Summaries of Nuclear Industry Efficiency Bulletins

The nuclear industry is issuing efficiency bulletins as part of a multiyear campaign to increase operational effectiveness while advancing safety at nuclear power plants.

These bulletins are specific efficiency recommendations to nuclear plant operators as part of an industry initiative known as “Delivering the Nuclear Promise: Advancing Safety, Reliability and Economic Performance.” This strategic plan will strengthen the industry’s commitment to excellence in safety and reliability, assure future viability through efficiency improvements, and drive regulatory and market changes so that nuclear energy facilities are fully recognized for their value.

Teams of industry experts have identified initial areas where efficiencies or process improvements may be gained. The pace and scope of implementation at each nuclear power plant site will be determined by the company that owns and operates it.

The first four efficiency bulletins were issued in February 2016. As new bulletins are issued they will be added to this list.

Eliminate Administrative Changes to Preventive Maintenance Work Orders (EB 16-01)

This bulletin will result in greater efficiency by reducing the amount of paperwork associated with routine preventive maintenance at nuclear plant sites.

A substantial amount of paperwork is generated for even routine preventive maintenance activities at nuclear power plants. Changes dealing with personnel or equipment safety would still be performed. With this change implemented, automated preventative maintenance work orders and other related documentation would be reduced, resulting in substantial process efficiency and cost savings.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1601

Implement Graded Approach to Walkdowns (EB 16-02)

This bulletin will result in greater efficiency by implementing a graded approach to detailed inspections (walkdowns) of plant systems and equipment.

Nuclear power plant personnel spend a considerable amount of time each day conducting walkdowns of plant equipment and systems. These consume significant resources that could be better used on other maintenance tasks.

The graded approach to walkdowns will define the type of work that merits scheduled inspection and define the level of detail required in those inspections. Walkdowns would no longer be required before carrying out frequently performed, familiar or repetitive work. Walkdowns would continue to be performed before new or
infrequent work tasks, planned outages to coordinate work schedules, and for some tasks in unfamiliar locations of the plant.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1602

**Align Personnel Contamination Event Response to Industry Guidance (EB 16-03)**

This bulletin will result in greater efficiency by ensuring the response to very low levels of personnel radiological contamination is commensurate with the health risk to workers and the public.

Level 1 Personnel Contamination Events (PCEs), the lowest contamination event on an industry scale, present little health risk to workers or the public. After a level 1 PCE, workers are restricted from re-entering radiologically controlled areas (such as the reactor building) on the plant site and management begins an investigation into the event. Detailed documentation must also be completed and corrective action developed. Under the revised approach, companies would follow industry guidance for responses to level 1 PCEs that requires decontamination, logging and periodic review of the log for program improvements. The elimination of unnecessary requirements and actions associated with a level 1 PCE will allow personnel to focus on more significant activities and reduce administrative burden.

Level 1 PCEs will continue to be tracked and summarized at the end of a plant outage or year. If the frequency of Level 1 PCEs is above industry metrics or indicates a negative trend, a more detailed analysis will be required.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1603

**Source Checking Personnel and Tool Contamination Monitors (EB 16-04)**

This bulletin will result in greater efficiency by reducing the frequency of personnel radiation monitor checks from daily to weekly at nuclear power plants’ radiologically controlled area exits.

As a result of this bulletin, contamination monitors with enhanced technology at the exits of radiologically controlled areas (such as the reactor building) will be source-checked weekly instead of daily. This will align personnel radiation monitor checks with industry guidelines for radiological protection at nuclear power plants and also take advantage of newer technologies capable of performing self-checks.

Target implementation date: June 2016.

Online: www.nei.org/bulletin1604
Non-Licensed Operator/Maintenance and Technical Continuing Training (EB 16-05)

This bulletin will result in greater efficiency by removing the self-imposed minimum number of required hours of annual training for experienced site personnel.

This will allow training resources to be focused on the quality of training instead of completing a predetermined number of training hours for each employee. Reducing the number of training hours also will free additional resources for other tasks that will enhance safety and reliability.

Target implementation date: June 2016.

Online: [www.nei.org/bulletin1605](http://www.nei.org/bulletin1605)

Training Task List Reviews (EB 16-07)

This bulletin will result in greater efficiency by reducing the administrative load for performing difficulty-importance-frequency analyses, a process used to prioritize and schedule training for personnel.

This recommendation will ensure each nuclear power plant reduces the frequency of difficulty-importance-frequency analyses of its required work as compiled in task lists. Companies will perform these analyses every six years rather than in two-year increments, thereby eliminating this administrative requirement and focusing training resources on higher priority tasks.

Target implementation date: June 2016.

Online: [www.nei.org/bulletin1607](http://www.nei.org/bulletin1607)

Eliminate Formal Margin Management Programs (EB 16-08)

This bulletin will result in greater efficiency by eliminating formal margin management programs at nuclear power plant sites and relying instead on other proven tools and processes. Nuclear power plants' design and operating safety margins are well understood, considered in decision-making, and consistently maintained with regulatory requirements and operational constraints. Available tools and processes are used to identify, prioritize and resolve safety margin issues.

This efficiency bulletin will eliminate redundancies associated with having a formal margin management program in addition to other ongoing monitoring and inspection programs.

Target implementation date: June 2016.

Online: [www.nei.org/bulletin1608](http://www.nei.org/bulletin1608)
Reduce Cumulative Impact from the Corrective Action Program (EB 16-10)

This bulletin will result in greater efficiency by reducing some of the administrative requirements associated with corrective action programs.

