



## Innovative Solar Panel-Manufacturer Selects Recuperative Catalytic Oxidizer for New Product Line

### Operating Issue

A solar panel-manufacturer in California was ready to commercially produce a groundbreaking product that had taken many years to develop. Pollution Systems (PSSI) was initially contacted as a consultant to determine what air pollution control technology was most appropriate for the new product line used in their solar-panel production. PSSI worked closely with the company to understand their processes and the anticipated air emission characteristics that required treatment.

### Project Solution

After carefully reviewing the process application and operating requirements (and also balancing the initial investment and the ongoing operating cost), PSSI recommended the installation of a Recuperative Catalytic Oxidizer. Air Pollution Control using this technology is most appropriate in applications where high destruction efficiency is required, particulate and catalyst poisons are not present, and concentrations of Volatile Organic Compounds (VOCs) are 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 VOCs 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.



### Customer Benefit

After conducting their research and calculating the numbers, PSSI met with the company's key operating and technical staff to carefully review each of the major oxidizer technologies available, along with each one's advantages and disadvantages. PSSI explained why a Recuperative Catalytic Oxidizer was recommended, based on the expected exhaust flow rate, requirements for high destruction efficiency and low impurities in the exhaust. In this particular application, a Recuperative Catalytic Oxidizer offered lower overall operating costs relative to the alternative systems. PSSI worked in conjunction with the customer as a partner, to determine the best solution for this issue. Satisfied with the data and recommendation presented, the customer made the decision to integrate a Recuperative Catalytic Oxidizer in their manufacturing process. As was guaranteed, the selected system achieved the customer's operating and financial goals and continues to perform exactly as required and intended.



**Pollution Systems**  
2170 Buckthorne Place  
Suite 160  
The Woodlands, Texas 77380

Phone (713) 574-6661  
Fax (713) 456-2666  
Email: [Sales@PollutionSystems.com](mailto:Sales@PollutionSystems.com)  
Web: [www.PollutionSystems.com](http://www.PollutionSystems.com)

