



6. The primary and secondary ambient air quality standards for carbon monoxide set out in s. NR 404.04(4), Wis. Adm. Code, are specific levels of air quality which are necessary to provide adequate protection for public health and welfare.

7. Section NR 404.04(4), Wis. Admin. Code, provides that the primary and secondary ambient air quality standards for carbon monoxide are:

(a) 10 milligrams per cubic meter (9 parts per million) - maximum 8-hour average concentration, not to be exceeded more than once a year.

(b) 40 milligrams per cubic meter (35 parts per million) - maximum 1-hour concentration, not to be exceeded more than once a year.

8. From October 20, 1988 until May 11, 1989, the DNR operated an ambient air quality monitoring station for carbon monoxide in the vicinity of Mercury Marine's engine testing facility. During the operation of that monitor, exceedances of the 8-hour ambient air quality standard for carbon monoxide and of the 1-hour ambient air quality standard for carbon monoxide were recorded at the monitor.

9. Carbon monoxide emissions from Mercury Marine's engine testing facility substantially contributed to the exceedances of the ambient air quality standards for carbon monoxide recorded at the ambient air quality monitoring station located near the facility.

10. By April 1, 1989, Mercury Marine installed and began operation of a collection manifold system which collects and vents the carbon monoxide emissions from all engines tested at the Endurance Dock through the manifold system and exhausts the emissions through one or two stacks which are 60 feet in height.

11. Following installation and operation of the collection manifold system and stacks at Mercury Marine's Endurance Dock, no exceedances of the carbon monoxide ambient air quality standards were recorded at the DNR's ambient air quality monitoring station located near the facility.

12. In August, 1989, a consultant representing Mercury Marine submitted to DNR an air dispersion modeling report to demonstrate that the ambient air quality standards for carbon monoxide could be attained in the vicinity of the engine testing facility as a result of the installation and operation of the collection manifold system for the Endurance Dock. The report concluded that the ambient air quality standards for carbon monoxide could be attained:

a) if the total horsepower from the outboard engines vented from the wet test tank to the 45-foot stack is limited to 200 horsepower; and



b) if the total horsepower from the indoor/outboard engines vented from the shaker tests and the dynamometers to the 70-foot stack is limited to 1,500 horsepower; and

c) if either

1) the total horsepower from the engines vented from the Endurance Dock to the 60-foot stacks is limited to 2,000 horsepower per stack, the total horsepower from inboard/outboard engines vented from the Endurance Dock is restricted to 2,000 horsepower, and the total horsepower from the outboard engines vented from the Endurance Dock is limited to 2,000 horsepower; or

2) the total horsepower from the engines vented from the Endurance Dock to the 60-foot stacks is limited to 2,250 horsepower per stack provided the air flow from each stack is increased by 25% over the values measured during the stack tests conducted by the consultant on June 6-7, 1989, the horsepower from the inboard/outboard engines vented from the Endurance Dock is restricted to 2,250 horsepower, and the horsepower from the outboard engines vented from the Endurance Dock is restricted to 2,250 horsepower.

13. DNR staff reviewed the modeling report and verified that the ambient air quality standards could be achieved under the scenarios modeled in the report.

14. Section NR 439.11, Wis. Admin. Code, requires the owner or operator of any direct or portable source which may emit hazardous substances or which emits more than 15 pounds in any day or 3 pounds in any hour of any air contaminant for which emission limits have been adopted to prepare and carry out a malfunction prevention and abatement plan to prevent, detect and correct malfunctions or equipment failures which may cause any applicable emission limitation to be violated or which may cause air pollution.

15. Mercury Marine prepared a malfunction prevention and abatement plan to cover the collection manifold system and the individual exhaust collectors for the Endurance Dock.

#### CONCLUSIONS OF LAW

The DNR concludes that:

1. Section 144.31(1)(a), (e) and (f), Wis. Stat., require

the DNR to organize a comprehensive and integrated program to enhance the quality, management and protection of the state's air resources; to prepare and develop one or more comprehensive plans for the prevention, abatement and control of air pollution in this state; and to promulgate rules implementing and consistent with ss. 144.30 to 144.426 and 144.96, Wis. Stats.

2. The operation of the engine testing facility by Mercury Marine is subject to the limitations contained in s. NR 426.025, Wis. Adm. Code, and to the requirements of s. NR 439.11, Wis. Adm. Code.

