CONNECT AND PROTECT

nVent RAYCHEM Heat Management Solutions Provide Sustainable Operational Reliability for Airport Terminal Food Service Operations

PROJECT DETAILS

Location:
Major Southern California Passenger Airport Terminal Renovation

Applications:
Process Temperature Maintenance (Grease waste flow)

Contract scope:
Design and Product Supply

Technology:
nVent RAYCHEM XL-Trace Edge-CT Self-Regulating Heating Cable, Advanced Control and Monitoring

Completion date:
Planned 2025

KEY CHALLENGES

One of the major challenges facing design engineers in this major renovation and expansion was the management of FOG (Fats, Oil and Grease) laden waste water from the Food Service Kitchens. Current codes require that FOG must be captured by grease interceptors and must not enter the municipal sewer system. Another challenge is that FOG must be maintained at the proper temperature (approximately 110°F) all the way to the interceptor. If FOG gets too cool, it can solidify, causing blockages that will disrupt and even shut down food service operations which lead to costly repairs and business interruptions. If FOG gets too hot, it may bypass the interceptor, which must be located away from the terminal for grease extraction and servicing, and lead to costly fines and municipal sewer issues such as fatbergs. The customer needed a solution that would ensure the proper performance and reliable operation of their Food Service Kitchens in the most energy efficient way possible.

SOLUTION

nVent RAYCHEM engineers worked closely with a major Engineering Design and Build firm to design the ideal grease waste heat trace solution to address the challenges of this project. Using our proprietary TraceCalc Pro for Building design software, we designed a RAYCHEM XL-Trace Edge-CT based heating solution to maintain temperatures of the grease waste lines that route from the kitchens to the interceptor. The fluoropolymer outer jacket of the 8XL2-CT heating cable was specified to provide chemical resistance to FOG. The design also included our advanced nVent RAYCHEM C910 controllers to ensure optimum reliability and minimize energy consumption. The system integrates seamlessly with the terminal's management system to communicate system status and alert information to the terminal's operation staff.

PROJECT FACTS

To meet the essential performance needs of this world class Airport Terminal, our nVent RAYCHEM heat management solution included:

- Engineering design experts providing optimized design and support using TraceCalc Pro For Buildings Software
- nVent RAYCHEM XL-Trace Edge-CT self-regulating heating cable (4,000 feet)
- nVent RAYCHEM C910 controllers (11)

BENEFITS

We met the customer's essential performance, safety and reliability objectives by creating an optimized complete heat trace system design that is energy efficient and addressed every challenge. Our solution keeps airport kitchens open and in business 24/7 and travelers can enjoy all of the airport's culinary options all of the time. Grease waste is efficiently collected from the interceptors and the municipal sewer system is safer from FOG discharge. The terminal project is now more than 50% complete and is on track to open in 2025. nVent was awarded the grease waste heat management system engineering and product supply for this project based on successful projects we executed in other airports in Southern California and Nevada. We look forward to working closely with each airport's principals on additional terminal projects planned for the near future.

C910-485

XL-Trace Edge (CT)

North America

Tel +1.800.545.6258
thermal.info@nVent.com

Latin America

Tel +1.713.868.4800
thermal.info@nVent.com

Our powerful portfolio of brands:

CADDY ERICO HOFFMAN ILSCO RAYCHEM SCHROFF