

# Nuclear Supply Chain Strategic Leaders (NSCSL) Group Update

The background of the slide is a night photograph of the St. Louis Gateway Arch. The arch is illuminated with blue light on the left and red light on the right. The city skyline of St. Louis is visible in the background, including the Missouri State Capitol building with its white dome.

NUPIC Meeting June 22, 2016

Jim Kitchens

NSCSL Chairman

# What Is The NSCSL?

- ▶ The NSCSL was established in 2001 to provide a forum for nuclear utility supply chain leadership and coordinated collaboration around sharing of information, best practices and mutual support
- ▶ Roughly 80% of the nuclear sites in the U.S./Canada and EPRI currently represented
  - ▶ Membership open to all nuclear unit licensees
- ▶ Monthly conference calls
- ▶ Two meetings per year
  - ▶ Next meeting at EPRI in conjunction with the INPO ERWG and Supply Chain Parts Quality Workshop; Sept., 2016

# NSCSL Vision And Mission

## ▶ Vision

- ▶ The NSCSL will be the “Go To” industry resource and information clearinghouse, providing access to information and subject matter experts devoted to support, guidance, continuous improvement and excellence for the nuclear utility supply chain professional.

## ▶ Mission

- ▶ The NSCSL will create a nuclear supply leadership forum for defining, prioritizing, and resolving nuclear supply chain industry issues, and to encourage the identification and implementation of best supply chain practices. We will optimize our interface with other industry organizations to bring consistent and complimentary focus to the current issues challenging our business and we will partner with the EPRI, JUTG, INPO, NEI, NRC, **NUPIC** and others to further promote the advancement of nuclear power operations.



# NSCSL Executive Committee

- ▶ Chair - Jim Kitchens (USA)
- ▶ Post-Chair - Various
- ▶ Vice-Chair - Billy Campbell (SCANA)
- ▶ Operations - Mike Donovan (Duke)
- ▶ Treasurer - Mike Donovan (Duke)
- ▶ Industry Representative - Marc Tannenbaum (EPRI)
- ▶ Communications - Kim Davison (Bruce Power)
- ▶ Projects - Ad Hoc



# NSCSL Current Activities

- ▶ INPO Parts Quality Initiative
- ▶ Critical Spares
- ▶ Common KPIs
- ▶ Integration/Collaboration/Support of Industry Groups
  - ▶ INPO ER and WM Teams
  - ▶ JUTG
  - ▶ NUOG
  - ▶ NUPIC
- ▶ **Delivering the Nuclear Promise (DNP)**

# DNP CNO Functional Leads

- **Corrective Action Program** Danny Bost, Southern Nuclear
- **Engineering** Tim Rausch, Talen Energy
- **Preventive Maintenance Templates** Neil Wilmshurst, EPRI
- **Radiation Protection** Fadi Diya, Ameren Missouri
- **Regulatory Efficiency** Mano Nazar, NextEra
- **Security** Bryan Hanson, Exelon
- **Training** Randy Edington, Arizona Public Service
- **Work Management Execution** Tim O'Connor, XCEL
- **Work Management Preparation** Dennis Koehl, STP
- **Supply Chain** Adam Heflin, Wolf Creek

# DNP - We're Off and Running!

- ▶ 11 teams—led by chief nuclear officers— identifying areas where efficiencies or process improvements may be gained
- ▶ Implementation has begun. In most cases, the pace and scope of implementation will be determined by each company
- ▶ “Efficiency Bulletins” are being distributed to nuclear plant operators to clearly identify, characterize and standardize improvement opportunities





# DELIVERING THE NUCLEAR PROMISE

nuclear matters: my work • my plant • my industry

May 2016

## Corrective Action Program

- Objective: Re-baseline and reduce the cumulative impact of the corrective action program.
- Key Actions in 2016:
  - Issue efficiency bulletin on CAP cumulative impact **COMPLETE**
  - Develop efficiency bulletin on re-baselining CAP