Corrective action programs are formal, exacting programs with requirements that are strictly defined to assure important issues are thoroughly resolved. This bulletin will align and streamline corrective action program requirements so that the most significant issues are addressed in the process. Less significant issues will be addressed using approved processes commensurate with those issues. This will reduce unnecessary administrative requirements by enabling plant managers to use their judgment in taking practical, effective actions to improve plant safety and performance.

Target implementation date: December 2016.

Online: [www.nei.org/bulletin1610](http://www.nei.org/bulletin1610)

Reduce Low-Value Administrative Burdens to Produce Efficiency Gains in Training (EB 16-11)

This bulletin will result in greater efficiency by reducing low-value administrative measures related to training programs.

Over the years, efforts to enhance training at nuclear power plants have led to a growing number of administrative steps, some of which have been found to add little or no value. These unnecessary steps increase the number of hours that must be spent on training-related matters without adding commensurate training value in terms of knowledge transfer. Given the nuclear industry’s strong emphasis on training, these administrative tasks consume many hours over the course of a year. Reducing administrative burden will minimize distractions related to training, enhance the value-added, and free instructor and employee time for more productive activities.

Target implementation date: July 2016.

Online: [www.nei.org/bulletin1611](http://www.nei.org/bulletin1611)

Graded Approach to Long-Term Dose Reduction Plan (EB 16-12)

This bulletin will increase efficiency in long-term dose reduction plans through use of a graded approach that balances the level of effort needed to meet goals with the performance level at a given nuclear power plant.

Typically, a long-term dose reduction plan for a nuclear power plant is developed for a five-year period. This plan includes dose-reduction measures, analysis and the expected results. The objective of this efficiency bulletin is to identify the level of effort needed to sustain performance at sites that consistently achieve industry goals and tailor site plans accordingly. Those sites whose radiation dose management needs improvement would be required to have more robust plans such that they achieve industry goals.
Perform Self-Briefs for Low Radiological Risk Activities (EB 16-13)

This efficiency bulletin will increase efficiency and employee accountability by establishing the basis for radiation workers to brief themselves on key steps before beginning tasks in a radiologically controlled area (RCA), under certain conditions, without having to consult with site radiation protection personnel.

The typical practice at nuclear power plants is to have radiation protection staff brief employees each time they are assigned work in an RCA. However, radiation workers already are highly trained in the safety requirements of their profession and, in the case of routine tasks they have performed repeatedly, these briefings add little value. This also limits the time that the radiation protection staff have available to provide instruction and guidance on higher-risk activities. This bulletin establishes the conditions under which self-briefing is acceptable and identifies the standards to be used. This approach increases responsibility and accountability for radiation workers and their supervisors.

Target implementation: January 2017.

Reduce Low-Value Administrative Burdens to Produce Efficiency Gains in Training, Part 2 (EB 16-14)

This bulletin will result in greater efficiency by reducing low-value administrative measures related to training programs. Industry training directors identified eight areas where programs can be refined to increase efficiency. These are being addressed in a series of bulletins.

Over the years, efforts to enhance training at nuclear power plants have led to a growing number of administrative steps, some of which have been found to add little or no value. These unnecessary steps increase the number of hours that must be spent on training-related matters without adding commensurate training value in terms of knowledge transfer. In part 1, EB 16-11 provided strategies to address three of these areas. In part 2, EB 16-14 addresses three more areas: administrative improvements related to lesson plan development, management observation of training, and the formation and use of training committees.

Target implementation date: September 2016.

Work Screening Process (EB 16-15a)

This efficiency bulletin will allow work-scheduling teams to more easily determine the most efficient and cost effective way to carry out maintenance.
The identification of the most efficient and cost-effective process to complete work is required to maximize the reliability of nuclear plant’s systems and equipment. This efficiency bulletin will recommend that work screening teams review new work requests and classify, prioritize and identify the most cost effective and efficient means to prepare and execute maintenance work. This will allow resources to be used more effectively.

Target implementation date: December 2016.

Online: www.nei.org/bulletin1615a

**Utilizing Minor Maintenance (EB 16-15b)**

This efficiency bulletin will reduce the time spent planning and preparing for simple maintenance tasks by not requiring them to go through an extensive work management process.

Currently, the resolution of simple deficiencies or repairs at plant sites is unnecessarily delayed by requiring all work to route through the extensive work management process, which requires detailed planning, scheduling and coordination by plant site personnel and management. This efficiency bulletin removes the requirement that minor maintenance go through this work management process. Instead, minor maintenance will be conducted by maintenance personnel without first having to complete detailed planning and documentation.

Target implementation date: December 2016.

Online: www.nei.org/bulletin1615b

**Fix-It-Now Team Efficiency (EB 16-15c)**

This efficiency bulletin will reduce the time and administrative burden for plants’ Fix-It-Now (FIN) teams by moving routine maintenance work outside the work management process.

FIN teams are assigned to fix and maintain equipment in a timely manner. This efficiency bulletin will ensure that most minor maintenance work is assigned to FIN teams and ensure that work does not have overly detailed work planning or administrative burdens associated with it. Doing so will free resources for higher priority maintenance.

Target implementation date: December 2016.

Online: www.nei.org/bulletin1615c

**High-Cost, Non-Critical Preventative Maintenance Reduction (EB 16-16)**

This efficiency bulletin will save resources by reducing or eliminating low-value preventative maintenance tasks, which are not critical to plant safety.
There are large numbers of high-cost, high-frequency and resource-intensive preventative maintenance tasks performed on nuclear power plant equipment. This bulletin recommends operators identify and rank the highest-cost non-safety-related preventative maintenance tasks at sites and analyze whether these tasks can be optimized, reduced in frequency, or eliminated without an adverse impact on safe, secure and reliable operations. This will help reduce maintenance labor, parts and planning costs.

