

# STEAM GENERATION

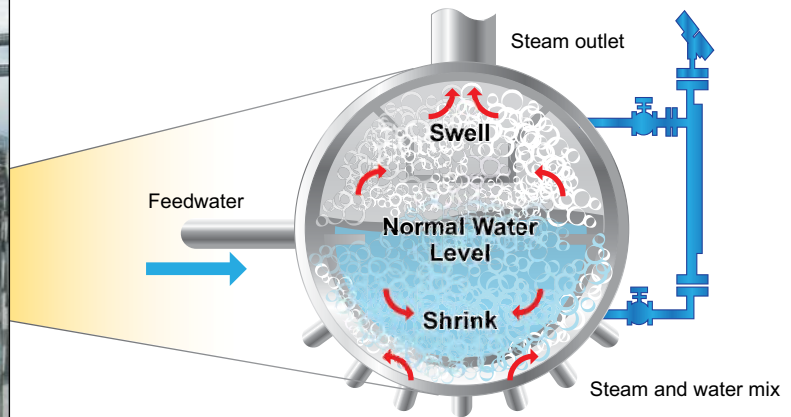
## IMPROVED STEAM DRUM PERFORMANCE

### CUSTOMER PROFILE

**INDUSTRY:** Power  
**LOCATION:** Combined Cycle Power Plant  
**APPLICATION:** Steam Drum

### ICEBREAKER

*"If Magnetrol can eliminate the variables in the steam drum level measurement equation, will it help improve your plant's key performance metrics?"*



### CHALLENGES

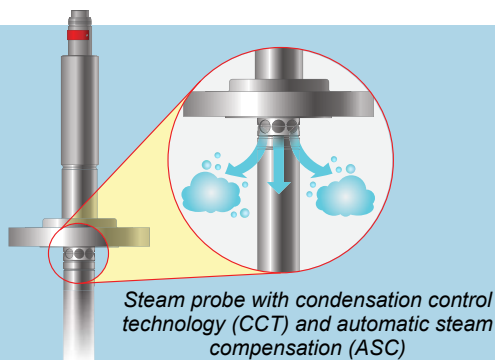
Address limitations in flexible operation attributed to level control to improve performance metrics

- Unreliable control of normal water level (NWL) leads to inefficient separation of water and steam, resulting in carryover (hardware longevity)
- Excessive maintenance and/or calibration to achieve specified accuracy in a variety of environmental conditions (reliability)
- Wasted energy due to excessive blowdown to offset errors in steam drum level measurement (heat rate)
- Unreliable level indication during fast starts and cycling operations due to "shrink" and "swell" dynamics disrupting boiler circulation (availability and dispatch response)
- Steam leakage as well as maintenance costs associated with traditional sight gauges in continual operation

### SOLUTION

Magnetrol® technologies eliminate the variables in the steam drum level measurement equation to ensure your plant is available and responsive to fluctuations in market demand

- High degree of data certainty to better manage controllable losses: actual level measurement (versus inferred)
- Eliminate avenues for potential measurement errors: calibration, external corrections, process dynamics, ambient/environmental conditions affecting technology performance
- Reduce instrumentation hardware complexity, calibration requirements and lifecycle maintenance costs
- Leverage generations of Magnetrol experience/expertise when managing level in aggressive steam applications
- Meet code requirements while reducing potential safety and maintenance concerns with traditional sight gauges



### RESULTS

Improvement in key plant performance metrics and your plant's bottom line

- Enhanced availability, dispatch response, heat rate and hardware longevity
- Significant reduction in lifecycle maintenance cost associated with more traditional steam drum level controls
- Reduced front end engineering and design costs while implementing a modern level solution
- Enhance safety while meeting ASME BPVC requirements by eliminating unnecessary costs associated with sight gauge repairs (kits, shop time, downtime, etc.)