



## RELIABLE AND RESPONSIVE LEAK DETECTION SYSTEM PROTECTS CRITICAL WATER TREATMENT FACILITY

Project:	Major water treatment plant
Location:	Nevada, USA
Requirement:	Reliable and responsive leak monitoring system
Results:	PermAlert <sup>®</sup> liquid leak detection implemented for entire fuel system
Completion Date:	Original 1994 / Expanded 2003

### OVERVIEW

Water treatment plant provides potable water to a major metropolitan area. Eight different chemicals run through the facility involved in the treatment of the raw water. The facility has over a mile of double contained piping distributing the chemicals to its points of use. Needing to ensure the integrity of the process, the customer uses state of the art systems to operate and monitor the plant.

### CLIENT REQUIREMENTS

Since the facility provides 15% of the drinking water to its service area it is critical that any issue that occurs in the process is found and repaired in a timely manner. The customer was also concerned about the ability to monitor with condensation in the piping and to have a system that would not alarm due to dust and contamination. And due to the various chemical used in the facility, a chemically resistant sensor with long service life was also key for system selection.

### THE PERMALERT SOLUTION

To meet the requirements, PermAlert supplied the PAL-AT with AGW-Gold sensing cable for the entire chemical distribution system in the original deployment. And with the demonstrated reliability since initial deployment, the customer further expanded the system as the facility grew.



## AGW-Gold Sensing Cable

The AGW-Gold cable was installed inside of the containment pipe at the 6 o'clock position. AGW-Gold is a fast reaction, quick dry and chemically resistant sensing cable. The cable is designed with no conductive surfaces allowing the system not to alarm due to contaminants that would alarm systems that use a "shorting technology".

## PAL-AT Control Panel

The PAL-AT control panel was installed in an equipment room. The panel monitors each chemical with a separate circuit which assists the operators to determine if pumps or valves need to be adjusted. With its "Sonar/Radar" sensing technology the system is able to monitor with condensation or other liquids on the cable for growing leaks. If the leak grows in the same area of the containment pipe it will alarm again providing a multilevel alarm ability in identifying leaks.

PermAlert Leak Detection  
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