

Conco Services Corp

Conco Services' Leak Detection Division

has pioneered the technique for using tracer gases to leak test main condensers in power stations and has been the leading supplier of this service since 1978. Using a mass spectrometer and helium gas or the CONCO-developed Fluorotracer™ Analyzer and SF6 tracer gas, we can detect air or water "inleakage."

Main Condenser Testing

Air Inleakage

Using a mass spectrometer or the CONCO Fluorotracer™ Analyzer, we can locate virtually all sources of condenser air in leakage. Coupled with an aggressive repair effort, this leakage can be eliminated quickly and efficiently. Additional features:

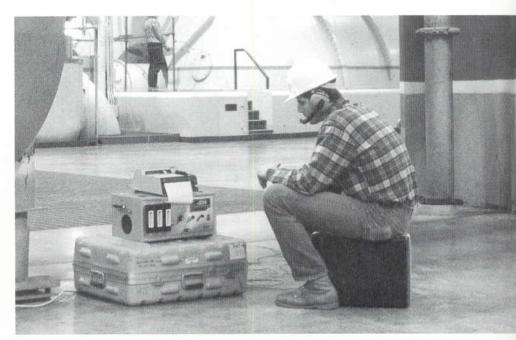
- · Performs efficiently with unit operating at power
- Performs more reliably than other methods, as tracer gas must pass through an actual leak path to be detected
- Reduces system back pressure for increased operating efficiency
- · Reduces dissolved oxygen concentrations in the boiler feed water, protecting steam generators and preventing turbine blade pitting
- · Satisfies INPO (Institute of Nuclear Power Operations) requirements

Cooling Water Inleakage

With the CONCO Fluorotracer™ Analyzer and SF6 tracer gas,

leaking condenser tube bundles can be identified while in service. This feature presents a tremendous savings to plants that otherwise must down-power to take tube bundles out of service. In BWR (boiling-water reactor) stations, there is also a significant reduction in radiation exposure resulting from reduced testing of non-leaking tube bundles. Additional features:

- All types of leaks readily identified, including tube leaks, missing or defective plugs, tube-to-tube sheet leaks, faulty water box mounts
- Hands-on inspection performed with unit near its peak generating capacity
- More accurate and reliable than other inspection methods



Conco's Leak Detection Division provides services to the following customers:

Alabama Power Alcoa Aluminum Allegheny Power Appalachian Power Atlantic Richfield ARCO Arizona Public Service Atomic Energy of Canada Ltd. Arkansas Power & Light Associated Electric Corporation City of Garland Babcock & Wilcox

Baltimore Gas & Electric Brazos Electric Board of Public Utilities Bechtel Construction Co. Carolina Power & Light Central Hudson Cincinnati Gas & Electric City Public Services Cleveland Electric

Coastal Aruba Refining Co. Columbus & Southern Ohio Combustion Engineering Commonwealth Edison Con Edison Connecticut L&P Consumers Power Dayton Power & Light Delmarva Power Detroit Edison

Duke Power Duquesne Light Electric Energy Inc. Ebasco Florida Power & Light General Electric Georgia Power **GPU Nuclear** Gulf States Utilities **HB Zachry Company**

Hoosier Energy Houston Light & Power Indiana & Michigan Illinois Power Industrial Generating Inland Orange Iowa Electric & Light Jacksonville Electric Jersey Central Power & Light Kansas City Power & Light

Kentucky Power Kentucky Utilities L. A. Dept. Water & Power Lansing Board Water & Light Long Island Lighting Co. Louisiana Power & Light Lower Colorado River Authori Maine Yankee Metro Edison Midland Cogeneration

Main Electrical Generator Testing

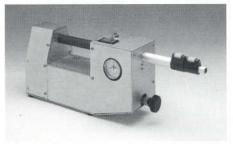
Hydrogen Cooling Systems

Use the mass spectrometer, or the Conco Fluorotracer™ and SF₆ tracer gas to leak test main generator hydrogen cooling systems. The equipment identifies all leaks in the system and prevents dangerous hydrogen gas releases during operation. Inspection is normally performed with the system purged of hydrogen and the generator on turning gear.

Perform leak tests with the system fully charged with hydrogen (generator on turning gear). Sulfur hexafluoride is used for this inspection. The amount of SF₆ used will not compromise the hydrogen gas concentration.

Stator Water Systems

A leak test of the stator water system using a tracer gas can identify any leakage, so that when repaired, no water is discharged into the stator windings during operation.



CONCO SF₆- PAK



CONCO Fluorotracer™ Analyzer

System and Training

CONCO provides both turn-key mass spectrometer and CONCO Fluorotracer™ Analyzer leak detection systems. CONCO also offers complete field training in using tracer gases for leak detection in power stations. This program covers:

- How to use tracer gas leak detection
- How and where to look for leakage
- How to properly operate, maintain, and integrate a gas tracer leak detection system

Nuclear Steam Generators

CONCO developed the technique for leak testing steam generators with helium gas. A leak test using helium gas can supplement and reduce the scope of a proposed eddy current test program. Other benefits:

- A helium leak test quickly and positively identifies large leaks. In a critical path situation, an eddy current program can be minimized and the unit returned to service with minimal revenue losses.
- A helium leak test can also locate smaller leaks often difficult for eddy current to identify because of their shape and/or location.

Ventilation Studies

CONCO can also use helium gas to:

- Accurately measure air flow in ventilation ducts
- Characterize effluent releases
- · Validate duct flow samples

Universal Test Labs

Utah Power & Light

Overview

Long recognized throughout the power industry for quality cleaning of condensers and heat exchangers, Conco has both integrated system and service capabilities for enhanced operation and maintenance practices. Applications of technology exclusive to Conco add value to your cleaning, inspection, and monitoring programs for cooling and service water systems.

The company is comprised of three divisions: (1) *Systems*, providing the manufacture and sale of products; (2) *Services*, field services employing qualified personnel for supervision or turnkey project work at your site; and (3) *Consulting*, applied technologies incorporating the use of our consultants, engineers, equipment and software for the resolution of deposition, corrosion, failure and performance concerns which you may incur.

In specific, CONCO offers:

- Tube Cleaning
- · Deposit Sampling
- Eddy Current Testing
- Tube Failure Analysis
- Tube Plugging
- Deposition Monitoring
- Corrosion Testing
- Performance Software
- Process Modeling
- Optimization Studies

And now... Leak Detection Services

