency generator are recorded in the Official Deck Log and in SafeNet.



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