



Winner of the 2015

**Water Management  
Company of the Year**

## CASE STUDY

# Pre R.O. and Ion Exchange Protection

**CUSTOMER:** Allegheny Power Plant

**LOCATION:** Buchanan, VA, U.S.A.

## Application

**Protect R.O. and Ion Exchange Systems from Turbine Oils**

**FLOWRATE:** 200 GPM

### OBJECTIVE OF THE TREATMENT

Treat oil water separator upsets and meet discharge requirements into the power plant pond of undetectable sheen.



## Challenge

Traditionally, small amounts of lubricating oil leaks from power generation rotating equipment collect in sumps and raceways. This is normally pumped to an oil water separator and then discharged to a receiving stream. Periodic upsets with oil water separator equipment can result in slugs of oil being discharged.

JoDAN Technologies, LTD (MYCELX Distributor), was asked by Allegheny Energy, Co. to design a system to treat turbine and other lubricating oils in water for a new power facility at Buchanan, VA.

In order to mitigate a concern, JoDAN was contracted to evaluate, design and build an oil/water removal system that would handle 200 gallons per minute and meet discharge requirements of less than detectable so the water can be recycled back through the plant Reverse Osmosis System and ion exchange make-up water system.

## SOLUTION

JoDAN Technologies designed a MYCELX™ based JMOR™ system to meet that challenge. The 4' x 4' skid included two bag filters installed in parallel followed by two MYCELX MX-12 units installed in parallel. The system was ordered in the spring of 2002 and put on-line in the fall of 2002.

## IMPACT

The system has been in operation now for over five years. No problems have been reported with the downstream RO or ion exchange systems. Allegheny Power has been very satisfied with the performance of the system and contracted a ninth system that was installed at their Lake Lynn Power Station in the spring of 2006.

"In 5 years of operation, no problems have been reported with the downstream RO or Ion Exchange Systems."

