

Thermo Fisher Scientific, Inc.
Rockford, Illinois

Case Study MEDICAL MANUFACTURING

AT A GLANCE

CUSTOMER

Thermo Fisher Scientific, Inc.

LOCATION

Rockford, Illinois

CHALLENGE

Provide reliable emergency standby power for a continuous-production facility

SOLUTIONS

- KOHLER® KD800 generator
- KOHLER KEP-DMTC-1200S-TR automatic transfer switch
- KOHLER integral sub-base fuel tank
- KOHLER APM802 controller
- KOHLER sound level 1 enclosure with heater

PRIMARY CHOICE FACTORS

Confidence in quality and reliability of KOHLER® generators given prior experience with four existing KOHLER generators on the site



The KOHLER KD800 at the Thermo Fisher Scientific site in Rockford, IL

BACKGROUND

The mission of Thermo Fisher Scientific is to enable its customers to make the world healthier, cleaner, and safer. Accordingly, it is involved in accelerating life sciences research, improving patient diagnostics and therapies, and increasing laboratory productivity. Its lab business is widespread, covering academia, government, and private industry. Thermo Fisher Scientific also serves the biotechnology and pharmaceutical sectors. Most notably, it is one of several large companies at the forefront of the COVID-19 pandemic response. It is involved with testing as well as therapy and vaccine development. The demands of COVID-19 and other

customer needs have accelerated its growth to include a product build-out area and remodel in Rockford, Illinois.

Though headquartered in Waltham, Massachusetts, Thermo Fisher Scientific has a long heritage in Rockford where it has built a strong and competitive workforce. It attracts protein research experts from around the globe. This particular facility provides analytical instruments, equipment, reagents, consumables, software, and services for research, analysis, discovery, and diagnostics. When it came time to revamp its Rockford operation, facility supervisor Ken Deill, knew who he could rely

*KOHLER generators meet NFPA 110 requirements for critical operations including supplying power within 10 seconds of an utility outage.



The solution for Thermo Fisher Scientific includes the KD800, 277/480 V, 60 Hz diesel-powered generator with an APM802 controller and integral sub-base fuel tank. A sound level 1 enclosure with heater, protected by Kohler Power Armor, resists the elements. The solution also includes a KEP-DMTC-1200S-TR service-entrance-rated transfer switch. KOHLER Power has delivered energy solutions for markets worldwide since 1920. For more information, visit KohlerPower.com.

on for reliable emergency standby power—KOHLER Power.

The Rockford facility was already using KOHLER® emergency standby generators ranging from 100 kW to 1MW. The quality and proven reliability of the solutions made KOHLER an easy choice. The addition of the KOHLER KD800 generator set and related components would represent the fifth KOHLER emergency standby solution.

CHALLENGE

Similar to other continuous production facilities, an unplanned outage at Thermo Fisher Scientific can be expensive. While it already had four KOHLER generators on-site, the large remodel would require its own emergency standby system. The challenge for Ken was to find a reputable electrical contractor and supplier to analyze the need, propose a reliable solution, and install and commission the system within a tight timetable. Kelso Burnett was chosen as the electrical contractor and the Kohler-authorized distributor was Steiner Power Systems.

SOLUTION

Mike Stotsky, sales engineer at Steiner Power Systems, recommended a complete KOHLER solution. It included a model KD800, 277/480 V, 60 Hz diesel generator with an APM802 controller, delivering an 800 kW standby rating. This generator features the KOHLER KD Series engine, specifically engineered for generator applications. The engine offers the highest power density and lowest fuel consumption, at more nodes between 800 and 4000 kW, than any competitor. The result is higher performance at reduced operating costs. It runs smoothly and quietly, creating very little vibration, even under extreme operating conditions. On-board diagnostics provide operator insight for easier maintenance and long-term performance.

The generator is contained in an aluminum, sound level 1 enclosure to reduce noise and to guard against the

elements. An internal critical silencer is included in the package to help reduce noise even further. The enclosure also features easily accessible doors and panels to facilitate service and local operation. Air inlet louvers reduce moisture entry. A 2500 W, 210/240 V, single-phase block heater, an enclosure heater, and a 24 V, 20-amp battery charger were included to ensure reliable operation during the winter months—which is a good idea in the Midwest.

The generator also features a Kohler-manufactured, 24-hour, UL 142 integral sub-base fuel tank with a 1749-gallon capacity. It offers continuous operation until grid power is restored or refueling is needed. The sub-base tank also features an environmentally friendly secondary containment tank surrounding the primary tank. Both the inner and outer tanks have emergency relief vents.

The solution also includes a service-entrance-rated KOHLER KEP DMTC 1200S TR automatic transfer switch with MPAC 1500 control. The system provides fast, automatic transitions from grid to generator. A NEMA 3R enclosure protects the switch from the elements, ensuring reliable operation.

RESULTS

According to Ken Deill, “The project has been a great success. The emergency standby power solution from Kohler has been in service for several months ... and its presence helps us focus on our COVID-19 and other scientific efforts with confidence. The service team from Steiner continues to monitor the system to ensure continued reliability, service life, and overall customer satisfaction.” Deill further noted, “While this seemed like a straightforward job, there are always little ‘bumps’ we don’t anticipate. What we can count on with Kelso Burnett and Steiner is on-the-fly expertise, based on experience, which allows continuous progress and seamless project work. What we can count on from Kohler, also based on experience, is reliability.” ■