

Valve	Current Tailpipe Temp (°F)	Leakage (lbm/hr)	ΔMW (MW)	ΔHR (Btu/kWh)
MS Safety	245.00	30,567	-4.68	256.92
CRH Safety	150.00	6,416	-0.71	38.95
HP Heater 5 ES Safety to ATM	165.00	1,414	-0.15	8.37
HP Heater 6 ES Safety to ATM	185.00	1,141	-0.13	6.93
Total			-5.66	311.17

## Cycle Isolation Monitoring



### Find Lost Megawatts Today!

Aging plants, deteriorating valve performance, and increased demand for electric power require careful attention to any potential loss of efficiency and generation. Often capturing lost MWs is the greatest return on investment, especially inside of the steam cycle. To find these lost MWs in the steam cycle, Curtiss-Wright has developed our Cycle Isolation product to keep your plant operating at its peak performance.

### What is Cycle Isolation?

Simply put, Cycle Isolation is valve leakage losses that bypass the generation process. Leakage through these valves is one of the largest and often most overlooked issues in nuclear, fossil, and CCGT power plants. In some cases, leaking steam cycle valves can result in more than 5 MWs of lost generation! These losses are compounded by the undetected valve leakage continuously damaging the valve, increasing the leak, and leading to additional losses in generation and increased heat rate. By understanding and evaluating the valves' performance, we can balance MW losses against unplanned outages and determine maintenance scheduling that is most advantageous to the utility.

### How does the Cycle Isolation Product work?

On-line Cycle Isolation monitoring and reporting is now an integral part of the FAMOS suite and PMAx thermal performance monitoring software. Combining real-time data and web browser displays, our product quickly detects cycle isolation issues and automatically estimates the leakage rate as well as generation and heat rate impacts for each leaking valve.

The Cycle Isolation product uses downstream temperature information to generate leakage alerts. These temperatures can be entered manually from plant walk downs; or, if instrumentation is available, the data can be pulled in real time. Additionally, tools are available to set up notification, alarms, and reports to be automatically delivered to users and recorded in the historian.

The Cycle Isolation module can be deployed as an upgrade to an existing FAMOS/PMAx installation or independently. With either option, the cycle isolation monitoring system is a must-have for getting the most out of your power plant. Stop flushing MWs down the condenser and get yours today!

Please contact us for more information:

Bob Holzworth – (208) 497-3474 or email [bholzworth@curtisswright.com](mailto:bholzworth@curtisswright.com), or visit our website at: <http://famos.scientech.us/index.html>

Studies indicate a typical savings in a power plant of 70 Btu/kWh and a 1.3 percent generation increase is common for cycle isolation improvements. Some individual leakages have been found to exceed 5 MWs.