

From and for People Involved with the Performance and Maintenance of Electrostatic Precipitators

YOUR OPPORTUNITY TO LISTEN, LEARN AND SHARE 2005 POS Users Group Meeting

The 10th Annual Neundorfer Precipitator Optimization System (POS) Users Group meeting will be held May 24-26, 2005.

Returning once again to Ohio's Punderson State Park—a site that has proved to be an ideal meeting location in recent years—the 2005 POS Users Group meeting promises a full agenda once again. This is your best opportunity to:

- Get the latest information on precipitator controls developments and applications
- Learn about updates on current hardware and software, including SmartAsh
- Hear guest presentations and panel discussions on topics including:
 - How to improve your precipitator's performance
 - Troubleshooting using POS
 - Cost-savings and reduced opacity from a major rebuild
 - Mercury control technology

- Listen and learn from Neundorfer expert presentations:
 - Implications of MACT (Maximum Achievable Control Technology)
 - Environmental regulations update
- Ask questions of the Neundorfer technical staff and your peers

New this year will be a roundtable series of "drill sessions" each dedicated to a specific training topic. Both hardware and software issues will be covered.

Visit www.neundorfer.com for details and to register. Room reservation cut-off date is April 29, 2005. Contact Punderson directly to make room reservations.

SPACE TO GROW *see page 4*





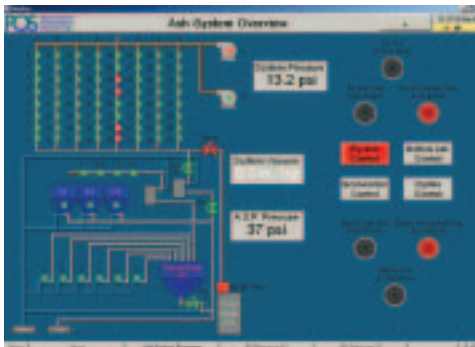
SmartAsh and Hopper-Evacuation Control System Yield Major Benefits for Power Plant

Neundorfer recently completed the installation of a SmartAsh and hopper-evacuation control system at AES (IPL) Petersburg. The project was both large in its scope and intricate in its nature, with 64 NUVA feeders, Pyrite hoppers, Economizer hoppers, boiler bottom-ash wet- and dry-conveying systems, and two large high-pressure blowers. The result was dramatic savings in direct and indirect costs for the customer as well as opacity reduction.

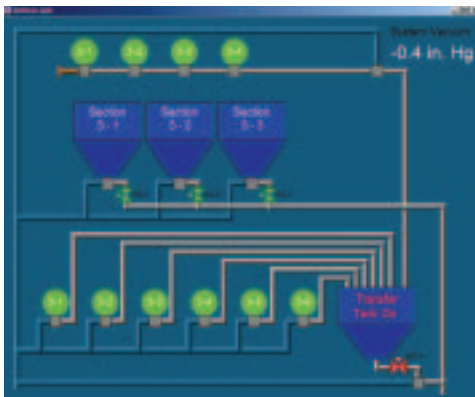
For more information about the Neundorfer SmartAsh system, visit www.neundorfer.com, or call us to review your hopper evacuation control needs.



Twin displays are provided in the control room for easy access to information.



Ash System Overview Screen displays status indicators and alarms for all parts of the system. Each part of the system can be accessed from this screen.



The Bottom Ash screen shows all the functions of the system and all alarms.



In the customer's words:

Before we installed the Neundorfer SmartAsh system, we were spending many hours each week keeping our hoppers pulled and the levels out of our fields.

Now, with SmartAsh, we pull the entire unit's hoppers in about half the time that it took us before. Maintenance hours have been greatly reduced because the data provided by SmartAsh helps with troubleshooting. Moreover, opacity has gone down because hopper levels are kept lower, reducing blow-over.

We would recommend the SmartAsh System to anyone with pressurized NUVA feeders.

