

Commission Petro-Chemical Plants with Excellence – “Delivering on the Promise” –

You Can Plan for Commissioning Excellence and Effective Start Up of Complex Continuous Process Operations!

Successful commissioning of new plants or major start-up new units, equipment and systems requires planning, organizing and controlling. There must be careful methodical, detailed planning – early – is the key to the success of any commissioning. Proper planning defines many important tasks defining scope, approach, goals, organization, control plans, schedule, methods, safety, quality, equipment, crews, information flows, threats, and opportunities. Successful planning for commissioning is done in a variety of forums: meetings, visits, presentations, negotiations, alone or with others. Planning also takes many forms: – study, prefabrication, scheduling, instruction, discussion, walk through, simulated operation.

This is a five day TrueWorkShop being held in beautiful Indianapolis, Indiana. But on May 18th to 22nd here will be a limited number of seats available! So Register Now!

May 18th to 22nd
Click Here to See
the Complete TMEI
Schedule for 2009

What is a TrueWorkShop?

The Maintenance Excellence Institute (TMEI) believes that the principles we cover must be practiced in class and can be taken back and put into practice for a true return on investment for this training. This is especially important for this TrueWorkShop on commissioning of large complex, manufacturing processes. Extensive practical exercises will reinforce key topics. Extensive idea sharing among attendees is one of prime reasons to attend. You instructors have real case studies from over 300 plant and facility sites. We also provide each attendee with today's most comprehensive set of course material and take home references from The Maintenance Excellence Institute and ProjectLEADER inc.

First Time: And for the very first time, we are pleased to introduce and include *The Scoreboard for Commissioning Excellence* with course instructions and take home references. Your results from this TrueWorkShop will be the complete understanding of commissioning and along with many of the “secrets” of success experienced by your two instructors. A clear understanding of today's best practices for commissioning is so important to successful application and safe, on time production start up of critical systems and subsystems.



This Training is Not Over When it's Over!

Your company will benefit most if you attend as part of a 3-4 person company team. Your team will work together and return to your organization as a team with new knowledge and team support for your new plans for commissioning. **Yogi Berra** once said, **“it ain't over until it's over!”** Your session is definitely not over when it's over. Following completion of this event, there is a personalized follow-up scheduled for each organization attending. Our one on one coaching is to help you to use your *Scoreboard for Commissioning Excellence* as a self assessment tool, to apply the key topics presented to your commissioning planning and to implement your plan of action for commissioning. We want to help you implement the plan of action that you will develop as part of this TrueWorkShop's practical exercises. Successful implementation is your key to results.

Your Benefits and Value..... Guaranteed!

We personally guarantee this TrueWorkShop! We will help bring to you the firepower and knowledge that you need to reinforce your operations and maintenance needs to Top Leaders before and after commissioning! We can personally help you make a difference in the total operations success and commissioning excellence of your organization by attending this event! Top Leaders must clearly understand your commissioning needs and the consequences of gambling with maintenance costs after commissioning.



We Want to Help You! **To Help You “Deliver The Promise”!**

Who Should Attend

- Any staff member involved in commissioning and major shutdown activities.
- Plant Maintenance Staff, Plant Leaders, Supervisors, Superintendents,
- Maintenance Planning Staff and Managers
- Project Engineers and Project Managers
- Other Engineering professionals
- Plant Managers, Shutdown Managers and Coordinators

Also!

- Cost and Quality Control Staff

- Construction Superintendents
- Procurement and Site Warehouse Management Staff
- Contractor staff in above positions for commissioning and major shutdowns
- Project team members in: manufacturing and process industries
- Also research and development, utilities, local authorities

NOTE #1: Project management knowledge will be an advantage to participants

NOTE #2: Attendees will be asked to bring any as much info as possible about past projects or most importantly bring info about current or a future project for use during the class project.

Some Important Things You Will Learn to Apply Within Your Organization:

How planning completes commissioning on paper? As a commissioning team, people learn the thought, the logic, and approach that led to the plan. **“Planning has a six-to-one payoff in execution”** – for every one hour we spend in planning, we save six hours in execution. The speed of work increases – quality of work improves – planned execution is a fraction of unplanned. To repeat – the quality of the work improves – deliver new product with record setting stakeholder approval.

