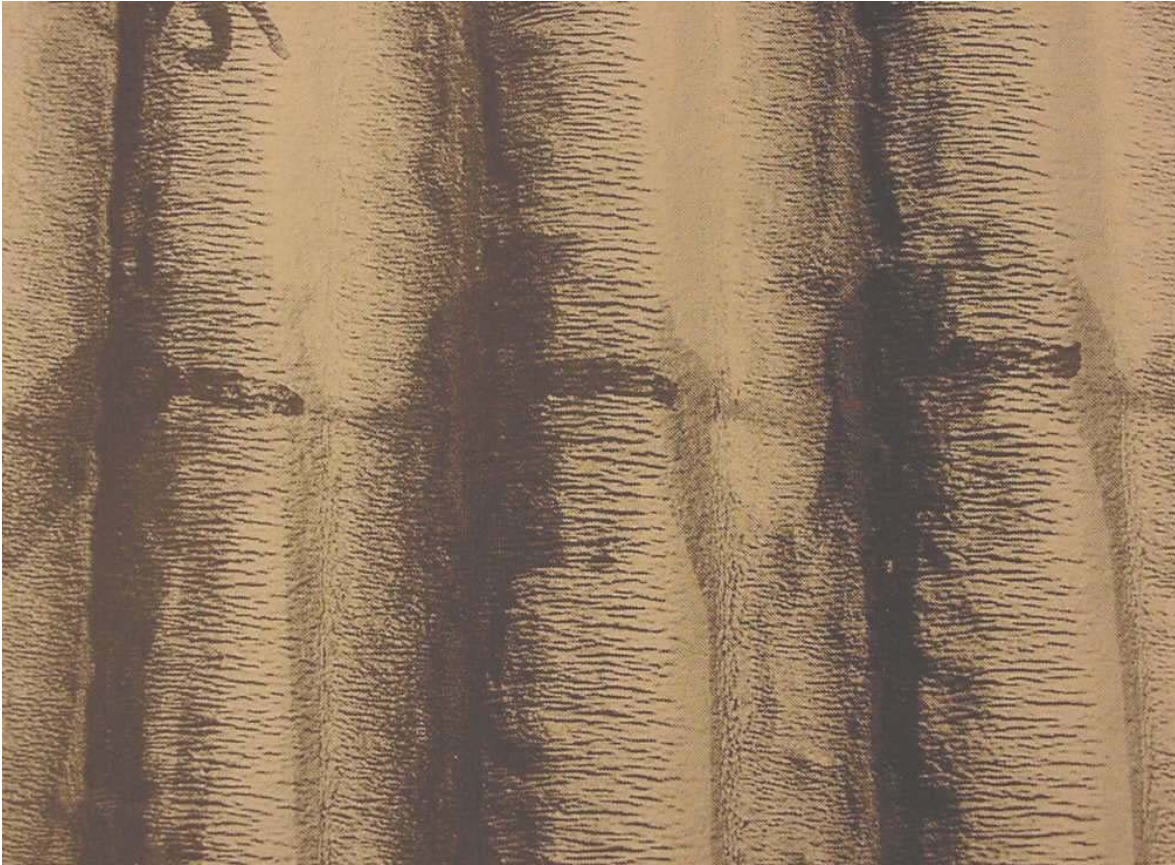


# M&M Engineering's Boiler Tube Failure Handbook



Crack—Not in or near a weld or attachment—Transverse



Locations	Waterwall
Boiler Type	Power
Industry	Electric Utility

Appearance	Circumferential cracking
Mechanism	Thermal Fatigue
Comments	Large thermal cycles caused by slagging/deslagging

