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SOLAR IMPULSE LABEL EFFICIENT SOLUTION

case study

Optimizing maintenance costs and enhancing availability at a German power plant

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Problem

In a major German power plant, signs of potential varnish in a turbine manifested as orange-brown deposits and increased foam formation. Heightened bearing temperatures were also noted in the pinion bearing. Despite MPC levels staying within the normal range, **RULER**® values showed a substantial decline in antioxidants, reaching threshold values alongside other critical indicators. The turbine oil was thus considered to have reached the termination point of its service life.

Solution

Introducing **DECON AO™** at a 3% treat rate dissolved system varnish, replenishing critical antioxidants and eliminating the need for any necessary action for at least the next scheduled overhaul in five years. The Fluitec **ESP VITA II™** system was also employed for oil cleanup, preceding the overhaul.

Results

DECON AO successfully doubled the initial 5-year lifespan of the turbine oil. The subsequent deployment of the

Total Saved

€90K

Client:	Major Power Plant
Country:	Germany
Application:	Siemens Steam Turbine Power Generation
Cost savings:	€90,000 over 5 years
Oil savings:	17,000 liters
CO2e kg saved:	62,622 CO2e kg over 5 years
Solution:	DECON AO, ESP VITA II

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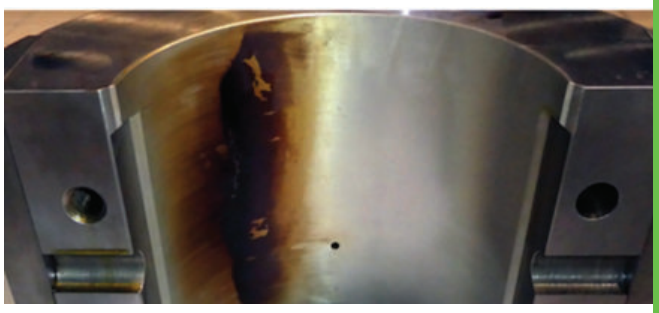
Fluitec ESP VITA II system facilitated comprehensive oil cleanup during the overhaul, enabling a deposit-free inspection of the pinion bearing. A subsequent treatment of DECON AO was applied, and the ESP system now sustains perpetual oil cleanliness, eliminating the necessity for oil replacement in two instances. This led to the preservation of 17,000 liters of new oil and associated replacement expenses.

PINION BEARING BEFORE



PINION BEARING AFTER