## Engineering

- Objective: Review margin management program and develop a standard process for design modifications.
- Key Actions in 2016:
  - Issue efficiency bulletin on margin management **COMPLETE**
  - Develop efficiency bulletin on design modifications
  - Develop Screening Criteria for Vessel Internal Inspection and Evaluation Guidelines

## Work Management Preparation

- Objective: Streamline processes for minor maintenance, FIN team, walk downs, work screening, work week scheduling and approval.
- Key Actions in 2016:
  - Issue efficiency bulletin on PM planning **COMPLETE**
  - Issue efficiency bulletin on graded approach to walk downs **COMPLETE**
  - Issue efficiency bulletins on minor maintenance
  - Issue efficiency bulletins on FIN team
  - Issue efficiency bulletin on the work screening process
  - Issue efficiency bulletin on the T week process
  - Issue efficiency bulletin on work execution preapproval

## Work Management Execution

- Objective: Integrate maintenance support activities and reduce approvals required to start maintenance work.
- Key Actions in 2016:
  - Issue efficiency bulletin on an integrated single team approach

## Preventive Maintenance Process

- Objective: Optimize PM tasks and frequencies, reduce high cost/non-critical PMs, and optimize FLEX PM strategies.
- Key Actions in 2016:
  - Issue efficiency bulletin on embracing a value based equipment reliability strategy
  - Issue efficiency bulletin on reducing high cost non-critical PMs
  - Issue efficiency bulletin on optimizing FLEX PM strategies

## Efficiency Bulletin Key:

RED - NSIAC Initiative, All to implement by date certain  
BLUE - All expected to implement; Degree of oversight exposure; CNOs decide implementation timeframe  
GREEN - Utility discretion; Consistent with business environment  
BLACK - TBD

## Oversight and Assessment

- Objective: Reduce the layers of oversight in assessing operational organizations.
- Key Actions in 2016:
  - Issue efficiency bulletin on department oversight
  - Issue efficiency bulletin on plant oversight
  - Issue efficiency bulletin on fleet oversight
  - Issue efficiency bulletin on Senior Management Oversight
  - Issue efficiency bulletin on Internal Audits
  - Issue efficiency bulletin on Supplier Audits
  - Issue efficiency bulletin on External Oversight/NSRB

## Supply Chain

- Objective: Improve efficiencies by reorganizing and standardizing the procurement function, contracting forensics, and training supplemental suppliers.
- Key Actions in 2016:
  - Issue efficiency bulletin on strategic sourcing
  - Issue efficiency bulletin on material cost reduction
  - Issue efficiency bulletin on contract forensics
  - Issue efficiency bulletin on supplemental supplier contracts/Use of EPRI

## Regulatory

- Objective: Streamline utility regulatory organizations and share resources for industry regulatory activities.
- Key Actions in 2016:
  - Issue efficiency bulletin on streamlining internal licensing/regulatory organizations
  - Issue efficiency bulletin on sharing industry resources associated with regulatory activities

## Radiation Protection

- Objective: Reduce response to level 1 PCE, PCM source checks, long range dose reduction planning, and RP briefings, and promote self-monitoring in RCAs.
- Key Actions in 2016:
  - Issue efficiency bulletin on level 1 PCE response **COMPLETE**
  - Issue efficiency bulletin on reducing personnel contamination monitoring checks from daily to weekly **COMPLETE**
  - Issue efficiency bulletin on a performance based graded approach to long range dose reduction plans **COMPLETE**
  - Issue efficiency bulletin on performing self brief for low radiological risk activities **COMPLETE**
  - Issue efficiency bulletins on self radiation monitoring

