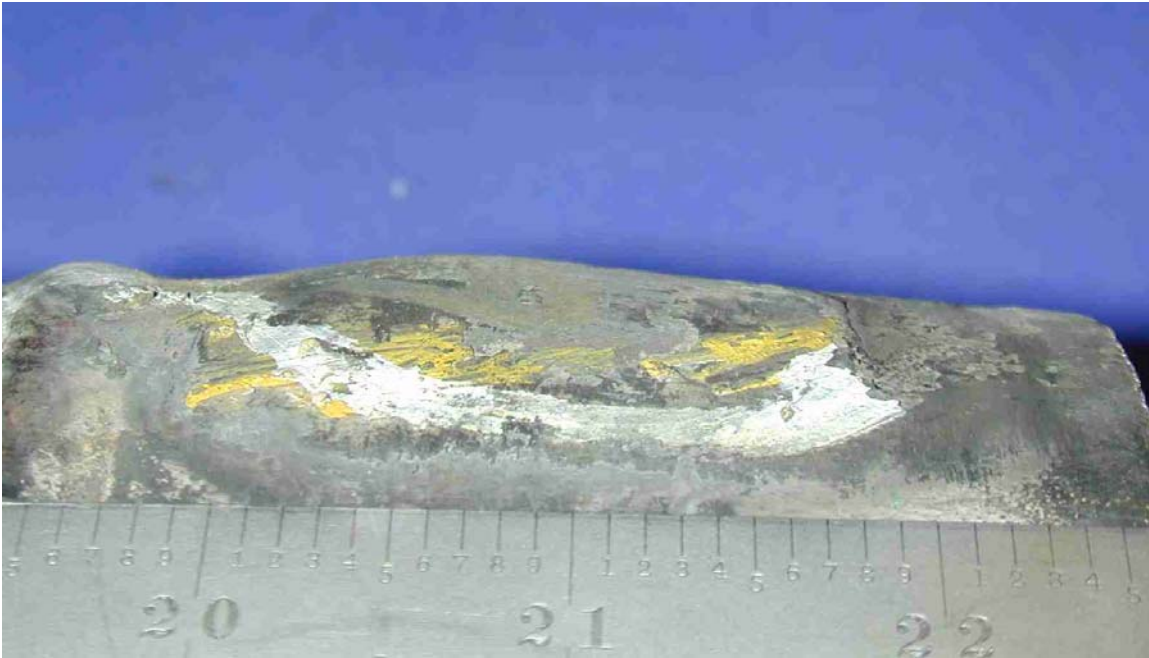


M&M Engineering's Boiler Tube Failure Handbook



Deformation—Bulging



Locations	Waterwall
Boiler Type	Power
Industry	Pulp and Paper

Appearance	Bulging tube adjacent to field weld
Mechanism	Long term overheat
Comments	Boiler tube material has been deformed due to very heavy deposits on the inside of the tube that insulate the tube metal from the boiler water and cause overheating.

