HHA-103

Diurnal Emissions From an 18' Runabout

Harold M. Haskew, PE Harold Haskew & Associates, Inc.

National Marine Manufacturers' Association (NMMA) Washington, DC October, 2002

ABSTRACT:

A test program was conducted in the late summer of 2002 to evaluate the evaporative emissions from a contemporary runabout. The boat selected was an eighteen foot 2003 Four Winns Horizon with a thirty-two gallon plastic fuel tank. This vehicle was selected as the largest boat that would fit in the available Variable Temperature Sealed Enclosure for Evaporative Determination (VT-SHED). Two companion SHEDs were used, one for permeation determination from the boat and the second to measure the fuel tank venting losses generated during two three day diurnal (72 - 96° F) tests.

The venting losses normalized for tank size was 0.9 and 1.0 g/gal/day for the two tests run, which meets the requirements. The permeation from the boat were 1.6 grams for the first test when the boat had never seen fuel, and 11 grams after the boat had soaked for 30 days. This indicates the permeation emissions are substantial and do reflect the soak.