The need for a comprehensive inspection of boilers has evolved over the past years due to both safety and capital budget concerns. The basis of the majority of the Boiler Useful Life Studies [BULS] was to establish in a "snapshot" both the engineering data needed to run a power or heating boiler safely and the need to determine when to plan the replacement or repair of these units.

The inspection of each boiler is unique to its design and end usage, but encompasses both nondestructive testing and the determination by National Board Commissioned Inspectors of the relevance of any uncovered flaws. It is essential that the inspection team be comprised of both ASNT Level III Nondestructive Testing Technicians who understand “how to look”, and National Board Commissioned Inspectors that can determine “where to look”. The detection of discontinuities that can affect boiler safety is based on these two critical components working seamlessly.

Once the relevant information is gathered from the on-site inspection, the data can be compared to original construction data in most cases. Often the National Board of Boiler and Pressure Vessels data base can supply original manufacturers’ data sheets, or the information is available in our Boiler Useful Life Study data base.

Blisters on furnace tubes often indicate loss of thermal transfer.
The result of this loss of heat transfer often leads to “in-service failure”.

In many cases heavy scale reduces the tube diameter and insulates the tube.
The use of Nondestructive Testing in critical areas is key to confirming flaws.

The Boiler Useful Life Study is a blend of experience and technical skill.