

efficiency bulletin

June 3, 2016

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Due: September 2016

Efficiency Bulletin: 16-14 Training Cumulative Impact Strategies (Part 2)

Reduce low-value administrative burdens to produce efficiency gains in training.

Addressees: Chief nuclear officers, NEI APCs and INPO APCs

Issue: TRN-3.0, Cumulative Impact Strategies (Part 2)

Background

- This bulletin addresses the following cumulative impact items: TQ-2, Lesson Plan Detail; TQ-3, Management Observations of Training; and TQ-8, Training Committees from the INPO report "Training Cumulative Impact Report," dated January 2016. These three items were evaluated by fleet/alliance training directors and guidance has been provided (attached) for consistent industry implementation.

Summary of Efficiency Opportunity

- Desired end-state—Streamline training administrative activities to reduce distractions from training, reduce the time and resources required to conduct observations of training, focus on the quality rather than the quantity of observations, and reduce the time required for line and training participation in training committee activities.
- Value proposition (vision of excellence)—Improve the quality and efficiency of training by eliminating low-value administrative burdens accumulated from years of incremental internal and external responses to individual training-related performance issues. Shift the focus of observations to quality vs. quantity and remove the self-imposed quotas for completing observations. Lastly, restructure, simplify and focus training committees by reducing the quorum requirements, simplifying the agendas and reducing the frequency of required meetings.



NUCLEAR ENERGY INSTITUTE

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- Why it is important?—This effort will save line and training resources that can be used for other tasks or duties. Resource savings vary depending on implementation at each station. On average, an instructor can save 25 person-hours per year processing fewer lesson material revisions. Redefining the requirements for observations of training will save an average of 83 person-hours per year. Restructuring training committees can save an average of 300 person-hours per year of line resources and 200 person-hours per year of training resources.

Relevant Standards

- ACAD 85-006, Principles of Training System Development Manual (INPO)
- ACAD 02-001, The Objectives and Criteria for Accreditation of Training in the Nuclear Power Industry (INPO)
- Training Cumulative Impact Report, distributed January 2016 (INPO)

Guidance

- Administrative items established at different fleets/sites are a product of perceived expectations by internal and external stakeholders. The Training Cumulative Impact Report details options for addressing these three items so they can be reduced or eliminated to gain efficiencies. Fleet and alliance training directors agreed to provide guidance (see attachments 1-3) to ensure consistent implementation by the industry. There are no industry standards that require quotas for observations of training, nor are there requirements to have a complicated multi-tiered structure for training committees. Each station should review the attached guidance and make the necessary revisions to its processes.

Recommended Industry Actions

- Each fleet/site reviews the guidance provided in the attachments and revises its processes accordingly to eliminate administrative burden.

Change Management Considerations

Industry Activities

- Industry webinar to provide background for initiative, INPO discussion and an open forum to clarify expectations and ask questions. Webinar information can be found at the following site:
<https://web.inpo.org/Pages/Nuclear-Promise-Issues.aspx>

Company Actions

- Each station to develop a change management plan at their site.
- Sites communicate the change to station personnel, including the rationale for change.

Guidrails

- Managers maintain effective monitoring and oversight to adhere to guidance in attachments 2 and 3.

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.

Key to Color Codes:

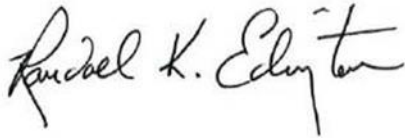
Red: NSIAC initiative – full participation required for viability
 Blue: Action expected at all sites, but is not needed for broad industry viability
 Green: Utility discretion to implement, consistent with its business environment