Keith Stevenson IPL Petersburg



VPN Remote Consulting Provides Numerous Benefits to Utility

A large U.S. utility company has initiated a program for Neundorfer to provide high-speed VPN connections to all of their plants using the Neundorfer Precipitator Optimization System (POS) software. VPN, or Virtual Private Network, provides a fast, reliable and secure remote connection. The reason for using VPN technology is to make better and faster use of Neundorfer's remote consulting and monitoring services. The customer plants are benefiting from:

- Help setting up performance optimization programs that maintain the lowest possible opacity through changes in fuel and other operating conditions. A byproduct of performance optimization is significant savings in precipitator power.
- Online help in evaluating and improving rapping programs.
- Assistance with pre-outage "in-service" evaluations that will help pin-point sections that need inspection and improvement during outages.
- Help with troubleshooting process, power-supply and control problems.
- Help with evaluating and quantifying the effects of test coal burns on precipitator performance.

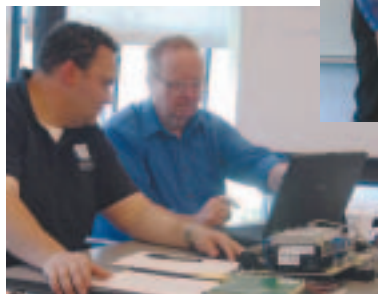
Many of these services require minimal time for Neundorfer engineers and are provided as a free service. Even when the support takes more time and is billed, the plant realizes significant savings and eliminates the travel delays that on-site service would incur.

PLC Training Enhances Customer Service

Like students everywhere, members of the Neundorfer staff went back to school last fall. Eight of our mechanical engineers, electrical engineers and field service staff members took a custom-designed three-day course in programmable logic controllers (PLCs).

The Neundorfer staff decided to go back to school because our specialized integration business has been growing rapidly. They decided, regardless of whether they were doing the actual programming, that they needed to better understand the programming of the PLCs and all their capabilities.

We are currently integrating PLC-controlled ash systems, soot-blowing systems, precipitator purge systems and flue-gas



conditioning systems into our Precipitator Optimization System (POS) software and plant DCS and networks. For example, Neundorfer's patented Smart Ash systems rely on PLCs for basic system control as do many of our SmartPurge systems. Much of the improvement we have

brought to the Wilhelm SO₃ and Ammonia systems rely on sophisticated PLC logic in conjunction with the POS to implement.

In order to continue the education process, we are planning additional advanced PLC training for those who will be developing new products, implementing customer integration projects and providing start-up and training for these systems.



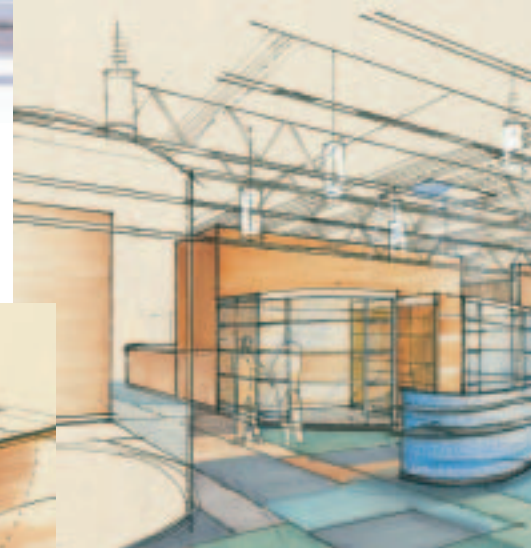
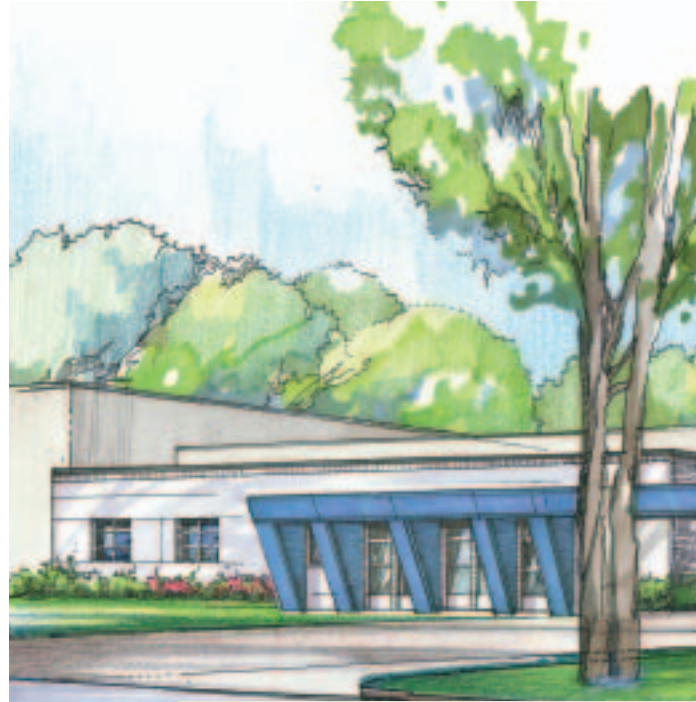
Space to Grow

