



Model R OXIGEST® Treats Hotel Waste, Helps to Preserve Natural Setting



Application Profile: Denali, Park, AK
S&L Equipment: Model R OXIGEST® WWTP
Installed: 1993

In 1993, a hotel in Denali Park, Alaska, began to experience an overflow of wastewater in their leach fields. This was a problem because it is the only hotel in this vast area that serves visitors traveling to Mount McKinley, the highest mountain in North America.

Injection wells behind the hotel's existing treatment system were injecting the hotel's wastewater into the ground, which eventually fed into their well water. The wastewater from the hotel that flowed into the treatment plant was raw and smelled, even in single digit temperatures. It eventually seeped into the groundwater and flowed into the Nenana River, a main source of drinking water for Denali Park. A water treatment system was necessary to prevent wastewater from overloading the leach fields so that the environment could effectively handle it. The injection into leach fields would slowly be phased out, but all of the piping was above grade and flowed downhill.

Smith & Loveless evaluated the problem and designed a system to treat the wastewater before it flowed into the leach fields. The design incorporated the existing injection well pipes to run wastewater from the hotel to the treatment system prior to the leach fields. This process also breaks down the raw wastewater that has already been injected into the ground.

The solution for Denali Park required a Model R OXIGEST® Wastewater Treatment System from Smith & Loveless. The Model R OXIGEST® consists of flow equalization, extended aeration, clarification and sludge storage designed to handle 100,000 GPD. Each pre-fabricated Model R OXIGEST® System is custom-built to offer design flexibility. Smith & Loveless sized the equipment and provided the customer with the information and assistance required to install and operate the system in colder climates.

Smith & Loveless had many unique conditions to work with, including limited time and availability of installation equipment. First, the hotel is located 250 miles south of the



The Model R OXIGEST® Treatment System located at a hotel in Denali Park, Alaska, treats the hotel's wastewater before it flows into the main drinking water source.

Arctic Circle. Because of heavy snow, the only operable season in this area starts in May and ends in September. The short construction season compelled Smith & Loveless to begin the treatment system erection just before Labor Day and complete it before the permanent snow in late September.

Second, the installation equipment was limited because all construction in Alaska is performed during the summer season. It required ingenuity from Smith & Loveless to install this equipment in this mountainous location with as little equipment as possible.

The ability to recognize the problem and determine a solution is what Smith & Loveless customers have come to expect. With Smith & Loveless' experience, they completed the Model R OXIGEST® System for Denali Park to capacity in one structure, operated easily under the conditions, installed the complete system in a limited space, and single sourced responsibility including design, supply, installation and start-up of supplied equipment. Now, the hotel will not have to worry about wastewater overflow when an abundance of visitors come to visit Mount McKinley at Denali Park.