

CRITICAL COMBUSTION AIR CONTROL LOOPS

AVOIDING PROCESS TRIP

During the AUTO-purge cycle, the output signal (Flow or DP) is held at its last value for up to two minutes. If demand changes during this hold period, the control loop could cause a damper movement without flow signal feedback which can result in an over or undershoot of the control loop, leading to a process trip. Therefore, it is recommended that the DCS initiate the AUTO-purge cycle and receive the AUTO-purge acknowledgment. This will allow scheduling the AUTO-purge during a non-transitional period in the control loop such as nightly or early morning.

Similarly, an invalid flow measurement value can cause a process trip in critical flow control loops. To avoid this situation, it is strongly recommended that the plant addresses this issue and implements necessary action in its DCS (shown by example in the below flowchart) incorporating safety measures that are appropriate to their airflow measuring application.