Target implementation date: Utility discretion; consistent with business environment.

Online: [www.nei.org/bulletin1616](http://www.nei.org/bulletin1616)

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**Optimizing FLEX Equipment Preventative Maintenance Strategies (EB 16-17)**

This efficiency bulletin will optimize preventive maintenance for the FLEX strategy equipment designed to restore power and maintain effective cooling in the case of a severe accident.

The FLEX strategy includes additional layers of backup equipment, which has potential multiple uses. This efficiency bulletin will help develop an efficient preventive maintenance schedule for FLEX strategy equipment by collecting data on the operating history of the equipment in an industry database. This will allow industry personnel to adjust maintenance strategies for the equipment to meet regulatory requirements, maintain reliability and ensure efficiency.

Target implementation date: January 2017.

Online: [www.nei.org/bulletin1617](http://www.nei.org/bulletin1617)

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**Non-Licensed Operator/Maintenance and Technical Initial Training Content (EB 16-18)**

This efficiency bulletin will significantly reduce the time spent on training courses for non-licensed operators and other personnel while maintaining existing standards of excellence.

Sites have varying requirements for initial training based on different factors. This efficiency bulletin will analyze initial training programs for non-licensed operators at all plants to make them more consistent, clear and efficient. Reducing the duration of training time to qualify these staff will provide additional resources to perform other higher-priority tasks.

Target implementation date: January 2017.

Online: [www.nei.org/bulletin1618](http://www.nei.org/bulletin1618)

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**Contract Forensics (EB 16-19)**

The cumulative effects of accounts payable errors result in substantial costs to companies. This efficiency bulletin will reduce accounting errors, strengthen contract compliance and reduce costs by implementing or enhancing in-house or third-party audits of contracts with suppliers and vendors.
The identification and implementation of contract templates and process improvements will result in more accurate payments made by the utility and fewer errors in contracts with outside vendors. A future efficiency bulletin is anticipated to communicate contract administration best practices.

Target implementation date: Utility discretion; consistent with business environment.

Online: [www.nei.org/bulletin1619](http://www.nei.org/bulletin1619)

**Implementing an Effective and Efficient Work Management T-Week Process (EB 16-22)**

This efficiency bulletin will reduce work management administrative burden and inefficiencies accumulated over time and streamline the work management process.

The accumulation of process controls, administrative requirements and prescriptive steps placed on the work management process has negatively affected managers and challenges the goal of maintaining high levels of plant performance. These items create administrative burdens without a commensurate value in added safety and reliability. In addition, many of the process requirements take managers and supervisors out of contact with their workers to attend meetings and complete burdensome administrative requirements.

Reducing work management administrative burden and inefficiencies accumulated over time and streamlining the work management process will provide managers and supervisors more time to focus on higher priority work and improving equipment reliability. Ultimately, these efforts will support an upcoming efficiency bulletin, “Transform Maintaining the Plant Organization” (WM-E-00).

Target implementation date: June 2017.

Online: [www.nei.org/bulletin1622](http://www.nei.org/bulletin1622)

**Streamlined Use of Off-Site Review Committee (EB 16-23)**

This efficiency bulletin will implement changes to the off-site review committee (ORC) to refocus on core requirements and standards.

External oversight provides a critical element for corporate executives to gain a complete and unbiased view of nuclear plant performance and regulatory compliance. The ORC is one aspect of external oversight that has become an industry norm. However, ORC’s charters have expanded beyond safety and reliability issues. In addition to the direct cost of the review, there is the much larger cost of preparing for it, supporting the review effort and addressing identified issues, many of which are outside the ORC’s original scope.

This efficiency bulletin provides recommended actions for three changes related to the ORC. First, licensees should remove the regulatory commitment for the ORC. Second, licensees should, within the bounds of the existing regulatory commitments, reduce the level of oversight controls (scope, external and internal
Streamline Regulatory Organizations (EB 16-24)

This efficiency bulletin will help licensing and compliance groups at nuclear plants focus on priority tasks and eliminate low-value activities, resulting in efficiency gains and increased focus on regulatory issues.

Licensing and compliance groups have evolved differently and are of varying sizes doing essentially the same work. A standard task list with defined man-hours has been developed that provides an opportunity for utilities to reduce the number of full time equivalent workers devoted to licensing and compliance while performing required tasks.

As part of implementing this efficiency bulletin, each company should perform an assessment of their licensing and compliance tasks and man-hours against documentation provided. If a company’s man-hours for a task are greater than the “nominal,” sites should investigate and determine why. If a company’s man-hours for a task are much less than the nominal, sites should describe how it is achieved and document that best practice in order to share with the industry.

An industry team will revise the man-hour list based on best practices and will issue a new efficiency bulletin in the first quarter of 2017. Companies will be encouraged to adjust their regulatory and compliance resources toward the revised man-hour estimates in that efficiency bulletin.

Target implementation date: Utility discretion; consistent with business environment.

Online: [www.nei.org/bulletin1624](http://www.nei.org/bulletin1624)

Critical Component Reduction (EB 16-25)

This efficiency bulletin will maintain plant performance and help reduce costs by ensuring that the “critical components” lists includes only those items that warrant such classification based on their function. The list could be shortened by as much as 50 percent.

