

ASHRAE 2011 REFRIGERATION TOUR at MID-PAC INSTITUTE

The annual refrigeration tour took place on Thursday the 20th of January at the Mid-Pac Institute in Manoa Valley. 12 individuals from ASHRAE, UH Manoa and Honolulu Community College were in attendance. RJ Ritter Contracting Solutions Manager of Trane's Honolulu Office started the tour with an explanation of a generic Ice Storage system and the Institute's decision to utilize Ice Storage for their chilled water applications. RJ informed us that Mid-Pac Institute had a smaller Ice Storage Plant on the mauka side of the plant that required additional capacity for campus growth. Mid Pac



installed two new Trane Screw Chillers and a number of Calmac Ice Tanks to meet the new load and provide the necessary assurance to provide sufficient cooling with the ICE only mode to prevent the chillers from running during the daytime hours when the time of day KW rate is more expensive. RJ and Pam Roth Trane

Account Manager for Mid-Pacific then took everyone for the tour of the ICE Banks, cooling towers, and the chiller plant which included the glycol heat exchangers. The glycol heat exchangers transfer cooling from the glycol Ice Tanks to the chilled water system requirements for the daytime campus air conditioning loads.

RJ then demonstrated the Trane Summit Building Automation System's graphical display which illustrated the ICE capacity available, chiller operation, pumping system, alarms and trend logs for the owner-operator's daily use and maintenance reports. RJ and Pam said the key to a successful Ice Plant System is sufficient Ice and chiller capacity in addition to a DDC control system to monitor, control and provide feedback through alarms and alerts to insure proper cooling with Ice Storage. Ice Storage systems can save operating cost by utilizing lower KW utility charges and save energy by operating during lower nighttime ambient conditions.

Mahalo

Scott LaBeau
ASHRAE Refrigeration Chair

