



## National Transportation Safety Board

Washington, D.C. 20594

Office of Marine Safety

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**Date:** July 2, 2003

**Place:** via telephone

**Person Interviewed:** Jeff Schopperle of Rule Industries

**Interview Conducted By:** Jim Walsh - Investigator  
National Transportation Safety Board

### INTRODUCTION

Jeff Schopperle is the pump and switch representative for Rule pump's in the United States. During the testing of the *Panther's* starboard bilge pump by the NTSB's R&E group the pump failed to operate. Jeff was contacted to clarify the pumps operation and to determine if Rule has a formal testing protocol for the printed circuit board which controls the pump's operation.

The text that follows is not a verbatim record of the conversation. It has been developed from my handwritten notes of the conversation and is correct and complete to the best of my knowledge and recollection.

### INTERVIEW

In explaining the Rule 1500 bilge pump, Jeff confirmed that the pump has a timer built into the printed circuit board which cycles the pump on every two and half minutes. Unless the pump senses resistance via the impeller it will turn off after a second of operation. If resistance is detected the pump will continue to operate until the impeller is again moving freely.

There are three leads to the printed circuit board, the board is located in the upper housing of the pump. Two leads from the board go to the pump motor, the third lead goes to an indicator light. Each time the pump cycles on the indicator light will illuminate.

Jeff did not know of any faults or systemic problems with the Rule 1500.

END OF INTERVIEW

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Jim Walsh