Welcome to TPE’s Free Webinar Series

"Ensuring Knowledge Management Through SOP Development"

Our Guest Presenter
Dr. George McAfee
Marathon Petroleum Corporation
Agenda-

• Welcome

• Introduction of TPE’s Webinar Series
  Al Faber, President & CEO, TPE

• Today’s Session
  Dr. George McAfee
  Marathon Petroleum Corporation

• Open Discussion and Questions
2014 How to Write an Application Workshop

Register Today!

Event Cost: $225.00 per participant
$205.00 for TPE 2014 Individual & Organizational Members
Space is Limited

2014
To Register Contact:
Tiffany Edmonds
tiffany@partnershipohio.org
phone: (614) 893-0006
fax: (614) 515-4771

All Three Locations:
Registration: 8:30 AM - 9:00 AM
Training: 9:00 AM - 4:30 PM

JUNE 19, 2014
COLUMBUS, OHIO
Battelle Advanced Manufacturing
5160 Blazer Parkway
Dublin, OH 43017

Billie Jo David
Director of Quality, Summit County
Board of Developmental Disabilities
TPE Senior Examiner
Advising & Partnering Coach
Lead Trainer, How to Write an Application Workshop

Eric Franks
Manager, Technology & QA
PRO-TEC Coating Company
2007 MBNQA - Small Business Recipient
National Alumni & TPE Senior Examiner
Advising & Partnering Coach
TPE Lead Judge

JUNE 24, 2014
INDIANAPOLIS, INDIANA
Citizen’s Energy Group
2020 N Meridian Street
Indianapolis, IN 46202

Dr. Kurt Schoch
Performance Improvement Consultant,
Walden University
National Alumni Examiner
TPE Senior Examiner/Team Leader
Training Facilitator
Advising & Partnering Coach

Suki Wright
Director of Organizational Excellence & Innovation, Schneck Medical Center
2011 MBNQA - Health Care Recipient
National Examiner
Six Sigma Black Belt
Advising & Partnering Coach

JUNE 26, 2014
CHARLESTON, WEST VIRGINIA
Charleston Area Medical Center
501 Morris Street
Charleston, WV 25326

Brenda Grant
Chief Strategy Officer
CAMC, Health System, Inc.
National Examiner
TPE Judge
Advising & Partnering Coach

Dr. Glenn Crotty, MD
Executive Vice President & COO
CAMC, Health System, Inc.
National Examiner
Training Facilitator
The Partnership for Excellence
The Nation’s Most Respected State Based Baldrige Program…

TPE Quarterly Webinar Series
May 15, 2014

Quest for Success 15-16 September, 2014
Polaris Hilton, Columbus, Ohio

BUSINESS – EDUCATION – HEALTH CARE – GOVERNMENT/NON-PROFIT

Malcolm Baldrige National Quality Award
2013 Award Recipient, Education Category

Pewaukee School District

Highest-Ranking Official:
Dr. JoAnn Sternke
Superintendent

Meeting High Standards for

**Pewaukee School District**

- Despite having one of the most rigorous graduation requirements (4.0 credits) in the state, PSD achieved a higher graduation rate from 2008 to 2013 in all high-performing districts. A key measure of college and career readiness, the percentage of PSD students attending a two- or four-year college increased from 76.8 percent in

Malcolm Baldrige National Quality Award
2013 Award Recipient, Health Care Category

Sutter Davis Hospital

Highest-Ranking Official:
Janet Wagner
Chief Executive Officer

Top-Level Care Maximizes Performance

**Sutter Davis Hospital**

- Sutter Davis Hospital demonstrates superior high-quality care and an emphasis on health care and patient-focused process results. For example, core measure scores reported to the Centers for Medicare and Medicaid Services (CMS) have ranked in the top 10 percent nationally since 2010. (Core measures are evidence-based performance metrics that set

The Partnership for Excellence
The Nation’s Most Respected State Based Baldrige Program…
Online Courses and Certifications available through TPE and Moresteam.com:

* Lean Six Sigma Black Belt.
* Lean Six Sigma Green Belt.
* Lean Six Sigma Yellow Belt.
* Lean Six Sigma Overview.
* Lean Methods Accelerator.

