

efficiency bulletin

April 29, 2016

Color Code: Blue
Due: January 2017

Efficiency Bulletin: 16-13 Perform Self-Briefs for Low Radiological Risk Activities

Workers perform and document self-briefs prior to activities with low radiological risk within the Radiologically Controlled Area.

Addressees: Chief nuclear officers, NEI APCs and INPO APCs

Issue: RP-6, Self-Brief for Radiologically Controlled Area (RCA) Entries

Summary of Efficiency Opportunity

- Desired end-state—Low radiological risk activity self-briefing is the process where radiation workers can brief themselves on work area radiological conditions without having to interface directly with radiation protection personnel. This self-briefing process, discussed in Rev. 2 of INPO 05-008, increases accountability and responsibility of the radiation worker and their direct supervisor.

The following outlines the conditions for self-briefing:

- Work is categorized as low radiological risk.
- Limits for radiation areas, such as no work in areas greater than 25 mrem/hour.
- Limits for radioactively contaminated areas, such as no work in areas greater than 10,000 dpm/100 cm².
- No alpha level 2 or 3 zones.
- No airborne contaminated areas.
- No work above certain heights, such as 7 feet.
- No posted high radiation areas (i.e. this would include an area less than 25 mrem/hr, but are posted as high radiation areas because of the potential to meet high radiation area conditions).



NUCLEAR ENERGY INSTITUTE

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- Limit work activities that may change the radiological conditions, for example:
 - no abrasive work activities (cutting, grinding)
 - no transfer of materials obtained from radiation areas (RA), high radiation areas (HRA) or locked high radiation areas (LHRA)
 - no opening of contaminated containers
 - no use of ladders to access areas above certain heights, such as 7 feet
 - no contaminated system breaches
 - system operation, such as opening a valve that may allow radioactive material to transfer through a pipe.
- Value proposition (vision of excellence)—Radiation protection (RP) resources are available for higher priority tasks. RP briefings and job coverage will be conducted for medium- and higher-risk activities, and therefore focus on RCA entries and work that has greater radiological significance.
- Why is it important?—Eliminating RP briefs for low-risk activities will result in improved worker efficiency and allow RP personnel to focus on higher-risk tasks.
- Industry benchmark value(s)—The number of dose or dose rate alarms, high radiation area and personnel contamination events should remain consistent with current performance (few and infrequent).
- Measure of effectiveness—Spot-check of workers’ use of self-briefing cards and observation on worker knowledge of radiological conditions, practices and RWP requirements.

Relevant Standards

- Performance Objectives and Criteria (INPO) - NP.1, Nuclear professionals apply the essential knowledge, skills, behaviors and practices needed to conduct their work safely and reliably.
- Performance Objectives and Criteria (INPO) - RP.1, Personnel who perform radiological protection activities apply the essential knowledge, skills, behaviors and practices needed to implement those activities such that worker and public health and safety are protected.
- Performance Objectives and Criteria (INPO) - RP.2, Individual dose and collective radiation dose are measured accurately and are maintained as low as reasonably achievable.
- Performance Objectives and Criteria (INPO) - RP.3, Radioactive contamination is controlled to prevent the spread of contamination to personnel, areas and equipment.
- Performance Objectives and Criteria (INPO) - RP.4, Radioactive material controls are implemented to protect the health and safety of workers and the public.
- Generic FSAR Template Guidance For Ensuring That Occupational Radiation Exposures Are As Low As Is Reasonably Achievable (ALARA), NEI 07-08, Revision 3.

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

Relevant Regulatory Requirement

- Regulatory Guide 8.8, Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable.
- Regulatory Guide 8.10, Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable.
- FSAR Chapter 12, Radiation Protection.

Guidance

- INPO 05-008, "Guidelines for Radiological Protection at Nuclear Power Stations."

Recommended Industry Actions

- Sites should revise radiation worker training with increased attention on "new-to-nuclear" workers' inexperience with radiological safety. This inexperience may cause a rise in noncompliance or low-level radiological events (entry into contaminated areas, HRAs, PCEs, noncompliance with RWPs) and may require increased oversight and focus on RP fundamentals for this subset of workers.

Change Management Considerations

Industry Activities

- Industry webinar to provide background for initiative, INPO discussion, and an open forum to clarify expectations and ask questions. Information on the webinar is available at <https://web.inpo.org/Pages/Nuclear-Promise-Issues.aspx>
- Discuss at regional RPM meetings and routine industry conference calls.
- Update and discuss at 2016 RP manager meetings at INPO.
- "Guidelines for Radiological Protection at Nuclear Power Stations," INPO 05-008, rev 2.

Company Actions

- Each station to develop a change management plan for worker self-briefs for low-risk activities.
- Each station to establish a method for radiation workers to readily obtain current radiological conditions and requirements, such as survey maps and radiation work permits, to allow for self-briefing on radiological conditions.
- Station radiation protection managers brief station management on the scope of the change, roles and responsibilities. For example, communicate and ensure workers and their supervisors understand their accountability for and responsibility to meet the radiological self-briefing process and controls.
- If self-briefing is permitted during high maintenance periods, such as refueling outages, station radiation protection managers should address the increased potential of radiological events.
- Note that this efficiency bulletin is not promoting the addition of any new administrative forms, documentation, or training, including programs that have already fully implemented a self-brief process. The objective is to use what is already existing and making it more efficient as determined by the station or utility leadership.

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.

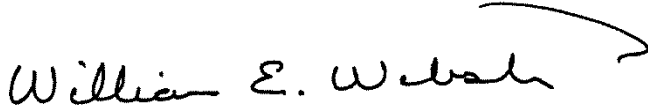
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