



**CLEAN OIL
BRIGHT IDEAS**

CJC™ Application Study

**Application Study
written by:**

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In cooperation with:
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CUSTOMER

Ontario Power Generation Seymour Hydro Power Station 5 X 1 mW Sulzer Turbine.

THE SYSTEM

A combined control and lube oil system for Sulzer turbine with a reservoir capacity of 800 litres, serving both control and bevel gear system to drive a GE generator.

Oil type: Mobile Gear Oil SHC 75W90.

THE PROBLEM

A high contamination level in the oil analysis had been observed and the customer was worried about the control system. Water from condensation existed in small quantity, generated by very low temperature during the winter. The customer wanted to extend the life of both the turbine gearbox and the oil.

THE SOLUTION

A **CJC™ Fine Filter HDU 27/27 PV** with a **CJC™ Filter Insert B 27/27** was introduced at Turbine #3 for a test period.

THE TEST

4 oil samples were collected over a 6-month period, and the ISO class was reduced 5 classes.

THE RESULT

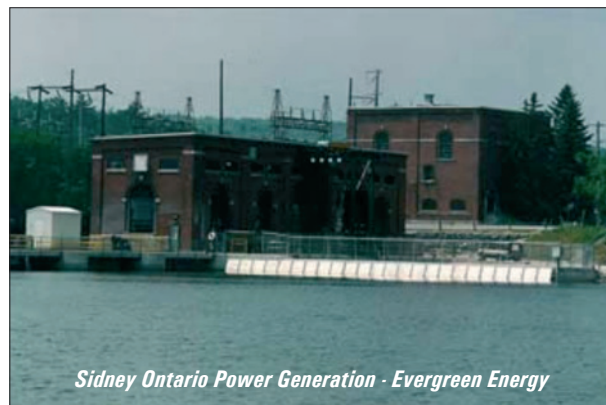
The oil quality has improved noticeably and a decision was made to use CJC™ HDU Filter in all 5 units in Seymour and another 4 units in Sidney Power Station.

COMMENTS

Barrie Askew, Operation Manager:

I am very pleased with the results, we have obtained with the new CJC™ Fine Filters.

The approach of analysing the results for G3 before purchasing for the other eight units, made the decision easy for our controller.



Sidney Ontario Power Generation - Evergreen Energy

THE RESULT

Turbine # G3 - Seymour Power Station				
Ref.	17.11.04	06.12.04	14.02.05	06.12.05
Particle Count (particles per mL) 4406:99				
ISO Code	19/18/14	19/17/14	16/15/11	15/13/9
> 4 Micron	3,907	3,035	574	179
> 6 Micron	1,519	1,180	223	69
> 14 Micron	115	90	17	5
> 50 Micron	5	3	0	0
> 100 Micron	0	0	0	0
Single Component Tests				
Gravimet. Ana., g	0.3100	0.0100	0.0096	0.0084
Water, %	-	-	-	0.028

COLORIMETRIC INDEX FOR VARNISH