Increase the probability of excellence: The greater the number of people who understand the plan, the higher the probability of excellence. We emphasize learning to plan the right things, the right way, at the right time. We also stress being the best we can possibly be – the higher the expectation, the greater the success.

Plan to manage and communicate on the political side: Informed stakeholders are happy. Invest in Communicating, Coordinating, Cooperating, and in Celebrating. Meet the challenge of keeping operators, mechanics, contractors, consultants, engineers, supervisors, and service people all focused on producing the finest Commissioning possible.

Expect Real Challenges: Mistakes, misinterpretations, overlooked items abound. You will learn to see challenges as they are budding and have alternatives defined before being confronted by fully-grown trouble. And you will understand how to manage risk and results and to lead vision and values. Making safety both the first thing and last thing planned – zero accidents is the only standard.

This TrueWorkShop provides an approach to plan the plan, plan mechanical completion, plan and prepare for production, plan equipment verification, plan system validation, plan production start-up and to plan for long term reliability and maintenance excellence . The team of planners and doers accomplish this crucial preparation for success. You will learn to plan the right thing correctly at the right time.

Life-Cycle Reliability & Maintenance Excellence: Never before has reliability and maintenance processes been so important. Consideration starts with pre-design and continues through construction, commissioning and beyond during the operation of complex petro-chemical processes. This is one of only a few courses of this type that includes consideration and development of a maintenance strategy for major project systems and sub systems.

Your Learning Outcomes; Not Training, but Rather Your Professional Development

Participants will:

- Advocate a thorough before planning evaluation of lessons learned in other commissionings.
- Know that commissioning includes mechanical completion, equipment verification, systems validation, production operations, start-up, and continuing production.
- Understand what needs planning at the strategic, tactical, operational, & task/tools for each phase of commissioning.
- Examine commissioning resources and their management to ensure quality and quantity of each: people, supervision, tools, materials, project equipment, information, time, and money.
- Mechanical completion, equipment verification, and systems validation requires detailed planning and careful execution. Inspect, verify and account for incredible amounts of information and documentation.
- Emphasize how all three of these phases will occur simultaneously.
- Operators and mechanics participate in all three phases to verify, validate, and ensure quality of equipment and systems.
- Operators and production supervision are the keys to start-up. The commissioning team must be relentless in providing the best training, reference materials, and start-up plans to make start-up flawless.
- Mechanics and maintenance supervision must integrate with production preparing, lubricating, watching, helping, and adjusting, during start-up.
- Develop progress and quality controls to assure flawless production.
- Document and control: 15 or more items for each of 3000 or more mechanical items; 250 or more items for each of 50 or more systems; 1500 items or more for one start-up unit.

TrueWorkShop Topics: Electronic References Provided for All Topics

Day One

1. The First Step – Lessons Learned from other Commissioning projects – The six keys questions
2. Strategic Planning
 - a. Purpose
 - b. Mission
 - c. Goals
 - d. Measures of Success
3. Commissioning Phases
 - a. Plan to Plan
 - b. Schedule Mechanical Completion
 - c. Plan Equipment Verification
 - d. Plan Systems Validation
 - e. Plan Production Operations
 - f. Plan Start-Up & Continuing Production
4. Planning Process for ;
 - a. Strategic,
 - b. Tactical,
 - c. Operational Task/Tool for Commissioning and Each Phase
5. Commissioning Staffing & Forging the Commissioning Organization
6. Safety Management – plan, process, control
7. Document Management – plan, process, control
8. Issue Management – plan, process, control
9. Problem Resolution – plan, process, control
10. Decision Management and Problem Escalation
11. Risk Management – identify, assess, cause, resolve, control, monitor per criticality/probability
12. Contingency and Reserves – time, cost, effort

