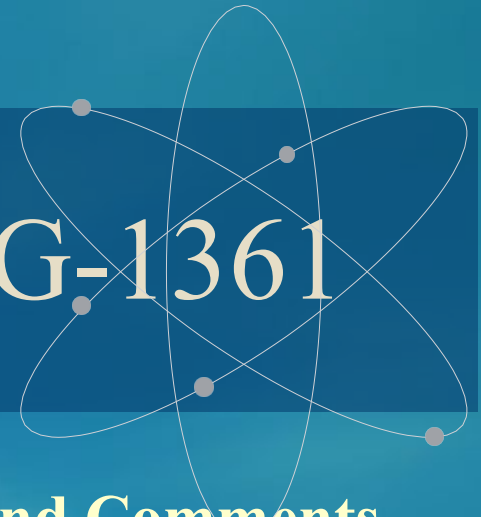


NUGEOQ Comments on DG-1361



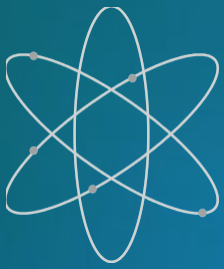
Presentation to NRC on Group Observations and Comments On Proposed Revision to RG 1.89 Web-Based Public Meeting May 13, 2021

Agency/Docket Number: NRC-2020-0245

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• [William Horin, Winston & Strawn, LLP \(Counsel to NUGEO \(whorin@winston.com\)\)](mailto:whorin@winston.com)

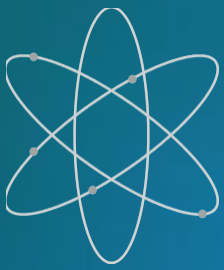
• [Ron Wise, NEO Consulting \(NUGEO Technical Consultant \(ronwise@aol.com\)\)](mailto:ronwise@aol.com)



NUGEQ Comments on DG-1361

INTRODUCTIONS:

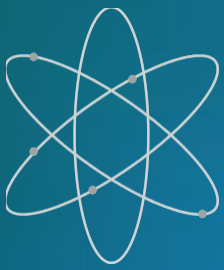
- William Horin (NUGEQ Counsel)
- Ron Wise (NUGEQ Consultant)



NUGEQ Comments on DG-1361

Nuclear Utility Group on Equipment Qualification

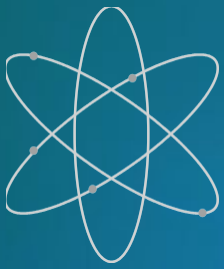
- NUGEQ was founded in 1981, as the staff was evaluating and planning the ultimate promulgation of 10 CFR § 50.49
- Since its inception, the Group has been actively involved in the development and implementation of EQ Programs by licensees in accordance with NRC requirements and guidance.
- The Group represents approximately 75% of the operating nuclear power plants in the United States.



NUGEQ Comments on DG-1361

NUGEQ comments have been consolidated and reflect input from the Group's DG-1361 Working Group, which included members from:

Arizona Public Service	Exelon
Dominion	Luminant Energy
Duke Energy	Talen Energy
Entergy	Xcel Energy
Energy Harbor	



NUGEQ Comments on DG-1361

PURPOSE:

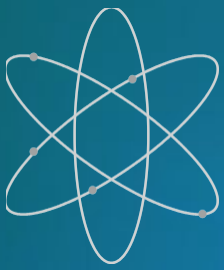
- This presentation presents an overview of the observations and comments submitted by the Group on the proposed revision to Regulatory Guide 1.89



NUGEQ Comments on DG-1361

DISCUSSION TOPICS:

- General Observations on DG-1361
- Comments Arranged by Topical Area
 - Topic 1: Scope and Focus of Proposed Revision to RG 1.89
 - Topic 2: New or Revised Staff Positions
 - Topic 3: Applicability to Different Facilities
 - Topic 4: Anticipated Industry/NRC EQ Guidance Areas
 - Topic 5: Proposed Changes to Appendices of RG 1.89
 - Topic 6: Miscellaneous Comments
- Closing Remarks



NUGEQ Comments on DG-1361

General Observations on DG-1361

- This guidance plays a significant role in the implementation of 10 CFR § 50.49 and any revision warrants careful review.
- The staff's movement on the updating the guidance in RG 1.89 is recognized and welcomed.
- However, in its current form, there is little to no incentive for the existing fleet of Part 50 plants to adopt the dual logo standard as endorsed by DG-1361 at the plant or component level.



