

TITLE: MIXED FLOW TEST - RC PUMPS

Lead Section Manager: L. J. Stanek

1. OBJECTIVE --

Prove the capability of the Reactor Coolant Pumps to operate within emergency limits under mixed flow conditions.

2. BACKGROUND --

During certain emergency transients on a reactor coolant system, it may be desirable to startup or continue to operate one RC pump in each coolant loop as a backup or normal emergency core cooling systems. Based upon current information, it appears as if core damage occurred at TMI-2 when the RC pumps were secured.

3. ACTION PLAN --

Perform a separate test on the PGE RC pump on the Vendors test loop to simulate as far as practical this running condition. Information can be recorded on a real time basis as the test loop pressure is dropped and the fluid properties change from a sub-cooled to a mixed flow condition. Specific areas to be monitored would be motor current, motor voltage, motor rpm, frame and shaft vibration.

4. SCHEDULE --

Last half of 1979.

Ex. GPU 433 For ID
1-27-80 J.R. Danyo

5. RESPONSIBILITY --

RK Kennedy, Unit Manager
GG Anderson, Task Engineer
IJ Bateman, Project Manager

6. SUPPORT REQUIREMENTS --

Commercial support is required from PGE Project Management and Purchasing.

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7. FUNDING SOURCES --

As this test is a benefit to the Nuclear Industry, it should be funded by EPRI.