

## INSTALLATION OF THE NEW WATCHDOG MODULES AT MI-60

Three new watchdog modules were installed and successfully tested during the fall 2003 shutdown. These new modules will monitor the status of the 95° LCW pressure system, the 90° Cavity LCW pressure system, and the Pond Strainer pressure system. The new watchdog monitors use a Measurement Specialties 0-400 psig pressure transducer in the 95° LCW pressure system and the 90° Cavity LCW pressure system to monitor the respective supply pressures. The Pond Strainer system uses two Measurement Specialties 0-100 psig pressure transducers to monitor the differential pressure across the strainer and the supply pressure to the input of the strainer. All pressure transducers have a linear output from 4-20mA over their respective pressure ranges, which the watchdog modules convert to a 0-5V signal that is used to monitor the respective pressures. The watchdog modules have been set to trip at the following points:

95° LCW Pressure System: Trip at 80 psig. Supply pressure nominally at 92 psig. TP1 at 1.0V

90° Cavity LCW Pressure System: Trip at 100 psig. Supply pressure nominally at 115 psig. TP1 at 1.25V.

Pond Strainer Pressure System Supply: Trip at 6 psig. Supply pressure nominally at 8-9 psig. TP1 at 0.3V.

Pond Strainer Pressure System Differential: Trip at 10 psig. Differential pressure nominally at 6-7psig. TP2 at 0.5V.

The Pond Strainer differential pressure system may need to have the trip point moved above 10 psig once operational experience deems necessary.

For the 0-400 psig pressure transducer, the relationship 5V/400 psig holds.

For the 0-100 psig pressure transducer, the relationship 5V/100 psig holds.

To view the status of each watchdog on an ACNET console, go to the Main Injector Index Page, click on HLRF parameters (I26). Just below the COMMAND line, type in 24. This will show the status of the new watchdog pressure readings.

The following ADC channels are currently being used for the new watchdog modules:

Channel	Function
44	95° LCW Pressure System
45	90° Cavity LCW Pressure System
46	Pond Strainer Pressure System Supply
50	Pond Strainer Pressure System Differential
51	Pond Strainer Pressure System Return