

GE Bypass Valve Replacement

Do you recognize these erosion patterns?



If you have a GE MSV bypass valve you probably do. The valve head and stem above were in service for 75 hours of operation on the bypass valve over a period of a couple of years. Wouldn't you like to get off of the "frequent inspection / repair / replacement / risk of failure" merry-go-round?

ReGENco has a solution that virtually eliminates this scenario!

In 2008, ReGENco became the U.S. manufacturer of the Toshiba Multi-hole bypass valve.



This is the Toshiba Multi-hole bypass valve. The holes you see are the entry holes for steam flow, and the side you are viewing is in line with the main steam entry line. If you look closely at the holes you will see the wear that has occurred during operation on this valve.

Okay, you have to look very closely!

This valve has been on bypass valve operation for 200 hours on the same unit that did the damage above.

There were boiler modifications that changed the SPE dynamics during the 200 hours of operation, therefore maybe a direct comparison is difficult. So consider these facts:

This valve has been used in Japan for 20 years and is in use in 129 valves on 89 units.

During this time, there has been a combined 5 million hours of operation (total operation, not just on bypass)

The valve with the longest operating tenure has been in service for 20 years.

The valves in service have an average number of starts of 323.

During this operating history, there has been ONE (1) valve that has been replaced due to SPE and TWO (2) valves replaced due to stellite cracking.

The Multi-hole bypass valve is successful because it is a total redesign of the steam flow within the valve. There is no piece in the steam flow against which the steam must change direction. There is so little wear that it is often difficult to detect the difference from one outage to the next.

And, the valve is designed such that if it were to erode severely, it does not have a tendency to break into pieces that may fly through your turbine.

If you would like to eliminate your GE bypass valve erosion problems and the associated risk, please give us a call. We would be happy to give you the details on why this valve is so effective.