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RULES & DIR. BRANCH
US NRC

Mr. David L. Meyers, Chief Rules and Directives Branch,
Office of Administration
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sir:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
Comments on NRC Draft DG-1094, "Fire Protection for Operating
Nuclear Power Plants" (Federal Register Vol. 64, No. 209, Pg. 58461)**

In the October 29, 1999 Federal Register (64 FR 58461), the NRC announced the availability, for public comment, of draft Regulatory Guide, DG-1094, Fire Protection for Operating Nuclear Power Plants. PVNGS appreciates the opportunity to comment on this draft guide and has enclosed comments for your consideration.

PVNGS also feels compelled to acknowledge and support the comments submitted by the Nuclear Energy Institute (NEI) in reference to project number 689. Specifically those identified on page two of NEI's cover letter identified as their most significant comments that we have repeated below.

1. Implementation: Two provisions in Section D suggest that the NRC will consider this regulatory guide as a new standard for fire protection programs: (1) The request for licensees to review existing programs against this regulatory guide; and (2) the NRC's proposed use of the regulatory guide for inspecting plant programs. Without further explanation, these statements effectively negate the NRC statement that existing programs need not be changed. It is difficult to envision how an NRC inspector in the field will be able to distinguish between the new NRC staff positions contained in the regulatory guide and the existing guidance a plant is committed to comply with as part of its licensing bases. More thought is necessary to determine how these regulatory guide provisions are reflected in revised NRC inspection procedures so that inappropriate pressure to "upgrade" fire protection programs does not arise. Plants should be inspected only for compliance with their existing

licensing bases.

2. New guidance: Table 3 of Enclosure 1 of the NEI comment letter lists many examples of what industry considers to be new NRC staff positions in DG-1094. While new guidance can be useful in some areas, there is no evidence that the appropriate regulatory analyses have been performed for what are essentially new NRC staff positions. Staff has previously indicated their intent to perform these reviews. Industry would appreciate having the opportunity to review the regulatory analyses at the same time the draft regulatory guide is issued for formal public comment this April.
3. Revised guidance: In a number of cases there are changes to the wording of existing guidance documents. Even very minor changes can have a significant impact on plant fire protection programs. NRC should systematically review DG-1094 to assure that unintended changes do not occur, and intended changes are subject to appropriate backfit reviews.

Finally, National Fire Protection Association code NFPA-101 has been identified in several sub-sections of this draft guide. The state of Arizona does not recognize this Code and instead requires PVNGS to meet the Uniform Building Code and Uniform Fire Code. The draft guide does not provide for this situation.

No commitments are being made to the NRC by this letter.

Please contact Mr. Scott Bauer at (623) 393-5978 if you have any questions.

Sincerely,



AKK/SAB/RJR/kg

cc: E. W. Merschoff
M. B. Fields
J. H. Moorman
D. J. Modeen (NEI)

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Comments on Draft Regulatory Guide DG-1094 Fire Protection for Operating Nuclear Power Plants

1. Draft RG DG-1094 states the following:

B 2.2 10 CFR Part 50.48 (page 14)

“As discussed later in Section B.3 of this guide, deviations from NRC fire protection requirements are documented and reviewed under different processes depending on the date of the operating license. Appendix R requirements for pre-1979 plants are processed under the exemption process. Deviations from other applicable guidelines are identified and evaluated in the staff's Safety Evaluation Reports. For post-1979 plants, where fire protection features do not meet applicable NRC requirements or commitments, or alternative approaches are proposed, the condition is documented as a deviation.”

B 3.2 Plants Licensed After January 1, 1979 (page 19)

“Plants licensed after January 1, 1979, are subject to the requirements of 10 CFR 50.48 (a) and (e) only and as such must meet the provisions of GDC 3 as specified in their license conditions and as accepted by the NRC in their SERs. These plants are typically reviewed to the guidance of SRP Section 9.5-1. For these plants, where compliance with the provisions of GDC 3 and the applicable paragraphs of 10 CFR 50.48 cannot be achieved, or where commitments to specific guidelines cannot be met, or alternative approaches are proposed, the differences between the licensee's program and the NRC requirements and guidelines are documented in deviations, that may be submitted for staff review and approval.”

C 1.4.4 Deviations (page 37)

“Plants licensed after January 1, 1979 which have committed to meet the requirements of Section III.G, III.J and III.O, of Appendix R or other NRC guidance (e.g., Branch Technical Position CMEB 9.5-1), and are required to do so as a license condition, do not need to request exemptions for alternative configurations. However, deviations from the requirements of Section III.G, III.J and III.O or other applicable requirements or guidance should be identified and justified in the FSAR or FHA and the deviation may require a license amendment to change the license condition. Deviations submitted to the NRC for review and approval should include a technical justification for the proposed alternative approach. The technical justification should address the criteria described in Regulatory Positions C.1.4.1 for 50.59 Evaluations and C.1.4.2 for exemptions.”

