ITCC Decoupling Algorithm Improvement

About This Notification

In January 2008, Woodward enhanced its standard Integrated Turbine Compressor Controller (ITCC) algorithms to include improved surge detection and surge recovery logic.

The improvement in the recovery logic relates to an improvement in the decoupling logic. We have limited the authority of decoupling logic to close the recycle valve any further than the anti-surge controller limits. This is a condition that would typically exist during the recovery from a surge event. This makes the anti-surge response more robust to system events, tuning, or even operator actions that could precipitate a subsequent surge.

Our modified surge detection algorithm now includes a new and improved surge detection filter, allowing the algorithm to filter out unrelated system disturbances and more accurately sense and detect surge events.

Basis for Notification

These algorithm enhancements have been proven to better and more accurately protect the turbine compressor set from major train transient conditions, poor tuning, and/or poor operator decisions. Woodward's surge recovery algorithm includes surge recovery and prevention logic to reduce the possibility of a second successive surge event occurring due to poorly adjusted PID response settings or untimely operator override actions.

- **Applicable Documentation, Manual Revisions and Customer Requirements**
  Not applicable

- **Assumptions**
  Not applicable

- **Recommendations:**
  Users of Woodward's ITCC cores commissioned before January 2008 and that utilize the controller's surge detection or surge recovery algorithms need to contact a Woodward representative to upgrade their system.

  Please contact Woodward to update these algorithms. Complete address, phone numbers, fax numbers, and email information for all locations is available on our website (**www.woodward.com/support**).

Required Information and Other Considerations

None.

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