

VECTOR CATALYTIC OXIDIZER



A southeast-based Biomass Generation facility was interested in improving their current process to meet California's increasingly stringent air emission requirements. At the time, a flare was being used to oxidize the off-gases from various production processes and storage containers.

Catalytic Products International developed a solution that utilized the capabilities of the VECTOR Catalytic oxidizer to increase the destruction rate of the incoming air stream to 99%, which met the emission requirements for the state of California. The 6,500 SCFM air stream was comprised mostly of H₂, Carbon Dioxide, and Carbon Monoxide, with around 50 ppm of VOC's as well. The VECTOR Catalytic Oxidizer has repeatedly proven its self proficient at operating in a range from zero to over 20% LEL, and was more than adequate to accomplish the needs of the customer.

The Primary Heat Exchanger reduces the amount of natural gas required to reach operating temperature, while the PRO Catalyst used will cause oxidation to occur at less than half the temperature of a flare. The result is a higher destruction rate at a fraction of the gas usage of the existing air pollution control system.

The system pictured here is capable of providing +99% removal of VOC loadings ranging from 2% LEL to as high as 23% LEL. The outlet VOC concentration is a steady state with no impact on the inlet concentration. The gas consumption is automatically controlled and the system will move to self-sustaining operation with as little as 3% LEL.

For more information about this or any of our other custom engineered solutions, please contact us.

***Thermal Oxidizers, Regenerative Thermal Oxidizer's, Catalytic Oxidizer's, Heat Recovery System's,
Energy Conservation, Repair and Retrofit Services, Maintenance Services, Engineering***