ENCLOSURE

Comments on Draft Regulatory Guide DG-1094 Fire Protection for Operating Nuclear Power Plants

Appendix C C-2.1.3 Exemption/Deviation vs. 50.59 (page 123)

“If a proposed change involves a change to a license condition, technical specification, or other previously approved aspect of the fire protection program, a license amendment request should be submitted. When a change not involving a technical specification or license condition is planned, the evaluation made in conformance with 10 CFR 50.59 to determine whether an unreviewed safety question is involved should include an assessment of the modification's impact on the existing fire hazards analysis for the area. The assessment should include the effect on the fire hazard and the consideration of whether circuits or components, including associated circuits, for a division of equipment needed for safe shutdown are being affected or a new element introduced in the area. If this evaluation concludes that there is no significant impact, this conclusion and its basis should be documented as part of the 10 CFR 50.59 evaluation and be available for future inspection and reference. If the evaluation finds that there is an impact that could result in the area either not being in conformance with Appendix R, or some other aspect of the approved fire protection program, or being outside the basis for an exemption (or deviation) that was granted (or approved) for the area involved, the licensee should either make modifications to achieve conformance or justify and request exemption (or, for the post 1979 plants, deviation approval) from the NRC.”

APS COMMENT: *Currently, NRC regulations do not contain provisions for requesting NRC approval of deviations from UFSAR Appendix R commitments, NRC Guidelines, or Safety Evaluation Reports. The NRC has established codified processes for changing the operating license (10 CFR 50.90), and the UFSAR (10 CFR 50.59), and plants such as Palo Verde, have license conditions controlling changes to their fire protection programs. The use of the term “Deviation” is inconsistent between the sections listed above. “deviations ... are documented and reviewed”, “deviations, that may be submitted for staff review and approval”, “deviations ... should be identified and justified”, “deviation may require a license amendment”, “deviations submitted ... for review and approval.”*

There does not appear to be a regulatory basis for plants licensed after January 1, 1979, to request deviations. If there is a regulatory basis, does it govern the format, content, submittal, and review of the deviation?

ENCLOSURE

Comments on Draft Regulatory Guide DG-1094 Fire Protection for Operating Nuclear Power Plants

2. Draft RG DG-1094 states the following:

C 1.1.1.1 Offsite Positions/Organizations (page 25)

“The following positions/organizations should be designated:

- a. The upper level offsite management position which has management responsibility for the formulation, implementation, and assessment of the effectiveness of the nuclear plant fire protection program.
- b. The offsite management position(s) directly responsible for formulating, implementing, and periodically assessing the effectiveness of the fire protection program for the licensee's nuclear power plant including fire drills and training conducted by the fire brigade and plant personnel. The results of these assessments should be reported to the upper level management position responsible for fire protection with recommendations for improvements or corrective actions as deemed necessary.”

APS Comment: Not all facilities have an offsite organization that could be charged with these responsibilities. There should be some provision in the RG for these facilities to eliminate the need for an exception/deviation from the RG.

3. Draft RG DG-1094 states the following:

C 1.2.4.1 Qualifications (page 32)

The brigade leader and at least two brigade members should have sufficient training in or knowledge of plant systems to understand the effects of fire and fire suppressants on safe shutdown capability. The qualification of fire brigade members should include an annual physical examination to determine their ability to perform strenuous fire fighting activities. The brigade leader should be competent to assess the potential safety consequences of a fire and advise control room personnel. Such competence by the brigade leader may be evidenced by possession of an operator's license or equivalent knowledge of plant systems.

ENCLOSURE

Comments on Draft Regulatory Guide DG-1094 Fire Protection for Operating Nuclear Power Plants

APS COMMENT: *This requirement does not acknowledge sites that have a dedicated full time fire brigade staffed by qualified fire fighters and brigade leader. In this case a fire team advisor supports the brigade and would meet the brigade leader requirements stated above. Some allowance should be made for other equivalently staffed organizations.*

4. Draft RG DG-1094 states the following:

C 3.4.2 Hydrants and Hose Houses (page 52)

Outside manual hose installation should be sufficient to provide an effective hose stream to any onsite location where fixed or transient combustibles could jeopardize equipment important to safety. Hydrants should be installed approximately every 76 m (250 ft) on the yard main system. A hose house equipped with hose and combination nozzle and other auxiliary equipment recommended in NFPA 24 should be provided as needed, but at least every 305 m (1,000 ft). Alternatively, mobile means of providing hose and associated equipment, such as hose carts or trucks, may be used. When provided, such mobile equipment should be equivalent to the equipment supplied by three hose houses.

