



**HIGHLY ENGINEERED
ENVIRONMENTAL
EQUIPMENT AND
SERVICE SOLUTIONS**



DELIVERING INNOVATIVE ENGINEERED SOLUTIONS TO INDUSTRY

AIR, WATER & ENERGY

Anguil Environmental provides highly engineered environmental equipment and service solutions that help clients solve complex industrial air and water challenges across the globe. For over 40 years, Anguil has been committed to protecting the environment with unmatched engineering, innovative equipment solutions, guaranteed regulatory compliance and service. Our “never walk away” policy delivers an industry-leading customer experience.

We understand the many considerations your company must address to meet today's clean air and water requirements. The environmental responsibility to the communities in which our customers operate is as important to us as it is to them. We are proud to be respected leaders throughout industry with thousands of fully compliant installations worldwide. An Anguil abatement system is a commitment you can count on, now and long into the future.

ANGUIL LEADERSHIP

Gene Anguil

Chief Executive Officer

Deborah Anguil

Chief Operating Officer

Christopher Anguil

President

INDUSTRIES SERVED

The applications for Anguil pollution control systems in industrial facilities are numerous. Anguil is known around the world for providing solutions on processes where others have failed. Our engineering expertise, thorough design techniques and breadth of pollution control technologies make us the first choice for dependable solutions across the following industries.

AUTOMOTIVE
CAN COATING
CARBON FIBER
CHEMICAL PROCESSING
COMPOSITES
ENGINE TEST CELLS
ETHANOL & BIODIESEL
ETO STERILIZATION

FILM, TAPE & LABELS
FOOD & BAKERY
METAL DECORATING
NATURAL GAS PROCESSING
PAINT FINISHING & PRODUCTION
PETROCHEMICAL
PETROLEUM REFINING
PHARMACEUTICAL

PLASTICS
PRINTING: FLEXOGRAPHIC, WEB OFFSET & GRAVURE
PULP & PAPER
REMEDIATION
RUBBER CURING
SEMICONDUCTOR AND ELECTRONICS
SOIL & GROUNDWATER REMEDIATION
WOOD PRODUCTS & FINISHING



Your single
source for air
and water
pollution control
systems.

Environmental and Energy Solutions that Ensure Cleaner Air and Water for Future Generations.

Founded in 1978, Anguil Environmental Systems, Inc. is a second generation, family owned and operated environmental technology supplier headquartered in Milwaukee, WI USA with offices in Asia and Europe. With annual sales in excess of \$80 million globally, Anguil has been a trusted air and water solutions supplier for over 40 years.

The Anguil Advantage

- Company stability and unparalleled expertise with over 40 years in business.
- Single source provider of fully integrated air and water pollution control systems for lowest cost of ownership.
- Over half of Anguil staff are degreed engineers.
- Regulatory compliance is guaranteed.
- Broad range of technology solutions ensure an unbiased equipment selection.
- Comprehensive Quality Assurance program and procedures.
- An established safety program with continuous training for Anguil field service engineers.
- Custom solutions developed specific to your application that maximize efficiency and minimize the system's operational life costs.



AIR TECHNOLOGIES

Air pollution control systems for VOC, HAP, and odor abatement—capable of 99+% destruction efficiency.

- Regenerative thermal oxidizers (RTO)
- Catalytic, recuperative, and direct-fired thermal oxidizers and vapor combustors
- Emission concentrator systems



Over 2,000 oxidizers installed on six continents in a wide variety of applications!



ENERGY RECOVERY

Heat and energy recovery systems for improved efficiency and reduced operating costs.

- Air-to-air heat exchangers
- Air-to-liquid heat exchangers
- Heat-to-power
- Energy evaluations



WASTEWATER TREATMENT

Wastewater treatment technologies for industrial and remediation applications.

- Fully integrated and turn-key systems
- Single source provider
- Engineering assistance, rentals, and pilot programs available
- Technology agnostic approach
- Advanced instrumentation, controls, and automation



AFTERMARKET & SERVICE

Service and maintenance on any make or model, regardless of original manufacturer.

- 24/7 emergency service response
- Operating cost reviews
- System upgrades and retrofits
- Spare parts packages
- Preventive Maintenance Evaluations
- Predictive Maintenance Systems (IoT)



"THE ANGUIL RTO HAS NEVER HALTED PRODUCTION AND IS PROVIDING US \$200,000 A YEAR IN SAVINGS."

-CONFIDENTIAL CUSTOMER, COATING INDUSTRY

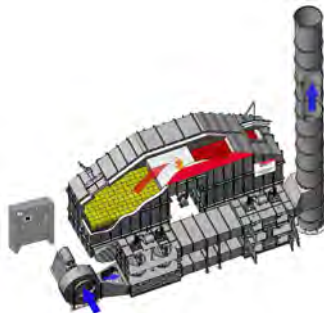


SOLUTIONS FOR INDUSTRIAL AIR ABATEMENT

THERMAL AND CATALYTIC OXIDATION

As a leading global supplier of air pollution control solutions, Anguil offers a full range of proven technologies. Our broad portfolio enables our engineers to design an unbiased solution for your company that optimizes the latest technologies instead of settling for a narrow range of predetermined options. The installation of Anguil's oxidation systems is transparent, allowing your system to be integrated seamlessly with your ongoing process.