Classification of components has been an integral part of improving nuclear plant equipment reliability. By revising the “critical component” definition, there is an opportunity to improve safety and reliability while reducing operational and maintenance costs. This efficiency bulletin will change the definition of “critical component” to include only those components whose direct failure could result in unacceptable consequences like an automatic safe shutdown (reactor trip) or a power reduction greater than 20 percent.
The change establishes a zero-tolerance policy for “critical components” whose failure results in “unacceptable” consequences and will facilitate the implementation of more cost-effective maintenance for noncritical components.

Target implementation date: June 2017.

Online: [www.nei.org/bulletin1625](http://www.nei.org/bulletin1625)

**Standardizing Nuclear Access Processing and Requirements (EB 16-26a)**

This efficiency bulletin standardizes personal history questionnaires (PHQ) across the industry. Each utility and contractor/vendor (C/V) is committed to providing the correct PHQ to applicants for unescorted access to nuclear plant sites as defined in NEI 08-06. All utilities, contractors and vendors should establish an expectation that workers will be identified and approved by the Job Sponsor (the on-site coordinator requesting the work) 14 days in advance of arrival at the site and that the PHQ will be submitted 10 days in advance of arrival.

Maximum benefit is obtained when this efficiency bulletin is implemented in conjunction with efficiency bulletins EB 16-26b, “Standardization of In-Processing Training”; EB 16-26c, “Implement Common NANTeL Radiation Worker Training”; and EB 16-26d, “Supplemental Supplier Contracts/Use of NANTeL and EPRI STEs.”

Target implementation date: Jan. 2, 2017.

Online: [www.nei.org/bulletin1626a](http://www.nei.org/bulletin1626a)

**Standardization of In-Processing Training (EB 16-26b)**

This efficiency bulletin will reduce redundant and unnecessary training that personnel currently complete to obtain and maintain a badge granting access to nuclear power plants. It will do so by standardizing training and reducing the frequency of refresher training courses required for workers to be granted badges.

Ultimately, this will reduce the total duration and cost of the training required to grant employees site access.

Maximum benefit is obtained when this efficiency bulletin is implemented in conjunction with efficiency bulletins EB 16-26a, “Standardizing Nuclear Access Processing and Requirements”; EB 16-26c, “Implement Common NANTeL Radiation Worker Training”; and EB 16-26d, “Supplemental Supplier Contracts/Use of NANTeL and EPRI STEs.”

Target implementation date: Jan. 2, 2017.

Online: [www.nei.org/bulletin1626b](http://www.nei.org/bulletin1626b)

**Implement Common NANTeL Radiation Worker Training (EB 16-26c)**

This efficiency bulletin will standardize radiation worker training for nuclear power plant employees by
instituting a standard radiation worker training course for all industry workers to replace site- and company-specific training.

Once this efficiency bulletin has been implemented, all radiation workers will be trained and tested to one standard for work to be carried out in radiologically controlled areas of a nuclear plant. This will reduce the time required to train workers and will improve worker performance by aligning standards across the industry.

This initiative will also reduce costs by eliminating the need for companies to deliver unique radiation worker training material.

Maximum benefit is obtained when this efficiency bulletin is implemented in conjunction with efficiency bulletins EB 16-26a, “Standardizing Nuclear Access Processing and Requirements”; EB 16-26b, “Standardization of In-Processing Training”; and EB 16-26d, “Supplemental Supplier Contracts/Use of NANTeL and EPRI STEs.”

Target implementation date: Jan. 2, 2017.

Online: www.nei.org/bulletin1626c

**Supplemental Supplier Contracts/Use of NANTeL and EPRI STEs (EB 16-26d)**

This efficiency bulletin will help ensure supplemental workers support the industry’s expectation that their workers come to a nuclear energy facility trained and qualified to begin work.

The industry’s traditional site-specific training and qualification practices often impede supplemental workers from making a timely contribution to work that needs to be done, resulting in outage schedule delays and cost overruns. This efficiency bulletin will reduce the utility resources needed to support in-processing activities for supplemental workers by requiring suppliers to participate in programs (NANTeL, a standardized training system, and the Electric Power Research Institute’s Standardized Task Evaluation) designed to train and qualify workers before they arrive at plant sites for outages and other work.

Maximum benefit is obtained when this efficiency bulletin is implemented in conjunction with efficiency bulletins EB 16-26a, “Standardizing Nuclear Access Processing and Requirements”; EB 16-26b, “Standardization of In-Processing Training”; and EB 16-26c, “Implement Common NANTeL Radiation Worker Training.”

Target implementation date: June 2017.

Online: www.nei.org/bulletin1626d
**Consolidation of Oversight Meetings (EB 16-27a)**
This efficiency bulletin will consolidate various meetings related to site oversight to optimize the use of management time and to reduce administrative burdens associated with meeting preparation.

Oversight meetings are important to provide appropriate executive oversight for site activities and rapidly moving topics, issues and trends. However, an overabundance of meetings hinders managers from leading their organizations effectively, diverting attention from more important activities such as coaching direct reports and performing observations in the field with first-line supervisors. This bulletin includes a graded approach for consolidating short-term oversight meetings into one meeting, with long-term oversight meetings held monthly, quarterly or less frequently as required. By reducing the number of meetings and delegating attendance, station leadership will have more time to coach and mentor their direct reports and correct adverse behaviors and performance shortfalls before they become significant problems.

Maximum benefit is obtained when this efficiency opportunity is implemented in conjunction with efficiency bulletins EB 16-27b, “Optimized Corporate Oversight and Assessment,” and EB 16-27c, “Graded Approach for Executive Engagement in Performance Assessment.”

Target implementation date: Utility discretion; consistent with business environment.

