

Boiler Machinery and Process Industries

ESI's Boiler Machinery and Process Industries Department consists of senior engineers with extensive experience in utility and industrial power generation, petrochemical processing, and other heavy industrial engineering and manufacturing concerns. Prior to joining ESI these engineers gained their experience in previous technical and senior management positions at large national and international Fortune 500 companies, major Federal organizations, or independent research laboratories including:

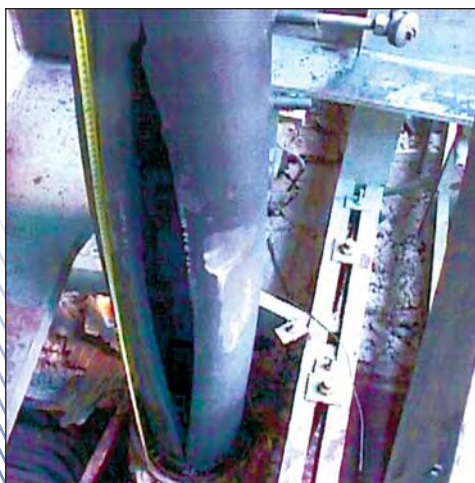
McDermott International
(Babcock & Wilcox)
Argonne National Lab
Chicago Bridge & Iron
United States Navy
Dow Chemical
Cunningham IAP Americas
IIT Research Institute
ONDEO/Nalco Chemical
International Harvester
Bodycote Taussig Labs
Stone & Webster
CH&A Corporation
Gulf Oil
E.I. DuPont



Petrochemical Plant Explosion



ABOVE: Collapsed sulfuric acid tank (photo from the Delaware-on-line News Journal). Smaller photo shows the uplifted floor due to the internal deflagration.

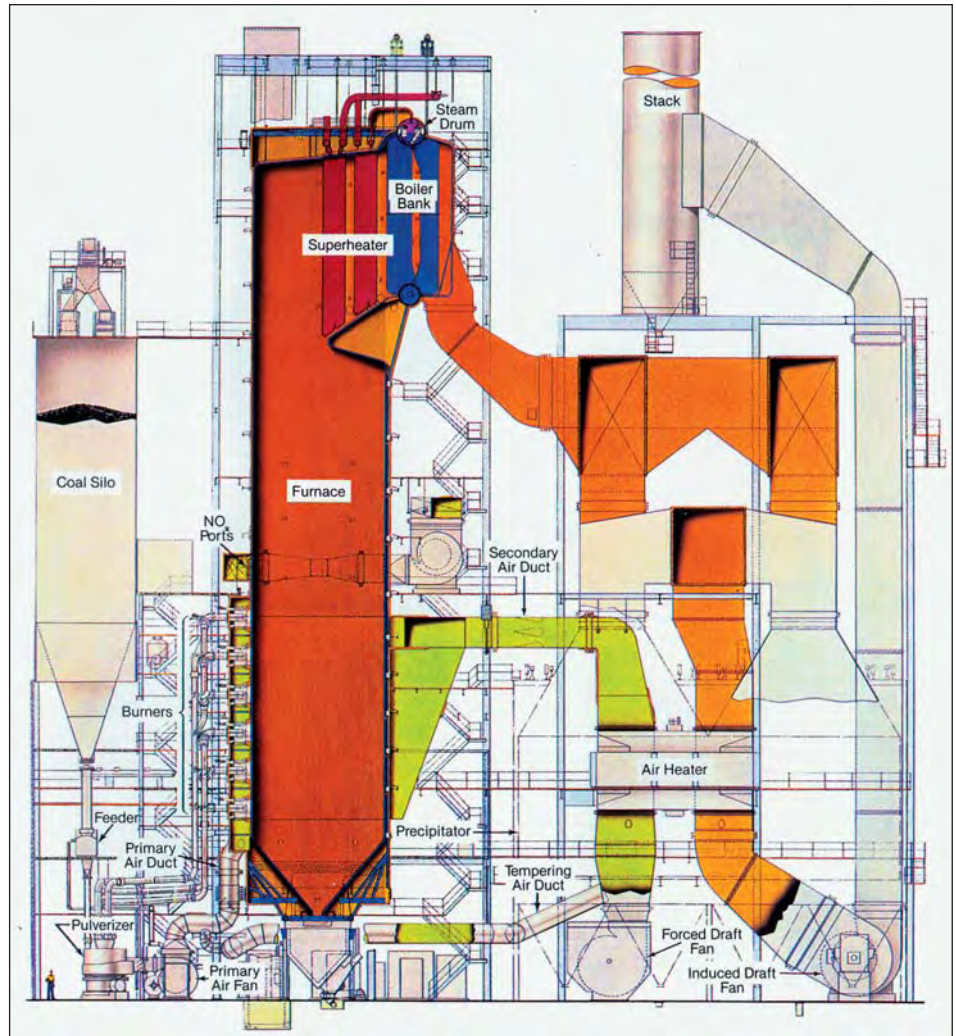


LEFT: Main steam line creep rupture (approx. 10 feet long) at a large fossil utility plant. ABOVE: The SEM photo shows the dimpled fracture/void formation indicative of this type of failure.

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The knowledge obtained from prior job responsibilities includes the precise technical understanding of complex industrial systems, multi-discipline project management, and detailed training, safety, and equipment maintenance requirements. In addition, the senior engineers gained experience interacting with other organizations and professions, such as, government regulatory agencies, professional codes and standards committees, legal professionals, accountants and financial professionals, other organization's engineers and managers, labor organizations, sub-contractors, etc.

Large coal- and oil-fired two-drum Stirling® power boiler (from the 40th edition of Steam: its generation and use – Babcock & Wilcox Co.)



Previous responsibilities of members of the Boiler Machinery and Process Industries Department include:

- Large Fossil Fueled Utility and Industrial Boilers
- Nuclear Commercial and Defense Reactors and Steam Generators
- Water Chemistry
- Petrochemical Vessels and Storage Tanks
- Turbo Machinery
- NASA Space Shuttle Program
- Oil Refining
- Offshore Oil and Gas Platforms
- Natural Gas and Oil Pipelines
- Chemical Manufacturing
- Primary Metal Mills
- Cryogenic Systems
- Explosion, Fire, and Toxic Chemical Safety Programs
- Surface and Sub-Surface Propulsion Systems

Providing Clear Answers Through Insights and Multidisciplinary Excellence

Assignments vary from national disasters to simple evaluations. We address complex issues with a multidisciplinary approach and the sharing of knowledge. Add to that research specialists, laboratories, test facilities, first-class modeling and graphics, and you have the best advice and support available in this industry...right here at ESI.

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