efficiency bulletin

September 12, 2019

Color Code: RED
Process: July 2017
Software: December 2018
Digital: April 2021

Efficiency Bulletin: 17-06, Revision 2

Implement Standard Design Change Process

The industry procedure IP-ENG-001, Standard Design Change, provides a streamlined and graded approach to the design change process. This initiative also suggests the use of standardized (i.e. compatible reader) software to facilitate compatibility and training to support implementation of the new process. The Design Oversight Working Group (DOWG) is responsible for maintaining this procedure. IP-ENG-001 and the DOWG charter are available through the INPO-hosted Nuclear Community site (See Attachment 3).

Revision 1: Communicates a change to the Software implementation date to 12/31/18, and changes the implementation of performance indicators from mandatory to recommended to align with EB 17-24, "Industry Standardized Performance Indicators".

Revision 2: Adds Attachment 4 to communicate the digital scope and procedure. NISP-EN-04, Standard Digital Engineering Process, provides direction specific to digital changes in each step of the IP-ENG-001.

Addressees: **Chief nuclear officers, NEI APCs and INPO APCs**

Issue: **ENG-003, Standard Design Change Process**

Background

- Over the years, administrative burden and complexity for developing design changes has increased, contributing to increased costs and delays in resolution of equipment deficiencies. For example, a typical design change requires multiple signatures for approving the package, diluting accountability and increasing administrative burden and inefficient use of resources.
- Currently, independent engineering service providers (ESPs) must maintain procedures and training unique to each fleet or site, increasing overhead and the likelihood of engineering errors.

DELIVERING THE NUCLEAR PROMISE®

nuclear matters:
my work • my plant • my industry

NUCLEAR ENERGY INSTITUTE

The Nuclear Energy Institute is the nuclear energy industry's policy organization.

This bulletin and additional information about nuclear energy are available at nei.org.

1201 F Street, NW
Washington, DC 20004
NEI.org

- This bulletin establishes a standard design change process (SDP) and a graded approach for selecting design change types, which is detailed in IP-ENG-001. Based on complexity and impact on design/licensing basis, engineering can select the most appropriate design type from the list below:
    - Document-Only Change
    - Commercial Change
    - Design Equivalent Change
    - Temporary Modification (Temp Mod)
    - Full Design Change

Summary of Efficiency Opportunity

- Desired end-state—
    - The standard design change procedure IP-ENG-001, supported by standardized software and additional child procedures, is used across the industry to the benefit of each stakeholder.
    - Solutions to common design issues are developed and shared.
    - Key stakeholders, including independent engineering service providers, are engaged and supportive of improved design change process, resulting in lower design and implementation costs.
    - Common training material is available to all stations and ESPs.

- Value proposition (vision of excellence)—
    - Simplified engineering change procedures are available for industry use that will enable efficient use of engineering resources.
    - Use of simplified process for developing engineering changes will allow timely resolution of equipment deficiencies and obsolescence issues, contributing to improved safety and reliability.
    - The SDP promotes efficient use of engineering service providers and shared designs across the industry.
    - Standardized software to facilitate compatibility will streamline the implementation of the new procedure.
    - The SDP facilitates common industrywide training, promotes process stability and supports the sharing of engineering changes between utilities.

- Why is it important?—A key element of this effort is to streamline the design process, using a graded approach that focuses on engineering changes most important to nuclear safety, reliability and design/licensing basis compliance. Additionally, the SDP helps reduce administrative distractions and supports organizational focus on safety and maintaining effective configuration control.

- Industry benchmark value(s)—
    - Overall reduction in capital and O&M cost allocated for plant modifications.
    - Reduction in ESP costs relative to design modifications.

- Measure of effectiveness—Attachment 1 provides a list of recommended indicators for measuring effectiveness. Additionally, the stations should realize improvement in the following areas:
    - Cycle time improvement: Use of lower-tier processes will result in improved design change cycle time and timely resolution of equipment and design deficiencies.

