

WHEN A CLOSED VALVE ISN'T CLOSED

AND MILLIONS ARE ON THE LINE

In high-pressure mill operations, people trust systems to do exactly what they say. When a valve reads “closed”, operators expect safety. But at one facility, that assumption nearly put critical turbine assets and the team responsible for them at serious risk.

A HIDDEN RISK BEHIND A TRUSTED VALVE

A control valve was being used to isolate a process, something it is not designed to do. Control valves modulate flow; not guaranteeing a tight shutoff. Like many of their kind, this one allowed slight leakage by design.

Feedwater slowly bypassed the valve, nearly leading to a high-pressure water intrusion into a turbine. The potential consequences weren't just mechanical; they were operational and financial.

TURNING VULNERABILITY INTO CONTROL

Working alongside Emerson technologies, **R.E. Mason delivered a fully engineered isolation upgrade**, transforming an existing 6" split wedge gate valve into a dependable barrier.

The solution came together seamlessly:

- **Bettis M2CP 480V 3-phase electric actuator retrofit** for precise, reliable actuation
- **Custom-machined adapter plates and stem bushings** for a perfect mechanical fit
- **Turnkey mechanical services** handling installation, wiring oversight, and full commissioning
- **End-to-end execution** so the customer team could focus on operations, not coordination

FROM NEAR-MISS TO MEASURABLE PROTECTION

The upgrade didn't just solve a problem; it removed a major risk from the operation.

- **Eliminated the threat of turbine flooding** from valve leakage
- **Protected critical rotating equipment** from water-induced damage
- **Avoided over \$1M in potential repair and downtime costs** from even minor events
- **Reduced the likelihood of catastrophic failure** in a scenario that could reach tens of millions in losses

With R.E. Mason's expertise and Emerson's proven actuation technology, this facility upgraded from “almost safe” to fully protected, ensuring both equipment and people are safeguarded against preventable risks.

Let's talk about turning uncertainty into certainty before a near-miss becomes a shutdown.



BETTIS M2CP ELECTRIC VALVE ACTUATOR