

EPC Industry

CASE STUDY

www.tcradvanced.com

Key Facts

Sector EPC Industry

Category Failure Investigation of Front Waterwall Swage Tube

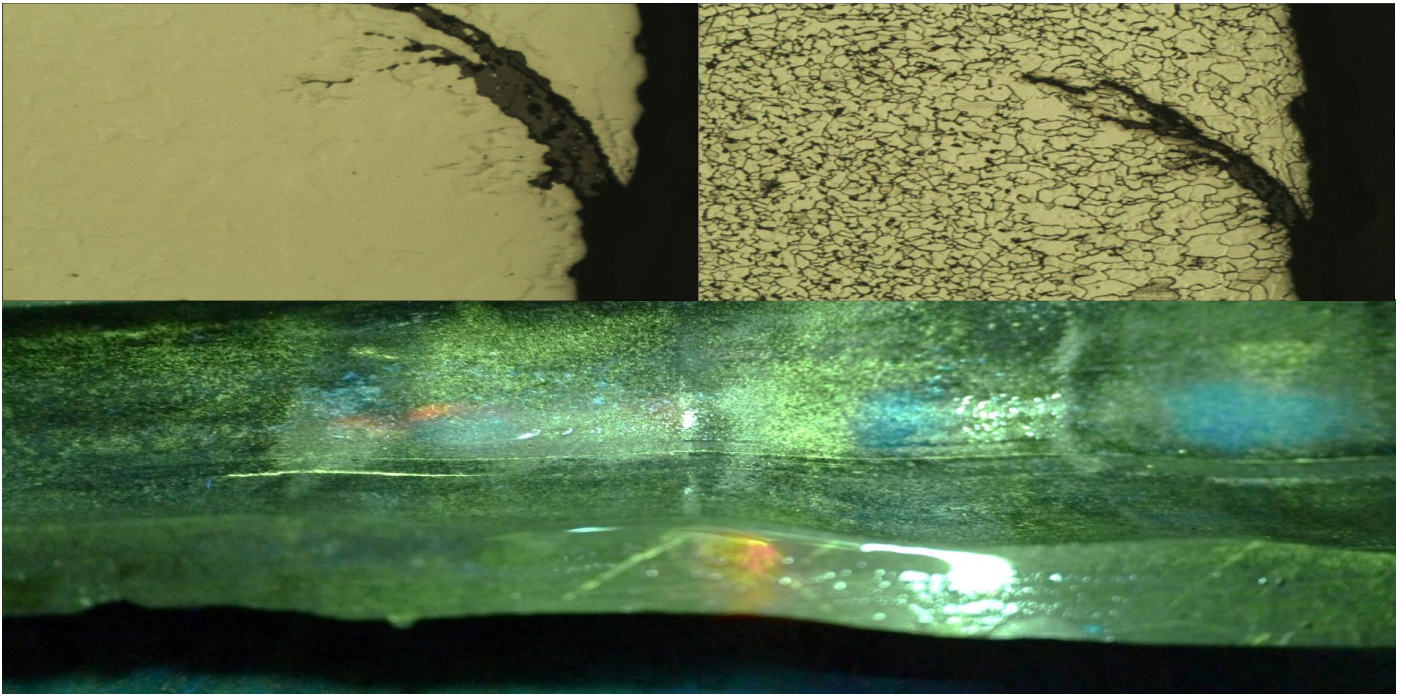
Problem

- Front water wall panel tube no. 34 from LHS side, failed in form of leakage during first hydro test after boiler erection.
- The failure was noticed at one location of tube in the particular lot from swaging area.
- The end portion has undergone three stage swaging operation that reduces the diameter of the tube to fix it within the weldolet.

Diagnosis

- The leakage during hydro test is because of the scale entrapment occurred possibly during upset of manufacturing process parameters that has aggravated during swaging operation.





Solution/Recommendations

- The tube metallurgy appears to be satisfactory in terms of MOC, microstructure and hardness values.
- Scale entrapment from ID surface is seen that appears to have formed during manufacturing stage and indicating hot work flaw.

Contact Us

If you are interested to learn more about TCR Advanced,
please send an email to: sohel@tcradvanced.com

Mr. Sohel Vaidya

Business Development Manager