



# Treating the Root Cause

EroSolve successfully addresses customer problem at US CCPP

## The Challenge

A Combined Cycle Power Plant (CCPP) in the United States was experiencing a chronic leakage problem with a HP Bypass control valve and approached IMI CCI for a solution.

IMI CCI's engineers carried out detailed analysis of the valve installation and associated piping, valve operating conditions and examined photos of the trim damage. They concluded that the problem was caused by wet steam erosion: flashing condensate/ wet steam is highly erosive when it passes over the trim parts at high velocity and high angle of impingement and is a common cause of damage to the valve trim.



## The Solution

IMI CCI has considerable expertise in handling wet steam erosion problems, and recommended upgrading the valve trim to its proprietary EroSolve solution. EroSolve was developed specifically to increase valve life against wet steam erosion and also reduces maintenance and its associated costs.

The customer agreed to upgrade the valve trim to EroSolve during a planned outage. Despite a challenging delivery lead time of 7 weeks, IMI CCI supplied the EroSolve solution on time to meet the customer outage timeline. The EroSolve solution was successfully installed by a team of IMI engineers in Dec 2020. The valve has since experienced two cold start-ups and remains in perfect working condition.

Thanks to the success of the upgrade, the customer is considering upgrading four more valves in the same plant in 2021.

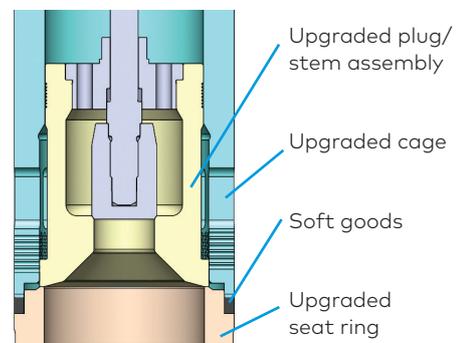
The EroSolve solution is available across all turbine bypass product lines (technologies) of IMI CCI and can be retrofitted to other valve manufacturer's turbine bypass valves as well.



## Adding Value by Using the Best Engineering Expertise

The EroSolve solution addresses:

- Severe trim erosion
- Frequent repair or maintenance
- Downtime due to unplanned shutdowns
- Noise and vibration
- Cracking of spray nozzle, pressure reducing stages and downstream pipe
- Water hammer
- Energy and profit loss



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