

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

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OCT 27 1986

Director of Nuclear Reactor Regulation
Attn: Mr. B. J. Youngblood, Project Director
PWR Project Directorate No. 4
Division of Pressurized Water Reactors
(PWR) Licensing-A
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Youngblood:

In the Matter of the)
Tennessee Valley Authority)

Docket Nos. 50-259
50-260
50-296
50-327
50-328
50-390
50-391
50-438
50-439

Please refer to telephone conferences between T. Poindexter, NRC, and J. E. Karr, TVA Employee Concerns Task Group (TVA ECTG) on October 15 and 17, 1986 concerning safety-related definition and criteria utilized by the TVA ECTG.

In the referenced telephone conferences, NRC requested that the relationship between the criteria used for determining which employee concerns are safety-related utilized by the TVA ECTG be compared with the provisions of Regulatory Guide (RG) 1.29, Seismic Design Classification. Mr. Poindexter requested that TVA inform NRC of any areas where the ECTG criteria did not encompass the provisions of RG 1.29. Further, for any provisions of RG 1.29 not covered by the ECTG definition, TVA was requested to define what, if any, action TVA intended to take.

The ECTG criteria for determining which employee concerns are safety-related are contained in the ECTG Program Description (ECTG-M.1, attachment C). The ECTG criteria are divided into General Guidance (paragraph A) and Specific Guidance (paragraph B). These criteria have been compared with RG 1.29, revision 3, dated September 1978. As a result, the following information is provided.

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Recognizing that RG 1.29 is written in terms of Seismic Category I and the ECTG document is written in terms of safety-related, the ECTG General Guidance is in accordance with NRC guidance contained in RG 1.29 (Part A, Introduction). Specifically, the ECTG General Guidance states that safety-related applies to those items that are necessary to ensure:

1. The integrity of the reactor coolant pressure boundary;
2. The capability to shut down the reactor and maintain it in a safe condition; and/or
3. The capability to prevent or mitigate the consequences of an incident which could result in potential offsite exposures comparable to those specified in 10 CFR Part 100.

RG 1.29 also provides (part C, paragraphs 1.a through 1.q, 2, and 3) Specific Guidance on which plant features should be designated as Seismic Category I. These paragraphs contain a mixture of requirements for designating Seismic Category I structure systems and components, some pertaining to system or component function and some which pertain to specific systems or component types.

In reviewing the ECTG Specific Guidance, it must be understood that this requires that an item be designated safety-related if it performs or if its failure would degrade a "specific safety-related function." Unlike the regulatory guide, the ECTG has included all types and classes of components within the definition of safety-related based on functional requirements rather than mixing functional requirements with hardware classes. Thus, although the ECTG Specific Guidance does not repeat each of the RG 1.29 provisions (1.a through 1.q, 2 and 3), each of these is covered either directly (for those provisions which represent functional requirements) or indirectly (for those types or classes of components which are listed in RG 1.29 and perform safety-related functions in TVA's plants). Taken in this light, our conclusion is that the requirements of RG 1.29, part C, are satisfied by the Specific Guidance utilized by ECTG.

The correlation of RG 1.29, part C to the ECTG Specific Guidance portion of ECTG-M.1, attachment C is enclosed. As demonstrated, each of the regulatory guide provisions is represented in at least one of the ECTG criteria; many are in several.

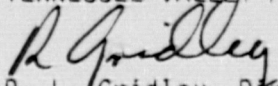
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Based upon the above, it is concluded that both the general provisions and the specific functional/hardware-related provisions of RG 1.29 are addressed satisfactorily through application of the ECTG criteria. Therefore, no further action is contemplated at this time.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. L. Gridley, Director
Nuclear Safety and Licensing

Enclosures

cc (Enclosures):

U.S. Nuclear Regulatory Commission
Region II
Attn: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
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Mr. Gary Zech, Director
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Examples of RG 1.29 Coverage by ECTG Safety-Related CriteriaECTG SPECIFIC GUIDANCE
(ECTG-M.1, Attachment C, Paragraph B)Paragraph Numbers from RG 1.29, part C,
paragraph 1.a through 1.q, 2 and 3

