



**CLEAN OIL
BRIGHT IDEAS**

**Application Study
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CJC™ Application Study

CUSTOMER

AES Philippines-Masinloc Power Partners Co.
Ltd., Philippines

THE SYSTEM

Lube oil systems for 2 Mitsubishi Steam Turbines
Oil Type: Texaco Regal R&O 32
Oil Volume: 2 x 25,000 L

THE PROBLEM

AES took over the operation of the power plant in April, 2008, and found that the oil in the turbine systems was heavily contaminated with wear particles. The oil company advised them to change the oil, but in view of the high operation costs and maintenance requirements, AES wanted a permanent solution to the problem.

THE SOLUTION

CJC™ Fine Filter HDU 27/108 MZ with **CJC™ Filter Inserts B** and a flow rate of 1,510 L/h was installed on August 07, 2008. One month of continuous filtration resulted in a dramatic decrease in contamination, which led to major savings on oil changes alone.

FINANCIAL BENEFITS

The customer saved 2 x 25,000 L of turbine oil, which amounts to approx. **PHP 5,552,381.00 (81,082 EUR)**. Furthermore, **PHP 30,000.00 (438 EUR)** was saved on labour costs for the discard and refill of 2 x 25,000 L turbine oil.

ENVIRONMENTAL BENEFITS

Disposal cost savings due to longer oil change intervals.

THE TEST

On August 07, 2008, the ISO code cleanliness level of the oil was 19/17/14. This was reduced to 17/15/12 after one month of CJC™ Filtration.

THE RESULT

Particles and wear contaminants are now continuously being removed from the system and no oil change is required.

Turbine Lube Oil Mitsubishi Steam Turbine



The CJC™ Fine Filter HDU 27/108 installed at one of the Steam Turbine Tanks at AES Masinloc, Luzon



A used CJC™ Filter Insert

THE RESULT

	07.08.2008 BEFORE CJC™	11.09.2008 AFTER CJC™
Particles > 4 micron	357,800	65,400
Particles > 6 micron	100,100	18,300
Particles > 14 micron	14,000	2,600
ISO Code	19/17/14	17/15/12

COMMENTS

Mr. Richard E. Ebalan,
Maintenance Support, CBM:
"Until now, the CJC™ Filter saves us PHP 5.5 M (81,082 EUR) in oil change alone."

