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Subject: Guidance for Enforcing the Maintenance Rule

Below is the result of your feedback form. It was submitted by
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Comments: Comments on NRC Maintenance Rule Enforcement Guidance

(SECTION/COMMENT)

8.1.11 -- RG 1.182 should be mentioned as a reference. RG 1.160 only covers the rule prior to the revision of paragraph (a)(3) and the addition of paragraph (a)(4)

8.1.11 General Procedure No. 2 -- 2. The Region Staff will provide sufficient background information, e.g., the draft inspection report section describing the issue and a draft Notice of Violation (NOV). A draft NOV is requested even for proposed non-cited violations (NCVs) to ensure that a legally defensible violation exists. <<If sufficient parallel language to support a legal violation is present in the draft inspection report section, a draft NOV need not be provided. Consult the Regional Enforcement Staff if guidance for this is needed.>> Eliminate last 2 sentence. This confuses the previous sentence which says a draft NOV is requested. I recommend NRC prepare a draft NOV for every potential violation, cited or otherwise.

8.1.11.1 -- The language in the guidance implies that when performance decreases due to failures or unavailability, it must be placed in (a)(1). In addition, SSC is a rather broad term. SSCs necessary to perform functions within the scope of 10 CFR 50.65 would be a better term. Performance may increase or decrease over time and still be well below performance criteria established for those SSCs in (a)(2). In addition, one must look at the intent of (a)(1) which is to bring management attention to "poor" performing SSCs. If it is determined that moving something to (a)(1) will not bring about improvement in an SSC's performance or that the risk of SSC failure is small (i.e., tolerable by PSA sensitivity analysis or expert opinion), it generally should not be placed in (a)(1).

8.1.11.1 I. Paragraph (a)(1) -- Insert clarification of the term "goal". I. Paragraph (a)(1) Relative to paragraph (a)(1), a goal includes two attributes as follows. 1. corrective action(s) to address one or more specific causes for substandard performance, and 2. monitoring to ensure the effectiveness of the actions taken to address the problem(s).

8.1.11.1I. Paragraph (a)(1)I. A. 3. -- 3. Failure to monitor performance or condition against established goals. The monitoring program must be sufficient in scope and frequency to adequately support a determination as to whether SSCs are meeting their assigned goals. Performance monitoring must include tracking of both availability and reliability, where goals of this nature are appropriate, since that provides the maximum assurance that SSCs are capable of fulfilling their intended functions. Remove last sentence. Both availability and reliability are not required. The monitoring need only be sufficient to verify the adequacy of the corrective actions taken, i.e., if availability is acceptable, it need not be monitored as part of an (a)(1) plan to correct a reliability problem. The plan need only address balance between availability and reliability for risk significant SSCs.

II. Paragraph (a)(2) first note -- NOTE: The focus of the rule is on the results achieved through maintenance. With that in mind, for a violation to exist, there must first exist an equipment performance problem which could indicate that preventive maintenance is not being effective. <insert sentence below> If a <significant> performance problem is determined to exist, then the following two questions are relevant to a determination of whether there is a violation: Add a second sentence to note as follows.

Equipment performance problems involving minor increases in risk as determined by the SDP or PSA processes, or other means, should not be considered. For example, failures of a NSR sump pump need not be considered if it can be shown that the failures potential to 1) adversely affect a safety function, or 2) increase an initiating event frequency is negligible.

II. Paragraph (a)(2) -- For enforcement purposes, the (a)(2) "demonstration" is not a one time or periodic evaluation of past SSC performance, but is a continuing requirement. Hence, if the performance or condition of an SSC decreases due to, e.g., failures or increased unavailability, the demonstration of effective maintenance can be questioned. Add last sentence to paragraph as follows. Degraded equipment performance that is detected and corrected prior to the occurrence of a functional failure (as defined by the utility) need not be considered.

II.A.2 Paragraph (a)(2) -- Failure to consider both reliability and availability when evaluating whether an SSC's performance or condition has been demonstrated to be effectively controlled. In order for an SSC to remain capable of performing its intended function, it must be both reliable and available. If the degree of reliability and availability are not technically justifiable and reasonable, a violation may exist. This paragraph is incorrect. Both availability and reliability are required only for risk significant SSCs. Non-risk / non-standby SSCs only require reliability or condition. This needs to be made consistent throughout the document.