As we began to plan our Lean initiatives (see article on page 8), we also realized that this would be the opportune time to address our growing need for production space. Indeed, our Lean analysis indicated that our workflow could be more efficient if we had additional space in which to work. With that in mind, we were able to acquire a building immediately adjacent to our current facility.

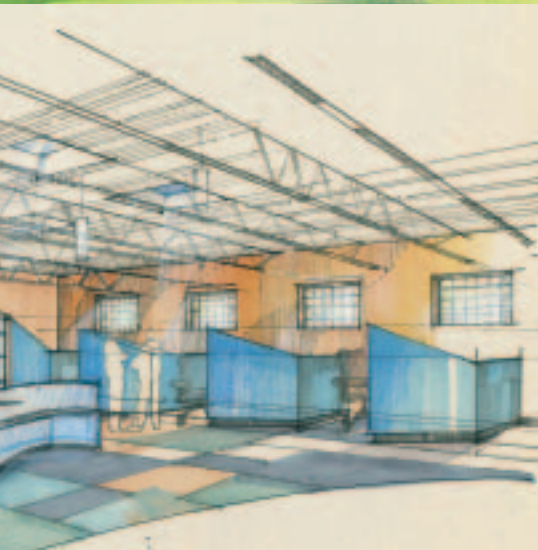
By fall 2005, we will join this second building to our existing building to create an integrated facility which will more than double our current working space.

Our intent is to create a highly functional facility with a focus on efficiency in every aspect—energy consumption, space utilization and production capacity—one that enhances cooperation and nurtures the learning environment that we seek to maintain.

In the construction process, we plan to use recycled and rapidly renewable building materials and designs that will minimize our future energy needs. Furthermore, by reusing two existing buildings, we are avoiding the many costs associated with building an all-new facility, and sharing with the community the added benefit of reducing urban sprawl.



NEUNDORFER NEWS





Weighted Wires

They Are Still a Popular Choice for Precipitators and Are Still Available from Neundorfer!

Many precipitators today continue to use weighted wires for their discharge

electrodes. In fact, many customers choose wire electrodes for rebuilds

because wires are reliable and are easy to replace. Well designed and maintained, weighted-wire precipitators will often go more than 20 years without an electrode change-out.

In addition, wire electrodes usually survive over-temperature conditions with less permanent damage than rigid electrodes. And should a fire or explosion create the need for electrode replacement, wire electrodes can be replaced without cutting slots in the roof. Rigid electrodes require significantly more labor and thus are more costly to replace.

Due to the emergence of rigid-discharge

Continued on page 7



Jim Sabol (above), with more than 20 years experience with Neundorfer, is instrumental in the design and development of new manufacturing systems to help reduce setups, improve quality and enhance safety. Our wire manufacturing line, at right, is designed for quick changeovers to make emergency production runs more cost-efficient.



Continued from page 6

electrodes in the last two decades, however, sources for weighted wires have declined. Now, only a small number of vendors actually make weighted wires.

Neundorfer Is Still a Source

Neundorfer has remained a manufacturer of high-quality discharge-electrode wires for more than 20 years. In the early '80s, Neundorfer ingenuity led to the patented spring-shrouded wire design. Today, Neundorfer makes thousands of wires every year, with both spring and solid shrouds, for our customers in North America.

