Industrial Turbine Cleaning – Without Disassembly

Today, there is just no reason to endure reduced turbine efficiency while you wait for a major outage or scheduled maintenance dismantlement in order to grit blast your fouled turbine. Turbines can be cleaned without disassembly and your efficiency can be back to design specs in as little as 3 days using a process that takes only 24 hours.

24 hours. No blade damage. No expensive tear downs. HydroChem has over 400 successful projects and more than 25 years of experience cleaning turbines without dismantling them. By injecting a patented chemical foam that is customized for your specific fouling and metallurgy requirements, we are able to clean compressors and turbines without disassembly. Turbine foam cleaning restores full efficiency in 24 hours, costs only a fraction of grit blasting, does not damage or cause pitting of blade surfaces, reduces your fuel cost, and reduces your total production costs per megawatt.

Protect Thrust Bearings
Overheated thrust bearings like this one are a costly symptom of steam pass fouling that can be eliminated with turbine foam cleaning.

Benefits
- Improved Extraction Steam benefits all processes
- Most industrial turbine projects take 24 hours or less of chemical circulation
- No blade damage
- Fastest ROI

Case Study - Spring 2011. An international customer’s turbine was failing and production was falling on a daily basis just 6 months after a previous supplier performed a disassembly and cleaning requiring a 12 day shut down. HydroChem was called in to resolve the problem and quickly mobilized a 5 man crew and a single shipping container complete with all the necessary equipment. Customized chemistry for removing heavy sodium scale deposits was shipped to the customer location.

After only six hours of chemical circulation using HydroChem’s TurbineFoam™ system, the turbine was placed back in service and steam flow was returned to design. The total cost savings to the customer of eliminating the cost of disassembly and rebuilding, plus the lost revenue of a down turbine, was a staggering twenty four (24) million dollars.

It should be clear that skill, resources, practical knowledge, and many years of real job experience are no match for a wrench and hammer. HydroChem has proven that when it comes to turbine cleaning, we are the preferred supplier.
Large Block Turbine Cleaning – Without Disassembly

Benefits

- Approved for use on GE turbines for copper deposit removal.
- Reduces fuel costs, and improves heat rate per kWh.
- Annual savings from reducing costs and increasing revenues can exceed $1 million.
- Restores up to 100% design capabilities.
- Turbines can be returned to service in five days or less.

Experience and proven results

- Complete research laboratory for deposit analysis and custom-formulation of highly effective foam chemistry.
- Mobile labs to monitor cleaning performance in real-time.
- Patented chemicals and equipment.
- More than 2,000 experienced professionals in over 60 locations dedicated to providing you with cleaning solutions.
- The industry’s largest, most diverse inventory of specialized cleaning equipment.
- Comprehensive planning and engineering.

If dismantling a small Industrial turbine is expensive, one can just imagine the time and costs associated with dismantling a Large Block turbine. So once again we say, why bother?

**Trust your turbine to right chemicals and put your tools away.** When we show up on the job, we have already analyzed your deposits and have the right chemical formulations prepared to attack your turbine fouling with the most aggressive cleaning agents possible. With extensive chemical cleaning experience and proprietary chemicals and delivery systems, we are confident that we can have you back online faster than any other steam turbine cleaning method in existence today.

The dedicated, skid-mounted TurbineFoam™ injection system ships easily, installs quickly and occupies a minimal footprint at your site. The patented two-inch injection valve ensures thorough cleaning by maintaining foam quality and reducing the risk of foam sheer. The injection system controls chemical content through all quadrants of the turbine inlet nozzle, and the large valve inlet provides ample flow for final steam rinsing.

**TurbineFoam™**

Supplier
GE Power & Water

HydroChem®

For more information please e-mail: sales@hydrochem.com
For corresponding case histories, visit our website at hydrochem.com