Industry Contacts

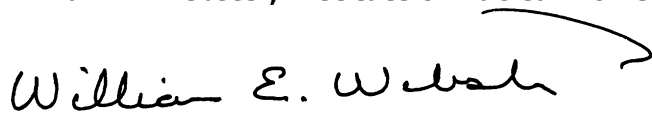
- Industry champion for this issue: Marios Kafantaris, 856-339-2215, marios.kafantaris@pseg.com
- INPO contact: Rusty Shoemaker, 770-644-8960, ShoemakerEM@INPO.org
- NEI contact: Elizabeth McAndrew-Benavides, 202-739-8143, emb@nei.org
- On the web: www.nei.org/bulletin1614

Industry Approval:

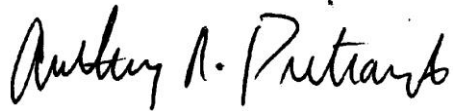
Randall Edington, Arizona Public Service Company, CNO Lead



William E. Webster, Institute of Nuclear Power Operations



Anthony R. Pietrangelo, Nuclear Energy Institute



Attachment 1

Guidance for TQ-2, Lesson Plan Detail

The training cumulative impact report contains an action to allow instructors to deliver effective training while reducing the administrative burden associated with developing and maintaining classroom, laboratory, on-the-job training (OJT), task performance evaluation (TPE), self-study and simulator lesson plans. Lesson plans are used as a primary training tool to guide the learning process. They identify learning objectives, learning activities, training equipment and training materials needed. The design of lesson plans ensures consistency in the delivery of training from instructor to instructor and from class to class and is not considered a formal procedure that needs to be followed step by step. For this reason, they should be organized simply and logically to serve as a “blueprint” to ensure learning objective mastery. The basic outline for all lesson plans is an introduction, a body that includes learning objective content, and a summary. This basic formula can be applied to any application or setting including Classroom, Laboratory, Simulator and On-The-Job Training. An emphasis should be placed on maximizing the use of existing materials and resources. ACAD 02-001, Accreditation Objectives and Criteria Appendix A notes that “instructional materials trainees and instructors need to achieve learning objectives include the minimum content necessary to obtain mastery of learning objectives.”

Through years of internal and external responses to training-related performance issues, instructors feel constrained from providing additional personal experience or insights if not formally included in training materials, and that they spend time incorporating information that does not contribute to consistent delivery of learning objectives in lesson plans.

To address the problems noted with lesson plan detail, the following recommendations are provided for all sites to revise their processes to include the following:

- (a) Personalization of training presentations is allowed, provided it does not change the learning objectives or lesson plan intent/scope. Personalization includes using examples, anecdotes, personal OE or additional training aids.
- (b) Modifications or supplementing of lesson material presentations or activities are allowed to alter the delivery for an identified training need, provided it does not change the learning objectives.
- (c) Lesson material detail should provide sufficient content to teach the lesson objectives. Additional details that do not support the lesson objectives should be minimized.
- (d) Simulator instructors should use freeze/backtrack functions when a learning moment is identified and appropriate, even when the simulator guide does not have a designated freeze/backtrack point in the scenario.
- (e) Scenario guides are not required to have every procedure step listed that the crew will perform, but instead focus on critical items.

Also, consider placing the following instructor guidance in the site’s process to address incorporating fundamentals (operator, discipline-specific, ACAD), operating experience, human performance and safety topics.

Training material should provide clear direction in the lesson plan body for how the instructor is to engage the students in a discussion of the particular topic that emphasize fundamentals (operator, discipline-specific, ACAD), operating experience, human performance and safety topics, unless the topic is not beneficial for inclusion in the lesson plan guide.

Attachment 1

Guidance for TQ-2, Lesson Plan Detail

The instructor has the discretion to modify these areas prior to lesson plan delivery or to add personal OE to enhance the presentation. When incorporating these aspects, the following strategies provide guidance for implementation:

- Fundamentals
 - Directions could include questions to ask students to check awareness, understanding, application; key points to reinforce management expectations, emphasize standards, or important information related to the plant/job.
- OE/Human Performance
 - Provide and facilitate a summary of the event.
 - Facilitate a discussion of error precursors that could have influenced the event.
 - Facilitate a discussion of applicability to the task/job.
 - Facilitate a discussion of HU error-prevention tools used to prevent the event.
- Safety
 - Safety should be covered relevant to the topic or a particular task within the topic.
 - Safety should be reinforced during the appropriate section within the lesson plan.
 - Questioning techniques could be used to determine trainee behaviors related to safety.

