GREENBANK ENERGY SOLUTIONS INC

LA 202 Acoustic Leak Detection System

Acoustic steam leak detection for your HRSG

The Greenbank LA 202 Acoustic Leak Detection System is the longest standing system of its type available. Since 1974 there have been over three-hundred systems installed worldwide.

The modular, expandable system has been designed to meet virtually every application requirement for performance and economy.

Research has proven that true acoustic measurement of sound level in a confined space is more accurate through a wider band width than indirect piezo measurement. However, to provide the ultimate system flexibility, Greenbank can provide either airborne or structure borne sensors as the application requires.

Damage to steam and water piping systems by corrosion, thermal-mechanical fatigue, or slagging have long affected conventional coal-fired boilers. HRSG designs can be affected by some of these issues as well, causing unscheduled outages and lost revenue. A well-designed acoustic leak detection system enables operators to continually monitor and trend real-time performance of various systems in the unit and provide early detection of a potential problem. Strategically placed sensors enable operators to safely determine the location of a leak or malfunction and schedule required maintenance based on severity. The modularity of the LA202 system allows for additional points to be added at any time with minimal cost and effort.

Typical Applications

Boiler Tubes
Superheater/Reheater
Main Headers
Waterwalls
Attemperators
Isolation Valves/Relief Valves
Pipeline Flow / No Flow

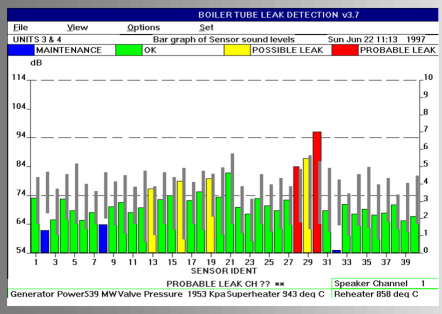
Airborne Sensor

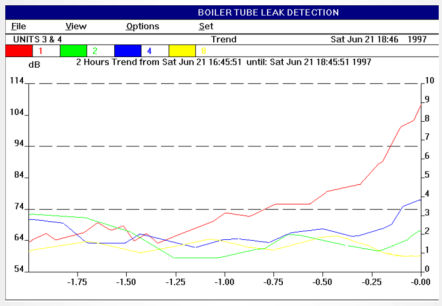
A True Acoustic Microphone
Dual Output
4 mA to 20 mA DC
0 mA to 10 mA AC Remote Listening
Range - 54 dB to 114 dB
Capable of detecting a .10” leak from 40 Ft
Waveguide mounted
Internal Test Element
Individually Calibrated
Optional Waveguide Air Purge

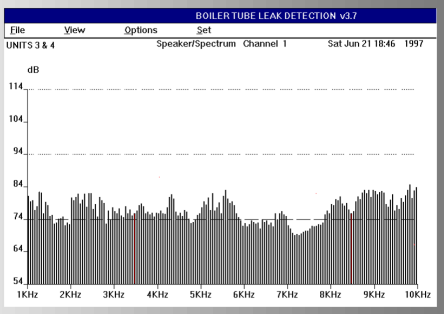
Structure Borne Sensor

Piezo Sensor
Dual Output
4 mA to 20 mA DC
0 mA to 10 mA AC Remote Listening
Range - 74 dB to 114 dB
Clamp, Plate, or Waveguide Mounted
Internal Test Element
Individually Calibrated

Monitor and Trend Real-time







System Features

Acoustic Sensors function in positive, negative, or balanced draft furnaces
System Output Signals are filtered for direct DCS connection
Signal Scale is Logarithmic for greater dynamic range:
1000 Times Change in Magnitude
Internal test elements for total system dynamic testing
Totally Modular for easy system expansion

Accessories

Waveguides
Field Mounted Junction Boxes
Field Mounted Termination Panel
Multi-core Cable
Control Room Acoustic Monitor

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