▸ Electrical Systems

KROESCHELL PROJECT CASE STUDY:

Emergency Power System Repair at Elmendorf, AFB Hospital

THE CHALLENGE:

Joint Base Elmendorf Richardson (JBER) hospital was operating with three generators that were at the end of their useful life. The components and software of the existing paralleling switchgear were failing and the automatic transfer switches (ATS) needed replacing as well. The generators served the Essential Emergency Electrical Power System (EEPS) of the 800,000 SF hospital, making it critical that the entire generator system be updated. The facility is also a fully operating hospital and can not experience downtime during any part of the construction.

THE SOLUTION:

Kroeschell was selected to perform the design/build project that included removing and replacing:

- The three (3) existing diesel driven 1,000kW generators with three (3) new diesel driven 1,000kW, 277/480V, 3 phase, 4 wire, 0.8 PF diesel generator sets.
- The existing paralleling/emergency distribution switchgear with a new switchgear.
- Four (4) existing ATS in the Central Energy Plant (CEP) and the ten (10) ATS in the main hospital with all new switches.

In all cases, temporary equipment and cables, that would provide emergency power to the facility in the event of a normal power failure, needed to be installed first before removing the existing equipment. Kroeschell worked closely with the hospital personnel to schedule shutdowns that would not interrupt operations. The onsite team utilized three (3) temporary generators in two (2) temporary trailer mounted units, as well as a temporary distribution switchboard and cabling.

After installing and transferring to temporary power, Kroeschell was able to remove the existing equipment and replace it with the permanent emergency power system. The modernized components were brought online and then interfaced with the current Building Automation System (BAS).

THE RESULTS:

The fast-track project was completed in seven (7) months with an onsite management team that provided excellent communication and coordination with hospital staff. As a result, Kroeschell was able to replace the EEPS at a fully operating hospital without any unplanned outages or downtime to the hospital. The repairs improved the environment of care and met the safety requirements of current health standards. The new EEPS will provide standby emergency power for the next 20 years.

PROJECT OVERVIEW:

Location: Elmendorf AFB, Anchorage, AK

Project Scope:

- Removed and replaced three generators, a paralleling switchgear and 14 ATS switches that serve the emergency electrical power system at the hospital.
- Installation resulted in zero unplanned outages and no downtime to the hospital.

Customer Profile:

The JBER Hospital is a 55-bed DOD/Joint Venture treatment facility that provides primary and subspecialty care in eight operating rooms and 19 clinics. The hospital is composed of a combined DOD and VA workforce of more than 1,300 personnel across six squadrons who provide world-class care to Alaska's service members, their families and veterans from across the state.

CONTACTS:

Mike McDonough
O: (312) 649-7987 :: **M:** (312) 446-3228
Michael.McDonough@kroeschell.com

KROESCHELL

Established 1879

Headquartered in Chicago since 1879, Kroeschell is a leading provider of mechanical, electrical & plumbing solutions and facility support services for Fortune 500 companies, hospitals, universities and the U.S. Government. From HVAC to industrial production systems, Kroeschell keeps facilities and equipment operating at top performance, across the country and around the globe. We design, build, service and operate the advanced equipment found in today's most complex environments. When Kroeschell is your single source of responsibility, you maximize cost-effectiveness, quality craftsmanship and on-site safety.