Online: [www.nei.org/bulletin1627a](http://www.nei.org/bulletin1627a)

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**Optimized Corporate Oversight and Assessment (EB 16-27b)**
This efficiency bulletin will optimize oversight and assessment activities performed by corporate organizations, fleets and individual stations to eliminate redundancies. It includes a method to analyze oversight and assessment activities to ensure an optimum level of outside perspective is provided at each level of the organization.

Corporate oversight and assessment includes many essential activities to ensure the smooth running of the station. These include monitoring site and function area performance, communicating and reporting performance to stakeholders, assessing line managers’ ability to correct operations events and performance declines, and ensuring a thriving safety culture. This bulletin includes a framework and methodology for optimizing oversight and assessment activities by eliminating low-value activities, reducing the frequency of selected activities, and consolidating oversight and assessments activities performed by multiple organizations within the corporate structure.

Maximum benefit is obtained when this efficiency opportunity is implemented in conjunction with efficiency bulletins EB 16-27a, “Consolidation of Oversight Meetings,” and EB 16-27c, “Graded Approach for Executive Engagement in Performance Assessment.”

Target implementation date: Utility discretion; consistent with business environment.

Online: [www.nei.org/bulletin1627b](http://www.nei.org/bulletin1627b)
**Graded Approach for Executive Engagement in Performance Assessment (EB 16-27c)**

This efficiency bulletin will optimize assessment activities performed by executive leadership above the site vice president level.

The executive leadership team conducts graded site and fleet oversight and challenge to ensure that it recognizes actions to reverse adverse trends and that it can identify early signs of performance decline. This bulletin identifies the performance assessment touch points that are a recognized minimum to allow the executive leadership team to efficiently and effectively conduct oversight and challenge.

Maximum benefit is obtained when this efficiency opportunity is implemented in conjunction with efficiency bulletins EB 16-27a, “Consolidation of Oversight Meetings,” and EB 16-27b, “Optimized Corporate Oversight and Assessment.”

Target implementation date: Utility discretion; consistent with business environment.

Online: [www.nei.org/bulletin1627c](http://www.nei.org/bulletin1627c)

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**Minimize NUPIC Vendor Audit Frequencies (EB 16-28a)**

This efficiency bulletin will utilize the regulatory allowance to audit suppliers at a frequency of 36 months. Additionally, flexibility will be achieved by the adoption of a safety evaluation report that allows a grace period of up to 25 percent. Aligning vendor audit periodicities with current regulatory requirements will reduce the cost associated with maintaining vendors on the Approved Suppliers List.

Target implementation date: December 2017.

Online: [www.nei.org/bulletin1628a](http://www.nei.org/bulletin1628a)

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**Establish Common Finding/Deficiency Definitions Used During Vendor Audits (EB 16-28b)**

This efficiency bulletin will implement a uniform approach for identification, follow-up and closure of performance issues found during audits of supplier facilities.

Currently, the NUPIC audit process does not contain a standardized definition of a finding and deficiency. The lack of specific NUPIC guidance has allowed for differences in implementation between member utilities, resulting in unproductive conflict and delays. Application of a consistent, graded approach will reduce the resources for audit activities and allow them to be used more effectively by the nuclear operating utility.

Target implementation date: June 2017.

Online: [www.nei.org/bulletin1628b](http://www.nei.org/bulletin1628b)

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**Optimize Strategic Sourcing to Deliver Savings (EB 16-29)**

Organization and process inefficiencies in the procurement supply chain result in significant hidden costs.
The approach outlined in this bulletin will improve efficiency and help reduce costs by reorganizing, standardizing and prioritizing sourcing for nuclear power plants’ parts and systems. Once this has been implemented, plant licensees will have a centralized, appropriately staffed strategic sourcing group to contract with suppliers. The resulting partnerships will deliver improved savings.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1629

**Material Cost Reduction While Maintaining Quality (EB 16-30)**
Implementing this efficiency bulletin will create a centralized procurement engineering services organization that will reduce duplicative work and standardize procurement policies and procedures. This will help reduce the cost of parts, shorten procurement lead times and enhance in-house expertise.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1630

**Pre-Approval Criteria for Work Execution (EB 16-31)**
This efficiency bulletin will allow work that has limited impact on the control room or the plant to be conducted without obtaining pre-approval from the control room/work execution center. Instead, operations personnel will identify, review and pre-approve such work. This will allow workers to be dispatched more promptly to the field, improving productivity. For example, once systems or equipment are taken out of service and isolated through a clearance and tagging boundary, workers can go directly to the field and start work without further approval from the control room/work execution center.

Target implementation date: June 2017.

Online: www.nei.org/bulletin1631

**Electronic Dosimeter Issuance for Visitors Requesting Radiologically Controlled Area Access (EB 16-32)**
This efficiency bulletin will improve the efficiency of visitor in-processing by reducing administrative burdens and costs associated with thermoluminescent dosimeter and optically stimulated luminescent dosimeter issuance.

Issuing thermoluminescent dosimeters and optically stimulated luminescent dosimeters is indicated among visitors requesting access to a radiologically controlled area. However, visitors expected to receive less than 10 millirem during such access are adequately monitored for radiation via electronic dosimetry only. This bulletin provides guidance on when it is appropriate to use only electronic dosimeters. This approach will allow a reduction in thermoluminescent dosimeter and optically stimulated luminescent dosimeter issuance,
thereby increasing efficiency and reducing costs associated with processing visitors into a radiologically controlled area.

