

Anguil Environmental Systems, Inc.

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ANGUÍL AFTERMARKET Julia ONBOARDING TOOLKIT

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WELCOME LETTER



Congratulations on the purchase of your Anguil Environmental Systems, Inc. pollution control system!

This **Anguil Aftermarket Onboarding Toolkit** introduces you to the complete selection of Anguil's post-commissioning services – simplifying ownership of your pollution control system and allowing you to get the most from your investment over your system's service life. Carefully review all the contents of this toolkit so you can take advantage of Anguil's full spectrum of support. We have a complete menu of follow-up services to maximize up-time and keep you in compliance.

If there is an alternate or additional individual we should be contacting regarding the future maintenance of your pollution control systems, please let us know.

If you or anyone at your company have any questions or concerns, please contact either **Jerry Sikora (Aftermarket Sales)** or **Greg Blando (Technical Service)** of Anguil's Service and Aftermarket Team at (414) 365-6400.

Welcome Aboard!

IN THIS TOOLKIT

	AFTERMARKET ONBOARDING ROADMAP	Take the guesswork out of your oxidizer maintenance program design and use this handy checklist to set yourself up for success with Anguil Aftermarket services.
	SPARE PARTS & PME FACT SHEETS	All your questions about our most popular post-commissioning programs answered, making it easy to get started.
×	OXIDIZER SERVICE SERIES	As an Anguil customer, you enjoy not only industry-leading service, but unparalleled thought leadership to help prolong system life. The Oxidizer Service Series lays the educational groundwork for oxidizer service and maintenance best practices – a recommended read for everyone on your maintenance staff!
	AFTERMARKET SERVICES CUTSHEET	Anguil is committed to being your single source oxidizer service provider. Our Service and Aftermarket Capabilities cut sheet showcases all our service capabilities.
	TECHNICAL SERVICE CALL POSTER	Our service experts are one phone call away and ready to assist 24/7. Hang this poster in key locations to make it easy for your staff to get the support they need at a moment's notice.





AFTERMARKET ONBOARDING ROAD MAP

Pollution control equipment ownership...simplified.

IN THE SH	IORT-TERM	
	Review your system's Recommended Spare Parts List and place your order to stock your spare parts inventory. Develop a meaningful way to organize your spare parts storage space (alphabetically by tag number or part name, by part classification, etc).	
	Determine a safe, shared location to store Key System Documentation and Drawings and ensure they are readily available to both system operators and service providers: the Process & Instrumentation Diagram (P&ID), Electrical Schematics, Sequence of Operation, copy of the PLC Program, the Expected Pressure-Temperature Profile, Recommended Spare Parts List, and Permit Compliance documents.	
	Set up an Operator Log Book to record a historical record of daily, weekly, and annual inspections.	
	Print copies of the Technical Service Call Procedure Poster and hang in areas convenient for your maintenance staff to access near the oxidizer. Save the 24/7 Anguil Technical Service number in staff cell phones.	
	Assign personnel to complete Weekly and Monthly Inspections of your system using the checklists provided in your system Operation and Maintenance Manual.	
	Have your staff read the Oxidizer Service Series.	
	If you have Remote Log-in Capabilities , test your connection to ensure it works. Schedule time to regularly test this connection.	
	Order and schedule Quarterly Remote Operational Checks to identify and prevent potential developing service issues.	

LUUKING AHEAD		
	Schedule your system's first Preventive Maintenance Evaluation (PME) by emailing jerry.sikora@anguil.com at least 2-3 months prior to your desired service.	
	Consider including a Destruction Removal Efficiency (DRE) Check-up with your first PME to pre-test and document your oxidizer's performance to help eliminate surprises during expensive formal compliance testing.	
	Schedule Oxidizer Operator Training for your maintenance staff with a qualified Anguil Field Service Engineer. Schedule out repeat refresher trainings for new employees.	
	Schedule an annual Operating Cost Review to ensure you are getting the most for your operating dollars.	



SPARE PARTS FACT SHEET



QUICK FACTS



STOCKING SPARE PARTS

Anguil's Critical Spare Parts Package is the most convenient and economical way to ensure preparedness, compliance, and system uptime.



LEAD TIMES

Anguil keeps some critical and common parts in stock at our warehouse and can ship upon receipt of order. However, some components require fabrication and/or programming and can require up to 4-6 weeks lead time.



Anguil has over 30 degreed engineers on staff to specify, recommend, and order parts for your system.

What is a Recommended Spare Parts List?

This is your system's Bill of Material (BOM) organized and classified to guide your system's spare parts inventory stocking strategy.

How does Anguil determine my recommended spare parts list?

Using the P&ID and the system BOM as a guide, our Aftermarket Experts tag each system component as falling into one of four categories: CRITICAL, RECOMMENDED, CONVENIENCE, and ORDER AS NEEDED.

What is the difference between critical, recommended, convenience, and as needed spares?

