



CONCO SYSTEMS

IN THE TUBE

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A Quad Cities First and Trouble in Trinidad; Customer Kudos for Conco Leak Detection

Conco's leak detection division has been receiving high praise from our customers, and we are pleased to present a sample of their comments. The first is an email received from Vicki Neels, Chemistry Manager of Exelon's Quad Cities Generating Station. Quad Cities is an 1,824MW BWR nuclear power station located just four miles north of Cordova, Illinois.

One of Quad Cities performance indicators is the amount of noble effluents (radioactivity released to the environment) present in the off-gas flow leaving the main chimney. During a recent weekend downpower, Conco leak detection crews performed an air ingress leak detection survey which located the source of a significant off-gas inleakage on Unit 1. Subsequent repairs to correct the leak reduced the off-gas flow rate from approximately 75 scfm to approximately 21 scfm according to Ms. Neels.

Regarding unit improvement following repairs, Vicki writes "the overall result is expected to reduce the noble gas effluents substantially in the future. As a result, in 2009 it is possible to achieve second quartile performance goals, which would be a first for Quad Cities Station... For the station to be in a position to achieve this is a tremendous accomplishment, and we wanted to thank everyone at Conco involved in this effort!"

Another email received by one of our customers was from Albert De Freitas, O&M Engineer at the PowerGen PoS plant in Port of Spain, Trinidad, regarding a condenser tube leak. Mr. De Freitas reported that their boiler chloride content spiked from 30ppm NaCl to a high of 46ppm NaCl.

Conco performed a condenser tube leak inspection at the plant, locating sources of circulating water inleakage. After repairs were made, chloride content levels were re-measured showing they fell to 8ppm NaCl. Before and after col-



Conco technician conducts condenser tube leak inspection.

umn condensate conductivity indicators read 0.53 Dionic Units (D/U) and 0.40 Dionic Units (D/U) respectively.

Albert writes "your crew completed the job on Unit 2 condenser yesterday afternoon, and the results show that the ingress of chlorides into the boiler has stopped. I wish to commend them on their effort and express my deepest appreciation for a job well done."

All of us at Conco appreciated reading letters and emails from our customers with reports of quality service provided by our crews in the field. Please keep them coming!



Quad Cities Generating Station, Cordova, Illinois.



PowerGen Power Plant, Port of Spain, Trinidad.



Conco's Leak Detection Division, from left, Anthony La Porte, Division Director (30 years), Harold King, Sr. Crew Chief (20 years), Walter Schlaile, Crew Chief (2 years), Andy Leavitt, Sr. Crew Chief (25 years), Joel Portillo, Crew Chief (10 years), Wayne Holt, Sr. Crew Chief (28 years).

Introducing Conco's "Chiefs" of Detection

Did you know that Conco's Leak Detection Division, which pioneered the use of tracer gas for air inleakage and condenser tube leakage inspections more than 30 years ago, is headed by a senior staff averaging about 20 years experience each? The Division has performed well over 20,000 condenser air inleakage and condenser tube leakage inspections in the United States alone. They have also performed leak detection inspections in Australia, Chile, Brazil, Japan, Korea, Canada, Wales, Scotland, Poland, Germany, France, India, Trinidad-Tobago, Puerto Rico, Mexico, Dominican Republic and England.

The Division is the world's leading supplier of both SF₆ (world exclusive) and Helium tracer gas leak detection services.

In addition to those services, the Leak Detection Division manufactures the Fluorotracer™ Analyzer, which utilizes SF₆ as the tracer gas. The Division can provide complete Fluorotracer and Helium Leak Detection Systems to generating stations throughout the world along with the requisite training to guarantee a successful in-house leak detection program.

Corporate and Division management personnel have extensive backgrounds involving the technical, as well as practical, aspects of leak detection in the power generation industry. Division director Anthony La Porte, for example, has successfully completed training and testing in radiation worker practices at various nuclear facilities throughout the United

States. He is past Chairman of the Personnel Qualification Committee for the Leak Testing Division of the American Society for Nondestructive Testing (ASNT) and is an active member of the American Society of Mechanical Engineers (ASME). Mr. La Porte served on an Electrical Power Research Institute (EPRI) task force for the development of guidelines for condenser inleakage at generating stations resulting in EPRI Final Report – January, TR112819, Condenser In-Leakage Guideline. He is the author of "The Practical Application of SF₆ and Helium for Condenser Tube and Air Inleakage Detection."

All this adds up to the fact that Conco's Leak Detection Division is, "Absolutely the Best."