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|--|---|
| 1. Maintains core reactivity control under emergency conditions including those covered by anticipated transients without scram (e.g., reactivity control systems). | 1.a, 1.b, 1.c, 1.d, 1.j, 1.k, and 1.m |
| 2. Provides a barrier for containing reactor coolant within the reactor coolant pressure boundary (e.g., reactor coolant piping valves, and fittings). | 1.a, 1.c, 1.d, 1.e, 1.f, 1.g, and 3 |
| 3. Cools the reactor core under emergency conditions (e.g., residual core heat removal systems). | 1.a, 1.c, 1.d, 1.e, 1.f, and 1.g |
| 4. Maintains fuel clad integrity (e.g., fuel clad, core power monitoring systems). | 1.b, 1.d, 1.j, and 1.m |
| 5. Provides power, control, logic, indication, and protection to systems or components to enable them to accomplish their safety function (e.g., diesel generators, vital ac and dc power). | 1.b, 1.c, 1.d, 1.j, 1.k, 1.n, 1.p, 1.q, 1.m, 1.n, and 1.q |
| 6. Supports or houses equipment that performs a safety function or protects that safety-related equipment from potential natural phenomena, equipment failure, and man-made hazards (e.g., Seismic Class I containment and structures, fire protection systems). | 1.b, 1.g, 1.k, 1.n, 1.o, 1.q, 2 and 3 |
| 7. Maintains specified environment (e.g., temperature, pressure, humidity, radiation) as required in vital areas to maintain equipment operability and personnel access (e.g., control room habitability systems). | 1.d, 1.g, 1.n, 1.o, and 1.q |
| 8. Supplies cooling water for the purpose of heat removal from the systems and components that provide a safety function (e.g., essential component cooling and service water systems). | 1.c, 1.d, 1.g, and 1.h |
| 9. Contains radioactive waste such that its failure could result in the uncontrolled release of radioactive waste to the off-site environments (e.g., low-level radioactive waste discharge isolation valves). | 1.d, 1.f, and 1.l |
| 10. Controls fuel storage to prevent inadvertent criticality (e.g., fuel storage racks). | 1.d, 1.g, and 1.l |

ECTG SPECIFIC GUIDANCE
(ECTG-M.1, Attachment C, Paragraph B)

Paragraph Numbers from RG 1.29, part C,
paragraph 1.a through 1.g, 2 and 3

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|---|------------------------|
| 11. Ensures adequate cooling for irradiated fuel in spent fuel storage (e.g., spent fuel cooling system). | 1.d, 1.g, and 1.i |
| 12. Minimizes the probability of dropping objects on stored fuel (e.g., overhead crane). | 1.i, and 2 |
| 13. Maintains primary containment as required by the FSAR to meet General Design Criteria (GDC) 54, 55, 56, and 57 (e.g., containment penetrations and associated isolation and boundary valves). | 1.c, 1.o and 1.p |
| 14. Doors and hatches that serve one or more of the following functions for safety-related equipment and areas: (1) pressure confinement, (2) leakage confinement, (3) missile protection, (4) pipe whip and jet impingement barrier, (5) equipment rupture flood protection, (6) natural flood protection, or (7) fire protection. | 1.c, 1.g, 1.o, and 1.p |
| 15. Any other function required by 10 CFR 50, Appendix A (the GDC). | All |
| 16. Any activities that may directly or indirectly affect the ability of CSSC to perform their safety-related functions. These include, but are not limited, to the following: | Not covered by RG 1.29 |
| 16.1 Designing
16.2 Purchasing
16.3 Fabricating
16.4 Handling
16.5 Shipping
16.6 Storing
16.7 Erecting or Constructing
16.8 Cleaning
16.9 Inspecting
16.10 Testing
16.11 Operating
16.12 Maintaining
16.13 Repairing
16.14 Modifying
16.15 Auditing
16.16 Fire protection | |
| 17. Any concern expressed by an employee, an interested individual, or a group that relates in a negative manner to the ability of CSSCs to perform their intended function, to safety-related activities, or to a violation or deviation from TVA commitments should be classified as nuclear safety related. | Not covered by RG-1.29 |

ECTG SPECIFIC GUIDANCE
(ECTG-M.1, Attachment C, Paragraph B)

Paragraph Numbers from RG 1.29, part C,
paragraph 1.a through 1.g, 2 and 3

18. Any concern expressed by an employee involving those activities regulated by 10 CFR 20, "Standard for Protection Against Radiation."
19. Any concern expressed by an employee about the physical security aspects of safety-related systems.
20. Any concern expressed by an employee that impacts a technical specification operability requirement.

1.n, 1.p

Not covered by RG-1.29

Not covered by RG-1.29