**The ACE Team Certification
for Estimating is Available
from TMEI**

Day Two

13. Tactical – Plan the Commissioning Project Management
 - a. Safety Management – Zero Accidents is the only standard
 - i. Vessel Entry
 - ii. Burn Permits
 - iii. Medical Support
 - b. Policy – how to move from one phase to the next on a system by system, unit by unit basis.
 - c. Sequence and Priority of Start-up
 - d. Political Plan
 - e. Logistics
 - f. Meetings
 - g. Progress Controls – Schedules
 - h. Document Control
 - i. Punch List Control
 - ii. What does Ready mean?
 - i. Quality Controls
 - j. Risk Control
 - k. Communication
 - l. Problem Escalation
 - m. Safety Control
14. Plan Production – continuing operations
 - a. Resources – people, supervision, materials, time, money
 - b. Operator and Mechanic Training
 - c. Production Simulation



TMEI TrueWorkShop August 2008
Planners at Nigeria Liquid Natural Gas Plant
The World's Largest LNG Plant

Day Three

15. Operational – Plan Each Phase – Plan, Organize, Staff, Direct, Control
 - a. Equipment Verification and Design Compliance (to include electrical, instrumentation, and control systems)
 - i. Document and control: 15 or more items for each of 3000 or more mechanical items
 - b. Systems Validation
 - i. 250 or more items for each of 50 or more systems
 - c. Start-Up
 - i. 1500 items or more for one start-up unit;
 - d. Continuing Production
16. Resource Validation – duration, labor hours, cost, materials, equipment, crews.
17. Plan and Schedule Review – time, territory, technology

Day Four

18. Task/Tools for Equipment Verification
 - a. Drawings and Specifications (what was intended?)
 - b. Piping and Instrumentation Drawings (what was intended?)
 - c. Purchase Orders (what was bought?)
 - d. Inspection (what is installed?)
 - e. Operating Instructions
 - f. Operating Parameters
 - g. Calibration
 - h. Operating Spares
 - i. Maintenance Procedures
 - j. Preventive Maintenance
 - k. Predictive Maintenance and Continuous Monitoring of Processes, Energy Management, etc
 - l. Repair Spares and MRO materials

Many Cranes and Lifting Equipment



Warranties on This Building Are Many. Someone Must Be Fully In Charge & Responsible

- m. Warranty
 - n. Test for Operation
 - o. Protect for Systems Validation
 - p. Secure for Start-up
19. To Be Verified
- a. Types of Possible Equipment and Motors
 - b. Types of Vessels
 - c. Types of Controls and Instruments
 - d. Piping and Supports
 - e. Utilities (water, sewer)
 - f. Power (electrical, steam)
20. Verification Schedule
21. Documents and Document Control for Verification
22. Task/Tools for System Validation
- a. Instruments
 - b. Production Control Systems
23. Systems to be Validated
- a. Systems List
 - b. Plan for Each System
24. Documents and Document Control for Validation

Day Five

25. Task/Tools for Start-up
- a. Start-up Units
 - b. Start-up Plan for each unit
 - i. Zero Energy
 - ii. Blinds – protective and zero energy
26. Start-up Control
27. Document and Document Control for Start-up
28. Plan and Present Complete Commissioning Plan (with estimates and controls) for **Upcoming** Project
29. Presentation of Certificate



The World's Tallest Building
The Burj Tower in Dubai
A Giant Facilities Commissioning Challenge

TeamWork and The ACE Team Process: The Maintenance Excellence Institute and ProjectLEADER inc. agree that teams are important for “delivering the promise” on petro-chemical plant commissioning. Team training on the topic is our standard process for complex topics we will cover. Likewise, teamwork during this 5 day session will be an important learning tool. Professional contacts made will last long after course completion. And further study on related topics will always be necessary. One such topic is summarized below. Certification on The ACE Team Process for estimating maintenance type work is available exclusively from TMEI.

About The ACE Team Process Certification

Certification for The ACE Team Process for Estimating: This is an exclusive, TMEI stand alone course for planner certification. **ACE** is an acronym for “**A** Consensus of **E**xperts”; experts who know and have performed maintenance work. It includes the complete process ranging from selecting and analyzing benchmark jobs for actual wrench time for job tasks, developing “spreadsheets” up to the development of the planned wrench time. All leads to a schedule with reliable planning times which includes planned travel and other miscellaneous time not considered wrench time. The process trains the planner and ACE Team members to analyze job tasks (that also become [standard job plans](#)) in terms of repair method, safety, quality and reliability issues.

