

McNally Institute

Pump and Seal Training Seminar Provided by Bill McNally

Brought to you by: Rapids Process Equipment



New for 2011: Hands-on training at the RPE Facility!

What is the McNally Institute?

This two day course will answer most of the questions you have about seals, bearings, and why pumps often fail prematurely. You will not need a background in either seals or pumps to keep up with the class. Only basic mathematics are used to explain the formulas you will be taught.

Who Benefits from the McNally Institute?

- Millwrights
- Engineers
- Planners
- Tradesman
- Maintenance Superintendents
- Operations Manager
- Procurement Professionals
- Operators

Improve Efficiency Increase Reliability of Pump & Seals Decrease Maintenance Costs



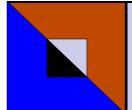
Bill McNally is recognized as one of the foremost authorities on pumps and seals. He is credited with training maintenance personnel around the world for more than 35 years. The knowledge that Mr. McNally conveys in his training has been used in plants all around the world extending equipment life, saving thousands of dollars. Bill's training style will not only motivate his trainees, he will open your mind to absorb the valuable information provided.

www.mcnallyinstitute.com



Rapids Process Equipment, Inc. has been in the rotating equipment repair business for 11 years serving industry throughout the upper Midwest. RPE's goal is to be your first choice when considering a vendor to rebuild your company's industrial equipment. We stand behind our commitment of "Reliability, Precision and Experience" in all the work we do.

Visit us on the web at www.rpeus.com



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Two Day Course Curriculum

- What life you should expect from pumps, bearings and mechanical seals
- An explanation of common pumping terms
- Pump standards, what's wrong with them?
- How to analyze rub marks caused by pump shaft deflection
- Different types of pump curves
- How to create a system curve
- Using pumps in series and parallel
- An explanation of various impeller shapes and materials
- How to choose the correct centrifugal pump
- Should you be using a variable speed drive on your pump?
- Special pumps
- When should you use a positive displacement (PD) pump? Rotating vs. stationary seals. Which one to select?
- How to hydraulically balance a seal
- Features to look for in mechanical seal designs
- Sealing slurries
- Seal installation. The use of cartridge seals
- Using two seals in your pump
- Hands-on training at the Rapids Process Equipment facility

- The centerline design
- The vortex pump
- The magnetic drive pump. Where should you use it, and where it would be a poor choice.
- What is NPSH all about?
- An explanation of the different types of cavitation and how to stop it
- Suction vaporization (low NPSH)
- The vane-passing syndrome
- Internal recirculation
- Turbulence
- Air ingestion (Looks like cavitation)
- Bearing lubrication
- Bearing sealing
- How important is it to do a pump alignment?
- Trouble shooting common pumps problems
- How to modify your pump for longer bearing and seal life
- Ten types of corrosion we see in pumps and seals
- Mechanical seal basics
- When to use split seals

<u>_</u>	Early Registration Discount: April	count: April 11, 2011 Final Registration: May 2, 2011		2, 2011
Date: Time: Location: Fee:	May 24-25, 2011 8:30 to 4:30 PM Timberlake Lodge Hotel 144 SE 17th Street Grand Rapids, MN 55744 \$599 Each (1-3) Four or more: \$495 each	Method of Pa □Visa □Ma □Bill me wi Credit Card #	ayment: asterCard Check enclosed ith PO#	RPE Rapids Process Equipment Rability Profiles. Experience. Exp. Date
For overnight reservations call the Timberlake Lodge Hotel @ 1-866-800-2200 or Super 8 Hotel @ 218-327-1108 Specify Rapids Process Equipment McNally Institute for a special rate. www.timberlakelodgehotel.com				
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Please mail/fax/e-m form to:	26489 Industrial Blvd	Phone: 1-888-278-0047 Fax: 218-999-5102 E-mail: barb@rpeus.com	Reliability. Precision.	. Experience.