3. The DNR has the authority to issue this Order under section 144.31(2)(b), Wisconsin Statutes.

4. The issuance of this Order is reasonable and necessary to accomplish the purposes of sections 144.30 to 144.426, Wis. Stats., and sections NR 404.04(4), 426.025 and 439.11, Wis. Adm. Code. This Order is enforceable under sections 144.423 and 144.426, Wis. Stats.

#### ORDER

The DNR hereby orders Mercury Marine to comply with the following provisions:

1. Mercury Marine shall operate its engine testing facility in such a manner so that each engine being tested at the Endurance Dock is connected to the exhaust collection system and vented through the emission stacks.

2. The aggregate rated horsepower of engines being tested at the engine testing facility at any given time may not exceed:

- a) 4,000 horsepower for all engines at the Endurance Dock, of which not more than 2,000 horsepower may be attributable to inboard/outboard engines, and not more than 2,000 horsepower may be attributable to outboard engines;
- b) 200 horsepower for all engines (outboard) at the wet cell tests; and
- c) 1,500 horsepower for all engines (inboard/outboard) at the shaker tests and the dynamometer cell tests.

3. Mercury Marine may be authorized by the Department to increase the horsepower limitations in paragraph 2 for engines being tested at the engine testing facility if Mercury Marine undertakes operational changes at the facility and demonstrates to the satisfaction of the Department based on source performance testing and air quality modeling data that the carbon monoxide emissions from the facility will not result in an ambient concentration in excess of 85% of the air quality standards for

carbon monoxide. No increase in aggregate horsepower may be authorized under this paragraph unless the increase has been submitted to the United States Environmental Protection Agency (USEPA) and has been approved by USEPA as a revision to Wisconsin's State Implementation Plan (SIP).

4. Mercury Marine shall maintain operational records to demonstrate its compliance with Paragraph 2. Such records shall be maintained for a period of at least 3 years and shall include data in one-hour increments regarding the total rated horsepower of all engines being tested at the Endurance Dock, wet cells, shaker tests and dynamometer cells of the facility, the fuel consumption rate and the percentage of total horsepower attributable to outboard and inboard/outboard engines at each test site. These records shall be available to Department and USEPA upon request. Mercury Marine shall submit a quarterly report to the Department by the 20th day of January, April, July and October of each year, summarizing Mercury Marine's records of compliance with paragraph 2 during the 3 preceding months. The report shall specifically identify any day on which an exceedance of a limit in paragraph 2 occurred, the cause of the exceedance and the actions taken to return to compliance with the limitations.

5. Mercury Marine shall conduct an inspection and leak check test of its exhaust capture system each time an engine is connected to the exhaust system to ensure that negative pressure is maintained in the exhaust system. The inspection and leak check test shall be conducted in accordance with procedures outlined in Mercury Marine's malfunction prevention and abatement plan. Mercury Marine's malfunction prevention and abatement plan shall include this inspection and testing requirement.

6. Mercury Marine shall conduct biennial stack tests of the engine testing facility using Method 10 in 40 C.F.R. Part 60, Appendix A to demonstrate that the collection manifold system is operating properly and in accordance with the modeling analysis referred to in paragraph 12 above.

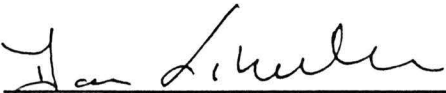
7. Mercury Marine shall be responsible for the installation and operation of an ambient air monitor for carbon monoxide and a meteorological system which measures continuously wind speed and wind direction in the vicinity of the engine testing facility at a site approved by DNR for a period of 2 years. The ambient monitor and meteorological system shall be operated in accordance with USEPA monitoring requirements in 40 C.F.R. Part 58 and shall be operated for a period of at least two years. If an exceedance of the ambient air quality standard for carbon monoxide is recorded at the monitor and the Department determines that Mercury Marine's emissions caused or substantially contributed to the exceedance, the monitor and system shall continue to be



operated until 2 years of monitoring data indicate that no exceedances have been recorded at the monitor. The monitoring data from the monitor shall be reported to the Department for submittal to USEPA.

6. Nothing contained in this order shall affect the responsibility of Mercury Marine to comply with local or federal law or any other state law.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary



Donald F. Theiler, Director  
Bureau of Air Management

11/22/91

Date

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this Order, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

This notice is provided pursuant to section 227.48(2), Stats.