Target implementation date: March 2017

Online: [www.nei.org/bulletin1632](http://www.nei.org/bulletin1632)

**System Health Reporting Efficiencies (EB 16-33)**
This efficiency bulletin will reduce administrative burden by eliminating low-value reports on the health of engineering systems.

System health reporting is standard industry practice for communicating system issues and driving reliability. Over the years, the scope and content of this reporting has increased beyond that associated with industry guidelines, regulatory requirements or the relative safety importance of the system. This bulletin provides guidance on dividing systems into three tiers and aligning the monitoring and reporting for each tier commensurate with the systems’ importance to safety and reliability. The reduction in administrative burden will enable engineering staff to focus greater attention on the higher-tier systems.

Target implementation date: June 2017

Online: [www.nei.org/bulletin1633](http://www.nei.org/bulletin1633)

**Streamline Program Health Reporting (EB 16-34)**
This efficiency bulletin will streamline reporting on the health of nuclear power plant engineering programs by reducing the number of formal reports that must be prepared.

Program health reporting is an efficient means to convey the overall condition of a program to all levels of management. These reports can take the form of a health scorecard or the use of key performance indicators. However, not all programs require routine program health reporting or monitoring and direct engineering support. This bulletin provides guidance on dividing engineering programs into three tiers for purposes of health reporting, with the type and level of reporting commensurate with their complexity and the potential impact of program failure. The tiered approach will reduce the resources needed for program health reporting without compromising safety and reliability.

Target implementation date: June 2017

Online: [www.nei.org/bulletin1634](http://www.nei.org/bulletin1634)

**Portable Supplemental Radiation Protection Technician Training and Qualification (EB 17-01)**
This efficiency bulletin will move the training and qualification of supplemental radiation protection technicians from plant sites to the vendors that supply technicians. It will also encourage the development of key radiation protection processes and procedures that are not site-specific.
Historically, a site averages two to three days to train and qualify supplemental radiation protection specialists to work on an outage or other projects at the site. This bulletin requires shifting this activity to the vendor supplying the specialists and developing and implementing a standard vendor training program. Doing so will save time on-site, standardize key radiation processes and procedures and reduce recurring costs to train and qualify these technicians.

Target implementation date: December 2017

Online: www.nei.org/bulletin1701

Self-Protection for Radiological Work Activities (EB 17-02)
This efficiency bulletin will allow radiological protection staff to focus their oversight on activities with higher radiological risk by training and qualifying select radiation workers to perform self-protection for activities with low radiological risks to themselves and others.

Qualified self-protection workers can perform and document radiological surveys, establish effective radiological controls, and monitor radiological conditions during work activities. Radiological training and qualification are commensurate with assigned tasks. Self-protection workers are allowed to monitor themselves and one other worker. Implementing a training and qualification procedure for self-protection activities will return savings in subsequent years by improving these workers’ efficiency and optimizing the use of radiation protection technical staff.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1702

Value-Based Maintenance (EB 17-03a)
This efficiency bulletin will implement value-based maintenance, an approach that optimizes safety and reliability while carefully weighing the cost of component maintenance. It is the principal bulletin in a series that more effectively integrates cost considerations into equipment reliability processes.

The bulletin establishes more cost-effective maintenance strategies for those components whose failures do not result in unacceptable consequences. The shift to value-based maintenance complements the earlier change to the critical component definition (via EB 16-25) to provide the process and tools that can be effectively and consistently implemented in the nuclear industry.

Target implementation date: December 2018

Online: www.nei.org/bulletin1703a
Embracing Cultural Shifts for Value-Based Maintenance (EB 17-03b)

This efficiency bulletin will allow senior utility managers to drive the necessary behavioral changes to support the paradigm shift to value-based maintenance described in EB 17-03a. It is a companion in a series of bulletins focused on developing a value-based maintenance strategy associated with preventive maintenance and cumulative impact reduction.

Industry leadership communication and support of value-based maintenance is imperative to bring about the cultural change necessary to simultaneously reduce operating costs and improve equipment reliability for the most important equipment.

Target implementation date: December 2018

Online: www.nei.org/bulletin1703b

First-Line Supervisor Training and Development (EB 17-04)

This efficiency bulletin will remove duplication of training between maintenance and other leadership training programs. It will implement a first-line supervisor training and development program common to all supervisors and remove the maintenance first-line supervisor from the accredited programs consistent with ACAD 17-001.

This bulletin establishes a combined first-line supervisor training and development process that utilizes essential outcomes from INPO 15-005 and other reference documents to expedite the development and approval process for use of temporary supervisors.

Target implementation date: July 2017

Online: www.nei.org/bulletin1704

Simplified and Enhanced Management Observation Techniques (EB 17-05)

This efficiency bulletin will enable managers and supervisors to spend less time performing field observation data entries by eliminating low-value, time-consuming data input activities that typically detract from managers’ availability to perform field observations and coaching.

The value of management observation is in monitoring performance and coaching for improved behaviors. Reducing the administrative burden of management observations increases the time supervisors can spend with the workforce to improve performance.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1705
Implement Standard Design Change Process (EB 17-06)

This efficiency bulletin will establish a streamlined and graded approach to the design change process.

This bulletin will streamline the design process to help reduce administrative burden, using a graded approach that focuses on design changes most important to nuclear safety, reliability and design/licensing basis compliance. The bulletin also will establish standardized software to facilitate compatibility and training to support implementation of the new process.

Target implementation date: July 2017 (process implemented) and July 2018 (software).

Online: www.nei.org/bulletin1706

Implement a Screening Process for Changes to NEI 03-08 Material Initiative Topical Reports Without Requiring NRC Approval (EB 17-07)

This efficiency bulletin will provide a screening process, similar to 10 CFR 50.59, for use by issue programs under NEI 03-08 for determining if new or revised material aging topical reports can be generically released for implementation by member utilities without prior NRC approval.