Discussion points and/or associated icons can be used to reinforce fundamentals, human performance, OE and safety.

It is not intended that site personnel change their lesson plan or scenario guide templates or embark on a lesson plan revision project. The goal of this EB/Attachment 1 is to provide guidance to instructors to allow flexibility in support of training and to improve the training experience by leveraging their personal strengths to meet different class needs.

References

- *Training Cumulative Impact Report*, INPO 2016
- ACAD 85-006, *Principles of Training System Development Manual*
- ACAD 85-006, *Principles of Training System Development Manual (Supplement)*
- ACAD 02-001, *Objectives and Criteria for Accreditation of Training in the Nuclear Power Industry*
- ACAD 07-002, *Conduct of Simulator Training*

Attachment 2 TQ-3, Management Observations of Training

An action from the training cumulative impact report is to provide efficient and impactful processes for the conduct of management observations, with minimum administrative overhead. Criterion 3.2 of ACAD 02-001, *The Objectives and Criteria for Accreditation of Training in the Nuclear Power Industry*, states: "Managers are engaged in training activities through monitoring and oversight to provide feedback and direction." Appendix A, *Basis for Accreditation Objectives and Criteria*, provides clarifying information as follows: **"Station managers periodically observe training activities in all settings."**

To gain efficiencies and focus on quality vs. quantity during observations of training, the following definitions will be used by the industry:

- "Station Managers" are defined as Site Vice Presidents, Plant General Managers, department heads, and next-level leaders who are the primary owners of the accredited programs. The expectation is for each "station manager" to conduct a minimum of 1 observation of training per quarter (previous frequency was monthly).
- First-line supervisors are expected to provide student feedback on the training they attend but are not required to perform additional observations of training.
- "Periodically" is defined as at least one observation by station managers at least quarterly in each program and training setting that training is conducted. It is the responsibility of the line owner of the training program to ensure the "station manager" observations of training result in at least one observation of their program in each setting offered each quarter.

For example, if non-licensed operator (NLO), initial licensed operator (ILO), and licensed operator requalification (LOR) occurred in the 1st quarter, (with training in settings of NLO OJT, ILO OJT, NLO Classroom, ILO Classroom, LOR Classroom, ILO Simulator and LOR Simulator), then the expectation would be that a minimum 7 observations by station managers are conducted.

The following is a list of required training settings:

- Classroom
- Simulator
- Laboratory, which includes flow loop simulators, component simulators, and in-plant workshops
- On the job training (OJT)
- Task Performance Evaluation (TPE)

References

- *Training Cumulative Impact Report*, INPO 2016
- ACAD 02-001, *Objectives and Criteria for Accreditation of Training in the Nuclear Power Industry*
- ACAD 85-006, *Principles of Training System Development Manual*
- ACAD 85-006, *Principles of Training System Development Manual (Supplement)*

Attachment 3 TQ-8, Training Committees

Training committees and vertical review boards have resulted in an increased burden primarily due to the inefficiency in how some committees perform and redundancy to other committees. Some utilities have as many as four to five levels of training committees. Agendas often overlap and some committees do not make a decision or take action because they think another committee is working on the identified issue (unclear ownership, roles/responsibilities between multiple committees). Additionally, some utility procedures require committees to review and committee chairs to approve program documents during committee meetings, instead of the document formats/forms recording the reviewers and program owner/line manager approval outside of committee meetings. The training cumulative impact report addresses this issue and calls for a reduction in the administrative burden of training committee meetings. Some station managers require all programs to perform vertical review boards on a set frequency instead of implementing them when there is a potential for weaknesses in line and training SAT knowledge.

