

# BOOST AO Fill-For-Life: SRP Saves Millions with Fluitec



## SRP Uses Fluitec to Extend Oil Life and Bottom Line

As one of the nation's largest public power utilities, SRP provides reliable, reasonably priced electricity and water to more than 2 million people in Central Arizona.

*"Fluitem has transformed the oil in our fleet of gas and steam turbines into Fill-For-Life lubricants"*

**Mark Joy**  
O & M Supervisor,  
Maintenance  
SRP



### Executive Summary

The Operations and Maintenance Team at SRP believed that oil is the lifeblood of any rotating equipment. There are many lube oil degradation problems that are widely acknowledged in the power generation industry, including varnish, sticking valves and elevated bearing temperatures. Oil analysis indicated a high MPC (Membrane Patch Colorimeter) varnish potential in their oil and antioxidant depletion (RPVOT and RULER™ tests).

### Challenges

Mark Joy, Operations & Maintenance Supervisor for SRP, was concerned with the presence of oil degradation so early on in the life of his combined-cycle power plant. SRP worked with Fluitem to correct these issues.



From Mark's experience he knew he had to act fast or he would start experiencing efficiency issues that could lose some serious revenue. Even GE says the average power plant will have 8 fail-to-starts per year, two of which being lube oil related; and a lube related trip every two years. SRP wanted to avoid trips and downtime, save on expensive oil change and flushes and do so in an environmentally positive way.

## How Fluitec Helped

Mark attended a Lubrication Academy hosted by Fluitec and learned why he was seeing signs of oil degradation. He turned to Fluitec for the solution to remove and control varnish contamination and then, once qualified, used Boost AO to replenish the depleted antioxidants. This was over a decade ago and he has never changed the oil. He uses routine oil analysis to monitor his oil's condition. His last result shows the oil is as good as (even better than) new oil because of his use of Boost AO.

*"We have never changed our oil and even more we have never had a trip due to a lubrication related issue. I attribute a lot of that to Fluitec and Boost AO"*

Date	RPVOT	Mach Hours
7/11/2016	965	88453 *
7/11/2016	428	88453 *
3/10/2016	N/N	1658717
3/10/2016	N/N	1658601
9/14/2015	N/N	1545339
8/7/2015	N/N	84142
8/7/2015	N/N	84142

Here is Mark pointing out how Boost AO increased RPVOT results from 428 to 965, essentially doubling the life of the oil in a single charge.

## Results, Return on Investment and Future Plans

To date SRP is well over 150% of the industry standard for oil life due to Boost AO. Their initial goal is of 100,000 operational hours ( $\approx 13$  years) of oil life is soon to be reached and they are looking to double that goal to 200,000 hours with no oil change.

"When you consider we would have changed the oil twice by now and even conservatively averaging lube oil related trips and fail-to-starts, the savings are in the millions."

Even beyond the monetary savings there's a serious environmental impact. "It's great to say you're part of a plan that has saved the Company millions of dollars, but also the environmental benefits are astounding. By not having to change the oil, we have saved over 50,000 gallons of oil from being produced and wasted. Because we have had no lube-related trips, our efficiency goes up which relates to less fuel wasted and lower CO2 emissions"