

Fertilizer Industry

CASE STUDY

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Key Facts

Sector Fertilizer Industry

Category Investigation To Find Cause For Lower Hardness And Integrity Assessment Of Hp Steam Superheater Tube.

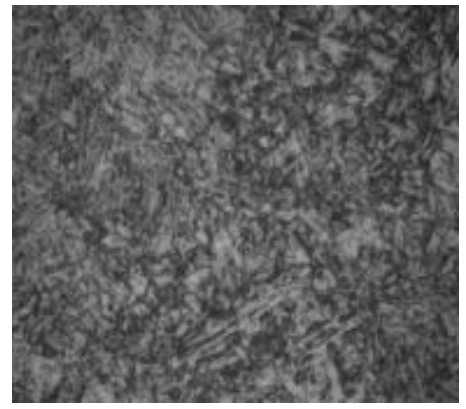
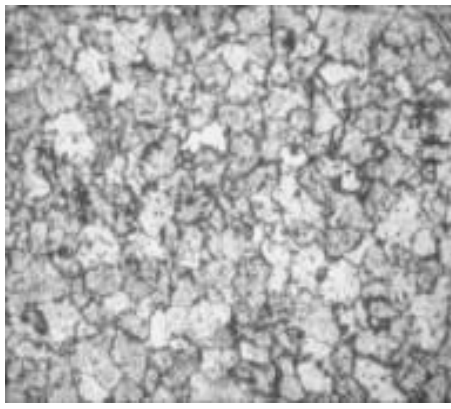
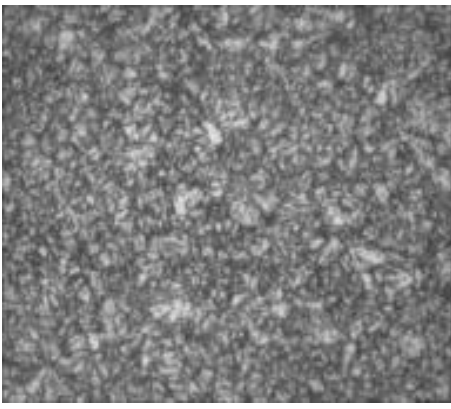
Problem

- Several instances of tube failures were reported since commissioning.
- At the time of inspection, one tube on inlet side was found twisted all along the length, and the fins were reported to have been overheated and oxidized.



Diagnosis

- The lower hardness on the straight portion of tube is limited to un-finned region. This seems to be from manufacture stage.
- The metallurgical integrity of tube is considered to be acceptable.
- The reason of repetitive failures may not be correlated to the present investigation.



Solution/Recommendations

- It is recommended to carry out hardness checking on rest of the tubes to ascertain whether there is any metallurgical degradation. On selected locations metallography may be conducted.
- As the condition assessment could hardly co-relate the leakage problem of the straight tubes in finned region, it is recommended to carry out a separate root cause failure investigation for the leakage problem. The corrosion crusts seen in visual and very high sulphur in EDS analysis accentuate its expediency.

Contact Us

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

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