This exclusive certification is available only from TMEI. And this TrueWorkShop is specifically designed for planners and is available in several delivery options

- a) As a supplement to our 3 day or 5 day planning, estimating and scheduling offerings.
- b) As a two day session public session with pre-course and post course work.
- c) As a self-paced, self-study, TMEI facilitator led and directed course requiring no travel. **Note:** This training support for planners is included at no charge as part of [The Scoreboard for Maintenance Excellence](#) assessment for the client's existing or new planners.

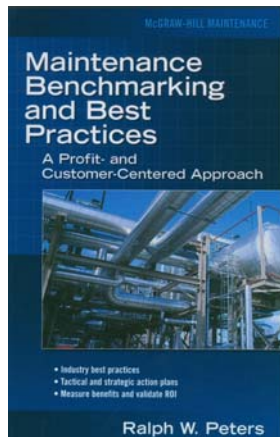
Your Instructors and Personal Coaching Team



LEE ALAN PETERS, P.E. F.ASCE has been a principal with [ProjectLEADER inc.](http://ProjectLEADER.com) for over thirty years and is a valued Alliance Team Member of TMEI since 2001. He has three decades of experience in project management, process improvement, and systems development. Clients best know him for welding people, technical processes and management systems together into high performance projects. Lee consults in strategy, quality, performance, risk, and leadership. He delivers experienced change methodologies to create beneficial growth and development. He works on projects B capital, shutdowns, maintenance, research, events. Since 1972, he has had experience with capital projects in eight chemical process facilities; maintenance management in fifteen chemical plants; and research or product development with four corporations.

Lee has a bachelor's degree from Rose Hulman and master's degrees in both Management and Civil Engineering from Purdue University. Lee is also an honor graduate of the U.S. Army Command and General Staff College and is a Vietnam veteran..

Lee has authored more than sixty articles published in *TAPPI Journal*, *American Papermaker*, *Cost Engineering*, *Chemical Engineering*, *Construction Digest*, *Journal of Management in Engineering* and *pmNETWORK*. He also conducts seminars and workshops and is a speaker at professional conferences and symposiums. Lee Peters is a fellow of the American Society of Civil Engineers and Project Management Institute. He is also an arbitrator/mediator for the American Arbitration Association and a Partnering facilitator.



Ralph W. "Pete" Peters, the Founder/President of TMEI will also support this event with instruction and facilitation of practical exercises. His experience of over 35 years has included being a manufacturing plant manager, director of facilities management and extensive maintenance experience during his military experience starting in Vietnam with the US Army Corps of Engineers. He has consulted and provided manufacturing & maintenance best practice training in over 15 countries. For example, in manufacturing, he has taught closed loop Materials Requirements Planning (MRP-II) to staff of a large plant operation. His publications include over 200 articles, maintenance chapters in four major handbooks, a book on *Maximizing the Value of Your CMMS*, 2 E-books and McGraw-Hill's Professional Division book; *Maintenance Benchmarking and Best Practices: A Profit and Customer-Centered Approach*. His positive approach and his leadership experience in manufacturing, maintenance and from consulting, allows him to be an excellent coach for today's top leaders, maintenance leaders and engineering managers. Pete is a grass roots, down in the maintenance trenches type of consultant and trainer as can be seen in his new book; *PRIDE-in-Maintenance*. It is dedicated to and for the crafts, trades and technician staff only. It outlines his PRIDE in Maintenance sessions for idea generation and solutions from our MVPs, the technical craft workforce. And it celebrates the maintenance profession for those doing the real maintenance work.



Note: Lee & Pete are not related, but they served together in Vietnam in 1970 building roads for the US Army Corps of Engineers. Lee was Pete's engineer company commander and direct leader at that time. They reconnected around 1988 and since then they have remained friends and business associates.

Extensive Electronic References to Take Home: We provide more electronic references than any other course now being offered in the World! You will receive a body of knowledge on commissioning that is unsurpassed by any other company. Some elements of this work shop are based on Pete's new book from McGraw-Hill's Professional Division: *Maintenance Benchmarking and Best Practices: A Profit and Service-Centered-Approach*. Most is based upon Lee Peters' body knowledge from his very professional and practical career. Each attendee will receive an e-book copy of Pete's book from McGraw-Hill plus many, many more valuable references on CD. All PowerPoints used in class will be included as well as *"The Mother of All Maintenance and MRO Materials Management Glossaries"* also available at www.PRIDE-in-Maintenance.com.

