CONCO SYSTEMS
IN THE TUBE

SPRING 2008 / VOL. 4

UK's Ratcliffe Power Station Saves $200,000 Annually Following Unit 4 Condenser Clean!

Ratcliffe-on-Soar power station is a 2,034 MW coal fired plant located in Nottingham just north of London, England.

Performance engineers at Ratcliffe sought to improve declining condenser performance by utilizing an offline mechanical tube cleaning service provided by Conco Systems. The source of the condenser inefficiency was largely attributed to its online ball cleaning system being unable to remove accumulated macro-fouling and improve cooling water flow. Preliminary examination of the condenser revealed a large number of tubes were blocked with stones that had entered the cooling water intake as a result of a retaining wall breach.

A Real Challenge

Ratcliffe performance engineer Matt Leighton commented that the job would be a "real challenge" due to the fact that approximately 15-20% of the 19,100 brass tubes were blocked with stones. In addition to stones, the presence of metal inserts in both the inlet and outlet ends, many of which were damaged also compounded the problem. Owing to time constraints, Ratcliffe decided to leave the metal inserts in place and sought the assistance from Conco Systems to develop a cleaning plan to restore condenser performance.

Conco tube cleaning systems utilize safe, water powered tube cleaners that are propelled at 10-20 feet per second through the tubes at approximately 200-300 PSI. The tube cleaners are specifically sized to the tube dimensions to provide a full 360 degree clean of the tube. Because Ratcliffe tubes contained metal inserts, a custom version of the Conco QTB stainless steel brush was developed that would pass through the insert and fully expand to provide maximum cleaning benefit. In addition to utilizing tube cleaners, Conco technicians also utilized the systems water guns on the outlet ends to "pulse" and "surge" water dislodging stones at the inlet ends.

Ratcliffe-on-Soar Power Station

The Conco QTB was selected to clean Ratcliffe tubes based on its ability to remove both micro and macro fouling deposits and its inherent flexibility allowing it to effortlessly pass through inserts. The QTB has over 1,000 points of cleaning contact and is designed and manufactured at Conco's Verona, Pennsylvania facility.

Over £100,000 Annual Savings on Unit 4

Following the four day cleaning at Ratcliffe, performance engineer Matt Leighton wrote Conco with the following comments, "We have seen the unit return showing a 3 – 4 mbar improvement in back pressure at full load (520 GEN), which means the unit has hit its target vacuum (with a CW inlet temp of 20˚C) for the first time in many years! A 3 mbar improvement equates to about £100,000 a year saving in efficiency/fuel costs alone (based on a 60% utilisation) which is excellent considering that U4 was not a particularly bad performer. We will continue to monitor the performance and measure the rate of decay in efficiency and I will keep you informed over the next few months."

Extraordinary Return on Investment

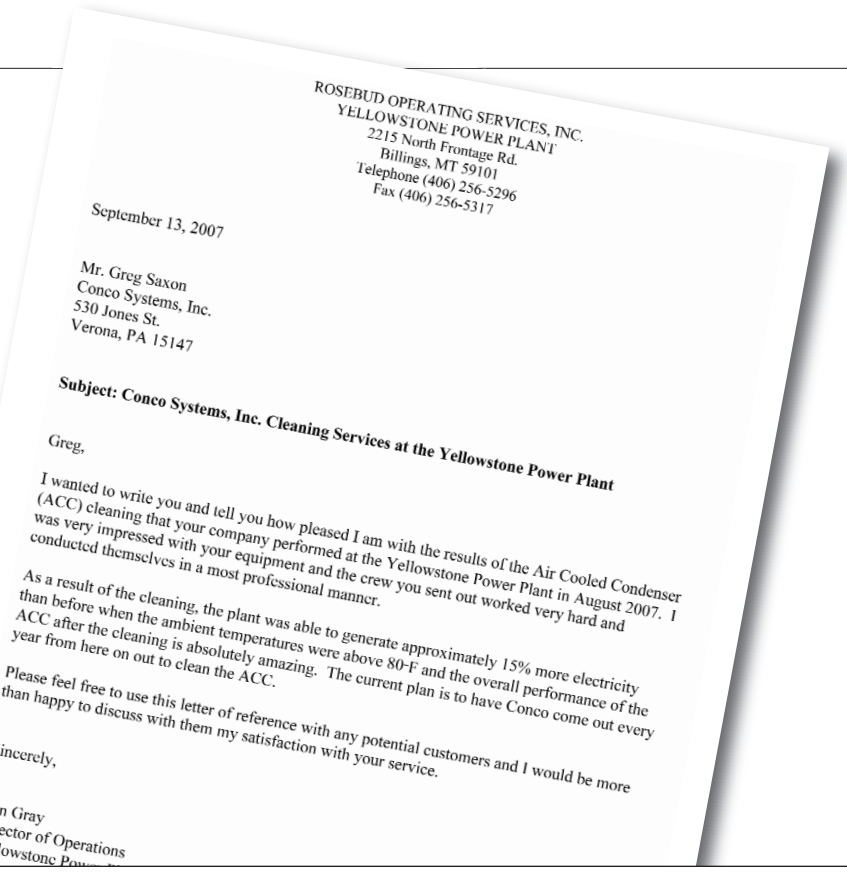
Based on the cost of cleaning and the annual savings realized by Ratcliffe power station, the expected return on investment is estimated to be 384%! For more information on how Conco Systems can help you achieve your performance goals, contact us today!