www.thepartnershipforexcellence.org
Dr. George McAfee is a 25 year industry professional with diverse experience in Hi Tech (Semiconductor), Automotive, and Oil & Gas industrial segments. He holds an undergraduate degree in Electronic and Computer Engineering with a minor in Material Science and an MBA and a PhD in International Business with an emphasis in Global Leadership. George has a broad depth and breadth of experiences in engineering, manufacturing, product quality, and supply chain operations. He has held the lead role in international business development activities, including ventures in Asia, Europe and Mexico. George is an active 6-sigma black belt and senior TPE Baldrige Examiner. He currently manages the Marine scheduling and commercial services organization at the Marathon Petroleum Corporation.
Ensuring Knowledge Management Through SOP Development

George H. McAfee, Ph. D.
Original Research - Basis

- Global emphasis on standardized work
- Technology transfer to LCLM
- Intense focus on Enterprise Risk Management
- Target topic at CEO Summit at BGSU in 2012
Marathon Petroleum - At a Glance

- Fortune 50 company (#33)
- Established in 1887, in Findlay, OH, as Ohio Oil Company
- Fourth largest U.S. refiner
- 2012 sales of $82.5 billion (2013 exceeds $100B)
- 28,000+ employees
- Headquartered in Findlay, Ohio
- Approximately 1,470 Speedway convenience stores
- Approximately 5,100 Marathon Brand retail outlets
- Extensive terminal and pipeline network
Marathon Petroleum Corporation

- More than 125 years in business
- Fourth largest U.S. refiner
  - Geographically and strategically aligned operations
  - Industry leader emphasizing safety and environmental responsibility
  - Consistently a top performer on an operating income per barrel basis
  - Characterized by safe and reliable operations
- Focused on profitable growth
Focused and Integrated Network

As of Oct. 31, 2013
Seven Key Corporate Strategies

1. Achieve top-tier safety and environmental performance
2. Grow enterprise value
3. Expand midstream business through MPLX LP
4. Deliver top quartile refining performance
5. Increase assured sales volumes at Marathon Brand and Speedway locations
6. Deliver profitable Speedway growth
7. Utilize and expand MPC’s high-quality employee workforce
Key Themes

With respect to standardized work and knowledge management

- Mission-Vision-Values must be central tenet
- SOP’s around processes core to M-V-V preservation
- Knowledge management embedded in SOP’s
- Prioritize SOP development by imminent risk to M-V-V
- Risk assessment enabled by KPI maturity
- “Best Practices” identified and integrated into SOP’s
Knowledge Management and SOP’s

Key words:
- Reference Material
- Hierarchy
- Transparency
- Alignment
- “Line of sight”

Policy

Standards and Practices

Operating Procedures (SOP)

Records and Forms
(evidence of compliance)
Problem Statement – What is an SOP?

Origin from US Military and Mil-Std library.....

“Detailed, written instructions to achieve uniformity of the performance of a specific function”

Or:

“A written document of instruction detailing all relevant steps and activities of a process or procedure to provide employees with a reference to common business practices, activities, or tasks”

...essentially the SOP presents the “rules of engagement” for a specific process or function.
Problem Statement – What an SOP is not?

An SOP is not.......

- An academic white paper
- A recommended practice
- Optional
- Discretionary
- Subject to voluntary compliance!

It SHALL be the way work is performed in your organization
Problem Statement - Why Develop SOP’s?

- Aging workforce
- “Tribal knowledge” at-risk
- Service/tenure is declining (i.e., Job-hopping)
- Dominate presence of Technology/Automation
- HES&S risks and regulations abound
- Promote consistency and uniformity
- Capture and transfer critical knowledge
“As the U.S. population ages, the labor force will grow more slowly during the next decade; the older labor force is projected to grow more than 5 times faster than the overall labor force.”
According to the NBLS......

“a higher percentage of those 55 and over will remain in the workforce, longer than before.....”

They are giving us a chance.... to harvest their knowledge!
Problem Statement - Why Develop SOP’s?

From the NBLS......

- Workforce age demographic profile is bi-modal.

- **Knowledge transfer** as a critical business

- Non-adjacent generation gap!
**Problem Statement** - Why Develop SOP’s?

So, how do we mitigate risks associated with “job hopping”, complex operating systems, loss of legacy knowledge, etc...?

Develop a complete set of Standard Operating Procedures for those processes and procedures that are core to preserving your
- **Mission-Vision-Values** -
Some critical questions you must answer........

