

The right equipment and expertise at the right time

FAST-TRACK FLY ASH POND SEEP CONTROL

Challenge

When two seeps were discovered at the base of the dam at an active fly ash pond, our power utility customer needed a way to quickly control and manage the escaping water before it caused soil erosion or contaminated the surrounding area. A method to control the pumps and generator had to be developed that would start the generator and pumps when needed without a dedicated power source. The customer wanted to be able to view the conditions in real time at each location, have data logs of the system operation minute by minute, and receive alarms if any issues came up – as the system was to be unmanned.

“Advanced telemetric monitoring provided control over all aspects...”

Solution

To help control capital costs, Xylem deployed an integrated mix of rental and purchased equipment from across our broad portfolio of products. Given the location of the site and the critical role our equipment would play, we had to design a low-manpower, resource-efficient system to provide advanced solar-powered monitoring and controls for remote start-up capabilities as well as complete visibility into the performance and discharge of the pumps. Advanced telemetric monitoring provided control over all aspects of the operation, while Xylem’s field team of engineering and operation specialists handled the preventive maintenance, including refueling and any necessary design modifications.

Result

With our deep coal ash water management expertise, our complete range of products, and our ability to respond rapidly to critical events, we were able to start the system up within the tight timeframe and make adjustments as needed to effectively redirect the leaking water back into the impoundment – keeping the pond within compliance of state and federal regulations.



View from top of ash pond dam at discharge point looking down at seep collection site as base.

godwin a xylem brand West Seep Remote Monitoring & Control

EQUIPMENT	CALL TO RUN	HOURS	DAILY RUN TIME
GENERATOR	■	481.2 hrs	8.9 hrs
PUMP A	■	186.3 hrs	6.1 hrs
PUMP B	■	47.9 hrs	3.0 hrs

Panel Battery Voltage: 13.5 V	Generator Oil Pressure: 63 psi
Level: 31 in	Generator Battery Voltage: 13.9 V
Transducer 1: 31 in Status: Connected	Generator Fuel Level: 68 %
Transducer 2: 31 in Status: Connected	Generator Engine Speed: 1806 RPM
Flow Rate: 129 GPM Status: Connected	Genset Warning Alarm: NO ALARM
Daily Total Flow: 51.6 KGAL	Genset Shutdown Alarm: NO ALARM
Totalized Flow: 1.3 MM-GAL	Electrical Trip Alarm: NO ALARM
	Controller Failure Alarm: NO ALARM

time: 14:45 NEXT PAGE

Example of Xylem control panel display on HMI that allows operators to control and adjust system.

PRODUCT LIST:

- Flygt submersible pumps
- Generators
- Monitoring & control equipment
- Accessories, including HDPE pipe and fittings
- Services, including pipe fusion