

VECTOR CATALYTIC OXIDIZER



A chemical processing facility recently installed a VECTOR Catalytic Oxidizer to replace a competitor's Regenerative Thermal Oxidizer. The RTO was installed 5 years earlier and could not provide the reliability demanded by the client. The problem stemmed from a basic ***mis-application*** of the technology. As is very common, many air pollution control equipment manufacturers have abandoned recuperative technology in favor of focusing on regenerative technology.

In this specific application, solvent loading spikes and changes in air volume created numerous high temperature shut-downs and instances of high stack VOC concentrations. As this system is fitted with a Continuous Emission Monitor, anytime the CEM records a high VOC concentration the client was obligated to report this event to the state EPA office as a "non-compliant event"

After careful study, it was determined that the RTO's hot gas bypass was not capable of allowing continuous VOC destruction across the wide range of conditions delivered. Catalytic Products International, Inc. recommended the use of our VECTOR Catalytic Oxidizer with a high efficiency primary heat exchanger and a fully modulating hot gas bypass. The system was installed directly next to the (blue) RTO and retro-fitted to the CEM system. The unit was proven to operate at +99% DRE even during the highest VOC inlet loading and the system uses less natural gas than the RTO. The system offers 100% reliability and the reportable non-compliant events have been eliminated.

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