



# TURNKEY SPECIALISTS IN AIR EMISSIONS CONTROL FOR BIOMASS AND W-T-E

“Turnkey” is an integrated project protocol that is broadly preferred for the design, manufacture and commissioning of air pollution control systems. In some parts of industry, it’s better known as “design-build” or “single-source.” Whatever the terminology, benefits to facility owners are significant: a single point of responsibility, a synchronized “team” relationship between all parties, and a unified flow of work from design and engineering through installation and commissioning.

Tri-Mer has the qualifications and experience to assure that systems perform at the specified levels, have minimal maintenance requirements, and are cost-effective to purchase and operate. Having full responsibility for the project allows Tri-Mer to support your air emissions system with industry’s most comprehensive Performance Guarantee.



## Multiple System Solutions

Tri-Mer has more than 6,000 air emission control systems operating worldwide. Notably, we offer multiple technologies for the efficient control of the same pollutants under different operating conditions.



**Dry solutions are generally preferable** where inlet temperatures are high. This equipment is well suited to the biofuel sector, treating NO<sub>x</sub>, acid gases (SO<sub>2</sub>, HCl, HF), PM, O-HAPS/HAPS, heavy metals, dioxins and furans in the exhaust of a combustion-based biomass-to-energy process.

**Traditional APC systems** are the solution of choice where the inlet temperatures are low or removal efficiency requirements are high. A combination of wet and dry scrubbers and chemical reaction vessels enables control of multiple byproducts upstream of the stack. While this multi-step approach requires more operational expertise, it offers a focused approach to the emissions control task.

**Tri-Mer's UltraCat® is an all-in-one dry technology** using high temperature ceramic filter elements with SCR DeNOx catalyst embedded in the filter walls. When combined with dry sorbent injection, (typically based on lime or sodium, with or without pulverized activated carbon) and ammonia injection, all major combustion byproducts are controlled at levels of 95 to 99.9%, depending on the targeted species.



**Tri-Mer's broad spectrum of wet APC equipment,** including the Whirl/Wet dust collector, packed-bed tower scrubbers, crossflow scrubbers, mercury scrubbers, and the Tri-NOx Multi-Chem system for removal of NOx, offers a range of alternatives for applications involving low temperatures and high removal efficiency requirements.

**Tri-Mer fabricates its dry and wet APC systems in-house,** at our Michigan campus. We operate one of America's largest fabrication facilities for PVC, polypropylene, and other industrial polymers. In addition to scrubbers, we also fabricate process tanks up to 100' in length, industrial ventilation, and operator workstations.



**Installation, controls integration and commissioning is tailored to each customer.**

Customized service packages keep systems in compliance and operating at peak efficiency.

**Tri-Mer air pollution systems** control particulate, gases and odors for a broad range of biomass/WTE applications, including biodiesel processing, agricultural biogas production, food/pharmac biogas treatment and landfill emissions management.

***Talk with us today.***

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