- Rework reduction: Adherence to expected behaviors and standards will result in improved quality and reduced number of field changes.
- Sharing of engineering changes: Utilities will post their design change abstracts in the software tool located on shared electronic database that will facilitate sharing throughout the industry.
- Reduction in consequential engineering events related to design changes as measured by available metrics. Improved sharing of innovative design solutions will assist in sharing first-of-a-kind/first-in-a-while design change products.

Relevant Standards

- INPO 12-013, Performance Objectives and Criteria:
  - EN.1, Engineering personnel apply the essential knowledge, skills, behaviors and practices needed to ensure equipment performs as required, the plant is maintained within design requirements, margins are controlled, and the plant is operated safely and reliably.
  - EN.2, Engineering personnel recognize and accept their responsibility to address plant technical issues and act as the site technical conscience. They uphold the plant design and licensing bases and ensure a margin of safety is maintained.
  - CM.1, Design and operating margins are understood, considered in decision-making, and maintained consistent with design and regulatory requirements and operational constraints.
  - CM.2, Plant operation, maintenance and testing activities are conducted in a manner consistent with the licensing and design bases and maintain configuration control.
  - CM.3, Changes to plant configuration, design and licensing bases are evaluated, controlled, tested and implemented while consistency is maintained among the physical plant configuration, design and licensing requirements, and the documented plant configuration.
  - PM.1, Projects are selected, planned and implemented with predictable quality and resources that improve materiel condition to maintain safe and reliable plant operation.
- INPO 10-005, Principles for Maintaining an Effective Technical Conscience
- INPO 15-011, Principles for Excellence in Integrated Risk Management
- IER L1 14-20, Integrated Risk – Healthy Technical Conscience
- ASME NQA-1, Quality Assurance Program for Nuclear Facilities
- ANSI N18.7, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants

Relevant Regulatory Requirements

- 10 CFR 50, Appendix B, Nuclear Quality Assurance Requirements, Criterion III Design Control
- 10 CFR 50.59, Changes, Tests and Experiments
- 10 CFR 50.120, Training and qualification of nuclear power plant personnel
- Plant-specific NRC commitments
- Additional regulatory requirements as referenced in Section 3 of EPRI Report #1008254, Guidelines for Optimizing the Engineering Change Process for Nuclear Power Plants, Revision 2, issued November 2007

Key to Color Codes:

Red: NSIAC initiative – full participation required for viability
Blue: Action expected at all sites, but is not needed for broad industry viability
Green: Utility discretion to implement, consistent with its business environment

Guidance

- IP-ENG-001 was developed by an industry engineering group and provides detailed guidance for developing design changes. This procedure is hosted on the INPO Nuclear Community site and is maintained by the Design Oversight Working Group.
- IP-ENG-001 includes screening criteria that allows selection of design change type depending on complexity and impact on bounding technical requirements, design basis functions and the plant-licensing basis. The changes that do not affect these technical requirements, design basis and licensing can be designed using simpler processes. The following are the five types of design changes:
    - Document-Only Change—A change to a controlled engineering document evaluated by utility-specific procedures that does not also involve or result in a hardware/configuration change.
    - Commercial Change—A change developed and implemented using codes, standards and good engineering practices typically applied during the design of structures, systems and components outside of nuclear jurisdiction. This includes use of national standards such as fire code, uniform building code, local and state standards, and other utility-defined design controls.
    - Design Equivalent Change—A change that does not result in an adverse change to those bounded technical requirements that (1) ensure performance of design basis functions or (2) ensure compliance with the plant licensing bases of either the item(s) or applicable interfaces including the applicable codes and standards to which the utility is committed.
    - Temporary Modification (Temp Mod)—A short-term alteration made to systems, structures or components that is not controlled by procedure or work order instructions and is evaluated via a temporary Commercial Change, Design Equivalent Change or Design Change.
    - Design Change—A change to those bounded technical requirements that (1) ensure performance of design basis functions or (2) ensure compliance with the plant licensing basis. *Typically, this type will involve complex design changes with impact on design/licensing basis*.
- NEI 96-07, Revision 1, Guidelines for 10 CFR 50.59 Implementation

Recommended Industry Actions

- Design Oversight Working Group is in place to support for maintenance and monitoring of the new process and associated procedures.

