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Submitter Information

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General Comment

Please see attached file.

Attachments

NRC-2010-0305-DRAFT-0002.1: Comment on FR Doc # 2010-23950

SUNSI Review Complete
Template = ADM-013

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Add = S. Aggarwal (SKA)
M. Case (MJC)

Comment 1:

With regard to Limiting Conditions for Operation (LCOs), the Reg Guide refers to variants of "offsite power system." This reference is incorrect and should be "offsite circuit." The distinction is significant because the term "offsite power system" extends to the grid and OPERABILITY and the grid cannot be OPERABLE or INOPERABLE because it is not within the scope of the Technical Specifications.

Comment 2:

Page 4 Under "Period of Continued Operation" the Reg Guide essentially directs immediate unit shutdown if it is a "safer course of action." Absent any grid disturbance, a shutdown unit is safer than an operating unit so this direction would compel immediate unit shutdown upon the loss of an offsite circuit.

Comment 3:

Page six under "2. The available onsite ac power sources are one less than the LCO." incorrectly states: "Because any inadvertent generator trip could potentially result in a total loss of ac power..." This statement is incorrect because the N-1 analysis says that the loss of the unit WILL NOT result in the loss of the offsite transmission network. If the analysis showed the possibility of a total loss of ac power, the offsite circuits would be declared inoperable, which is situation 3 on page 6 of the Reg Guide.

Comment 4:

Page 9 "The NPP operator should validate the accuracy and conservatism of the post-trip voltages predicted by the online grid analysis tool."

This may not be feasible if the grid analysis tool is owned and operated by a third party due to legal issues, i.e., allowing a generator intimate access to the grid analysis tool has the potential to provide a competitive advantage over other generators. Additionally, the NPP may not have the technical familiarity with the analysis tool to validate the accuracy and conservatism of the tool.

Comment 5:

The seven numbered sections starting on page 9 seem to reiterate the Standard Technical Specifications (STS). As such, they are redundant to the STS for plants that comply, and contradictory to plants that may have variations or subtle differences to the STS. Please remove this section because it provides the opportunity for conflict with the plant specific Technical Specifications with no apparent benefit.

Comment 6:

Page 11 - "... the staff believes that this regulatory guide reflects the majority of current regulatory practices and may be used when evaluating compliance for operating nuclear power plants with a Safety Evaluation Report issued after July 1, 1974."

Contrary to the section "NRC Staff Use" the statement "may be used when evaluating compliance" clearly makes this Regulatory Guide a Backfit.

The Backfit intent is further supported by the statement "Licensees may use the information in this Regulatory Guide or applicable parts to resolve regulatory or inspection issues (e.g., by committing to comply with provisions in the regulatory guide)."

In other words, this Regulatory Guide "may be used when evaluating compliance" and "Licensees may ... resolve regulatory or inspection issues ... by committing to comply with provisions in this regulatory guide."

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OTHER COMMENTS

1. The following statement in section B, item (1), is inappropriate and should be deleted:: "The LCOs of NPPs are met when all LCO-required electric power sources are... capable of withstanding a 'worst case' transmission system contingency (also known as the N-1 contingency)." This position is problematic for the following reasons:

* The LCO would always be exceeded, since loss of a transmission line that transmits power from the transmission network to the onsite electric distribution system, for example, would always result in loss of that particular offsite power supply.

* It is inconsistent with the definition of LCOs in 10CFR50.36(c)(2), which are "the lowest functional capability or performance levels of equipment required for safe operation of the facility." GDC 17 defines the safety function of the electric power sources to be "...to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents." The offsite power sources are fully capable of meeting these safety functions even during periods when a postulated transmission

system disturbance could cause loss of one or both offsite power supplies. This is because (1) the disturbance is only postulated and has not actually occurred, (2) 10CFR50, Appendix A, already acknowledges that a loss of offsite power event is an "anticipated operational occurrence", and (3) postulated accidents would not affect the ability of the electric power sources to perform their safety functions, since the only identified vulnerability is to a disturbance on the transmission network that is unassociated with any postulated accidents at the nuclear plant.

* It reflects a de facto new requirement that the licensee certify that the transmission network be single failure proof. Although GDC 17 mentions the "transmission network", it does not impose any specific design or operating requirements on it. As such, this would be a backfit if it were to be implemented.

* It is contrary to the staff interpretation that there is no "requirement for meeting single failure, and in the absolute sense single failure cannot be met because there is only one power source, the grid" (NUREG 0800, "NRC Staff Interpretation of the Requirements of GDC 17").

* It involves no risk-informed rationale, such as the probability that the particular transmission network contingency could occur.

2. In the section entitled "The Available Offsite AC Power Sources Are Two Less Than the LCO", the statement is confusing that "...this level generally corresponds to the total loss (inadequate capacity, voltage, or frequency) of the offsite power sources. "Total loss" occurs when the circuits have become deenergized. "Inadequate capacity" is most often the result of insufficient transmission system voltage support during periods when the immediately accessible offsite power sources have not been lost, but are operating within their normal voltage and frequency ranges. Due to the inadequate voltage support, an event involving tripping of the nuclear unit's main generator could cause loss of the offsite power sources due to loss of switchyard voltage support when the generator trips. This would result in actuation of the degraded voltage relays, tripping of the offsite power circuits, and transfer of the safety buses to the diesel generators. Therefore, "inadequate capacity" would correlate only to a postulated, rather than actual, "total loss"