

## Symbiont Purchases Stand-by Generator from Wolter Power Systems

We started working with Wolter Power Systems (WPS) a few years ago. We were given a brief overview of Generac generators and offered a professional development seminar series (PDSS) to be performed at our office about generators at no cost to our company.



From left to right: Clement Feng, Frank Kiffin-Bruce, Caramy Reisenauer, Noelle Layman, Pablo Serrato

The PDSS series included ten 90 minute seminars. The seminars covered everything from basic generator 101 – how generators work, components of a generator, how they are sized properly and installed, etc. to specific generator types and how to select the right kind for your particular application – such as using a single larger engine versus using several smaller engines paralleled together.

The seminars covered code requirements for emergency generator applications. Symbiont primarily does wastewater treatment projects, so they tailored some of their seminars to fit our applications.

Wolter Power Systems also brought a demonstration trailer to our office, and showed us how paralleled generators are installed and how the controls work. Between the PDSS and demonstration trailer, we now have a much better understanding of generators in general as well as their capabilities & components, installation practices, how to properly size a generator and alternator, how different load types affect a generator and how to overcome some of those issues. We also learned what not to do and key design criteria to look for.

At Symbiont, the majority of our projects are water and wastewater treatment facilities for beverage and dairy companies. We use stand-by generators to meet discharge permit limits, prevent major back-ups and overflows and to keep our bugs warm and happy! Our biological system can be somewhat finicky. Recently, we purchased a stand-by generator from Wolter Power Systems for a wastewater treatment projects for one of our dairy



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*Caramy Reisenauer, Electrical Project Engineer*

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# CASE STUDY

clients. This particular project was design build, so we worked with WPS to design, purchase, and install the generator. This generator was not code required, but was crucial for our process to keep critical equipment operable. If some of the process equipment is down for an extended period of time, our client could have financial implications from potential fines for not meeting permit limits imposed by the DNR, back-ups in the facility and/or potential compromises to the biological treatment system. So we include a stand-by generator in our design.

Wolter Power Systems worked hand in hand with us to size the generator properly. We entered our motor loads and equipment into Generac's generator sizing software – Power Design Pro (that they taught us how to use) and WPS fine tuned it to give us the smallest sized generator that met all of our load requirements. They helped us work through the details to make it specific for application where the majority of our loads are motors. The program accounted for inrush currents on the motors, upsizing the alternator to handle harmonics induced by VFDs, lighting and other building loads, instruments and our control panel to keep our PLC working so that we could control certain process equipment during a power outage.

We bid this generator out to other firms and we selected Generac because their cost was very competitive and they were the only manufacturer who offered a turn-key generator package, which included permitting fees, diesel tank inspection and sole-source commissioning of the genset and transfer switch. We also had somewhat of

a tight schedule and they promised they could meet our deadlines. We were not disappointed. Generac came in on schedule and within budget. There were no surprises and the whole process went seamlessly. They offered excellent customer service from the beginning stages all the way through to the end of the project. We also knew that Wolter Power Systems' Technical Support Manager, Frank Kiffin-Bruce's "one throat to choke" motto would save us time and money and it did.

So far, we have not had a power outage at the facility, but we are confident that the generator will operate as designed. We did use the generator during a planned outage while we replaced the service transformer in January. Despite the harsh winter conditions, the generator started and ran without any issues and minimal interruption to the process. We had a very positive experience working with Generac and Wolter Power Systems and would recommend them to anyone. We have used others for previous projects and had several issues so we were pleasantly surprised at how easy the process was working with them and we look forward to future opportunities.

Caramy Reisenauer  
Electrical Project Engineer  
SYMBIONT  
Science, Engineering & Construction  
6737 W. Washington Street, Suite 3440  
West Allis, WI 53214  
P: 414.291.8840



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