



Exelon Generation  
4300 Winfield Road  
Warrenville, IL 60555

www.exeloncorp.com

Nuclear

RS-02-184

7/22/02

October 21, 2002

67 FR 47870

U. S. Nuclear Regulatory Commission  
Rules and Directives Branch, Office of Administration  
Washington D.C. 20555-0001

(4)

Subject: Response to Request for Comments on Draft Guide DG-1099, "Anchoring Components and Structural Supports in Concrete"

Reference: Volume 67, Federal Register, Pages 47870-47871, dated July 22, 2002

Exelon Generation Company, LLC appreciates the opportunity to comment on the subject Draft Guide. The opportunity to comment on this Draft Guide was provided in the referenced Federal Register Notice. The Federal Register Notice requested comments by October 25, 2002. The attachment to this letter provides our comments.

Should you have any questions concerning this matter, please contact Mr. Allan R. Haeger at (630) 657-2807.

Respectfully,

Keith R. Jury  
Director - Licensing  
Mid-West Regional Operating Group

Attachment

Template - ADM-013

ERIDS-ADM-03  
add: H.L. Graves  
(HLGI)  
T.L. Clark (TLC1)

**Attachment**  
**Comments on Draft Guide DG-1099,**  
**“Anchoring Components and Structural Supports in Concrete”**

Background

Draft Guide (DG) -1099 provides guidance to licensees on methods acceptable to the NRC for complying with the NRC’s regulations in the design, evaluation, and quality assurance of anchors (i.e., steel embedments) used for component and structural supports on concrete structures.

Previous NRC guidance on anchoring components in concrete was addressed in NRC Bulletin (NRCB) 79-02, "Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts." In response to that document, licensees developed extensive programs to validate the acceptability of concrete expansion anchors used to mount pipe supports to concrete structures. In NRCB 79-02, the NRC required that a factor of safety of four be applied to the ultimate capacity of wedge type expansion anchors when determining the allowable capacity. Similarly, for shell-type expansion anchors a factor of safety of five was to be applied.

DG-1099, in part, endorses the use of American Concrete Institute (ACI) 349-01, "Code Requirements for Nuclear Safety Related Concrete Structures," Appendix B, "Steel Embedment." Some exceptions and supplements to Appendix B are also provided in the draft guide.

Comments on DG-1099.

1. While the draft guide generally endorses the use of ACI 349-01, Appendix B, it is not clear whether the factors of safety provisions of NRCB 79-02 still apply or whether they are superseded.
2. Regulatory Position 2 describes an inspection program for anchors. The second sentence of the position states: "*Anchor systems that are external to the concrete surface should be inspected regularly during the life of the structure.*" This sentence is unclear in two aspects. First, the definition of "external" is not clear and can have several possible meanings. Second, inspected "regularly" is vague and provides no direction as to frequency of the inspection. Typical code provisions, (e.g., American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI), provide explicit frequencies of inspection.
3. Regulatory Position 2 provides a six-step inspection program to verify proper installation of post-installed anchors. The six-step program appears to be applicable only for the initial installation of an expansion anchor; however, it is not clear as to whether this six-step program is also meant to apply to the periodic (i.e., regular) inspection program. It is recommended that the specific attributes of the periodic inspection program be specifically defined and described.
4. The last reference is labeled "SP-130." In the description of this reference "SP-103" is included. This is a typographical error; SP-103 should not be listed.