

Client requirement

Technologically advanced electrical equipment for a new class of naval vessels.



Point Eight Solution

Custom-design top-quality equipment while finding ways to save money.

The United States Navy needed to do more than merely upgrade its fleet. It needed to upgrade it to meet the exigencies of the 21st century.

After the U.S.S. *Cole* was bombed in the "safe" harbor of Aden, Yemen, on a routine refueling stop, it was clear that there were no safe harbors anymore. It became imperative to keep supply ships out of ports whenever possible. The new T-AKE dry cargo/ammunition ships would be charged with transferring cargo – food, fuel, repair parts and other supplies and material – to navy warfare ships at sea or, if need be, in port.

The National Steel and Shipbuilding Company (NASSCO) in San Diego was awarded contracts to build eight ships in the T-AKE program with more possible in the future. NASSCO turned to Point Eight Power to supply the electrical equipment for these "electric boats."

Assisting with the front-end design, Power Eight also recommended two important cost-savings measures.

A low-voltage switchboard was coupled with a transformer and then skid-mounted so the equipment could be wired and bused together in the production phase and, subsequently, shipped in one piece. This reduced shipping costs and eliminated costs associated with onboard mounting and wiring.

Another cost-saving feature that Point Eight incorporated was a special lighted mimic bus system located at each lineup of switchgear that allows the user to control and monitor breaker status and synchronization at locations remote to each switchboard.

While the majority of the electrical equipment on the ship was commercial grade due to its noncombatant status, it was required that the emergency switchboards adhere to "military" Mil 901D standards.

Teaming up with Cutler-Hammer, Point Eight used more than 3,500 Cutler-Hammer power and molded case breakers for all medium- and low-voltage applications, as well as their Freedom series MCCs. These standard design MCCs were supplied with IT control-logic and customized to meet the client's requirements. Finally, the Whipp and Borne Mil-spec power breaker was used for the Mil spec emergency switchgear.

With a dedicated project manager as a single point of contact, the client benefited on all communication and coordination needs throughout the project cycle.

It's understandable why NASSCO would choose to partner with Point Eight.

According to Bill Jones, NASSCO senior engineering specialist, "Point Eight Power has consistently demonstrated an uncanny knack for providing me with what I need, even though, in some cases, I asked for something else. This attention to detail and extra effort made in understanding my design requirements are key attributes of Point Eight Power's philosophy that customer service is top priority."

The USNS *Lewis and Clark*, the first of T-AKE ship to be launched by NASSCO, was cited at an IEEE/ESTS electric ships technology symposium as the future of the industry in integrated power/propulsion systems (IPS). This was truly an accolade for Point Eight Power, the supplier of the electrical-power distribution and control system for the propulsion system.

Point Eight Power. Controlling the Power You Generate



Point Eight supplied 12 sections of 6.6kv (6,600 volt) medium-voltage switchgear; 4 sections of medium-voltage motor control systems (MCCs); 16 sections 480V low-voltage switchgear; an 11-section 120V/480V combined low-voltage military specification emergency switchboard; 36 sections of 480V low-voltage MCCs; 150 panel boards — some of which were built to military specification; and 50-60 controllers. All equipment was built to USCG and ABS regulations.