## Training

- Objective: Reduce administrative burden by standardizing SAT, reducing DIF frequency, reducing required OE in training, leveraging leadership programs, providing performance based NLO and technical training, standardizing in-processing, and streamlining initial licensed operator training.
- Key Actions in 2016:
  - Issue efficiency bulletin on task list reviews **COMPLETE**
  - Issue efficiency bulletin on NLO/Maintenance & Technical Continuing Training **COMPLETE**
  - Issue efficiency bulletin on training cumulative impact strategies **COMPLETE**
  - Develop efficiency bulletin on standardization of SAT
  - Develop efficiency bulletin on Maintenance First Line Supervisor Leadership Training
  - Develop efficiency bulletin on an Industry Exam Bank for Initial Licensed Operator exams
  - Develop efficiency bulletin on Initial Licensed Operator training duration
  - Develop efficiency bulletin on Initial Licensed Operator exam security protocols
  - Develop efficiency bulletin on SOER/IER/OE training
  - Develop efficiency bulletin on NLO/Maintenance & Technical initial training
  - Develop efficiency bulletin on Engineering Support Personnel initial and continuing training

## Transform the Organization

- Objective: Transform the maintaining the plant organization by improving efficiencies and standardizing design engineering, system engineering, program engineering and maintenance.
- Key Actions in 2016:
  - Develop efficiency bulletin on standardizing system engineering core business
  - Develop efficiency bulletin on design and program engineering
  - Develop efficiency bulletin on maintaining the plant organization
  - Develop efficiency bulletin on combining system engineering and maintenance

## Component Classification

- Objective: Improve efficiencies in maintaining equipment reliability.
- Key Actions in 2016:
  - Issue efficiency bulletin on critical component reduction
  - Issue efficiency bulletin on ERWG cost controls
  - Issue efficiency bulletin on an aggressive approach to graded work
  - Issue efficiency bulletin on implementing AP-913 rev 4/5 recommendations

## Security

- Objective: Develop more efficient utility security practices.

