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Office of Administration
Mail Stop: OWFN-2A13
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Comments on Draft Regulatory Guide (RG) DG-1329, "Qualification and Training of Personnel for Nuclear Power Plants" (Federal Register 83FR6053, dated February 12, 2018, Docket ID NRC-2018-0023)

This letter is being submitted in response to the U.S. Nuclear Regulatory Commission's (NRC's) request for comments concerning the subject draft Regulatory Guide (RG) DG-1329, "Qualification and Training of Personnel for Nuclear Power Plants," published in the *Federal Register* (i.e., 83FR6053, dated February 12, 2018).

DG-1329 is proposed Revision 4 to RG 1.8, "Qualification and Training of Personnel for Nuclear Power Plants." This draft RG describes methods acceptable to the NRC for complying with those portions of its regulations associated with the selection, qualifications, and training for nuclear power plant personnel. DG-1329 updates the guidance with additional experience gained since Revision 3 of RG 1.8 was issued in 2000 by endorsing ANSI/ANS-3.1-2014, "Selection, Qualification and Training of Personnel for Nuclear Power Plants."

Exelon Generation Company, LLC (Exelon) appreciates the opportunity to comment on the subject draft RG and offers the attached comments for consideration by the NRC. Exelon also supports the comments submitted by the Nuclear Energy Institute (NEI) on behalf of the industry related to this draft RG.

If you have any questions or require additional information, please do not hesitate to contact Frank Mascitelli at (610) 765-5512.

Respectfully,

James Barstow
Director, Licensing and Regulatory Affairs
Exelon Generation Company, LLC

Attachment

83 FR 6053
2/12/2018 (6)

SUNSI Review Complete
Template = ADM - 013
E-RIDS = ADM-03
Add = Stephen Burton
James Kellum

Comments Concerning Draft Regulatory Guide DG-1329, "Qualification and Training of Personnel for Nuclear Power Plants"

Draft Regulatory Guide (RG) DG-1329, "Qualification and Training of Personnel for Nuclear Power Plants," RG describes methods acceptable to the NRC for complying with those portions of its regulations associated with the selection, qualifications, and training for nuclear power plant personnel. This draft RG is proposed Revision 4 to RG 1.8 (same title).

Exelon Generation Company, LLC (Exelon) appreciates the opportunity to comment on DG-1329 and offers the following comments for consideration by the U.S. Nuclear Regulatory Commission (NRC).

General Comments

Section 1, "Qualification," of the draft RG discusses qualification criteria that is described in Section 4 of ANSI/ANS-3.1-2014, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," in which the NRC considers acceptable with the exceptions noted.

1. DG-1329 Section 1.1 describes the following exception to the ANSI/ANS-3.1-2014, Section 4.3, "Middle Manager Level" criteria:

An individual assigned to a specific position should meet the requirements for that position; therefore, the allowance for a specific position to be filled by a person that does not meet the requirements for that position if that person is provided a staff whose qualifications meet the selected middle manager qualification is not endorsed.

Exelon recommends revising the exception to endorse Section 1.1 except for the Radiation Protection Manager. Exelon does not agree with the exception as currently written. Exelon believes that the proposed exception will result in undue and significant hardship for licensees and recommends that the NRC reconsider the proposed exception based on the following reasons:

- The ANSI/ANS-3.1-2014 standard intentionally added the flexibility that would allow utilities to place leaders with strong leadership skills into roles where they might not have all the technical expertise, but would have the demonstrated managerial skill that is needed for a role. Significant upgrades in procedure requirements, risk management processes, work management processes, and multitude of site challenge boards that have been implemented since the standard was last updated would remove the potential for unintended consequences due to the technical decision making of a single manager. Leaders and managers are able to gain proficiency more effectively today than in the past due to the candidate assessment and selection processes for new managers, mentoring programs, industry supervisor and leadership training programs and the implementation of INPO 15-005, "Leadership and Team Effectiveness Attributes" that set the standards of effective leadership and teams. Information sharing in our industry has advanced such that consultation with other site and fleet experts along with peers in the industry is common and accepted practice that allows managers to quickly and easily gain alignment on best practices and operating experience.

