

Insurance Industry

CASE STUDY

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Key Facts

Sector	Insurance Industry
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Category	Investigation of Fire Damage Assessment of Dryer
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Problem

- Fire broke out in drying chamber and vibrofludiser started spreading towards cyclones and air exhaust system



Diagnosis

- Based on various NDT and assessment the dryer indicates exposure to temperature in the range of 400°C to 800°C at localized regions and that has caused carbide precipitation at the grain boundaries of SS 304 material. Such microstructural condition would made the dryer vulnerable to IGC (inter-granular corrosion) and IGSCC (inter granular stress corrosion cracking) attack which lead to leakages and localized cracking during operation and maintenance activities.



Solution/Recommendations

- Weld joints at top cover shows cracks due to thermal stresses from uncontrolled heating/ cooling during fire incident. However mechanical properties of the sheet metal do not seems to be affected as microstructure did not indicate grain coarsening. The exact effect of mechanical integrity may be established by cutting a sample from the dryer and subjected for mechanical testing.

Contact Us

If you are interested to learn more about TCR Advanced,
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