Kudos From a Customer

Conco Systems received the letter to the right from Mr. Dan Gray, Director of Operations at Yellowstone Power Plant in Billings, Montana.
Thank you, Mr. Gray, for the kind words.

The Conco-j&w™ Air-cooled Condenser Cleaning System for any fin-fan, air-cooled condenser or heat exchanger has been successfully used on fins fouled with dust, dirt, debris, pollen, leaves, insects and even bird and bat carcasses. The System has been used in power plants, petrochemical plants and process industry plants in the U.S., Mexico, Europe and the Middle East.

More effective than hand water lance, foam wash or fire hose, the System can clean up to 325 square feet per hour and is safe, with no personnel on scaffolds or exposed to hot, humid conditions during operation.



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September 13, 2007

Mr. Greg Saxon
Conco Systems, Inc.
530 Jones St.
Verona, PA 15147

Subject: Conco Systems, Inc. Cleaning Services at the Yellowstone Power Plant

Greg,

I wanted to write you and tell you how pleased I am with the results of the Air Cooled Condenser (ACC) cleaning that your company performed at the Yellowstone Power Plant in August 2007. I was very impressed with your equipment and the crew you sent out worked very hard and conducted themselves in a most professional manner.

As a result of the cleaning, the plant was able to generate approximately 15% more electricity than before when the ambient temperatures were above 80-F and the overall performance of the ACC after the cleaning is absolutely amazing. The current plan is to have Conco come out every year from here on out to clean the ACC.

Please feel free to use this letter of reference with any potential customers and I would be more than happy to discuss with them my satisfaction with your service.

Sincerely,

Dan Gray
Director of Operations
Yellowstone Power

Upcoming Events

- **Electric Power 2008**
  Baltimore, MD
  May 6-8
- **Electric Utility Chemistry Workshop**
  Champaign, IL
  May 6-8
- **PowerGen Europe**
  Milan, Italy
  June 4-6
- EPRI Balance of Heat Rate Exchange NDE Symposium,
  San Antonio, TX
  June 16-18

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ADDRESS SERVICE REQUESTED

This is Conco

■ Established in 1923

■ Recognized worldwide for "Absolutely the Best"

- Condenser Tube Cleaners
- Tube Cleaning Services
- Air Cooled Condenser Cleaning
- Tracer Gas Leak Detection
- Eddy Current Testing
- Support Services

■ Manufacturer of a wide variety of state-of-the-art equipment that includes tube cleaners, tube cleaning systems, hydrodrills, air-cooled condenser cleaning services and testing instruments engineered to keep you productive and efficient

■ Headquartered in the United States, with offices and representatives throughout the world:

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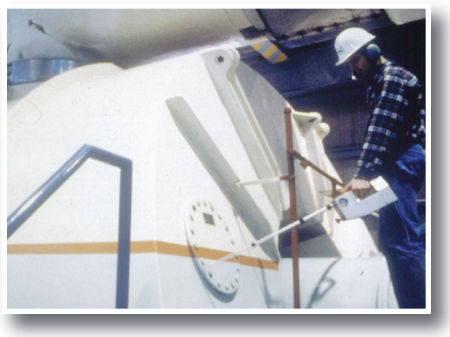
Pre-Outage Planning

Focus on Condenser Efficiency and Reliability with Conco!

A main reason for planned outages is to reduce the likelihood of unplanned or forced outages during peak demand. Reestablishing efficiency and ensuring reliability are key objectives during maintenance periods and Conco can be a major contributor to fine tuning your condenser related requirements. In addition, Conco operates 24/7 so achieving your goals can be easier than ever. Take a moment to review your upcoming requirements related to the following key areas;

Focus: Condenser Efficiency

It has been shown that the single largest return on investment for power plants maintenance dollars is in condenser cleaning. Conco customers have seen returns exceeding 500 – 1000%. Conco tube cleaning technology has restored condenser efficiency where online ball cleaning has failed. In addition, Conco has removed tons of calcium carbonate where all other methods could not. Our tube cleaning system is fast and safe for all tube materials. We can be scheduled for condenser cleaning for mini-outages as well. Taking the condenser down for a few days? Call Conco! We can quickly mobilize to meet YOUR schedule.



Focus: Leak Detection

When it comes to leak detection, Conco literally "wrote the book". Our participation in establishing condenser in-leakage guidelines for EPRI in January 2000 established Conco as a thought leader in condenser leak detection. Did you know that Conco also introduced the use of SF_6 to the US market for the use in condenser tube leak detection? As a result, Conco is the only provider of continuously sampled SF_6 leak detection which enables them to find tube leaks as small as one gallon per day! Whether you're tightening up your vacuum boundary or sourcing a single leaking tube among thousands, Conco has more experience and know-how than anyone!