Our engineers will help determine what technology best suits your needs by analyzing process emissions and operational requirements through on-site inspections and in-depth discussions with you and your consultants or internal personnel. Using this information, your Anguil team will develop a customized report pinpointing the critical issues and appropriate solutions. Your team will also prepare a conceptual layout and operating cost comparison for the recommended technologies. Because Anguil offers a complete range of technologies, you are assured that the best alternatives will be recommended, without bias for any single approach.



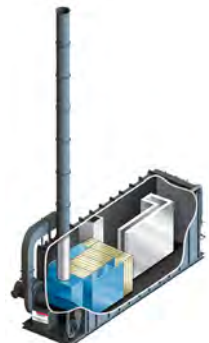
REGENERATIVE THERMAL OXIDIZER (RTO/RCO)



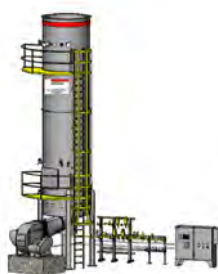
CATALYTIC RECUPERATIVE OXIDIZER



DIRECT FIRED THERMAL OXIDIZER (DFTO)



THERMAL RECUPERATIVE OXIDIZER



VAPOR COMBUSTOR



ROTOR EMISSIONS CONCENTRATOR



REGENERATIVE THERMAL OXIDIZER (RTO)

- Widely considered the most energy efficient oxidizer technology
- Uses ceramic media to recover upwards of 97% of the thermal energy generated during combustion
- Capable of fuel-free operation at low concentrations



CATALYTIC RECUPERATIVE OXIDIZER

- Low operating temperatures through the use of catalysts
- Lower combustion temperature reduces energy consumption and stress on internal metal heat exchanger
- Compact, lightweight system perfect for indoor or roof installations



DIRECT FIRED THERMAL OXIDIZER (DFTO)

- Ideal for process streams heavily laden with pollutants and intermittent batch processes where the oxidizer can come on-line relatively quickly.
- Destroys gaseous emissions and liquid waste streams effectively and efficiently
- Multi-stage (MS-DFTO) option available for ultra-low Nitrogen Oxides (NOx)



THERMAL RECUPERATIVE OXIDIZER

- Often incorporates a multi-pass metal heat exchanger with cleanable tubes, making it ideal for applications with particulate
- Heat exchanger minimizes the system's fuel consumption with the system being self-sustaining at moderate Lower Explosive Limits (LELs)



VAPOR COMBUSTION UNIT

- Combines the simplicity of an enclosed flare with the destruction performance of a thermal oxidizer
- Capable of handling varying flow rates and concentrations
- Can be for intermittent use or installed on continuous emission streams



ROTOR EMISSIONS CONCENTRATOR

- Adsorbs hazardous gases from a high volume, low concentration air stream and desorbs them into a reduced volume, high concentration stream
- The smaller desorption airflow is then further treated in an emission control device, obtaining regulatory compliance while dramatically reducing operating costs

ENERGY RECOVERY

- **Air-to-Air Heat Exchangers**
- **Air-to-Liquid Heat Exchangers**
- **Heat-to-Power**
- **Energy Evaluations**

Process systems and other energy consuming equipment represent a major portion of operating costs for manufacturing facilities. Anguil waste heat recovery systems reduce operating costs and limit the environmental impact of facilities worldwide, while being a competitive capital investment for optimal payback. Our energy recovery systems are used in virtually every industrial application that utilizes heat in the process. Integrated into an existing system or installed



as a standalone piece of equipment, Anguil energy recovery systems have many practical uses.

- Process Heating / Cooling
- Plant Comfort Heat
- Parts Drying
- Air Pollution Control
- Pre-heated Combustion Air
- Heated Process Water
- Plant Power Generation



ACID GAS SCRUBBERS

- Effectively scrub a variety of acids including Hydrogen Chloride (HCl), Hydrogen Bromide (HBr), Hydrogen Fluoride (HF) and Sulfur Dioxide (SO₂).

USED, REFURBISHED AND RENTAL

Anguil's reputation is built on strong client relationships. We are honored so many of our clients contact us when they are ready to move on to larger emission control systems. The used oxidizers that these customers have outgrown are often a perfect fit for other applications with new customers.



SOLUTIONS FOR INDUSTRIAL WATER TREATMENT

INDUSTRIAL WASTEWATER TREATMENT

Anguil's water division specializes in the integration of market-proven wastewater treatment technologies into a single treatment train capable of handling challenging contaminants discharged from industrial facilities. From clean / ultra-pure process water to process effluent treatment, our solutions meet stringent process and discharge requirements, deliver low cost of ownership and reduce your company's environmental footprint through

recycling and reuse. We believe a better approach equals better results. Using our four-step project development approach, we are a single-source supplier powered by a diverse staff of engineers that can design, build, and deliver a treatment train with the highest performance. We tailor our approach to target your needs, from automation and controls upgrades to fully engineered, customized, turn-key treatment solutions.