We manufacture replacement weighted wires for any precipitator type, using several types of materials including carbon steel, stainless steel and chrome moly. Material selection is important and must take into account the process conditions and flue-gas temperature of a particular precipitator. We also manufacture most types of terminations, including buttons, hooks and loops. And our quality-control system, unmatched in the industry, exceeds every customer-requested QC standard.

For more information or a quote on discharge-electrode repair or replacement, please call Neundorfer at 440-942-8990.

Wire Replacement Strategy

When replacing wires, we always look for opportunities to improve the original design. We aim to supply a wire that is easier to install (and remove, if necessary), lasts longer than OEM wires and improves precipitator performance.

Neundorfer has a proven track record of quick turnarounds for any order size. We have supplied orders larger than 80,000 wires, and as we become more efficient, we continue to improve response time and reduce costs. Being able to manufacture wires so quickly allows us to respond to emergency requests, such as an unplanned wire replacement near the end of an outage.

We make wires for every type of weighted-wire precipitator in North America, including:

- American Standard
- GE Environmental
- PPC
- Buell
- Joy Canada
- Research Cottrell
- Environmental Elements
- Joy Western
- UOP
- Koppers
- Western Precipitation

UPCOMING MEETING DATES

Mark Your Calendars and Make Reservations Today!



2005 POS Users Group Meeting

Punderson Manor Resort

May 24-26, 2005

(see article on page 1)



ESP Operations Seminars

San Antonio, Texas – Hyatt Regency on the Riverwalk

October 4-7, 2005



New Orleans, Louisiana – Royal Sonesta Hotel

February 22-24, 2006





Neundorfer Gets Lean

Neundorfer, Inc. has embarked on a quest to make our company more “lean.” Lean production is a philosophy, first developed by Toyota, that focuses on continually reducing waste in all areas and in all forms, as a means to shorten lead times, increase quality and reduce costs.

We are confident customers will see significant benefits as we reduce waste and improve our performance.

The Lean approach to designing and managing production emphasizes minimal inventory and a reduction of work in process. We have begun by evaluating everything from equipment location to individual tasks in the production chain, in order to streamline the process. Our goal is to carry a smaller inventory, while simultaneously shortening our turnaround time—particularly important for emergency-outage orders.

Furthermore, by eliminating waste we are cutting the resources required for production. For example, staff members being freed up by this process are available to help us meet the increased production requirements that we are experiencing.

In the front office, we have reorganized our sales teams so they can be more effective and more responsive. Each team now has representation from sales, purchasing, electrical and mechanical engineering, field service and administration in order to help streamline the quoting, ordering, manufacturing and shipping processes. We are also cross-training every employee in quoting and order entry to reduce processing times.

The effort to improve the quality of customer information and reduce our response time is taking on added meaning and urgency as we are planning the layout of our new, expanded offices and production area (see article, page 4). The whole staff has been involved in creating and implementing significant changes in processes, procedures and structure as we work to integrate our business into our soon-to-be-expanded quarters.

Our employees have taken quickly to the idea of making our company leaner. The Lean idea has gone from vision to plan with short- and long-term goals within only a few months. We are confident that customers will see significant benefits as we reduce waste and improve our performance.

Neundorfer People

DAVID MURRAY joined Neundorfer in April 2004. He is married and has two sons, 8 and 4, and a one-year-old daughter. Dave enjoys spending time outdoors with his family, as well as playing cards and board games and solving puzzles. He is a graduate of Youngstown State University with a bachelor of science in business administration. Prior to joining Neundorfer, Dave was a manager in the customer service industry. Dave provides administrative support and also assists with accounting and customer service.



NEUNDORFER PRECIPITATOR KNOWLEDGE

Neundorfer, Inc. • 4590 Hamann Parkway • Willoughby, Ohio 44094
Phone 440-942-8990 • Fax 440-942-6824 • e-mail: solutions@neundorfer.com • www.neundorfer.com