- *Convenience* Small consumables. Stock for your benefit and convenience.
- *Critical* Imperative to system operation. Stock to recommended levels, should be considered vital to operation.
- Recommended Important to operation; operation may or may not be possible without. Stock to recommended levels, some components may be eliminated if necessary.
- When Needed System components that are either unlikely to fail, not generally critical to system operation, may provide time to replace once a need is determined. Not necessary to stock, component replacement needs generally determined over time.

What is a Critical Spare Parts Package?

A critical spare parts package bundles the most critical spare components for your system at a discounted price.

Why should I order a Critical Spare Parts Package?

This convenient package takes the guesswork out of ordering spare parts and saves you money. We discount this package over the cost of ordering individual parts. We trust that you will find the package both beneficial to simplifying your selection process in addition to benefiting your spare parts budget.

What are the typical lead times for spare parts?

It depends by part. Anguil keeps a stock of critical parts at our warehouse so we can overnight parts in the case you find yourself without the needed component on your shelf. However, some parts can have lead times up to 4-6 weeks after receipt of order.

Help! I need an emergency part shipped to me now! Can Anguil help?

Depending on the component needed, Anguil Aftermarket Experts will work to get you the needed component as soon as possible. To avoid headaches and unplanned downtime, we recommend you purchase our Critical Spare Parts Package so you are always prepared.



SPARE PARTS FACT SHEET



Does Anguil supply parts and recommended spare parts lists for only Anguil oxidizers?

No! On average, Anguil services 600+ systems from 23 different manufacturers each year and can supply components and spare parts lists for your system. With a copy of your system's P&ID and BOM (if available), Anguil can identify and order parts as well as generate a Recommended Spare Parts List for your system.

In addition, Anguil can supply parts for your ancillary equipment, including scrubbers, concentrator wheels, and dust collectors.

Can I order individual parts?

Yes! Whether you need parts for your Anguil system or another manufacturer's system, Anguil can supply parts for all of your oxidizers

Why order spare parts through Anguil?

Anguil can simplify your parts procurement process. We know your system, so let us quickly get you the parts you need. If we don't know your system, our engineering experts can quickly assess your system and determine your parts needs. Anguil has an expansive network of vendor relationships and enjoys priority service and advantageous pricing that we pass on to you.

Why does my oxidizer spare parts program deserve significant attention?

- Uptime The downtime associated with a system upset can easily be dramatically reduced if the right parts are immediately available on site.
- Compliance Stocking an appropriate level of spare parts for your oxidizer system may be required by your environmental permit.
- Preparedness Making the decision to have a well-stocked spare parts inventory could be the difference between having the needed component available in your stockroom to get your system quickly back up and online and lengthy downtime, lost production revenue, and plant headache.
- *Mission* Stocking an appropriate level of spare parts for your system is just one part of that same long-term commitment to environmental compliance.

How can I order individual spare parts or a recommended spare parts package?

Email jerry.sikora@anguil.com or fill out our Service Request Form to request a quote for your system.



PREVENTIVE MAINTENANCE EVALUATION (PME) FACT SHEET



QUICK FACTS



Schedule annual PME services at least two to three months in advance of desired dates.



LENGTH OF SERVICE

The standard PME Service is two to three days on site, though this can be customized to your system, including shorter, longer, or split visits, with additional add-on services included.



Anguil has 8 full-time Field Service Engineers with an average of 15+ years of experience, who are ready to serve you.

What is a PME?

A PME is a two to three day Preventive Maintenance Evaluation service visit performed annually, semi-annually, or quarterly to help ensure that your oxidizer is operating at peak performance.

Why should I set up a PME program for my new equipment?

Anguil's PME program will help:

- General maintenance Identify and evaluate your current monthly maintenance program
- Minimize costly repairs By identifying potential areas of concern before they lead to unexpected system shutdowns and eventual costly production outages.
- Establish a record of destruction efficiency Yearly PMEs can include catalyst or preliminary stack sampling reports to help ensure DRE compliance.
- *Air permit compliance* an OEM annual maintenance review is often required by many air regulatory agencies.

Who performs the PME?

A qualified Anguil factory-trained Field Service Engineer (FSE). On average, our FSEs have 15+ years of experience servicing pollution control equipment of all makes and manufacturers.

What happens on a PME?

The Anguil FSE will use a 75+ point checklist to perform an oxidizer performance review, operational evaluation, mechanical inspection and replacement of consumable parts. Day 1 focuses primarily on mechanical inspection while Day two focuses on operation and performance.

Does my system have to be shut down?

Typically the system will have to be shut down 24 hours prior to our FSE's scheduled arrival and will remain shut down for Day 1 of the PME service. On remaining day(s), the system will be up and down for alarm and operational testing.

How long is a PME?

This can depend on several factors, including the size and complexity of the system and the additional services performed while on-site. However, our standard PME service takes two to three full days. Anguil offers several flexible PME options to fit your operating schedule, including split 1-day semi-annual visits, shortened 1-1/2 day services, and extended visits to address additional maintenance issues while already on site.



PREVENTIVE MAINTENANCE EVALUATION (PME) FACT SHEET





What documentation will I receive upon completion of my PME?