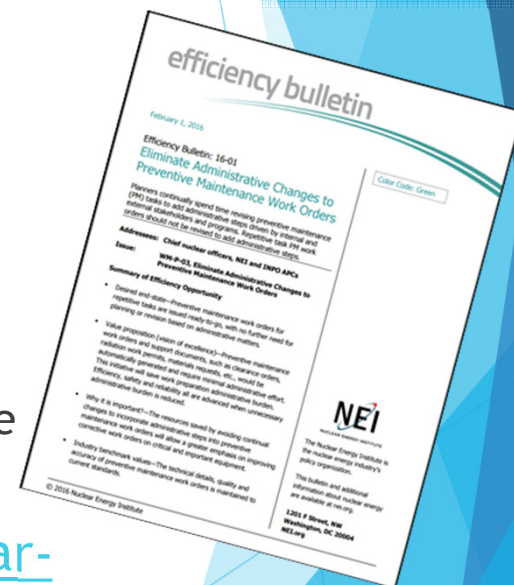
## In-Processing

- Develop efficiency bulletin on standardizing in-processing training



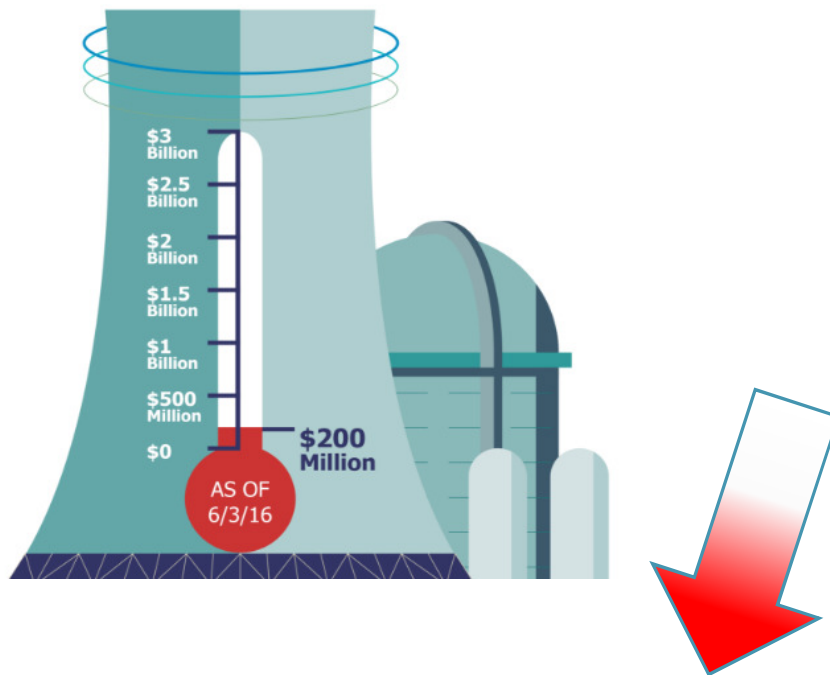
# Efficiency Bulletins

- ▶ Primary Work Product Issued By The Various Teams
- ▶ Bulletins address opportunities to increase efficiency at plant sites. Industry working groups have identified 37 improvement opportunities to pursue in 2016, and bulletins detailing each opportunity will be released throughout the year. Descriptions of efficiency bulletins are also available.
  - ▶ Bulletins related to security are industry-specific and will not be posted publicly.
- ▶ <http://www.nei.org/Issues-Policy/Delivering-the-Nuclear-Promise/Efficiency-Bulletins>

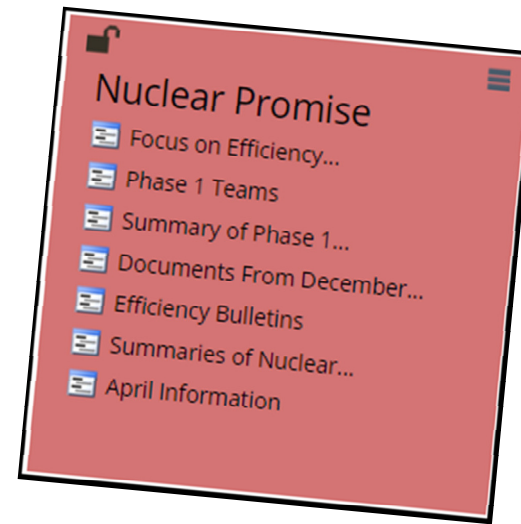


# 14 Efficiency Bulletins Issued as of June 3

Delivering the Nuclear Promise:  
Estimated Value of Improvement Opportunities



<http://www.nei.org/Issues-Policy/Delivering-the-Nuclear-Promise>



# What's Next?

- ▶ Future efficiency bulletins will enable more savings
  - Dozens of efficiency bulletins are expected to be issued in the next two years
  - Improving efficiency must become part of the culture of the nuclear industry
  - We must constantly maintain safety, ensure reliability and look for opportunities to enhance efficiency



# So, What About That 30% Anyway?

Delivering the Nuclear Promise:  
Advancing Safety, Reliability and Economic Performance

WHAT IS A

# 30%

REDUCTION?

\$40 MWh—2012 Nuclear Generating Cost

Goal: \$12 MWh from Operating Costs

\$3.50 MWh savings 2012-14

\$3 MWh capital savings through 2020

\$2 MWh uranium fuel savings through 2020

\$3.50 MWh estimated savings enabled by

Delivering the Nuclear Promise

\$28 MWh Nuclear Generating Cost



## \$3 billion

NUCLEAR MATTERS   
my work • my plant • my industry

# DNP Supply Chain Activities

- CNO Sponsor: Adam Heflin (Wolf Creek)
  - NEI Advisor/Liaison: Marc Nichol
  - SCM Lead: Dave O'Brien (Exelon)
    - SC-01 - Strategic Sourcing (Matt Gooder - Exelon)
    - SC-02 - Material Cost Reduction (Rami Garcia - NextEra)
    - SC-26 - Contract Forensics (Jim Ripple - Southern)
    - TRN-5.3 - Use of EPRI training for supplemental labor efficiencies
    - Each of the initiatives has sub-teams and/or leads assigned
- Regular Meetings and Phone Calls
  - Input and Support requested across the industry through the NSCSL