NUGEQ Comments on DG-1361

General Observations on DG-1361 (continued)

- There is no apparent position with respect to new or existing plants as to whether applying the dual logo standard will demonstrate compliance with 50.49.
- From an industry perspective, we feel it is important to have a regulatory endorsement of IEC/IEEE 60780-323:2016 (dual logo standard) as it relates to environmental qualification of electric equipment that is subject to the requirements of 10 CFR § 50.49.



NUGEQ Comments on DG-1361

General Observations on DG-1361 (continued)

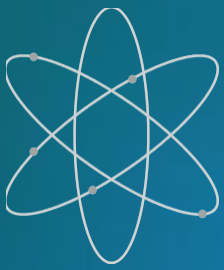
- We feel it is important that the scope and focus of RG 1.89 remain specific to methods acceptable to the staff for satisfying the requirements of § 50.49 for Part 50 and Part 52 plants.
- Consistent with NRC Management Directive (MD 6.6) and Section II.A.3 of Directive Handbook DH 6.6, new or revised regulatory positions should be individually evaluated and the rationale for satisfaction of the backfit rule should be presented for comment and summarized in the Implementation section of DG-1361.



NUGEQ Comments on DG-1361

Topic 1: Scope and Focus of Proposed Revision to RG 1.89

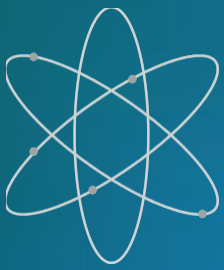
- As noted in our detailed comments, there are several examples of where DG-1361 goes beyond the scope of 50.49 by its terms, rather than providing another acceptable method of complying with 10 CFR 50.49.
- These examples appear contrary to the stated objective in Section 2 of the Regulatory Analysis for DG-1361, which states; *“The objective of this regulatory action is to assess the need to revise NRC guidance and provide applicants with an updated method to demonstrate compliance with 10 CFR 50.49,”*



NUGEQ Comments on DG-1361

Topic 1: Scope and Focus of Proposed Revision to RG 1.89

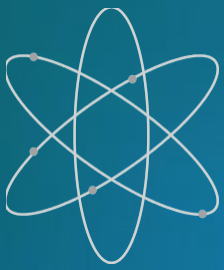
- Examples include:
 - Discussion in background that the primary objective of qualification is to demonstrate that equipment important to safety can perform its safety function(s) without experiencing common-cause failures **before**, during, and after applicable design basis **events**.
 - Supplementing the dual logo standard regarding EMC (Section C.1.i)
 - Consideration of smoke exposure from a fire (Section C.2.c)



NUGEQ Comments on DG-1361

Topic 2: New or Revised Staff Positions

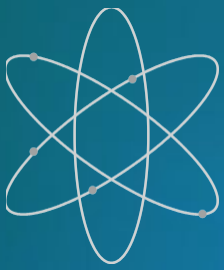
- DG-1361 contains multiple examples of regulatory positions that differ from RG 1.89, R1 positions on the same topic (in the direction of being more restrictive), and even some examples that simply differ from the language of 10 CFR 50.49.
- The Group provided 16 comments related to new or revised staff positions that warrant further evaluation.
- Section D, “Implementation” of DG-1361 does not identify or address any new or changed staff positions.
- Such positions are subject to the backfit rule.



NUGEQ Comments on DG-1361

Topic 2: New or Revised Staff Positions

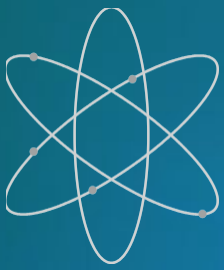
- Examples include:
 - The position in C.1.d regarding the consideration of shelf life in establishing qualified life differs from 50.49(e)(5) and does not recognize that a properly implemented shelf-life and storage program effectively prevents significant aging effects from occurring.
 - Preconditioning based on a sequence that produces the “worst-case degradation” in Section C.2.d differs from the requirement in 50.49(e)(5) to simulate an end-of-installed life condition.



