

CASE STUDY

PRODUCT: Modulair® COOLING SYSTEM
APPLICATION: 30 MW CT LUBE OIL COOLING
(QTY) X MODEL: (3) X MOD-DT-10-D-H-D

DESCRIPTION:

A large Midwest U. S. electric power generation company contacted Modulair® Systems to solve a critical combustion turbine lube oil cooling problem. The customer was experiencing excessive lube oil temperatures on its 30 MW - GE Frame 6B turbines during hot summer weather. It was determined that the existing single fan API-661 fluid cooler was approximately 50 percent undersized, allowing the bearing oil to overheat and causing the system to shut down. The subsequent addition of an external water spray system installed over the existing fluid cooler did not add sufficient cooling effect to reduce the lube oil temperature to required levels.

The solution was to replace the undersized API-661 cooler with a properly sized, pre-engineered Modulair® cooler system. The Modulair® coolers deliver the needed 1.0 MW of cooling to the 616 GPM of 50 percent Ethylene Glycol entering the coolers at 118F.

The Modulair® coolers feature multiple direct drive fans for low noise and low maintenance. The fans are controlled automatically with a self-contained fan cycling control system designed to cycle fans on and off as load demand and ambient air temperatures vary. This feature reduces parasitic fan power consumption and allows close control of glycol temperatures during all weather conditions.

The Modulair® coolers were provided pre-assembled from the factory with prefabricated manifold piping for single point field piping connections to the plate and frame bearing oil cooler, simplifying installation of the three coolers at the jobsite. The Modulair® Systems coolers and piping manifold were ordered and supplied to meet the customer's demanding construction/replacement schedule and successfully installed.

"The Heat Transfer Experts"