Change Management Considerations

Industry Activities

- A series of webcasts were conducted to walk through the general process features. This forum targeted utility staff and ESPs interested in a general understanding of the process. Recorded links for these webcasts are available through the INPO member website's Delivering the Nuclear Promise section, under standard design process. (Complete)
- A series of workshops were conducted to provide an overview of the process and facilitate a face-to-face dialogue and interactions between industry peers. These were 1 1/2 day events in various regional locations to facilitate reasonable access. These workshops targeted design managers, supervisors and lead engineers that will be responsible for championing the process roll out within their sites or fleets. (Complete)

- A three-day in-depth table-top review of the draft procedure was performed in June 2016 by a team of subject matter experts (SMEs) from the pilot plants, INPO configuration management staff and engineering service providers. The team reviewed each section of the process providing comments and the recommended resolution. (Complete)
- Pilot Implementation: Four sites (Surry, McGuire, Vogtle and Sequoyah) participated in piloting the SDP from September 2016 to February 2017. Comments and improvement suggestions were incorporated in the final procedure. (Complete)
- An additional industry webcast, targeted for site leadership teams, will focus on the behaviors expected of all key stakeholders to support improved engagement in the design change process resulting in a lower design and implementation costs. (Complete)

Company Actions

- Develop and implement a change management plan to integrate the new SDP with existing process(es), software and staff training. Recommended change management actions should include:
    - Briefings for stakeholders including ESPs and individuals involved with reviewing/implementing design changes.
    - Project plan for implementation of the company's chosen standardized design software (i.e., base software package as a minimum) by December 31, 2018.
    - Communication plans regarding implementation of the proposed changes to ensure all stakeholders are aware of changes before final implementation.
    - Sunset provisions for use of existing processes in the change management plan.
    - Process effectiveness monitoring plan.
    - See Attachment 2 for an example of the change management plan. An updated copy of this plan will be available through the INPO Nuclear Community site.
- Evaluate existing NRC commitments to identify conflicts with the new SDP and revise as necessary using NEI 99-04, Guidance for Managing Regulatory Commitment Changes, as guidance.
- Engineering leaders communicate expectations to engineering personnel regarding accountability and responsibility for:
    - Owning, understanding and maintaining the plant design bases.
    - Ensuring that the physical plant configuration and documents used to maintain the plant accurately reflect design requirements.
    - Design documents are promptly updated following implementation of approved configuration changes.
- Senior leaders communicate and reinforce their expectations for adherence to the following eight attributes detailed in Attachment 9 of the IP-ENG-001:
    - Effective Risk Management
    - Long-Term Planning
    - Efficient Modification Management
    - Stakeholder Engagement
    - Vendor Engagement and Oversight
    - Rigorous Adherence to Configuration Management Principles
    - Thorough Post-Modification Testing
    - Effective Implementation

  The success of the SDP is largely dependent on senior leadership support of the change management plans and reinforcement of expected key stakeholder behaviors.
- Establish oversight and metrics to avoid unintended consequences and ensure sustained performance and expected cost savings. At a minimum, this should include observations and monitoring of behaviors and reviews

of engineering change packages for quality and selection of correct design change types. A foundation of this oversight could include use of the industry standard metrics included in Attachment 1.
- Implement IP-ENG-001 by July 31, 2017, for all new design changes initiated after July 31, 2017.

INPO Actions
- Update INPO AP-929, Configuration Management Process Description, to align with IP-ENG-001 (Complete)
- Retire INPO 85-013, Good Practice, Plant Modification Control Program. (Complete)

Guiderails
- Engineering managers and supervisors monitor for unintended consequences and adherence to the following engineering staff behaviors:
    - Engineering personnel own, understand and maintain the plant design bases.
    - Engineering personnel ensure that the physical plant configuration and documents used to maintain the plant accurately reflect design requirements.
    - Design documents, such as drawings, are promptly updated following implementation of approved configuration changes.
- Engineering leaders conduct periodic self-assessments to verify the appropriate application of screening criteria in determining the type of design changes required.
- Design Oversight Working Group monitors available industry metrics and maintains the SDP procedure. Periodically, the procedure will be updated to reflect operating experience.
- INPO will continue to evaluate engineering behaviors and performance based on applicable Performance Objectives and Criteria (CM.3 and PM.1) to identify shortfalls in performance.
- INPO will continue to track and report trends in Consequential Engineering Events—this is an INPO Tier 2 industry indicator.