NUGEQ Comments on DG-1361

Topic 2: New or Revised Staff Positions

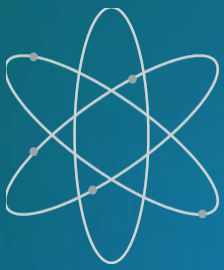
- Examples (continued):
 - Position C.1.j does not appear to reflect the results of past research by the Staff (e.g., NUREG/CR-0275, NUREG/CR-4301, and NUREG/CR-4091 regarding simultaneous vs. sequential test sequences.
 - Position C.1.j.3 on activation energy values is a significant expansion beyond the current guidance in Section C.5.c of RG 1.89 R1



NUGEQ Comments on DG-1361

Topic 3: Applicability to Different Facilities

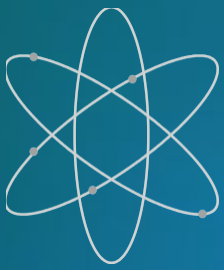
- There are several examples in DG-1361 where the distinction between specific guidance relative to Part 50 or Part 52 plants is not clearly delineated.
- It would be helpful to end users of the revised RG, if the guidance was structured in a way that clearly differentiated between the guidance for Part 52 plants vs. Part 50 plants.
 - The application of Alternative Source Term per RG 1.183 is one example of this.



NUGEQ Comments on DG-1361

Topic 4: Anticipated Industry/NRC EQ Guidance Areas

- The proposed revision to RG 1.89 does not address or cover some of the potential burden reduction areas that the staff previously indicated would be considered in the next revision to RG 1.89 [See Accession ML040510309].
- The NUGEQ believes that these examples could be addressed by licensing guidance as to existing methods to implement the issues if recognized by the NRC.
- The Group would like to see such positions referenced in DG-1361, perhaps in an Appendix.



NUGEQ Comments on DG-1361

Topic 5: Proposed Changes to Appendices of RG 1.89

- The cited methods in Appendix C are unchanged from RG 1.89 R1 and only cover B&W, CE, Westinghouse and GE designs that were licensed under Part 50.
- It would be more appropriate to make Appendix C more generic by linking the methodology for mass and energy release to be consistent with the methodology used to define the containment response to design basis accidents for the safety analysis or consistent with the methodology used for HELB analysis.
- This approach would result in the appendix being applicable to both Part 50 and Part 52 plants.



NUGEQ Comments on DG-1361

Topic 5: Proposed Changes to Appendices of RG 1.89

- Since DG-1361 covers both Part 50 and Part 52 plants, it should continue to address radiological source terms based on TID-14844 as well as AST. The guidance in Section D-2 focuses exclusively on AST. The methodology and sample calculation for EQ radiation dose using a non-AST source term has been removed from Appendix D.
- For Part 50 plants, GSI-187 (which deals with the potential impact of postulated cesium concentration on Equipment Qualification) was closed out based on the conclusion by the staff that there was no clear basis for backfitting the requirement to modify the design basis for equipment qualification to adopt AST (See ML011210348).



NUGEQ Comments on DG-1361

Topic 6: Miscellaneous Comments

- The proposed revision to RG 1.89 should recognize and reflect EQ program scope and implementation basis in accordance with risk-informed rule 10 CFR 50.69 by acknowledging the nexus between EQ program scope and that rule in the Regulatory Guidance section.



NUGEQ Comments on DG-1361

Topic 6: Miscellaneous Comments (continued)

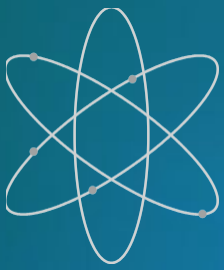
- Section 6.2 of IEC/IEEE 60780-323 is specific to reassessing qualified life, but there is no specific reference to the existing guidance in X.E1 of the GALL related to the reanalysis of TLAA.
- Staff has previously provided acceptable methods related to reassessing qualified life in NUREG-1801 & NUREG-2191 as it relates to License Renewal and Subsequent License Renewal.
 - For example, the methods in X.E1 of NUREG-1801 & NUREG-2192 could be referenced in a staff position that covers Section 6.2 of the dual logo standard.



NUGEQ Comments on DG-1361

Closing Remarks:

- Several of our observations and comments are consistent with or similar to those provided from other industry stakeholders.
- These include, but are not be limited to, comments related to:
 - Scope and Focus of the proposed revision to RG 1.89
 - New or revised NRC staff positions
 - Guidance related to use of IEC/IEEE 60780-323 qualified equipment in plants with commitments to IEEE 323-1974
 - Clearly distinguish guidance that is specific to plants licensed under Part 50 vs. plants licensed under Part 52



NUGEQ Comments on DG-1361

Closing Remarks:

- We thank you for the opportunity to present our feedback on the proposed revision to RG 1.89.
- We are open and look forward to working with NRC staff to address comments and licensing positions in a manner that facilitates a smooth application of RG 1.89 Revision 2 across the industry.