Showtime for Conco

■ **Energy Generation
Conference**
Bismarck, ND
January 27-29

■ **EPRI Heat Rate
Improvement Conference**
Albuquerque, NM
February 3-5

■ **Cooling Technology
Institute Conference**
San Antonio, Texas
February 8-12, 2009

Conco Systems, Inc.
530 Jones Street
Verona, PA 15147 USA
www.concosystems.com

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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:

WORLD HEADQUARTERS

CONCO SYSTEMS, INC.
530 Jones Street
Verona, PA 15147
USA
Toll Free: 1-800-345-3476
Tel: 412-828-1166
Fax: 412-826-8255
Email: info@concosystems.com
www.concosystems.com

EUROPE

CONCO SYSTEMS SPRL
Rue Riveline 42/3
B-1428 Lillois
Belgium
Tel +32.2.386.46.86
Fax +32.2.386.46.89
Email: infoeurope@concosystems.com

AUSTRALIA and SOUTHEAST ASIA

CONCO SYSTEMS PTY LTD
PO Box 594
Raymond Terrace
NSW 2324
Australia
+61 2 4987.7200
Fax: +61 2 4987. 7266
Email: sales@concosystems.com.au

Conco Exhibits at Major Conferences



Conco at Power Plant Summit 2008.



Conco at PowerGen Asia.



Conco at Process CEM Asia.



Conco at PowerGen International.

Conco Systems was represented at four major conferences recently, with exhibit booths at Power Plant Summit 2008 in New Delhi, India, PowerGen Asia in Kuala Lumpur, Malaysia, Process CEM Asia in Singapore and PowerGen International in Orlando, Florida.

POWER PLANT SUMMIT 2008 serves as a platform for Indian government leaders to announce targets and plans for the power generation market. The latest ideas and developments involving the power industry are discussed in conference sessions. The attendees visited the booths of the many international companies.

POWERGEN ASIA is considered the region's most important event for the power generation and transmission and distribution industries. The increase in demand for electricity in Malaysia is forecast at 7.8% per year to reach over 20,000 MW in 2010. Malaysia is part of the ASEAN region undergoing extraordinary growth in the demand for power and energy, with over US\$50 billion estimated investment required to meet current demands.

PROCESS CEM ASIA is the first international exhibition and conference for the process industry in the areas of plant construction, engineering and maintenance. Held in Singapore, the region's chemical hub, the event was organized by the Association of Process Industry (ASPRI) as an initiative to help the process industry ride on the tremendous growth being experienced in the global arena.

POWERGEN INTERNATIONAL is an annual conference and exhibition designed to share practical experiences, knowledge and ideas on the latest power industry trends and challenges. More than 17,000 industry professional from 76 countries attended this 20th anniversary staging of the event, held this year in Orlando, Florida at the Orange County Convention Center. In addition to the many conference sessions, attendees could visit more than 1,200 company exhibits on the world's largest industry exhibit floor.

New Record set for Conco cleaners



Conco technician "shooting" condenser tubes.

These C45 tube cleaners are among the many varieties and configurations of metal-bladed tube cleaners designed to tackle even the most difficult types of deposits.

2008 was a record year for Conco tube cleaners being manufactured and shipped, breaking our previous record set in 2004. The record includes those C2S, C3S, C4S, C2X, C3X and Stainless Brush cleaners shipped to domestic and international customers, in addition to the cleaners used by our own Conco crews in the field.

Durable, fast and effective, Conco metal-bladed tube cleaners are spring-loaded, configured to meet any customer's tube specifications and can be used over and over again. Their heads are color-coded

to distinguish size and specially designed to control cleaner travel and speed. Whether the task is to remove hard deposits, all types of obstructions, corrosion, or pitting by-products, there is a Conco Tube Cleaner that will do the job!

We thank our many employees who made the new record possible, from Engineering to Manufacturing to Shipping and to our Technicians in the field, as well as our Customers who place their confidence in Conco products and services.

1-2% Heat Rate Improvement Following Condenser Tube Cleaning

"We are all fired up about efficient energy" says a brochure from the E.ON Zolling power plant, located northeast of Munich, Germany. Zolling is serious about this statement and has partnered with Conco Systems to increase performance of their power plant utilizing exclusive tube cleaning technology and services developed by Conco.

Zolling is a modern coal fired power plant online since 1986 with a net output capacity of 449 MW and is equipped with state-of-the-art environmental protection technology including firing lignite, flue gas purification and dewatered sewage sludge systems.

E.ON selected Conco Systems based on its extensive experience in the power generation industry and reputation for condenser cleaning innovation. Conco Systems' history in mechanical heat exchanger cleaning dates back to 1923, and is the world leader in offline mechanical heat exchanger tube cleaning services. The condenser cleaning services were provided by the

European office of Conco, located in Brussels, Belgium. Conco provides worldwide heat exchanger services through offices in Europe, North America, South America, Asia and Australia.

Starting on 15 September 2008, Conco technicians commenced the cleaning of the 40,000 brass tubes at the Zolling plant. Access to the tubes was available through four water boxes. Utilizing safe 20-25 bar water pressure, the Conco crew propelled Conco brand tube cleaners through the tubes removing accumulated tube fouling. Cleaning operation on the condenser tubes as well as additional heat exchangers onsite was completed in less than seven days.

Zolling performance engineers report a 1 - 2 % improvement in unit heat rate as a result of using the Conco technology. A 2% improvement in heat rate can mean a savings on coal consumption alone of over €1,000,000 annually for a typical 500 mw unit. Additional benefits include reduced carbon emissions and increased megawatt output for Zolling.