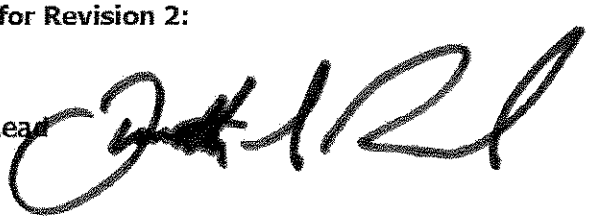
Report Your Site's Results

Please report your company's implementation of this improvement opportunity, including the date of completion. Two separate reports are expected, one for paper process and second for utility chosen software. Send this information along with your company point of contact to EfficiencyBulletin@NEI.org.

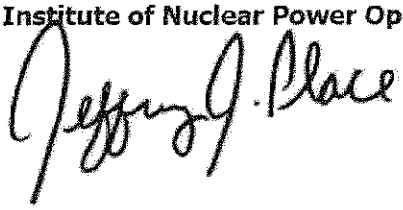
Industry Contacts
- Industry champions for SDP (digital specific industry contacts listed in Attachment 4):
    - Team lead: Rick McAdams, 205-992-6792, rmmcadam@southernco.com
    - Thomas Czerniewski, 914-254-6368, tczerni@entergy.com
    - Richard R. Hall, 630-657-3296, richard.hall@exeloncorp.com
    - Kevin B. Kuhn, 205-992-5262, kbkuhn@southernco.com
    - Ashley Taylor, 423-751-2278, ajtaylor@tva.gov
    - Harry T. Willetts, 980-373-2715, harry.willetts@duke-energy.com
    - ESP contact: Pete Carlone, 703-519-0244, pcarlone@mpr.com
- INPO contact: Sudesh K. Gambhir, 770-644-8213 gambhirsk@inpo.org
- NEI contact: Stephen Geier, 202-739-8111, seg@nei.org
- On the web: https://www.nei.org/resources/delivering-the-nuclear-promise/eb-17-06-implement-standarddesign-change-process

Industry Approval for Revision 2:

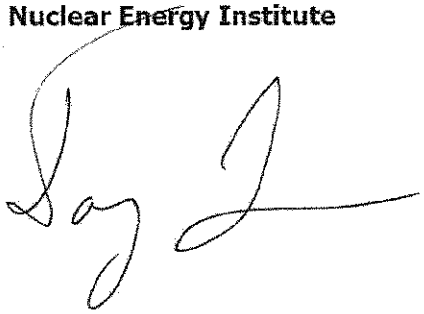
Tim Rausch, CNO Lead



Jeff Place, Institute of Nuclear Power Operations



Doug True, Nuclear Energy Institute



Attachment 1

Recommended Performance Indicators for the Standard Design Process

The Design Oversight Working Group (DOWG) is responsible for maintaining IP-ENG-001, Standard Design Change procedure. This procedure was developed by the industry and is maintained on the INPO Nuclear Community site. The Engineering VP working group has chartered the DOWG to maintain this procedure and monitor SDP implementation effectiveness. Information provided by industry performance monitoring, such as the recommended indicators listed below, would assist with monitoring SDP effectiveness. Engineering leaders are encouraged to use the following indicators, or similar, for measuring overall SDP effectiveness, or to utilize fleet or station specific indicators as desired by station leadership for monitoring engineering support of station performance.

1) **Standard Design Process (SDP) Throughput**—Quantity/Duration in design development and implementation phases
   a) Aligned with SDP product types (Design Change, Design Equivalent Change, Commercial Change)- *This is an indicator if the lower-tier processes when appropriate are applied.*
   b) Engineering Changes by type in each phase (In design phase, Approved and not installed, Installed and not closed). *This is an indicator of total cycle time*.