II. Paragraph (a)(2) last note -- through some reasonable means, that performance is being effectively controlled through appropriate preventive maintenance. RG 1.160 endorses an acceptable method for demonstrating performance. Whatever method the licensee uses to demonstrate performance must be reasonable, technically justifiable, and take into account availability and reliability <applies only to risk significant SSCs>. As stated previously, the focus of the rule is on the results achieved through maintenance. Consequently, there must first exist a <significant> SSC performance problem before the validity of the SSC performance demonstration comes into question. If there is a performance problem which invalidates the licensee's demonstration that the performance of the SSC is being effectively controlled through appropriate preventive maintenance, the SSC must be moved to (a)(1)

III.A.3 Paragraph (a)(3) -- Add last sentence as follows: Most utilities address the incorporation of OE into their maintenance programs via the site NER program that is established independent of the Maintenance Rule. This approach is satisfactory relative to paragraph (a)(3).

IV.A.1. Paragraph (a)(4) -- 1. Failure to perform a risk assessment prior to performing maintenance activities. Required assessments may be limited to those SSCs which, singularly or in combination, can be shown (by a risk-informed evaluation process) to have a significant effect on the performance of key plant safety functions; and hence, are significant to public health and safety. Insert the following last sentence. i.e., The assessment scope may be limited to RS SSCs as defined by the site MR Program plus any additional SSCs that are explicitly modeled in the PSA but are not otherwise risk significant.

IV.A.4 Paragraph (a)(4) -- Insert No. 4 as follows. 4. Failure to perform a prompt risk evaluation of emergent conditions. Normally, these evaluations should occur with/in 24-hours.

V. Paragraph (b)(1) -- Insert the following note: Scoping may be performed at various levels as defined by the utility and may include combinations of the following. 1. system/subsystem 2. train/subsystem train 3. function (as defined by the utility) 4. component group 5. individual component. In general, scoping should be performed at a level corresponding to the monitoring that will ultimately be performed, since the purpose of the monitoring is to determine the effectiveness of the maintenance on the scoped SSC. Also, scoping at the function level where functions are aligned with those explicitly modeled in the PSA may be desirable, but is not required. Scoping at the component level is less desirable because most monitoring occurs at higher levels.

VI.B.1. Paragraph (b)(2) -- Insert the following issue. SSCs that are mentioned in EOPs but 1)do not perform a "significant function" relative to the object of the EOP as determined by the utility, and 2) whose function is primarily recovery in nature as opposed to mitigation. In addition, one area that is still not clear

is the "could cause" criterion for those SSCs which "could cause" a SCRAM. This is a rather confusing issue and not well addressed by RG 1.160 and this guidance is silent regarding it.

8.1.11.2 I.A Paragraph (a)(1) -- The term goal is only used in conjunction w/paragraph (a)(1). Therefore, it must be assumed in the following example that the LDS was already in (a)(1) at the time of the violation. Contrary to the above, from (date), the licensee did not take <additional> corrective actions when the performance of the Leakage Detection System (LDS) did not meet licensee established goals in that the LDS functions were determined not to have met the established goal for reliability on (date) and no changes were made to the preventive maintenance on the LDS system.

8.1.11.2 III.A.1 Paragraph (a)(3) -- Following example is unclear because it does not address when the EDG function is required during the outage. It should not be used without further clarification. Contrary to the above, the periodic evaluation conducted for the period (dates) did not adequately evaluate the maintenance activities to ensure that reliability was appropriately balanced against unavailability for two emergency diesel generators (EDGs). Specifically, unavailability monitoring of the EDGs during the refueling cycle completed (date) did not consider individual EDG maintenance periods for emergent work on (date) for EDG 1-1 and on (date) for EDG 2-1. As a result, total unavailability was not properly considered and assessed for the EDGs. Without considering this unevaluated unavailability, the balancing of unavailability and reliability was not adequate.

8.1.11.2 III.A.2 Paragraph (a)(3) -- Following example violation is inaccurate since it does not consider "provided the interval between evaluations does not exceed 24 months." (It might be acceptable for a plant that is on a 24-month fuel cycle.) Contrary to the above, as of (date), the licensee had failed to complete the periodic evaluation for the refueling cycle which ended (date).

VI. Paragraph (b)(2)A.2. -- The following example fails to address the "significance" of the EOP function. Contrary to the above, as of (date), the licensee failed to include the area radiation monitoring system within the scope of the monitoring program specified in 10 CFR 50.65 (a)(1). The area radiation monitoring system is a non-safety related system used in the plant EOPs. As a result, the preventive maintenance on the system was not assessed following three maintenance preventable functional failures occurring between (dates).

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