



COMBINING ANALYTIC TECHNIQUES AND EXPERIENTIAL KNOWLEDGE TO IMPROVE YOUR PROCESSES AND EQUIPMENT EFFICIENCY

Process Optimization

Holistic Planning. Impactful Results.

We are committed to adding value and achieving your objectives. We start by listening to understand your situation, challenges and objectives.

We begin with a performance assessment, root cause analysis, or compliance review to understand what problems or opportunities for improvement exist, and to learn your compliance, reliability, and production goals. We model different scenarios to determine the potential benefits of each strategy or combination of strategies. And what makes us different is that at each step we consider the performance, reliability, economic, and production implications to make sure you choose the right path.

Combining Analysis and Experience

Neundorfer is not a typical consulting firm. We provide you with comprehensive, actionable information that is created from the powerful combination of experiential knowledge, broad technical knowledge, and a strong analytical process rooted in the business objectives of your plant.

We deliver the tools you need to make informed decisions about equipment capital, maintenance, operations and fuel or process changes so that you can stay focused on your objectives.

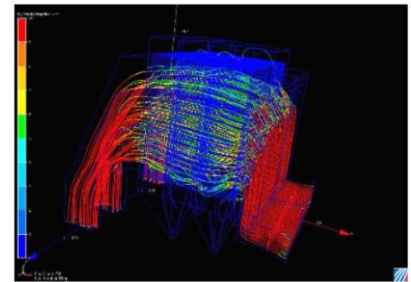
Whether you are looking to reduce costs, reduce energy consumption, optimize performance, reduce emissions, or improve safety, reliability, or efficiency, our process will support your decisions.

Applications

We excel at finding the low-hanging fruit that yields the greatest benefits. Through our thorough technical analysis, we know what results to expect from any individual tactic or combination of tactics. We can apply this process across your plant while employing our comprehensive KnowledgeBase, modeling, and analytical capabilities.

Process optimization is the foundation of what we do.

We consistently meet or exceed our customers' performance expectations. Give us a call. We are happy to share the output of this process with you.



Modeling Tied to Real-World Results

Our modeling takes an integrated approach to using flow modeling to improve the efficiency of equipment, reduce energy consumption, and minimize equipment maintenance. Because we have decades of experience in implementation, we know how to translate modeling into real-world application.



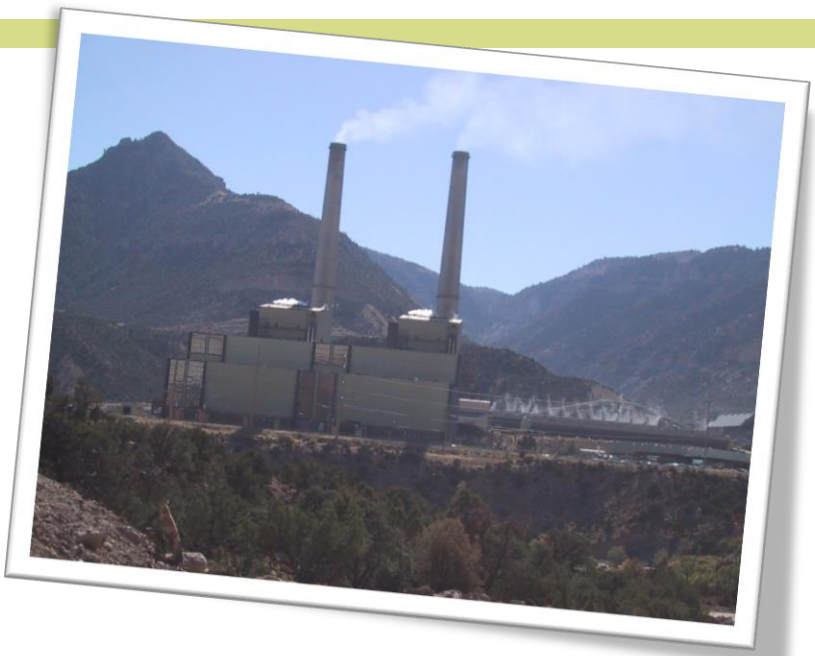
Asset Management

You define success. We help you realize it.

We can help you in any step of the asset management cycle: monitoring and optimizing asset performance, capital planning and budgeting, identifying profit opportunities, and constructing, servicing, maintaining and upgrading equipment.

Most importantly, we don't look at these tactics in a silo, which means that you realize the greatest potential from your planning and implementation. By combining industry knowledge, technical expertise, business strategy, and creativity we are able to create simple solutions and realize benefits that you didn't know were possible.

We don't have a standard solution, because you don't have a "standard" plant. We use our consultative process to understand your unique situation – economic drivers, process variables, objectives, regulations and equipment, so you realize the biggest value from your assets throughout their lifecycle.



WHAT CAN WE HELP YOU WITH?

- Process Analysis & Optimization
- Predictive Modeling
- Asset planning
- Performance-Based Maintenance
- Emissions Compliance
- Remote Asset Health Monitoring

Our consultative process focuses on your equipment, your process, and your profit

opportunities. Let us help you find the opportunities in your system that will have the biggest impacts on performance, emissions, reliability, and profitability.

Have a challenge? Contact Us!

440-942-8990

solutions@neundorfer.com



Production Flexibility

The markets that our plants operate in are always changing with ever increasing speed. There are often cost saving opportunities in making operational adjustments while your production rates fluctuate. Optimizing your air pollution control equipment to run effectively under the various operating conditions you may see can prove to be large cost-saving opportunities.