- What processes put your M-V-V at the greatest risk?
- Are there governing documents for these processes?
- How do you measure or assess the potential impact of process failure?
- Are there KPI’s for these processes?
- And are these KPI’s sufficient to quantify risk?

...to answer that question, consider where your KPI’s fall on the “comprehension continuum”? 
Solution – “Comprehension Continuum”

Assessing risk is a function of comprehending the operational impact of the levels and trends of specific KPI’s.
**Solution – Comprehend Operational Impact?**

**Proven technique:** Failure Modes and Effects Analysis (FMEA)

<table>
<thead>
<tr>
<th>Process Element (or M-V-V line item)</th>
<th>Potential Failure Modes</th>
<th>Potential Impact of Failure Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What are the potential errors, problems, omissions, etc... that may exist with the key inputs to this process?</td>
<td>What impact would the presence of one of these failure modes have on the output of the process or the attainment of the M-V-V’s. (other critical requirements)</td>
</tr>
<tr>
<td>• Core value or critical organizational success factor (CSF)</td>
<td>• Unintended release or spill of hazardous material to water way</td>
<td>• Catastrophic affect on wildlife or adjoining landscape</td>
</tr>
<tr>
<td>• Ie. Environmental Stewardship.</td>
<td>• Employee exposure to hazardous vapors beyond AEL.</td>
<td>• Designated Environmental Incident (DEI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Excessive fines, settlement costs, media exposure and irreparable harm to reputation.</td>
</tr>
</tbody>
</table>
**Solution — Comprehend Operational Impact?**

**Proven technique:** Failure Modes and Effects Analysis (FMEA)

<table>
<thead>
<tr>
<th>Potential Causes of Failure Modes</th>
<th>Current Process/Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate containment</td>
<td>Volumetric capacity surveys</td>
</tr>
<tr>
<td>Valve alignment errors</td>
<td>Compared to design/construction specifications</td>
</tr>
<tr>
<td>Uncalibrated flow meters</td>
<td>“Management of change” discipline</td>
</tr>
<tr>
<td>Insufficient fault protection</td>
<td>Peer review of valve alignments</td>
</tr>
<tr>
<td>Air monitoring devices inoperable</td>
<td>Formal PPE validation policy</td>
</tr>
</tbody>
</table>
**Solution – Comprehend Operational Impact?**

**Proven technique:** Failure Modes and Effects Analysis (FMEA)

<table>
<thead>
<tr>
<th>Recommend Actions</th>
<th>Responsible Person(s) &amp; Target Date</th>
<th>Actions Taken</th>
</tr>
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</table>

- Benchmark “best practice” containment strategies
- Develop SOP’s for construction planning and PMP
- Zero-zero tolerance for PPE violations
Solution – Risk Priority Number?

RPN is product of 3 elements:

Severity

- Measure of magnitude of impact from the presence of the failure mode. How severe are the consequences?

Occurrence

- How likely or what is probably that failure mode will occur and at what frequency?

Detection

- A measure of the effectiveness of current controls. How likely are the current control systems to predict and/or prevent failure?

Each typically evaluated on a scale from 1 – 10, with 10 being most severe, most frequently, or least likely to detect.
Solution – Assessing Risk to M-V-V via FMEA

....bringing it all together!

- PLAN
  - Scope
  - SME’s

- PERFORM
  - Discovery
  - Harvest

- VALIDATE
  - Risk Ranking
  - Benchmark

- TAKE ACTION
  - Build SOP’s
Solution – Validate through “benchmarking”

Benchmarking Success:

- You must be willing to admit that someone else might be better!
- Look outside of your industry!
- Support all claims and evidence with DATA... because it CAN lead to the “ability to influence change”!
- Steal shamelessly but share religiously!
Finally!! – Concluding remarks

- Workforce demographics may put M-V-V at risk
- KPI’s from mission critical processes feed forward into formal risk assessment
- Risk assessment process will generate critical “knowledge” for AND from organization
- Validation of risk should include external benchmarking
- SOP Library should be developed consistent with high-risk processes
- Preserving of M-V-V’s enabled by the KMS “wheel” (shown on right).
Learning is the process of acquiring knowledge...

Learning is not compulsory, but yet neither is survival...

W Edwards Deming

'In vain have you acquired knowledge if you have not imparted it to others'

Deuteronomy
Q & A
Ensuring Knowledge Management Through SOP Development

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