Industry experience reveals that many current inspection requirements are overly conservative—in many cases requiring repeated inspections and analyses of small flaws that do not change over operating cycles. Additionally, the process for seeking NRC approval for inspection relief is inefficient and takes considerable time, resulting in lost opportunity for implementing new guidance. This screening method ensures that requests for NRC review and approval will focus on aging management issues and program elements that have significant safety importance allowing industry the flexibility to make appropriate and timely modifications to existing aging management guidance.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1707

Share Industry Resources Associated with Regulatory Activities (EB 17-08)

This efficiency bulletin will provide an industry-standard process for license amendment requests (LARs). The revised LAR process, captured in Revision 5 of NEI 06-02, will improve the overall quality of submittals.

All utilities reference NEI 06-02 as the standard format to be used for license amendments, but the existing format does not always lead to a submittal that the NRC finds acceptable. To address these shortcomings, a team of utility regulatory affairs staff developed an extensive revision to NEI 06-02, in which noncritical steps of the LAR process were eliminated or reordered to improve process efficiency. This bulletin will implement the changes captured in that revision.

Target implementation date: December 2017

Online: www.nei.org/bulletin1708
Industrywide Coordinated Licensing of 10 CFR 50.69 (EB 17-09)
This efficiency bulletin will establish an industrywide effort for all sites to submit a license amendment request (LAR) in accordance with 10 CFR 50.69 to allow plants to perform risk-informed categorization and treatment of structures, systems and components as part of a risk-informed engineering program. This coordinated effort will streamline the LAR submittal and approval process by developing a standardized template with review and oversight from an industry coordinating committee to ensure alignment and consistency of the industry LAR submittals.

This efficiency bulletin will not implement 10 CFR 50.69. A subsequent efficiency bulletin will be issued to cover 10 CFR 50.69 implementation.

Target implementation date: December 2018
Online: www.nei.org/bulletin1709

Maximizing the Benefit of Portable Equipment (EB 17-10)
This efficiency bulletin will address the use of portable equipment, including equipment procured as a part of the B.5.b and FLEX programs, in risk-informed regulatory programs to increase station safety and reduce operating costs. The guidance contained in this bulletin supports the identification of opportunities where portable equipment use may be appropriate for compensatory measures and defense-in-depth strategies.

The nuclear industry developed mitigating strategies and procured portable equipment in support of regulations and orders following Sept. 11, 2001 and the beyond-design-basis earthquake and subsequent tsunami that led to the Fukushima accident in March 2011. These strategies and equipment provide additional layers of defense-in-depth to plant safety and represent an opportunity to recognize increased flexibility and diversity provided to permanently installed plant equipment. This efficiency bulletin will enable licensees to identify expanded uses for this portable equipment.

Target implementation date: Utility discretion; consistent with business environment.
Online: www.nei.org/bulletin1710

Maximize Implementation of the Surveillance Frequency Control Program (EB 17-11)
This efficiency bulletin will enable the development of a strategic implementation plan and institution of management-established goals to fully implement a surveillance frequency control program (SFCP).

This bulletin will improve economic performance by using risk information and operating experience to safely reduce the frequency of equipment testing, also known as surveillance, performed during on line and outage periods. Additionally, less surveillance reduces the probability of plant transients, challenges to safety systems, and wear and tear on equipment due to testing.

Target implementation date: Utility discretion; consistent with business environment.
Online: www.nei.org/bulletin1711
Reducing Burden through Empowering First-Line Supervisors (EB 17-12)
This efficiency bulletin will minimize the time that supervisors spend performing low-value activities and administrative duties that detract from their availability to coach and mentor field activities and influence desired behaviors. Supervisors will be empowered to set priorities and make decisions that best support the needs of the station and their staff.

This will allow supervisors to apply greater focus and oversight to complex and higher-risk activities to enhance safe and reliable plant operation. It will also empower supervisors to make simple decisions without extensive administrative controls and allow them to engage the workforce, influence desired behaviors and improve efficiency.

Target implementation date: Utility discretion; consistent with business environment.
Online: www.nei.org/bulletin1712

OJT/TPE Process (EB 17-13)
This efficiency bulletin will reduce the administrative burden with performing On-the-Job Training/Task Performance Evaluation (OJT/TPE).

This bulletin will align the OJT/TPE process with ACAD 91-006, revision 2. This guidance provides clear expectations and streamlined practices that will reduce the overall time to train and qualify personnel and improve focus on the technical aspects of training and evaluation.

Target implementation date: May 2018.
Online: http://www.nei.org/bulletin1713

Improving the Effectiveness of Issue Resolution to Enhance Safety and Reliability (EB 17-14)
This efficiency bulletin will align corrective action program (CAP) processes with NEI 16-07.

Current CAP practices result in expending resources on unnecessary or overly complex investigations that impede a plant’s ability to quickly diagnose and fix plant issues. NEI 16-07 was developed to provide guidance that standardizes and simplifies CAP terminology, concepts and tools and results in more effective use of managers’ and supervisors’ time.

This bulletin will allow station leaders to adopt common practices and tools to improve issue resolution and reduce administrative burden in the corrective action program.

Target implementation date: May 2018.
Online: http://www.nei.org/bulletin1714
Standardization of the Systematic Approach to Training (EB 17-15)
This efficiency bulletin will establish a standardized process for the Systematic Approach to Training (SAT) to reduce inefficient use of training resources and administrative burden.