What is Your Challenge?

Cost Reduction

Knowing how your equipment is operating, where to focus your maintenance budget, and how to account for process factors is key to achieving your lowest cost per unit of pollutant removal. Implementing condition-based maintenance practices, optimizing additives to current process conditions, and optimizing APC equipment can reduce your O&M costs without influencing performance or reliability. We can work with you to select and implement the most cost-effective solutions for your plant.

Emissions Compliance

New emissions standards are pushing plant owners and operators to do more, with less, in shorter and shorter timeframes. Partner with Neundorfer to ensure your company is in compliance.

Equipment Reliability

Effective equipment optimization and maintenance results in minimizing downtime, extending equipment life, and reducing energy consumption and operating costs. Optimal performance and reliability doesn't have to suffer. We can help you put your operating data and knowledge to work, improving reliability while minimizing costs.

Want to learn more?

Attend an upcoming problem-solving workshops to get started on identifying the opportunities at your plant. Our workshop process is designed to provide you with insights into the opportunities in your system to reduce operations and maintenance costs, to improve reliability, and optimize your process.



Baghouse Inspections

Using data to create the foundation for equipment assessments allows you to focus on what matters most. Connecting operational conditions to cleaning cycles and documenting bag permeability over time can help you increase baglife, reducing your maintenance costs.



Precipitator Inspections

Inspections and maintenance should be tied to achieving the largest performance and reliability impacts at the lowest cost. Using operating data to guide the inspection allows you to prioritize your time and focus on the repairs and maintenance that will have the largest impacts on equipment performance. Consistent documentation and trending can help you stay ahead of reliability risks. And knowing where your performance weak links reside lets you take advantage of short outages. Put your maintenance strategies to work for you!

FAST FACTS

30%

Typical maintenance cost reduction using the performance-based maintenance approach

12.6

Average years of service at Neundorfer

41

Number of years Neundorfer has been helping customers achieve emissions compliance and optimize equipment performance.

450+

Years of combined experience on staff

Service First

On-Site Field Services

As with our other services, we are focused on helping you reduce your cost of air pollutant removal. This means that our onsite service is focused on helping you identify what needs to be done, the reliability, flexibility, and performance gains you will realize, and how to best achieve the results. Our team has extensive experience with on-site troubleshooting and analysis. We are available for scheduled service, or for unscheduled emergency service, 24/7.

Remote Support

The Neundorfer team brings decades of consulting and engineering expertise to help our customers analyze the right data to solve the most important problems faster, to optimize performance of existing equipment, and to identify ways to reduce costs and emissions. We combine our experiential knowledge with our analytic processes to make connections between all of these variables and create actionable intelligence that yields real results.

Analytical and Lab Services

- Coal fly ash or process dust resistivity analysis
- Loss on ignition (LOI)
- Ash Mineral Analysis
- Ultimate Analysis
- Ash/dust particle size
- Performance Analysis
- Bag permeability testing and analysis

Equipment Overhauls

Whether big or small, the level of success in the implementation of the project will impact how sustainable the desired results are over time. And these results are only realized when the work is executed in alignment with the intended results. When Neundorfer is involved in project execution, we work hard to carry the original intent and objectives of the project all the way through execution, so you realize the results you need.

Want to learn more?

Attend an upcoming workshop to learn more about equipment operations, inspections, troubleshooting, and assessments so that you can implement performance-based maintenance practices at your plant, saving you time and money.



Need Site Support?

Contact us to schedule service or get emergency support.

440-942-8990



PROBLEM-SOLVING WORKSHOPS

Our problem-solving workshops are focused on providing you the information that you need to

- Solve your most difficult problems
- Create operational strategies that support both efficient production and environmental compliance
- Create maintenance strategies that will lead to cost-effective performance improvements and reliability.

Our workshops process helps you to learn the basics of the equipment through applying it to problems that you are currently trying to solve. We don't offer generic presentations because you don't have generic equipment.

EQUIPMENT TRAINING

Our equipment training workshops focus on the basics of precipitator and baghouse operations, maintenance, and troubleshooting. By learning the performance implications of equipment operations, how maintenance practices can support reliability and performance, and how to interpret data to direct your activities, you will leave with new capabilities to put to work at your plant.

CUSTOM TRAINING

Your plant is unique, and so are the people who run it. Your training should be, too. By combining training expertise and experienced technical resources, we are able to provide you with not only a learning design that works, but technical expertise.

LOOKING FOR MORE?



Meet Us at a Workshop!

We also offer trainings that can be focused on specific operational excellence, problem solving, and equipment training needs. Although the focus for each is different, all of our offerings emphasize how the equipment fits within your plant process so that you are able to readily apply your new knowledge to make improvements at your plant.

Looking for Service?

Neundorfer has decades of knowledge and hands-on experience that enables us to provide practical, industry-leading aftermarket design, engineering and consulting services for all types of controls systems and programmable logic controllers (PLCs) for just about any application.

We provide mechanical and electrical diagnoses and troubleshooting for all brands of control systems for electrostatic precipitator (ESP) and baghouse (fabric filter) installations, and all brands of PLCs for any application, including fly ash, material handling and process control systems.

Visit Us Online! www.neundorfer.com

Ask Us a Question! 440-942-8990

Our
Capabilities



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