Arctic Utilities

Presented by Karen Brady, PE

Water and sewer utilities in Alaska can be a challenge based on the soil conditions and drastic temperatures they must withstand. This presentation will describe circulated/heated water systems, sewer systems, and utilidors common to the northern regions of Alaska. Water systems rely on centralized pump stations that include circulation pumps as well as heat exchangers for maintaining water temperatures above freezing. Gravity sewer collection systems are easier to maintain than force mains, but sometimes not an option due to shallow permafrost. There are further challenges with on-site sewer disposal. Military bases including Clear AFS, Fort Wainwright, Fort Greely, and Eielson AFB house their utility pipes in a system of utilidors. A variety of solutions for the varying conditions will be discussed.

Karen Brady is the Utilities Market Sector Lead at PDC Engineers. She has been in Alaska for the past 16 years providing planning, design, and construction administration services for various water, sewer, and utilidor projects primarily in the interior region of the state.

Friday, October 20, 2017
11:45 am-12:24 pm
UAA College of Engineering, EIB 211