The Maintenance Excellence Institute

Worldwide Services – Measured Shop Level Results
www.PRIDE-in-Maintenance.com

Take an Important First Step Right Now: This training process, like Pete's new book is for the public & private sector. It applies to commissioning of petro-chemical plants and application to large facilities like *The Burg Tower in Dubai* as well hospitals. It will help provide you the important steps toward improving commissioning complex facilities, establishing the maintenance process and the long business of profitable operations & reliable maintenance of your new operation.

And if your results from this TrueWorkShop do not provide a return on investment to cover your time & training costs, a complete refund will be provided to you.

Your Training Investment: We think that training is an excellent investment and that all of our TrueWorkShops are today's best value, results oriented and focused on implementation. The investment per single attendee is \$1650 but when you pay for three and you can send a team of four for \$4950 for a **direct savings of 25% or almost \$2000**. All lunches and reference materials are included. The workshop schedule is from 8:30 AM to 3:30 PM each day with assignments for evening project work

Act Now and Save 25% for Your Team of Four



ABOUT SONY | MALAYSIA CORPORATE

هيئة كهرباء ومياه دبي
Dubai Electricity & Water Authority



**Some Worldwide Companies That Have Attended Courses Presented By
The Maintenance Excellence Institute & ProjectLEADER inc.**

Plan to Save 25% for a Team of Four and Have A Mini Vacation in Indy

Four Easy Payment Options:

a) Provide a purchase order number and we will send an electronic invoice to bill your organization directly. We can do this even for all last minute attendees. Please call Bob Gaskins at (919) 841-0705 to confirm names of your attendees and for their certificates of completion preparation.

b) Send checks payable to:

The Maintenance Excellence Institute
6809 Foxfire Place, Suite 100
Raleigh, NC 27615

c) We accept **Visa, Master Card and American Express** credit card payments. You can pay easily on line or you can call Bob Gaskins at 919-841-0705 with the names of your attendees and we will complete the use your credit card to pay for your attendees. **Remember the 25% savings!**

d) You can wire transfer direct to TMEI's bank for no extra charge. Contact Bob Gaskins and we will provide info for direct wire transfers of your payment.

WORKSHOP CONTACTS: For Registration and Direct Discussion with Instructors about This TrueWorkShop contact:

1. **Bob Gaskins 919-841-0705**
Bob@PRIDE-in-Maintenance.com

2. **Ralph "Pete" Peters 919-280-1253**
Pete@PRIDE-in-Maintenance.com

3. **Lee Peters PE 317-697-4221**
Lee@PRIDE-in-Maintenance.com

If You Can Not Make This Event Request Our Complete 2009 Schedule for Training for Maintenance Excellence

Make Plans Now! DO IT NOW!

For more specific details about this workshop or for help with planning this event as in house session at your site, contact:

The Maintenance Excellence Institute
6809 Foxfire Place, Suite 100, Raleigh, NC 27615
2625 East Beach Drive, Oak Island, NC 28465
Call: 919-270-1173 & Fax: 919-846-9804

www.PRIDE-in-Maintenance.com/

E-Mail: Bob@PRIDE-in-maintenance.com

Work Shop Location: Note: Based upon total actual attendees, the TrueWorkShop meeting room may be changed and transportation provided to another site.

Crowne Plaza Hotel: Downtown-Union Station

123 WEST LOUISIANA STREET.
INDIANAPOLIS, INDIANA 46225 USA
Hotel Front Desk: 1-317-6312221 |

Hotel Fax: 1-317-2367474



Indy's Premier Meeting Hotel

This Romanesque revival-style hotel features 273 guestrooms, [Pullman's Restaurant & Lounge](#). Crowne Plaza at Historic Union Station is housed in "America's 1st Union Station." We're best known for our [26 authentic Pullman train car guest rooms](#).



Indianapolis Motor Speedway



Eiteljorg Museum of American Indians and Western Art

Please Call and Make Your Plans Today!

Call Bob Gaskins 919-841-0705

Bob@PRIDE-in-Maintenance.com