After the visit, a formal written report identifying the maintenance requirements for your system listing any recommendations for corrective action will be provided. You will also receive a copy of the 75+ point checklist with FSE notations.

Does Anguil only do PMEs on Anguil units?

No! Anguil services oxidizers of any make or manufacturer. On average, we service 600+ systems from 23 different manufacturers each year.

How often do I need to have a PME done?

To maximize operational performance and stay in compliance with regulatory requirements, we recommend performing a PME visit every year. Check your air permit to determine your specific PME service needs.

What other services CAN be done while the technician is onsite?

Performing other services while our FSE is already on site is great way to get the most value out of your visit.

- This is a great time to add an additional day for refresher training of new employees
- DRE Testing
- Summa Can Testing
- · Catalyst services: Evaluation and replacement
- Other outstanding service needs (with additional time onsite)

Do you offer a multi-year discount?

When you commit to a 3-year PME contract package, we will lock in the price for the duration of the contract, preventing year-after-year price increases. In addition, our PME contract customers enjoy complementary services in their package, including destruction efficiency testing.

Do you remind me of when it's time to schedule my next year's PME?

Yes, our Aftermarket Sales Team will send you a friendly reminder approximately two months before your next service date so you have optimal scheduling availability. Our schedules fill up fast! Enrolling in a 3-year PME contract is the best way to guarantee consistent service dates year-after-year.

How do I get started with an Anguil PME program?

Email jerry.sikora@anguil.com or fill out our Service Request Form to request a quote for your system.



SPARE PARTS



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OPTIMIZATION

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OXIDIZER SERVICE SERIES Anguil's Complete Guide to Oxidizer Maintenance & Optimization

Your oxidizer system is a significant investment and long-term commitment to environmental compliance. Unforturnately, there is not a set oxidizer maintenance checklist that will work for everyone. However, there are four major aspects you should carefully consider when crafting your oxidizer system's maintenance plan. Based on Anguil Environmental's popular four-part e-mail series, the Oxidizer Service Series dissects these major maintenance plan components, offering up invaluable advice to ensure system longevity.

FOR MORE INFORMATION:

Anguil Environmental Systems, Inc. 8855 N 55th St Milwaukee, WI 53223 Phone: 414-365-6400 | Fax: 414-365-6410 www.anguil.com | info@anguil.com



The Anguil Advantage

 Business stablity and unmatched 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.

ET'S TALK Service and Aftermarket **Capabilities**

Anguil has been a trusted air and water technology supplier and service provider for over 40 years. As our customer, you will enjoy industry-leading, customer-focused service that prolongs your system's life and minimizes operating costs. On average, we service 600+ systems from 23 different manufacturers each year and we're confident we can optimize your system.

Responsive service. Custom solutions. Unparalleled expertise.



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

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









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

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



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

- 24-hour emergency service
- Troubleshooting visits
- Operator training sessions
- System airflow balancing
- System Destruction Rate Efficiency (DRE) check-ups



Optimize Performance

Increase Thermal

Energy Recovery

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

- Evaluation
- Regeneration
- Replacement
- Design upgrades

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Know Your Costs

Free operating

cost analysis

Buyback of "spent" catalyst



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

- System relocation
- Increased flow capacity
- Improved VOC capture and destruction
- Improved reliability
- Technology conversions

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Protect your investment with an Anguil PME Package.

ANGUIL

Let an Anguil service technician be an extension of your maintenance staff, freeing them to complete other vital tasks and eliminating your pollution control equipment maintenance concerns.



Preventive Maintenance Evaluations (PMEs)

A PME package is a two (2+) day service visit performed annually or semi-annually on any make or model, regardless of the original manufacturer. A qualified Anguil factory trained technician will perform a thorough investigation including:

- A review of oxidizer performance during on-line and off-line operation modes
- Testing of oxidizer start-up and shutdown program sequences
- Operational evaluation of safety switches, alarms, system controls, and burner operation
- Mechanical inspection of valves, media, catalyst, cold face, burner, heat exchanger, fan and fuel train
- Replacement of consumable components



CUSTOM PACKAGES

The PME package is custom-tailored to address your specific needs including:

- Multi-year packages
- Preliminary stack DRE testing
- Catalyst evaluation
- Repair or Replacement Services
- Operator/Maintenance training sessions
- Operating cost review

FORMAL REPORT

A formal report will be provided documenting the checklist of items that were reviewed on site by our factory trained technician. This report serves as a key component to your regulatory record keeping and will include a summary of:

- Critical action items
- Recommended maintenance requirements
- Tasks performed while on-site



WORRY-FREE MAINTENANCE

Consider our Anguil service technicians are an extension of your maintenance staff. We take care of your pollution control equipment so you don't have to. An Anguil PME:

- Identifies and evaluates monthly maintenance requirements
- Minimizes the potential of costly repairs
- Optimizes performance
- Helps sustain Destruction Rate Efficiency (DRE)
- Helps maintain operating costs
- Minimizes downtime
- Increases safety and reliability
 Establishes a record of air permit
- Establishes a record of air permit compliance







ANGUIL TECHNICAL SERVICE CALL PROCEDURE