2) **Engineering Change (EC) quality**—*high number of significant FCRs may indicate engagement problems on the part of stakeholders in the modification development process.*
   a) Based on Field Change Request (FCR) / EC revision reason codes as specified in SDP
   b) EC score determined from FCR significance

3) **EC work list stability**—instability in the EC work list is typically an indication of weakness in long-range planning that can result in an increased number of Fast Track modifications.
   a) Monitors late add ECs against milestones (Fast Track Modifications)
   b) Tracks ECs approved but not installed as originally scheduled

4) **TMODs**—*this measures adherence to effective configuration control practices*
   a) Total number of installed TMODs
   b) Total number of open TMODs greater than one refueling cycle

5) **EC delivery**—*this measures effectiveness of implementing modifications*
   a) Adherence to outage milestones
   b) Schedule commitments for late add outage ECs
   c) Adherence to online milestones

6) **Impacted document updates**—*this measures adherence to effective configuration control practices*
   a) Incorporation of ECs into drawings, calculations and other impacted documents

Attachment-2

Example Change Management Plan (An updated copy is available through INPO Nuclear Community/DOWG Files)

No.	Description	Owner	Due Date	Comment
1	**Procedure / Program Impacts**			
1.1	Identify specific procedural impacts			This will probably be multiple items based on the impacts found
	Establish, if needed, a site or utility specific procedure(s) to endorse and implement IP-ENG-001			See examples on Nuclear Community site
1.2	Evaluate existing NRC commitments for relevance			
1.3	Evaluate CAP items for relevance			
1.4	Evaluate INPO items for relevance			
	Remove any identified NRC commitments from procedures using NEI 99-04 guidance			See examples on Nuclear Community site
1.6	Remove any identified CAP items from procedures			
1.7	Remove any identified INPO items from procedures			
1.8	Walk through with Document Control / Records Group to determine any systematic changes needed			
1.9	Training review of procedure changes			Training to evaluate for impact on training material
1.10	QA review of procedure changes			
1.11	Engineer review of procedure changes			
1.12	Issue revisions as necessary to affected procedures (for steps 1.9 – 1.11)			
2	**Training / Qualifications**			
2.1	Identify site SDP SME in Engineering			
2.2	Identify site SMEs in Stakeholder groups			For example, Operations, Planning, Maintenance
2.3	Complete Training Needs			See examples on Nuclear Community site
2.4	Analysis Develop site-specific training on SDP process interfaces, as needed			See examples on Nuclear Community site
2.5	Engineering participation in gap training			
2.6	Stakeholder participation in gap training			
2.7	Individual gap analysis to determine the need for training additional groups			
2.8	Conversion to standard qualification			

3	**Communications**			
3.1	Brief Fleet CFAMs on new process and implementation plan			
3.2	Brief Fleet PI/PSC/MRC on new process and implementation plan			
3.3	Brief Fleet QA on new process and implementation plan			
3.4	Present the implementation and status of SDP at a CNO staff meeting			
3.5	Present plan and status at Site VP Staff Meeting			
3.8	Issue periodic communiques to corporate and site engineering organizations that provide status / progress on SDP implementation			
3.9	Brief NRC Resident Inspector			
3.10	Brief Engineering Director on a periodic basis			
4	**Oversight**			
4.1	Assign engineering personnel to perform oversight of the new SDP through meeting observations and document quality reviews			
4.2	Perform periodic reviews of all change type screenings to verify appropriate design change documents are developed			
4.3	Periodic telecons with Fleet management or other sites to discuss status and comments			
4.4	Monitor effectiveness and track progress through use of performance monitoring such as the recommended set of performance indicators or similar station specific indicators.			See Attachment 1 of this EB
5	**Software Implementation**			
5.1	Develop a project plan for implementing the chosen standardized design software			
5.2	Obtain funding and set up contract			
5.3	Determine impacts on procedures			
5.4	Develop plan for software training			
5.5	Develop risk mitigation plan for software implementation			
5.6	Develop plan for communication of software changes			
5.7	Develop contingency plan for maintaining SDP activities if software system becomes unavailable			
6	**Effectiveness Review / Monitoring**			
6.1	Develop standard assessment objectives to evaluate implementation effectiveness			
6.2	Perform a snapshot self-assessment at site to evaluate implementation			
6.3	Periodic telecons with Fleet management or other sites to discuss status and comments			

Attachment 3
Nuclear Community Access

The INPO-hosted Nuclear Community Site has proven as a useful tool for online collaboration and for enhancing the communication and knowledge management among members of the Design Engineering community. The Design Oversight Working Group (DOWG) is one of the several groups that are accessible through this site. Membership is authorized for INPO members and Supplier Participants. Membership for vendors, contractors or other nuclear professionals is granted on a case-by-case basis.