APS COMMENT: *This requirement does not recognize those stations that may have a different commitment such as a Class A fire truck with the equivalent equipment of two hose houses. The difference between a truck and a Class A fire truck should be recognized.*

5. Draft RG DG-1094 states the following:

4.1.2.3 Access and Egress Design

“Provision should be made for personnel access to and escape routes from each fire area. Under emergency conditions, prompt ingress into certain areas important to safety should be assured to enable manual fire suppression and safe shutdown of a nuclear power plant, and unimpeded egress from all parts of the facility should be assured in the interest of life safety. NFPA 101, "Life Safety Code," provides guidance on egress design and requirements for protection of egress routes. This standard addresses in detail the number, locations, widths, and routes to emergency exits. It further details safety requirements for stairwell

ENCLOSURE

Comments on Draft Regulatory Guide DG-1094 Fire Protection for Operating Nuclear Power Plants

escape routes, describes route and exit markings, and specifically instructs against the installation of a lock or other fastening on an emergency exit that would prevent escape from the inside of the building.”

ASP COMMENT: The state of Arizona does not recognize NFPA-101, but instead enforces the Uniform Building Code and Uniform Fire Code. The draft guide should recognize that this situation might exist and allow for the differences.

6. Draft RG DG-1094 states the following:

Appendix C SCOPE (page 122)

As with other changes implemented under 10 CFR 50.59, the licensee should maintain, in auditable form, a current record of all such changes, including an analysis of the effects of the change on the fire protection program, and should make such records available to NRC Inspectors upon request. All changes to the approved program should be reported annually to the Director of the Office of Nuclear Reactor Regulation, along with the FSAR revisions required by 10 CFR 50.71(e).

APS COMMENT: Many facilities have an exemption from the 10 CFR 50.71(e) requirements that allow the facilities to submit FSAR revisions less frequently than annually. Would this RG require those facilities to submit fire protection program changes annually?

In addition, draft NEI 96-07, Guidelines for 10 CFR 50.59 Evaluations, which is expected to be endorsed by the NRC, states that fire protection-related changes should be evaluated under the fire protection license condition established by licensees based on Generic Letter 86-10. It also states that fire protection changes would not also be subject to 10 CFR 50.59 unless the changes effect non-fire protection design functions of SSCs. The paragraph quoted from DG-1094 above implies that FP changes are implemented under 50.59, and should be clarified to be consistent with the proposed 50.59 guidance.

7. Draft RG DG-1094 states the following:

Appendix C C-4.1 REPORTING GUIDELINES (page 127)

“The licensee should maintain records of fire protection program related changes in the facility, changes in procedures, and tests and experiments, made pursuant

ENCLOSURE

Comments on Draft Regulatory Guide DG-1094 Fire Protection for Operating Nuclear Power Plants

to the provisions of 10 CFR 50.59. These records must include a written evaluation which provides the bases for the determination that the change, test or experiment does not require a license amendment pursuant to criteria in C-3.1 above.”

“The licensee should submit, as specified in 10 CFR 50.4, a report containing a brief description of any changes, tests, and experiments, including a summary of the evaluation of each. A report should be submitted at intervals not to exceed 24 months.”

“The records of changes in the facility should be maintained until the termination of a license issued pursuant to 10 CFR Part 50, or the termination of a license issued pursuant to 10 CFR Part 54, whichever is later. Records of changes in procedures and records of tests and experiments should be maintained for a period of 5 years.”

APS COMMENT: *Draft NEI 96-07, Guidelines for 10 CFR 50.59 Evaluations, which is expected to be endorsed by the NRC, states that fire protection-related changes should be evaluated under the fire protection license condition established by licensees based on Generic Letter 86-10. It also states that fire protection changes would not also be subject to 10 CFR 50.59 unless the changes effect non-fire protection design functions of SSCs.*

Since FP program changes in the UFSAR would be evaluated under the FP license condition and not 50.59, there would be no regulatory requirement to report the evaluation for changes that do not require prior NRC approval. The changes would be included with the UFSAR updates required by 10 CFR 50.71(e). This would be similar to changes to the QA program under 10 CFR 50.54 that do not reduce commitments and thus do not require prior NRC approval. Regulations only require that those changes be reported in accordance with 10 CFR 50.71(e).

Suggested wording, “ Changes to the fire protection program that do not reduce the ability to achieve and maintain safe shutdown must be submitted to the NRC in accordance with the requirements of 10 CFR 50.71(e).”