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

ANNUAL SAVINGS

WATER
14,430 m³ water saved — equivalent to the annual drinking water needs of more than 13,000 people

ENERGY
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

TOTAL COST SAVINGS
$123 THOUSAND ANNUALLY

ASSETS
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

ECOLAB CORPORATE SUSTAINABILITY REPORT 2017