Code Case OMN-18
Alternate Testing Requirements for Pumps Tested Quarterly Within ±20% of Design Flow

**Background:** When Subsection ISTB was revised in 1994 to include the Comprehensive Pump Test, the primary purpose of the Comprehensive Pump Test was to address centrifugal pumps normally tested on mini-flow recirculation. Testing at mini-flow did not provide good data to identify degradation, so the Comprehensive Test was added to ensure that those pumps would be tested further out on the curve, with the best instrumentation available, every 2 yr (once per outage). It was not the position of Subsection ISTB that there was a problem with the data obtained from pumps tested using full-flow test loops.

This change caused an issue for plants with full-flow test loops, as they were required once every 2 yr to install more accurate test pressure gauges, and use more restrictive test criteria. Additionally, it caused problems with trending, as the data from the tests with the more accurate instruments was not always directly comparable with the quarterly data.

This Code Case allows the Owner to not perform the Comprehensive Test with the associated acceptance criteria, if the quarterly test is performed at the flow rate and with the instrumentation required for the comprehensive test.

**NOTE:** Subsection ISTB allows the Owner to categorize the pumps in their program. As such, an Owner could categorize a pump that otherwise meets the requirements of Group B, as a Group A pump, and test according to this Code Case. However, in doing so they are obtaining additional data (vibration and flow or differential pressure) quarterly, rather than once every 2 yr.

**Inquiry:** What alternative rules to those of para. ISTB-3400 (para. ISTB 5.1 in the OMc-1994 Addenda through the OMb-1997 Addenda) may be used for Group A pumps that are tested quarterly within ±20% of pump design flow rate?

**Reply:** It is the opinion of the Committee that in lieu of the requirements of para. ISTB-3400 (para. ISTB 5.1 in the OMc-1994 Addenda through the OMb-1997 Addenda), the Group A test may be performed quarterly within ±20% of pump design flow rate, with instrumentation meeting the requirements of Table ISTB-3510-1 (Table ISTB-3500-1 in the 1998 Edition through the 2003 Addenda, Table ISTB 4.7.1-1 in the OMc-1994 Addenda through the OMb-1997 Addenda) for the Comprehensive and Preservice Tests, and no comprehensive test is required.

**Applicability:** See Applicability Index