Training Committees

The following is guidance that each utility will follow to address the issues identified in the cumulative impact report, with the end result to streamline the training committee process while sustaining strong and effective oversight of training programs.

- Change training committee structure to one station-level committee and six discipline-level committees for Operations Initial, Operations Continuing, Maintenance, Chemistry, Radiation Protection and Engineering.
- Revise quorum requirements such that the station-level committee is chaired by the SVP, with membership that includes the PGM, each line manager who chairs a discipline-level committee, and the Training Manager. Discipline-level committees are chaired by the respective line manager, with membership that includes the training supervisor and program administrator/lead instructor. Include other members from the line organization at the discretion of the committee chair.
- A standard agenda (see attachment 4) will be utilized to focus on student and manager feedback, student performance (in training and in plant), and program performance problems. Procedural guidance lists typical items addressed by committee levels based on station and program performance. For example, when discipline committees meet, they focus on preparation/status of long-term training plans, review/status of action plans to address problem areas, and identify issues and decisions necessary for station-level committee discussion/resolution. At the subsequent station-level meeting, plans are presented, issues are discussed, and decisions are made and actions taken as necessary by station managers.
- Revise process to have their committees meet twice a year using a brief standard agenda that focuses on long-term planning and addressing program performance issues, versus monthly or quarterly with an extensive agenda. Ad hoc meetings may be held at the discretion of the chairperson to address significant issues or follow-up actions that require appropriate committee members to reconvene between the semi-annual routine meetings. A proposed meeting schedule could be that the station-level committee meets semi-annually, typically during the second and fourth quarters, and at the discretion of the chairperson (SVP). Discipline-level committees meet semi-annually prior to station committee meetings, typically during the first and third quarters, for long-term planning and action planning/status for problem areas, and as necessary based on program performance at the discretion of the chairperson, SVP direction or Training Manager recommendation. (Note: This information is an example of a typical meeting schedule and is not a requirement).

Attachment 3 TQ-8, Training Committees

- Training committee minutes document only the important topics that have associated decisions and actions, versus every topic discussed on the standard agenda of topics, or a transcription of everything said at the meeting. Revise processes to streamline the meeting minutes to incorporate decision/action statements overtly within the meeting agenda, then in the minutes modify the statements to reflect committee decisions and associated action items. For example, after each agenda topic, insert "Committee Decision(s):" followed by brief statement(s) of what the committee has to decide/do and, in the minutes, document the decisions and any resulting "Action Items."
- It is not necessary to have hard copies of documents for agenda items at committee meetings. Having the documents readily accessible online for committee members to review prior to and, if necessary, during the meeting, is encouraged. Use of hyperlinks or object embedding of these documents within the meeting agenda is encouraged. These documents are not attached to the minutes for records purposes but may be listed in the minutes for reference.

Training committees involve managers as members for the purpose of monitoring, oversight and direction for accredited training programs (AOC 3.2). Input from others, such as students, supervisors, and line department training coordinators, is encouraged. They can request training and provide feedback using routine methods such as forms and other tools for training requests, needs analysis, feedback, observations, condition reports, and evaluation surveys. At the discretion of the chairperson, students, supervisors and department training coordinators may be invited to a meeting for a specific purpose (e.g., alignment for a program change).

Specific items that should be addressed on a day-to-day basis as necessary (versus waiting to have a committee meeting) include:

- Conduct, review and approve training program documents, including (but not limited to) performance/needs analysis, job/task analysis, training program description, training plan/schedule, learning objectives/lesson plans, exam/evaluation documents, remediation plans, training effectiveness evaluations/reviews, etc.
- Monitor/review and take action as necessary for student performance issues, incumbent performance issues related to knowledge/skills, training program-related condition reports and causal evaluations, training performance indicators, aggregate rollup of student feedback and training observations, and results of self-assessments, audits, inspections and industry evaluations.