Over time, sites have independently developed their own SAT processes, which far exceed requirements and are resulting in the inefficient use of resources. A group of industry training professionals reviewed and standardized the industry’s overall approach to executing SAT. This efficiency bulletin will implement the new, standardized process.

Target implementation date: January 2018
Online: www.nei.org/bulletin1715

Industry Coordination of Categorization and Alternative Treatments for 10 CFR 50.69 Implementation Plans (EB 17-16)
This efficiency bulletin will establish an industrywide effort to coordinate the implementation of 10 CFR 50.69, which allows the application of risk insights to the categorization and treatment of structures, systems and components at U.S. nuclear reactors. A consistent 10 CFR 50.69 infrastructure will reduce implementation costs.

Sites will develop an implementation plan for 10 CFR 50.69 using industry guidance and share implementation plans with the industry to gain alignment, consistency, and efficiency and to identify opportunities for sharing resources. This effort will be completed in parallel with implementing Industrywide Coordinated Licensing of 10 CFR 50.69 (EB 17-09).

Target implementation date: December 2018
Online: www.nei.org/bulletin1716

Standard Indicator: Central Database (EB 17-17)
This efficiency bulletin will provide a central database to allow the industry and INPO to manage standard key performance indicator data. With a common database, the industry will have a more efficient process for conducting performance comparisons and benchmarking, enabling efficiency improvements in data management and reporting, and reductions in each station’s information technology resource requirements.

A companion efficiency bulletin will be issued that will identify common industry indicators.

Target implementation date: March 2019
Online: www.nei.org/bulletin1717

Optimizing Strategic Engineering, Engineering Response Team and Component Maintenance Support (EB 17-18)
This efficiency bulletin will transform system engineering into a more strategic discipline. Tactical activities such as troubleshooting support and response to emergent plant issues will transition to the maintenance department and engineering response team, so that strategic engineering can maintain a long-term focus on plant systems.

This bulletin addresses strategic engineering, engineering response teams and component maintenance support. A complementary bulletin, EB 17-19, addresses program engineering and design engineering optimization. The reactor engineering and procurement engineering organizations are outside the scope of these bulletins.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1718

**Optimizing Program and Design Engineering Organizations (EB 17-19)**
This efficiency bulletin will redefine the roles and responsibilities of the program engineering and design engineering organizations to focus on core business. The bulletin provides optimal organizational structures for these organizations for single and multiunit sites. Realigning these organizations will allow for the most efficient use of resources.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1719

**Further Streamline the Work Management Process (EB 17-20)**
This efficiency bulletin will simplify the work management process to better align with more efficient preventive maintenance and surveillance practices outlined in previous bulletins. The bulletin will provide a more streamlined process to prepare and execute maintenance activities that contribute to overall improvements in equipment reliability.

Overall, simplifying the work management process will allow department managers and supervisors to quickly respond to new equipment deficiencies while maintaining the schedule and provide more time to focus on preparing and executing work of greater importance.

Maximum benefit is obtained when this efficiency opportunity is implemented in conjunction with previous efficiency bulletins related to preventive and minor maintenance and work management.

Target implementation date: Utility discretion; consistent with business environment.

Online: www.nei.org/bulletin1720
Weekly Source Checks of Portable Radiation Protection Instrumentation (EB 17-21)
This efficiency bulletin will change the frequency with which portable radiation protection instrumentation is checked from a daily to a weekly basis. This will reduce the time radiation protection (RP) technicians devote to conducting these checks, allowing them to focus on higher priority tasks. The efficiency bulletin has the potential to save each nuclear power plant approximately 386 hours of RP technician time per year for every 10 instruments in operation.

The target implementation date for EB 17-21 is April 2018.

Online: www.nei.org/bulletin1721

Engineering Personnel Initial and Continuing Training (EB 17-22)
This efficiency bulletin will streamline initial and continuing training for engineering personnel at nuclear power plants. Earlier industry guidelines did not credit postsecondary education in engineering fundamentals for personnel qualification. Therefore, the industry spent three to four weeks covering fundamentals during engineering initial training. For example, engineering training programs require basic thermodynamics training, even though most trainees have already completed a similar course as part of their postsecondary education. This efficiency bulletin will rectify this situation by maximizing the benefit of postsecondary education and focusing training requirements on work-group specific and performance-based training.

The target implementation date for EB 17-22 is December 2018.

Online: www.nei.org/bulletin1722

Transform the Maintaining the Plant Organization (EB 17-23)
This efficiency bulletin changes the maintenance of nuclear power plants into a more autonomous entity that minimizes the number of handoffs and increases ownership of preventive maintenance activities. Currently, multiple handoffs are required between the development of a work plan and the maintenance craft team execution of work in the field. These handoffs create delays and impede the efficient execution of work, resulting in lost productivity, increased maintenance cost and frustration.

This transformation is dependent on maximizing the benefit from previous enabling efficiency bulletins and is one of the most significant efficiency improvements thus far developed under the Delivering the Nuclear Promise initiative.

Implementation of EB 17-23 is at utility discretion, consistent with its business environment.

Online: www.nei.org/bulletin1723

Industry Standardized Performance Indicators (EB 17-24)
This efficiency bulletin will implement common industry standardized performance indicators that provide an accurate, comprehensive perspective of industry performance. It also will streamline and reduce the number of indicators. The data will be maintained and managed in a central data management system when it becomes available by March 2018 as previously approved in EB 17-17.

EB 17-24 requires full industry participation to be viable. The target implementation date for EB 17-24 is April 2018.

Online: www.nei.org/bulletin1724