Instructions for joining Nuclear Community and Design Owner's Working Group

- To register, go to https://community.nantel.org/. Then, click "Join here" at the bottom of the sign in box.
- Fill in the required information using your company's email address and click "Join Now." Non-industry email accounts (such as Gmail) are not permitted.
- Once your credentials have been verified, you will receive an email confirming your approval as a member of the nuclear community.
- To request membership to the Design Owner's Working Group (DOWG), go here and request membership: https://community.nantel.org/working_groups/design_oversight_working_group_dowg/
- If you do not receive a notification within one business day, please contact communityservicedesk@inpo.org or Justin Lee, INPO Communications.

The following documents referenced in this efficiency bulletin are accessible through Nuclear Community site. Please log on to the Nuclear Community for opening the following links.

- IP-ENG-001, Standard Design Change Process
- Charter for Design Oversight Working Group (DOWG)

The following additional products will be available through Nuclear Community Site.

- Change Management Plan
- Design products from Pilot Stations

Attachment 4

Standard Digital Design Process

Background

Engineering changes that include digital assets are becoming more common and necessary as the nuclear plants age and replacement analog equipment becomes increasingly difficult to procure. Each utility has handled the design and procurement of digital assets through utility-specific processes which creates challenges including cost efficiency for equipment vendors, ESPs, and/or the regulator. This situation can result in differences in specifications and design requirements between utilities resulting in lost efficiency, additional cost, contract exceptions, and confusion in following the process.

With several regulatory improvements associated with the digital design process in the process of being or having been addressed, merging the standardization of the digital engineering process with the SDP is the next logical step. EPRI, along with several industry leaders, created guidance based on advanced engineering processes coincident with a scalable method of handling the special considerations of digital assets from the most complex distributed control system to a basic relay.

Summary of Efficiency Opportunity

- Desired end-state—
  - The standard digital engineering process, including both the NISP-EN-04 and EPRI Digital Engineering Guide, is used across the industry to the benefit of each stakeholder.
  - Solutions to common digital design issues are developed and shared.
  - Key stakeholders, including independent ESPs, are engaged and supportive of digital modifications, resulting in lower design and implementation costs.
  - Common training material is available to all stations and ESPs.
  - Common set of minimum requirements for software and digital equipment are developed and used.

- Value proposition (vision of excellence)—
  - Improve quality of digital modifications through a scalable and robust technical framework.
  - Improve regulatory stability by increasing the understanding of the processes used to develop digital modifications.
  - Reduce costs by enabling:
    - sharing of digital modification content,
    - standardized training and qualification structures,
    - ESPs to become proficient to a single process,
    - equipment manufacturers and system integrators to develop standardized product offerings, and
    - standardized Cyber Security assessments.

- Why is it important?—A key element of this effort is to standardize the digital design process, using a graded approach that focuses on the unique configurability options of digital devices along with the potential consequences of their failure to function. Standardization of requirements will facilitate more consistent equipment specifications and improve overall quality and cost.

- Industry benchmark value(s)—
  - Improved execution of digital modifications will result in fewer scrams as a result of design or testing errors which will also improve regulatory margin as an industry.

- A scalable, graded approach based on digital equipment configurability will result in reduced duration and number of unneeded deliverables in the design cycle.
- Process is intended to reduce the total implementation time for digital modifications over the entire project lifecycle.
- A forward looking, operation and maintenance focused approach to the design activities will reduce overall costs.
- Standardized product offerings as a result of standardized technical requirements will reduce the design cycle and procurement costs and lead times.