# DNP Supply Chain Activities

- Proactive supplier engagement and assistance is essential to our success
- Near-term learning/engagement opportunities for suppliers:

## Delivering the Nuclear Promise: Supplier Engagement Workshop

June 21, 2016  
Hyatt Regency St. Louis at The Arch  
St. Louis, MO



- In conjunction with NUPIC/NRC Meetings
- Completed Yesterday
- USA Executive Summit
  - July 13-15, 2016
  - Dave O'Brien and others will be speaking
  - See Jim Kitchens for more information





# Check Out The NEI Website

## - How Can Nuclear Suppliers Assist?

Suppliers play an integral role in the nuclear industry. They invest significant resources to develop products and services to support the economic performance of the domestic nuclear fleet and can make major contributions to the success of Delivering the Nuclear Promise.

There are two primary mechanisms that allow suppliers to assist with the success of Delivering the Nuclear Promise:

- contributing improvement opportunity ideas
- supplying subject-matter expertise.

Get involved now.



<http://www.nei.org/Issues-Policy/Delivering-the-Nuclear-Promise>

Submit your ideas for consideration by the Supplier Advisory Committee using the “Supplier Concept Submission Form”



### Supplier Concept Submission Form

**Delivering the Nuclear Promise: Advancing Safety, Reliability and Economic Performance**

Title of Improvement Opportunity: \_\_\_\_\_

Submitter:

Name	
Title	
Company	
Email	
Telephone	

Senior Company Official Endorser:

Name	
Title	
Company	
Email	
Telephone	

**Acknowledgement:** This submittal does not contain confidential or proprietary information and I understand that this may be reviewed by NEI staff, advisory committees and Delivering the Nuclear Promise teams. Concept submission does not guarantee an exclusive right to use if accepted through the Delivering the Nuclear Promise process.

Signature of Senior Company Official Endorser \_\_\_\_\_  
Date: \_\_\_\_\_

**Description of Improvement Opportunity:** Up to 450 words. Please include the following in the description: summary of the concept, costs and resources required to implement, estimated savings per nuclear site that specifies O&M cost reduction and/or revenue enhancement, risks associated with implementation. Attach description to this cover sheet.

**Please submit this form and Improvement Opportunity description to:**  
[DNPSuppliers@nei.org](mailto:DNPSuppliers@nei.org)



May 2016

### Frequently Asked Questions

**Delivering the Nuclear Promise: Advancing Safety, Reliability and Economic Performance**

#### What is an improvement opportunity?

- An improvement opportunity redesigns, modifies or re-engineers a nuclear power plant operating or support process or processes to significantly improve efficiency and reduce costs while advancing the fundamentals of safe, reliable operation. These opportunities are applicable across the U.S. nuclear fleet and do not rely on a specific product or service for implementation. Each improvement opportunity is accompanied by an industry efficiency bulletin that clearly defines the opportunity. Examples of efficiency bulletins are [here](#).

#### Should I include specific product information that would support the improvement opportunity in my description?

- No, the improvement opportunity relates to the nuclear power plant process redesign, not to a specific product or service provided by a supplier company.

#### If my company provides a specific product or service that would improve the efficiency of nuclear power plants, how should I communicate this to nuclear utilities?

- Delivering the Nuclear Promise is NOT intended as a means to sell specific technology or unique core competency of a supplier company. If your company provides a specific product or service that will improve efficiency of nuclear power plants, those products or services should be presented to the operating fleet through individual company business development functions. However, there may be circumstances in which a group purchase of an item or service is legally permissible.

#### Who should I contact if I have more questions?

- Please contact Carol Berrigan (202-739-8050 or [clb@nei.org](mailto:clb@nei.org)) or Dan Lipman (202-739-8115 or [dsl@nei.org](mailto:dsl@nei.org)) for additional information.

# Questions?

