Leading Automotive Manufacturer Commissions Regenerative Thermal Oxidizer

Main Objective:

The Customer requested Outbound Technologies, Inc. to perform the electrical hardwire design engineering, AutoCAD detailing, controls O&M manual engineering, lock-out placard and TMS engineering, HMI software design engineering, PLC software design engineering, and capital material consisting of: a (6) door Master Control panel containing a Controllogix PLC, (1) Remote I/O enclosure for filter house, and (5) VFD's with NEMA 1 enclosures, factory acceptance test (FAT), and commissioning for the Regenerative Thermal Oxidizer (RTO) at a Metro Detroit automotive painting facility.

Customer Results:

OTI worked in conjunction with the customer to load all software on the shop floor and check-out the electrical hardwire system. OTI's engineer performed a FAT (Factory Acceptance Test) on the RTO system to ensure the electrical hardware and software operated as intended.

Overview:

❖ Prior to commencing on the software design, OTI's engineer developed and reviewed the system sequence of operations with the customer and end-user. This document outlined the automatic and manual functions of the RTO, as well as detailing the faults contained within the system and the HMI screens and data logging to be performed by the operator interface.

❖ The RTO was required to abate an air stream containing multiple organic and inorganic constituents. Due to the nature of the constituents being oxidized and the required uptime for the unit, numerous redundant devices (LEL detectors, flame relays, air flow switches, etc.) would be needed.

❖ Due to EPA requirements, the provided system had to contain all necessary software for long-term data logging, storage, and retrieval, as well as appropriate operator interface screens for trouble-shooting and general maintenance.
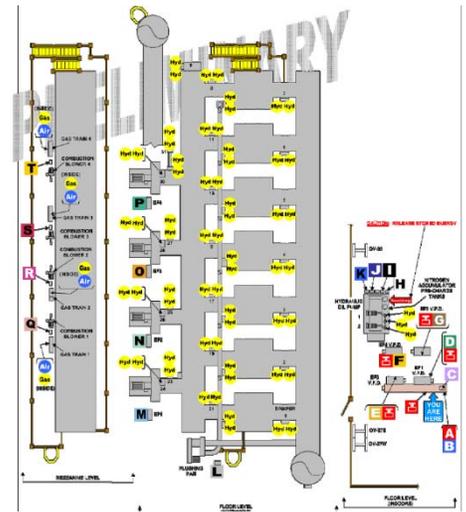
Every owner, manager, and key decision maker is an engineer. They have all been through the ranks and learned this business before they were given the responsibility to manage it. Diversity is also a key to our success. From a technical standpoint specific areas of expertise include: High Temperature applications, Automotive Paint Finishing, Pharmaceutical Automation, Web Handling Applications, Custom Software Solutions, and Safety. As a Systems Integrator, we are a 50/50 split between Continuous Process and Discrete Automation expertise.