- As currently written in the ANSI/ANS-3.1-2014 standard, there are sufficient provisions provided for the staff to support the manager. The standard as written also requires a staff that would meet all applicable requirements, which would further limit any potential vulnerability.
 - Additionally, the concept of a middle manager's staff holding certain qualifications in lieu of a fully qualified middle manager is not new to industry. As an example, current Improved Standard Technical Specifications (NUREG 1430-1434) ITS 5.2.2.d states that "The operations manager or assistant operations manager shall hold an SRO license." Implied in this NRC endorsed standard technical specification is that if the operations manager does not possess an SRO license it is acceptable for him to be the operations manager, as long as his assistant (staff) maintains an SRO license.
 - Further assurance that this would be a minimal potential impact, is the strict requirement in the ANSI/ANS-3.1-2014 standard related to collective experience for the middle manager level which would limit use of the allowance to very few middle manager positions simultaneously.
2. DG-1329 Section 1.3 describes the following exception to the ANSI/ANS-3.1-2014, Section 4.3.3, "Radiation Protection" (Manager) criteria:

The RPM is the onsite member of the power plant staff that is responsible for implementation of the radiological protection program and that meets the education, experience, and special requirements listed in section 4.3.3. In addition to the experience requirements listed in section 4.3.3, individuals with no prior RPM experience should have six months of time onsite before being assigned RPM duties. Licensees should evaluate required onsite time for experienced RPMs who are new to a site or a reactor technology (i.e. Pressurized Water Reactor (PWR) or Boiling Water Reactor (BWR)). The purpose of the onsite time is to provide a newly assigned RPM sufficient opportunity to learn the location and performance characteristics of key equipment and other plant-specific information that is necessary to make informed decisions concerning radiological safety. As a modification to item (3) in the Special Requirements section of 4.3.3, the majority of the station RPM's experience should be relevant to supervising in-field radiation protection program activities (e.g., As Low As Reasonably Achievable (ALARA), radiation protection operations, and radioactive waste shipping). Personnel who are temporarily assigned to fill the RPM position as described in section 4.1 and who do not meet the requirements to serve as an RPM should have first line supervisor experience of in-field radiation protection program activities. Personnel who do not meet the requirements for this position should not be assigned to temporarily fill the position for periods exceeding three months.

Exelon partially agrees with this exception as noted in the comment below.

- Exelon agrees with the modification to Item (3) in the Special Requirements of Section of 4.3.3 of the ANSI/ANS-3.1-2014 standard, that the majority of the station Radiation Protection Manager's (RPM's) experience should be relevant to supervising in-field Radiation Protection (RP) program activities (e.g., As Low As Reasonably Achievable (ALARA), RP operations, and radioactive waste shipping)).

However, Exelon does not support this exception based on the following:

- Exelon does not agree with the addition to the experience requirements listed in Section 4.3.3 of the ANSI/ANS-3.1-2014 standard, that individuals with no prior RPM experience should have six (6) months of time onsite before being assigned RPM duties. Exelon does not agree that licensees should evaluate required onsite time for experienced RPMs who are new to a site or a reactor technology. There is no previous requirement in Revisions 1, 2 or 3 of RG 1.8, nor is there any requirement in the previous ANSI 3.1-1978 or ANSI 18.1-1971 standards. Exelon believes that new guidance is being introduced with this exception and the NRC does not provide adequate justification in support of its basis. The experience requirements in ANSI/ANS-3.1-2014 of one-month time during a refuel outage and two months experience at a reactor operating greater than 20% provide adequate experience for the position. Additionally, the ability to review and research records electronically to easily determine the location and performance characteristics of key equipment and other plant-specific information, strong technical training program for Radiation Protection, along with the various requirements in procedures, risk management processes, work management processes, and ALARA site challenge boards provide more than adequate barriers to preclude any issues that could be attributable to site-specific experience.
- Exelon does not agree with the addition of the wording in the exception that personnel who are temporarily assigned to fill the RPM position as described in Section 4.1 of the ANSI/ANS-3.1-2014 standard, and who do not meet the requirements to serve as an RPM should have first line supervisor experience of in-field RP program activities. Exelon believes that this is already adequately covered in Section 4.1 of the standard based on the statement: *"Individuals temporarily filling a position due to the absence of its principal individual shall possess, as a minimum, the qualifications required for the corresponding position in the next lower functional level."* The next lower functional level already meets or exceeds this requirement.
- Exelon does not agree with the addition of the wording in the exception that personnel who do not meet the requirements for this position should not be assigned to temporarily fill the position for periods exceeding three (3) months as there is guidance covered in Section 4.1 of the ANSI/ANS-3.1-2014 standard that includes the following statement:

"Individuals shall meet the requirements for a given position. Individuals needing exceptions to this may be temporarily assigned to fill that position. Such assignments shall be justified and a time period for the temporary assignment shall be specified and documented. Temporary assignments shall not reduce the collective experience requirements specified for that level."

