

Industry Review of NRC Proposed TSTF-505 Approach

On December 13, the TSTF distributed an example of implementing the NRC's proposed approach to TSTF-505, "Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b," to the members of the PWROG Licensing Subcommittee, BWROG Licensing Committee, and NEI Risk Informed Technical Specifications Task Force (RITSTF). They were asked to provide feedback on the NRC's proposed approach. Their responses are given below.

In the example Westinghouse ISTS markup provided with the proposal, the number of affected Specifications is reduced from 34 in TSTF-505 to 27. The 27 affected specifications are revised to include new Conditions for a loss of function. Should the NRC proposal be pursued, the resulting Traveler could be expected to be roughly 80% the size of TSTF-505, Revision 0, or about 1,500 pages.

Two of the eighteen responders supported the NRC proposed approach. The remaining sixteen responders were in favor of using the approach proposed in TSTF-505.

Some of the reasons were:

- The TSTF-505 approach is clearer and easier to apply by the user.
- The lead plant, South Texas project, initially tried an approach that conserved pages and used a similar Section 3.0 rule, but abandoned it in favor of modifying each applicable LCO and action because it is consistent with the usage rules.
- The proposed approach creates an error prone situation. Reducing the number of affected pages is not a sufficient justification to deviate from the current usage rules.
 - There is a possibility the applicability of a Risk Informed Completion Time to a Required Action could be missed, resulting in an unnecessary plant shutdown.
 - The proposed approach is a significant change to the Section 3.0 usage rules. All other rules apply to all Chapter 3 Specifications. It is a human error prone situation.
 - The proposed approach creates a potential error of applying a Risk Informed Completion time where it is not supposed to be applied (i.e., a misread table number)
- The proposed approach is overly complex and error prone. A plant would potentially transition from an LCO's Required Action to new LCO 3.0.10, to new Table 5.5.18-1, then back to the LCO's default Action.

In Favor of the NRC's Approach

1. I like the NRC's proposed approach.

The only potential drawback is future amendments that add or delete a condition or required action, thereby affecting subsequent numbering. For example in the markup, if a new 3.3.1, Condition C is added, there could be lots of changes to numbering since it goes through JJ.1. Any licensing guy worth their salt would pick up on this but I've seen bone head mistakes.

The risk of this does not outweigh the benefit.

I saw the response from Steve Hess. I don't think this would be a problem. The first thing anyone approaching the end of a completion time would do is run to the Table and see if it's extendable.

(subsequent response)

I'm going to buck the trend on this one. I believe it is a beneficial change, reducing the number of pages affected in the submittal. I do not believe that a site will overlook the fact

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that they have implemented Initiative 4b and fail to check the table to determine if a risk informed Completion Time extension is available when the normal completion time is nearing its end.

2. At the risk of taking a few rocks from the majority of respondents to this e-mail so far, I discussed the pros and cons of the two approaches with one of our training supervisors responsible for training operators in the use of TS. He likened the NRC proposed LCO 3.0.10 to existing SR 3.0.3. His concept was that normally, operators would live within the front-stop of the LCO, and the only time they would make use of the risk-informed CT would be in those cases where planned maintenance would be projected to extend beyond the front-stop, or in those cases where an emergent condition could not be corrected within the front-stop. Like SR 3.0.3, LCO 3.0.10 would not be used frequently. If they discover a missed SR, they know to use SR 3.0.3 where possible. There is nothing in individual SRs or LCOs that direct the operator to the use of SR 3.0.3, and if they can be trained to successfully use SR 3.0.3, why could they not be trained to successfully use LCO 3.0.10? In other words, the operators could understand that TSTF-505 does not change the way TS work, unless they get into a situation where they need to go beyond the front-stop, in which case they would use LCO 3.0.10.

Not In Favor of the NRC's Approach

1. I truly applaud the Staff for coming up with this idea; it is innovative and creative, but the benefit does not fit the cost in my opinion.
While I'm usually the one people have to pull kicking and screaming to get back inside the box, this time I'm siding with the inside the box people. The NRC's approach to me is too radical a departure on how the TS "normally" work. While I'm not worried that plants/people will not apply the RICT when they need to (ala SR 3.0.3), it's just the overall presentation of the change that doesn't work for me. I agree with the others that the Human Factors of this change are not good. Unless we do something further, like putting all the Required Actions where the RICT is applicable in italics or some other way to flag them on the actual page, vice the Tabular approach (which will be a nightmare to maintain!), even with training, we risk Human Errors.
2. My concern with the approach is from the operator's perspective. When entering an action statement, the SRO will go to the individual spec for the inop SSC; unless there is something in that spec that tells him / her to also go to another location (e.g. Section 5.5), there is a real possibility that the possibility to consider entrance into RMTS could be missed.

(In response to a comment) Agreed, this would be a significant change to the usage rules for the operators.

3. Stick with Rev. 0. The proposed NRC approach would be inconsistent with current practices for determining applicability of Section 3.0 Spec's and is a human error waiting to happen.