Line and training personnel collaborate routinely to prepare, change and act on training program requirements, training plans/schedules and qualification tracking. These items are not the focus of training committees unless they are problematic or impact longer-term training plans that may require training committee attention.

When a specific program performance problem arises between the semiannual meeting dates that require committee member attention, it is not necessary for committee members to convene in a committee forum or face-to-face to discuss the problem. Using an online meeting tool is encouraged to make decisions and take action quickly, versus waiting for the standard training committee meeting to convene. Topics/decisions/actions discussed during online meetings are documented as is normally done in the standard minutes format (or other applicable format) for training records purposes.

Vertical Review Board (VRB)

If a site conducts VRBs, then revise the process to:

- Conduct vertical review boards outside training committee meetings.

Attachment 3 TQ-8, Training Committees

- Conduct a VRB within the first year of when a line manager first becomes the Training Program Owner.
- Conduct VRBs, as a minimum, for one task, once every three years, per program.
- Station managers shall determine normal periodicity of VRBs. Process guidance will include a provision for selected programs to conduct “for cause” VRBs at the direction of the SVP, PGM or Training Manager when there have been identified weaknesses in SAT knowledge.
- Define meeting attendees who will serve as “board members” and the “presenter” with training supervisor support. Board members may include the SVP or PGM, the Station Training Manager, and at least one other station manager (preferably a manager who is also a training program owner).

References

- *Training Cumulative Impact Report*, INPO 2016
- ACAD 02-001, *Objectives and Criteria for Accreditation of Training in the Nuclear Power Industry*

Training Committee Meeting

Agenda Minutes

Station Committee Discipline Committee: _____.

Meeting Date: _____ Time: _____ Location: _____

ATTENDANCE			
NAME	TITLE	NAME	TITLE
MINUTES			
Prepared By / Date:		Approved By / Date	

*Instructions: Prepare agenda unique to each meeting by **selecting, deleting or adding** to topics listed below. Insert under each topic the decision/action for committee to achieve at meeting, e.g., "Committee Decision/Action: Approve action plan for improving qualification progress."*

1. MEETING KICKOFF

- Opening remarks; agenda review; previous meeting minutes review; committee action items review

2. PROGRAM PERFORMANCE ISSUES

A. Initial Training

- **Training Implementation Issues** {Examples of items that may be appropriate: issues identified in CAP, Self-Assessments, OE, TPIs, etc.}
- **Qualification Progress Issues** {OJT/TPE, mentoring, qualification guides, JFGs, as applicable to program}
- **Current Program Changes/Evaluations** {Design/curriculum changes, program evaluation results/issues}

B. Continuing Training

- **Performance Issues/Training Needs** {Examples of items that may be appropriate: results from analysis of training requests, performance/needs analysis, emergent/JITT requests, etc.}
- **Schedule/Implementation Issues** {Upcoming training schedule, staffing and other implementation issues, e.g., required resources, instructors, SME presenters, adjunct instructors, WBT, lab equipment, simulator}
- **Upcoming Program Changes/Evaluations** {Changes in job conditions impacting training program, NRC/INPO activities, training inspections/evaluations, post-training program evaluation, recent results, fleet/industry lessons learned from evaluations}

3. ANNUAL, BIENNIAL AND LONG-RANGE PLANNING

A. Initial Training - Line Department five-year staffing plan and training plan/schedule

B. Continuing Training - Review of annual/biennial and long-range training plan/schedules

4. PROGRAM HEALTH

A. Cover items as appropriate that are not addressed in the above items. Some potential examples are: training performance indicators, benchmarking plans/results; training facility improvements/issues; training staffing plan/issues; renewal schedule/key dates, fleet/industry OE/SIFs/TIFs, INPO PIC--Plant Performance Indicator Index and T&Q Events during the accreditation renewal cycle, significant management/trainee feedback; etc.

5. MEETING CLOSURE

A. Action item review; plus/delta critique of meeting; next meeting; closing remarks

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