CASE STUDIES

RAW MATERIAL & INGREDIENT PROCESSING



Paper mill's power plant turns the page on a persistent problem

INSIGHT

DS Smith, a global manufacturer of sustainable corrugated packaging materials and specialty papers, operates a power plant in Porcari, Italy, that produces electricity for the power grid and steam for an adjacent paper mill.

The power plant was experiencing ongoing challenges with intermittent, high levels of iron corrosion particles in its steam generation system. This was negatively affecting its boilers as well as its productivity, profitability and overall operations.

INNOVATION

Enter Nalco Water's team of experts. They identified the source of the magnetite loss and implemented 3D TRASAR™ Technology to reduce iron oxides in the boiler water, which greatly reduced the risk of the plant being taken offline. It also led to reduced boiler water blowdown, erosion and corrosion, which lowered maintenance costs and cut water consumption, decreasing the plant's environmental impact.

TECHNOLOGY

• 3D TRASAR™ Technology for Boilers

ECALAB

eRol[™]

ANNUAL SAVINGS

NATER

14,430 m³

water saved – equivalent to the annual drinking water needs of more than **13,000 people**

\$88,881 total water savings

ENERGY

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4,330 tons of steam saved

3 million MJ of energy saved by reducing natural gas consumption

\$30,769 in natural gas savings

AIR

160 metric tons of CO₂e

ASSETS

DS

Extended equipment life through reductions in iron oxide release

Prevented erosion/corrosion that would require costly repairs

PRODUCTIVITY

\$3,692

in maintenance cost savings

100 hours of reduced maintenance time

TOTAL COST SAVINGS