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4. I too recommend sticking with Rev 0- the changes for the operator, as stated below in the other emails, introduces error likely situations and I do not see the benefit to the change. It really does not get us anything.
5. (In response to other comment) [PLANT] agrees. We initially tried an approach that "conserved" pages, but abandoned it in favor of modifying each applicable LCO and action. It is more tedious to prepare, but it is consistent with the usage rules.
6. Although the NRC approach appears to be more streamlined and concise, I believe the original option is clearer and easier to apply by the user. This is a significant change to the specs and it is important to seek maximum clarity, so I am in favor of the original option.
7. As others have replied, the original approach seems less error prone to the user. While I am sure that operators/management would not overlook an allowance when needed, I am concerned that the extra steps involved with the table may introduce a potential error of applying it to a CT where it is not supposed to be applied (i.e., a misread table number).
8. With regard to developing Table 5.5.18-1 versus mark-ups on each page of applicable Technical Specification:
 - a) The approach used by South Texas Project in their implementation should carry a lot a weight.
 - b) As noted by Steve Hess and others, the use of Table 5.5.18-1 is likely to increase the potential for operator error; new operator training would be required.
 - c) However, there are advantages to reducing the number of marked-up pages, but it must be balanced with the likelihood of increasing an operator error.
 - d) If using the NRC approach (and Table 5.5.181-1), is there a mechanism by which each TSTF-505-applicable Technical Specification can be identified (in the actual Technical Specifications) to somehow relieve the burden on the operator (to check the table) and ensure that a RICT could be invoked?
In Section 5.5.18 (c)(3), it is stated that revising a RICT is not required if a longer RICT would result after a configuration change. Should there be some additional language that acknowledges that the longer RICT can be invoked, if desired? Of course, that is only if the increased RICT does not exceed 30 days.
9. I originally did not like the concept of the NRC table approach but after seeing it, it could work with training. But all the earlier comments are valid. It is a potential error trap and I don't think that reducing the number of marked up pages is a sufficient justification to deviate from the current usage rules.
10. Since the NRC's proposal changes the TS usage rules, requires significant operator re-training, and increases the potential for TS application errors, suggest we stay with Rev. 0.
11. I like the NRC proposal – it is a streamlined approach that fits well with other LCO 3.0 rules and exceptions, however, improved TS should always be about how to best communicate requirements and allowances to the operators. Our operators prefer to have the flexibility

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defined in each applicable specification. I support the original TSTF with each applicable Completion Time revised.

12. The Table option might be viable. By that I mean that it is worth considering more carefully and completely. However, it is complex enough that there could easily be some unanticipated and unforeseen consequences. For example, what do you with the Bases? What potential pitfalls might we create for future, post-505, TS changes? It might make configuration management a real headache. I am a strong advocate of the K-I-S-S principle. If at all possible, complexity should decrease as importance increases!
13. I don't like the NRC approach. The 3.0 motherhoods (LCO and SR) are good repositories for exceptions, directions to follow when normal TS usage isn't met, delay times prior to declaring LCOs not met, "anti-cascading," etc. However, LCO 3.0 is not a good vehicle to be superimposed into the process between an LCO's Required Actions and that LCO's default Action since, under their proposal, a plant would potentially transition from an LCO's Required Action to new LCO 3.0.10, to new Table 5.5.18-1, then back to the LCO's default Action. While it's true that operator training can be force fit to cover almost anything, this is not the expectation we've trained on for the last 11 years.
14. Although the use LCO 3.0.10 will greatly simplify the TS to implement the use of a RICT, revising the TS for TSTF-505 as proposed by the NRC will create a likely error trap for operators. The error trap is that operators inadvertently attempt to use LCO 3.0.10 for a TS Required Action where a RICT is not applicable. With TSTF-505 implemented, most TS Actions that will be entered will allow the use of a RICT (i.e., after implementation of TSTF-505 operators will become programmed to pursue a RICT when a Condition is entered). It will only be a matter of time when a TS Required Action with a short completion time is not met due to an operator concentrating on applying a RICT (when is not applicable) and then later determining a RICT is not actually applicable, and then not having enough time to perform the TS required Action. Note that the use of the proposed LCO 3.0.10 is different from using SR 3.0.3 because SR 3.0.3 applies to all TS LCOs. This will not be the case for LCO 3.0.10.
A TS change that I think could address the error trap if we decide to use a new LCO 3.0.10 is to put a NOTE in each TS Action or Completion Time that LCO 3.0.10 is applicable that states "LCO 3.0.10 is applicable". This would provide an immediate indication to the operator that a RICT is applicable and that it is ok to pursue use of a RICT as opposed to concentrating on completing the Required Action.
15. We discussed a similar change. The NRC's proposal reduces the number of affected Specifications from about 34 to about 27 (for the Westinghouse ISTS. Should be similar for the rest). Not a huge reduction; it will still be a big Traveler.
If we revise each Specification with a Note stating that LCO 3.0.10 is applicable, why not go ahead and stick with the TSTF-505, Rev. 0 format? In both cases, we are revising every applicable LCO and the Rev. 0 approach eliminates the need to look up the specifics in the table and the need for a 3.0 rule.

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Another issue I thought about is all the other 3.0 rules are applicable to all specifications. The proposed LCO 3.0.10 would only be applicable to some specifications. I hate exceptions.

(Response)

I agree with you and the more I think about this NRC proposal, I think we should continue to pursue the TSTF-505 Revision 0 format and inform the NRC that while their proposal to use Section 3.0.x simplifies the TS changes, it creates a potential error trap for operators.

16. The original approach appears simpler and, therefore, is preferable.