



**CLIENT**  
U.S. Air Force

**CONTRACT**  
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**YEAR COMPLETED**  
Phase 1-2, 2009  
Phase 3, on-going

## ANAEROBIC SLUDGE WASTEWATER TREATMENT PLANT

### Eielson Air Force Base, Alaska

The United States Air Force (USAF) retained USKH in 2007 to investigate the condition of the 1950s vintage sewage treatment plant, and to prepare construction documents for various phases of repairs. The specific objective of this project is extending the operational life of the treatment plant and providing new technology to reduce maintenance and operational effort.

Phase 1 and 2 of the project, addressing the sludge treatment and primary treatment systems respectively, were constructed in 2009. These projects involved the complete rehabilitation and upgrade of 3 horizontal clarifiers with chain and flight systems, slotted pipe skimmers, telescoping valves, and the primary and secondary anaerobic digesters with sludge heating system, gas handling, and biogas energy recovery. The SCADA system for the plant has also been upgraded to accept modern sensors and meet operator data needs.

Phase 3 is under design now and involves the rehabilitation of preliminary treatment system with upgraded bar screen and grit trap, and a building expansion.

Future phases of this project are expected to address operator spaces such as the office, laboratory, and restrooms; bio-methane storage; and back-up power system deficiencies.



1. Investigation
2. Exterior