



NEWS RELEASE FROM THE NAVFAC HAWAII PUBLIC AFFAIRS OFFICE

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NAVFAC Hawaii Energy Team Conducts Air Conditioning Unit Pilot Project

PEARL HARBOR-HICKAM, Hawaii – Naval Facilities Engineering Command (NAVFAC) Hawaii Energy Team is currently executing a pilot project awarded to contractor, Sumo-Nan JV II to improve current air conditioning systems in Buildings 16, 81, and 259 on Joint Base Pearl Harbor-Hickam (JBPHH).

NAVFAC Hawaii awarded Sumo-Nan JV II a \$1.6 million construction contract to retrofit three buildings in September 2012 with split system Variable Refrigerant Flow (VRF) technology.

“We’re excited to see how this VRF technology performs,” said Kathleen Ramirez, NAVFAC Hawaii Energy Team member and Joint Base Pearl Harbor-Hickam installation energy manager. “Its implementation will result in energy savings and improved indoor air quality, which makes it a worthy investment.”

The energy team introduced VRF to JBPHH in an effort to follow the Navy’s directive to reduce energy usage. The new cutting-edge system will employ an inverter type of compressor in the outdoor Air Cooled Condensing Unit (ACCU). The inverter compressor varies the speed of the compressor based on actual cooling demand, resulting in lower energy consumption. In a VRF split system, multiple indoor Fan Coil Units (FCUs) can be served by one ACCU, thus reducing maintenance.

Conventional split systems have one ACCU to one FCU. The existing air conditioning system in the three buildings has a combination of window air conditioning units and conventional split systems. This traditional system does not supply fresh indoor air to the work environment, causing carbon dioxide to increase throughout the day. The new VRF air conditioning system features ductwork designed to serve as a passageway for outside air to better ventilate facilities. As an added conservation feature, a new ceiling insulation will be used to prevent warm outside air from entering the building and allow cool air to be contained.

Building 16 was the first of the three buildings to undergo retrofitting. Prior to construction, Building 16 had 20 window air conditioning and four conventional split system units. The new air conditioning system requires only two ACCUs to cool the workspaces. The contractor is currently installing multiple structural elements inclusive to the VRF system at Building 16. These elements consist of drop ceiling tiles and insulation materials in addition to new air ducts/piping, ACCUs, and FCUs.

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“All three buildings will be stripped of their existing air conditioning systems (window air conditioning units and split systems) and retrofitted with VRF systems,” said Ramirez. “As a result, we expect to see favorable results from this pilot project and hope to expand this new system into other facilities throughout Joint Base Pearl Harbor-Hickam,” said Ramirez.

The contractor will begin construction in Building 259 in May 2014 and Building 81 thereafter. The completion date for all three buildings is scheduled for December 2014.

Photos/cutlines: High-resolution images are available. Please contact Denise Emsley.



140303-N-OF713-001
PEARL HARBOR-HICKAM, Hawaii (March 3, 2014) A Sumo-Nan JV II construction worker installs a bracket on the exterior of the refrigerant pipes in front of the outdoor Air Cooled Condensing Unit at Building 16 on Joint Base Pearl Harbor-Hickam on March 3. *Photo provided by Khoa Truong, Sumo-Nan JV II.*



140401-N-OF713-001
PEARL HARBOR-HICKAM, Hawaii (April 1, 2014) On April 1, a Sumo-Nan JV II construction worker installs support for the condensate drain piping brackets at Building 16. *Photo provided by Khoa Truong, Sumo-Nan JV II.*



140401-N-OF713-002
PEARL HARBOR-HICKAM, Hawaii (April 1, 2014) Sumo-Nan JV II construction workers install air duct materials April 1 under the newly created drop ceiling tile as part of the new infrastructure for the new Variant Refrigerant Flow technology at Building 16. *Photo provided by Khoa Truong, Sumo-Nan JV II.*

For more information about NAVFAC Hawaii and/or Naval Facilities Engineering Command visit: www.navfac.navy.mil.

Naval Facilities Engineering Command: The Facilities and Expeditionary Combat Systems Command

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