TECHNOLOGIES

Anguil's technology agnostic approach delivers the most cost-effective system to meet your treatment needs.

Total Dissolved Solids

RO Systems, Softening Systems

Dissolved Metals

pH Adjustment, Ion Exchange, Carbon

VOCs

Air Stripping, GAC, Oxidation

Soluble BOD/COD

MBR, Oxidation

Suspended Solids

Bag Filters, Ballasted Flocculation, Cartridge Filters

Fats, Oils/Grease

O-W Separators, DAF

Sludge Dewatering

Rotary Vacuum Drum, Rotary Fan Press

And Many More Technologies!

CAPABILITIES

PROJECT DEVELOPMENT SERVICES

- Specification Writing Assistance
- Existing Site Evaluations
- Budget Generation, Cost Comparisons
- Process Verification
- Water Analysis
- Onsite Scaled Pilot Test
- Equipment Selection
- Electrical Drawings
- Equipment Expert for PHA meetings
- Rental Equipment
- **Bench Testing (Onsite Water Lab!)**

PROJECT EXECUTION SERVICES

- Project Management
- Design Build Engineering - Electrical and Mechanical
- Drawing Generation - CAD and Solidworks
- Automation and Advanced Controls
- Free and Clear or Turn-key Installation
- Installation Supervision
- System Start-up
- Operation Verification
- Aftermarket Services for Existing Wastewater Treatment Systems

ANGUIL PROJECT DEVELOPMENT STEPS



Business Case

Assessment of project needs, benchmarking ROI & decision process and criteria

1



Treatability

Lab testing to verify efficacy and determine cost (OPEX/CAPEX)

2



Field Validation

Pilot test to validate treatment, OPEX/CAPEX, and finalize scope of work

3



Commercial Deployment

Design, build, integrate, install, commission, and train on complete treatment system.

4





SOLUTIONS FOR SERVICE & AFTERMARKET

WE DON'T WALK AWAY.

Whether it is still on the drawing board or has been on site for years, your pollution control system represents a significant investment and long-term commitment. Anguil offers a complete selection of post-installation services, allowing you to get the most from your investment over the entire life of the system. With decades of experience, Anguil has the ability to service anyone's system, regardless of make, model or manufacturer.



PREVENTIVE MAINTENANCE

Preventive Maintenance Evaluations (PMEs) for compliance and improved system reliability.

- Thorough system audit following an extensive checklist
- Detailed evaluation report with recommendations for improving safety, reliability, and performance
- Predictive maintenance systems (IoT)



SPARE PARTS PACKAGES

Reduce downtime, stay in compliance, and always be prepared with a spare parts program designed to your needs.

- Individual parts requests
- Critical spare parts packages
- Convenience inventory recommendations



CATALYST & MEDIA SERVICES

Avoid costly fines and optimize system performance with our suite of catalyst and media services.

- Evaluation
- Regeneration
- Replacement
- Design upgrades
- Buyback of "spent" catalyst



ENERGY RECOVERY

Heat and energy recovery systems for improved efficiency and reduced operating costs.

- On-site energy evaluations
- Heat exchangers
- System operating cost reviews
- Operating cost improvements
- Thermal Efficiency Rate (TER) upgrades
- Heat exchanger repairs



GENERAL SERVICES

Service and maintenance on any make or model, regardless of original manufacturer.

- 24-hour emergency service
- Routine or troubleshooting visits
- Operator training sessions
- System airflow balancing
- Destruction efficiency check-ups
- Operating cost reviews

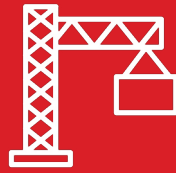


RETROFITS & UPGRADES

Adapt your equipment to your evolving business needs with retrofits and energy efficient upgrades.

- Increased flow capacity
- Improved VOC capture and destruction
- Reliability and efficiency enhancements
- Technology conversions
- System relocation
- Retrofits for CO₂ and NO_x reduction

FABRICATION & INSTALLATION



All Anguil systems are built by expert craftspeople using the appropriate materials for your application, state-of-the-art equipment, and the most current manufacturing techniques. Throughout fabrication, your new Anguil system is subjected to rigorous integrity testing, including a thorough final inspection before being released for delivery to your site. When necessary, we perform factory acceptance tests for customers that require project documentation.

We understand how important it is for your Anguil system to be delivered and operational when planned. With this in mind, many of our systems arrive on-site as modules: pre-assembled, pre-wired, factory tested and ready for a fast and efficient start-up. Our installation team can provide full turn-key services or simple installation supervision. You will be up and running with an Anguil-certified system from day one that will put you in full compliance, guaranteed.



Fabrication capabilities, installation teams and sales offices located throughout the world.



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**ANGUIL**

THIS BROCHURE WAS PRODUCED USING GREEN PRINTING PRACTICES.