Relevant Standards

- Consistent with list on Page 3

Relevant Regulatory Requirements

- Consistent with list on Page 3

Guidance

- NISP-EN-04 was developed by EPRI in collaboration with industry subject matter experts and provides detailed process guidance while used in conjunction with the IP-ENG-001 for developing digital engineering change packages. This procedure is hosted on the INPO Nuclear Community site and is owned and maintained by the Design Oversight Working Group.
- EPRI 3002011816, *Digital Engineering Guide: Decision Making Using Systems Engineering (DEG*), is guidance for how to perform the activities described in NISP-EN-04 and is a resource for many other aspects of a digital design program, project scoping and lifecycle management of digital assets.
- NISP-EN-04 includes screening criteria that allows selection of activities depending on the configurability of the digital asset and the consequences of failures or design errors. Not all activities require documentation. The engineering package change type is screened in the same way following the requirements in IP-ENG-001.

Recommended Industry Actions

Design Oversight Working Group is in place to support the maintenance and monitoring of NISP-EN-04. EPRI will support and maintain 3002011816 (DEG).

Change Management Considerations

Industry Activities

- A series of tabletops were conducted to challenge various digital modification scopes through the new process. This was conducted by engineers, subject matter experts, and managers from utilities and ESPs. These tabletops were performed as an alternative to a formal piloting period. (Complete)
- A series of workshops were conducted to provide an overview of the process and facilitate a face-to-face dialogue and interactions between industry peers. These were 2 day events in various regional locations to facilitate reasonable access. These workshops target project managers, design managers, supervisors and lead engineers that will be responsible for championing the process roll out within their sites or fleets. (Complete)
- A series of webcasts will be held and recorded to provide NISP-EN-04 information and resources available for support with the process. (Planned Fall 2019)

Company Actions

- Develop and implement a change management plan to integrate the new digital engineering processes with existing processes, software, and staff training. Recommended change management actions should include:
  - Briefings for stakeholders including ESPs and individuals involved with managing, reviewing and implementing digital modifications.
  - Sunset provisions for use of existing processes in the change management plan.
  - Process effectiveness monitoring plan.
  - See Attachment 2 for an example of a change management plan for SDP. A digital-specific version of this plan will be available through the INPO Nuclear Community site.
- Evaluate existing NRC commitments to identify conflicts with the new digital process and revise as necessary using NEI 99-04, Guidance for Managing Regulatory Commitment Changes, as guidance.
- Establish oversight to avoid unintended consequences and ensure sustained performance and expected cost savings. At a minimum, this should include observations, monitoring of behaviors and reviews of engineering change packages for quality.
- Implement NISP-EN-04 by April 30, 2021, for all new design changes initiated after April 30, 2021.

Guiderails

- Consistent with those listed on Page 6
- The Design Oversight Working Group monitors the industry performance through operating experience. Periodically, the procedures will be updated to reflect lessons learned. Feedback may also be provided through other industry organizations, such as EPRI, NEI and INPO, and their digital subcommittees and working groups.

Report Your Site's Results

Please report your company's implementation of this improvement opportunity, including the date of completion. Send this information along with your company point of contact to EfficiencyBulletin@NEI.org.

Industry Contacts

- Industry champions for this issue:
  - Industry Lead: John Connelly, Exelon, 630-657-3860, john.connelly@exeloncorp.com
  - DOWG Lead: Ashley Taylor, TVA, 423-751-2278, ajtaylor@tva.gov
  - Ray Herb, Southern, 205-992-6448, RLHERB@southernco.com
  - Jeremy Chenkovich, Dominion Energy, 540-894-2689, robert.j.chenkovich@dominionenergy.com
  - Neil Archambo, Duke Energy, 980-373-2673, Neil.Archambo@duke-energy.com
- EPRI contact: Matt Gibson, 704-595-2951, mgibson@epri.com
- INPO contact: Sudesh K. Gambhir, 770-644-8213 gambhirsk@inpo.org
- NEI contact: Stephen Geier, 202-739-8111, seg@nei.org
- On the web: https://www.nei.org/resources/delivering-the-nuclear-promise/eb-17-06-implement-standarddesign-change-process