There is not a risk-based justification for mandating a 3-month limit and in fact having this specified limit could cause additional personnel having to be assigned temporarily to the same role to meet an arbitrary time requirement. Exelon's position is that the requirement in the ANSI/ANS-3.1-2014 standard to specify and document the time period for temporary positions is reasonable and appropriate.

3. DG-1329 Section 1.4 describes the following exception to the ANSI/ANS-3.1-2014, Section 4.4.1, "Senior Operator" criteria:

A non-licensed applicant (an instant candidate) for a senior operator (SO) license should have three years of responsible nuclear power plant experience. A professional engineering license or Bachelor of Science degree in engineering, engineering technology, or related sciences should only be allowed to account for a maximum of eighteen months of responsible nuclear power plant experience. A Bachelor of Science degree in an area other than engineering, engineering technology, or related sciences should only be credited for a maximum of eighteen months if at least 80 semester hours (college credits) are in engineering, mathematics, chemistry, or physics. Applicants for an SO position who do not hold a bachelor's degree in engineering or the equivalent should have held an operator's license and should have been actively involved in the performance of licensed duties for at least one year at a commercial power reactor facility of the same vendor, or have 1.5 years at a comparable or non-comparable commercial power reactor facility, or have at least two years of military experience in a position equivalent to a licensed reactor operator.

Exelon does not support this exception as noted below.

- Exelon strongly disagrees with the proposed 3-year requirement for all non-licensed personnel. This exception requires a 3-year experience requirement for all non-licensed personnel which would be in direct conflict with ACAD 10-001, "Guidelines for Initial Training and Qualification of Licensed Operators," Figure 2-2, "Senior Reactor Operator Eligibility – RO Upgrade or Direct SRO Licensed at Another Facility or Direct SRO Military RO Equivalent," and Figure 2-3, "Senior Reactor Operator Eligibility - Direct SRO for Degreed Personnel," which the NRC has already endorsed, specifically for the following candidate situations:
 - A military candidate that does not have a degree (Figure 2-2).
 - A non-licensed candidate but with a degree and 18 months at a comparable facility (Figure 2-3).
 - A non-licensed candidate but with a degree and 27 months at a noncomparable facility (Figure 2-3).

- Exelon strongly disagrees with degree requirements specified, as it removes the flexibility of the non-traditional degree option in ACAD 10-001 that the NRC has already endorsed.

Exelon partially agrees with this exception as noted below.

- Exelon agrees with the position pertaining to SO applicants *"who do not hold a bachelor's degree in engineering or the equivalent should have held an operator's license and should have been actively involved in the performance of licensed duties for at least one year at a commercial power reactor facility of the same vendor, or have 1.5 years at a comparable or non-comparable commercial power reactor facility, or have at least two years of military experience in a position equivalent to a licensed reactor operator."* Although more restrictive than the guidance stipulated in the ANSI/ANS 3.1-2014 standard, it is aligned with ACAD 10-001 guidance which the NRC has already endorsed.

It is Exelon's position that some of the exceptions noted in this draft RG related to Senior Operators appear to be in direct conflict to the NRC agreement with ACAD 10-001, Revision 1. Exelon would not necessarily be opposed to an exception that was aligned with ACAD 10-001 guidance. Exelon suggests a possible resolution for this item that includes either of the following for an exception:

An applicant for a Senior Reactor Operator (SRO) license should meet the minimum qualifications, education, experience and training as specified in the facility licensee's "systematic approach to training" program.

OR

An applicant for a Senior Reactor Operator (SRO) license should meet the Senior Reactor Operator Eligibility as specified in ACAD 10-001, *"Guidelines for Initial Training and Qualification of Licensed Operators."*

4. Exelon agrees with the exceptions as noted in DG-1329 for the sections below and offers no additional comments for NRC consideration related to the draft RG.
 - DG-1329 Section 1.2 for ANSI/ANS-3.1-2014, Section 4.3.1, *"Training"*
 - DG-1329 Section 1.5 for ANSI/ANS-3.1-2014, Section 4.4.2, *"Senior Operator Limited to Fuel Handling"*
 - DG-1329 Section 1.6 for ANSI/ANS-3.1-2014, Section 4.5.1, *"Reactor Operator"*
 - DG-1329 Section 1.7 for ANSI/ANS-3.1-2014, Section 4.5.2, *"Operator"*