

Innovative Solar Panel Manufacturer Selects PSSI Recuperative Catalytic Oxidizer

Background

PSSI was initially contacted to provide an innovative company with support to determine which air pollution control technology was most appropriate for their new product line used in the production of solar panels. The product had been under development for many years and was now ready for commercial manufacturing. PSSI worked closely with the company to understand their processes and the anticipated air emission characteristics that required treatment.

Recommendation

After carefully reviewing the process application and operating requirements and balancing the initial investment and the ongoing operating cost, Pollution System Solutions recommended the installation of a Recuperative Catalytic Oxidizer. Based on the expected exhaust flow rate, requirements for high destruction efficiency and low impurities in the exhaust, a Recuperative Catalytic Oxidizer offered lower overall operating costs relative to other oxidizers in this particular application. PSSI met with the key operating and technical people to carefully review each of the major oxidizer technologies available along with their advantages and disadvantages and explained why a Recuperative Catalytic Oxidizer was recommended.



Air Pollution Control using a Recuperative Catalytic Oxidizer is most appropriate in process applications where high destruction efficiency is required, particulate and catalyst poisons are not present, and with concentrations of Volatile Organic Compounds (VOC's) below 25% LEL. These systems incorporate a heat exchanger and precious metal catalyst on a monolith substrate. The process air is heated and passes through the catalyst which converts the VOC's into carbon dioxide, water vapor and thermal energy at much lower temperatures than other thermal oxidizers. The exhaust passes through the heat exchanger which is used to preheat the VOC laden air prior to entering the heating chamber.

Pollution System Solutions is the total solution provider for Industrial Air Emission Compliance.