Focus: Eddy Current Testing

Conco's eddy current testing department can ensure that your heat exchanger tubes are reliable for your next operating cycle. Prevention of forced outages due to tube leaks is one of the key goals of Conco ECT. Our staff of highly trained technicians are certified to ASNT SNT-TC-1A guidelines ensuring the data provided is accurate and industry standard. In addition, Conco technicians have completed the EPRI data review & balance-of-plant review, as well as Zetec's training on data analysis.

Our full color eddy current report will provide you with everything you need to determine which tubes to plug to avoid a leak related outage. Our eddy current testing service literally pays for itself by eliminating the downtime you would face if you don't test!

Conco Systems is the world leader in condenser related cleaning services and non-destructive testing technology related to the power generation sector. Our staff is available to take your call 24 hours a day and we can mobilize when you are ready!

Conco Offers Liquid Nitrogen Cleaning

Conco Systems' Industrial Services Division (formerly Global Heat Exchanger Services) and Nitrocision, LLC have entered into a strategic partnership allowing Conco exclusive use of Nitrocision's liquid nitrogen cleaning technology in connection with its industrial cleaning division. This new cleaning service, termed NitroLance™, will be added to Conco's already successful HydroDrill and Conco Tube Cleaning services.

With a focus on cleaning fouled heat exchanger tubes at refineries, petrochemical and other industrial sites, NitroLance™ will offer customers the ability to clean heat exchanger tubes with the same technology that is being used by NASA to peel layers of a protective substance off the space shuttle. "The system is powered by liquid nitrogen which is chemically inert and rapidly converts into a gas. It virtually eliminates cross contamination and secondary waste streams which are crucial for many industries," says Javier Suarez, General Manager of Conco's Industrial Service Division in Houston, Texas.

Available to customers beginning March, 2008, Conco expects NitroLance™ to open doors in industries beyond its large power generation customer base and include catalyst loading, chemical manufacturing, refining, pharmaceutical manufacturing and more. The fact that the nitrogen gas cleans without the need for water and leaves virtually no residue is a boon to these industries where cross contamination precludes them from using faster and less expensive cleaning methods.

Your 24/7 Service Team

Excellent customer service skills are just some of the skills used by:

- **Chadd Painter – Operations**
- **TJ Emanuele – Operations Manager**
- **Joe Casciato – Operations Coordinator**
- **Sheena Allenberg - Travel Coordinator**
- **Deena Jaronski - Travel Coordinator**
- **Rick Fiore - Operations**

It's 3 am and Unit 1 has just been brought down for an unplanned outage. In addition to turbine issues, condenser backpressure is high and performance engineers decide to call Conco Systems' 24 hour service line to see if a condenser clean would be possible in the next 48 hours.

The Conco Services team, directed by Vice President, Regina Godish, is available 24 hours a day to deliver a Conco crew to a customer site immediately upon request to satisfy their needs. From expediting travel arrangements to making sure the correct equipment is packed and ready to go, our service team is second to none. Our team is self-motivated, energetic, customer service oriented with a can-do attitude no matter what the requirement.

A Day in the Life

The second an order or inquiry is received from one of our valued customers, whether it is a phone call, fax or e-mail, the process begins. TJ Emanuele reviews and discusses all plant needs and requirements with director Regina Godish and coordinator Joe Casciato. Down the hall, Travel coordinators Deena Jaronski and Sheena Allenburg begin checking flight availability for the crew (if required), sourcing satisfactory overnight accommodations, printing detailed driving directions, and obtaining any necessary transportation. Finally, Chadd Painter and Rick Fiore start the task of getting all the necessary equipment assembled and packed for the trip to the job site.

This team works closely together making sure nothing is left undone to help the crews perform "absolutely the best" work possible for our valuable clients 24 hours a day!

Conco Debuts HVAC Equipment in New York and Texas

Conco unveiled exciting new HVAC and maintenance equipment in January at the AHR Expo in New York City's Jacob Javits Convention Center. The AHR Expo is the largest Heating, Ventilation, Air Conditioning and Refrigeration event of the year. An international event, it is attended by over 50,000 contractors, engineers, facility managers and manufacturers. Over 1,800 exhibits introduced new products, solutions and technologies that the HVAC&R professionals will incorporate in their business for 2008 and beyond. Conco was represented by George Saxon, Jr., Lou Cervi and Derek Gionta. The new Conco 1000 and 4000 Pressure Washers were featured with all the optional accessories. The Conco Excaliber Rotating Flexible Shaft Tube Cleaning Machine and the Mitee Mouse Tube Cleaning Drill were also on display. An attractive series of new exhibit panels produced by Conco's marketing staff highlighted the presentation of Conco's product line to show visitors.

Next up was the Linc Continuing Education and Vendor Showcase held in February in Dallas, Texas. Conco exhibited at this informative event attended by nearly 800 visitors, including service contractors and various levels of Linc management. The Linc Mechanical Service teams lined up to view the 2008 product lines of their national HVAC vendor partners. Derek Gionta and Lou Cervi discussed the features and benefits of all the Conco products with each visiting group.

Both events exceeded expectations and produced the type of excitement that will soon produce very positive results for Conco.