

From: Ray Gallucci *NRR*
To: Sunil Weerakkody *NRR*
Date: 2/5/04 8:34AM
Subject: Fwd: Re: Revised Q&As and Key Messages

hjm
~~PREDECISIONAL INFORMATION~~

Attached is a "clean" version (comments, etc., removed).

>>> Sunil Weerakkody 02/04/04 05:19PM >>>

Ray:

Please try to address Chuck's additional concerns.

Sunil

CC: Charles R. Ogle; Jason Dreisbach

FFF-6

RTI

Operator Manual Actions Key Messages (Draft - 2/5/04)

- The NRC's mission is to protect the public health and safety and the environment. The fire protection regulations ensure that each plant maintains the ability to achieve safe shutdown after a fire. Operator manual actions have been recognized in certain cases by the NRC as acceptable means of providing safe shutdown of a plant.
- Recent inspections by the NRC revealed that there are licensees who rely on operator manual actions that have not been reviewed and approved by the NRC. These licensees are considered by the NRC to be in non-compliance with the regulations.
- When NRC inspectors have reviewed unapproved operator manual actions, they have emphasized maintenance of the public health and safety. When unapproved operator manual actions that may not be feasible have been discovered, they have been subjected to the Reactor Oversight Process to determine any safety impact. If found, the licensee must institute corrective actions.
- The new rule will subject those licensees with unapproved operator manual actions to new requirements in order to demonstrate the acceptability of those and any future proposed actions. If operator manual actions are not acceptable based on this new criteria, then the NRC will conduct an analysis through the Reactor Oversight Process to determine the risk-significance of the finding and determine if a violation is warranted.

Operator Manual Actions Q&A (Draft - 2/5/04)

1. Why is the NRC revising the rule to allow operator manual actions in lieu of fire barrier separation without an NRC-approved exemption?

The NRC is revising the rule to allow an additional option for protecting the redundant equipment necessary for shutting down a nuclear power plant. To separate the redundant equipment, the current rule allows licensees to use a 3-hour rated fire barrier; physical separation with combustible elimination, plus automatic fire detection and suppression; or a 1-hour rated fire barrier enclosure plus automatic fire detection and suppression. In the past, the NRC has approved licensee requests, on a plant-specific basis, to use operator manual actions instead of those three options. As such, the NRC has recognized that operator manual actions, subject to certain criteria, can be included as a fourth option for protection of redundant equipment for shutting down the plant.

2. Is the NRC changing the rule to accommodate licensees who don't want to meet the current regulations?

Even under the new III.G.2 rule, the licensees will still have to meet one of the current three compliance options unless their credited operator manual actions meet all the acceptance criteria. Licensees have always had the option to use operator manual actions for compliance with III.G.2 through the exemption process, and some correctly followed that route. NRC's review of unapproved operator manual actions credited by licensees indicates that most would have been acceptable alternatives to the three compliance options had they been processed as

exemptions. Therefore, NRC is reducing the burden on both itself and the licensees of the need to process a potentially large number of exemptions that would routinely be approved by changing the rule. Exemptions will still be necessary if all the conditions of the new rule are not satisfied.

3. What are operator manual actions?

Operator manual actions are those actions taken by operators to perform manipulation of components and equipment from outside the main control room (MCR) to achieve and maintain post-fire safe shutdown. These actions are performed locally by operators, typically at the equipment.

4. Instead of changing the rule, can the NRC issue a violation to the licensee for not being in compliance with the regulation?

Under the current rule, all unapproved operator manual actions would be considered a violation for plants that were licensed before 01/01/1979. Plants licensed after 01/01/1979 would need to be assessed on a case-by-case basis. Since the NRC has previously approved certain operator manual actions at some plants, there is reason to believe that most licensees would seek similar approval, further stressing the resources of both the licensee and the NRC and diverting attention away from potentially more safety-significant issues.

5. How long have plants been implementing operator manual actions, which are unapproved by the NRC? In addition, if resident inspectors are in the plant every day, why didn't the NRC know about it sooner?

The NRC has been aware of plants implementing unapproved operator manual actions for about 3 years. The NRC believes that use of unapproved operator manual actions became prevalent with licensees' resolution of the Thermo-Lag issue from the early 1990s. The NRC became aware of the operator manual action issue as a result of more recent inspections focused specifically on a plant's ability to safely shutdown. These types of inspections are not routinely performed by resident inspectors.

6. What is the NRC doing now about plants who have implemented non-NRC approved operator manual actions in certain fire areas?

Plants are reviewed tri-annually for compliance with fire protection regulations, such that the entire fleet is covered every three years. This includes the use of unapproved operator manual actions against a set of criteria, established in March 2003 and based on inspection experience to determine their acceptability. If an unapproved operator manual action met the criteria and was deemed acceptable, the licensee has been required to address the non-compliance through its corrective action program. If the operator manual action did not meet the criteria and was deemed unacceptable, the finding has been entered into the Reactor Oversight Process to estimate its risk-significance and determine if a violation is warranted.

7. Has the NRC approved operator manual actions at nuclear power plants in the past?

Yes. In the past the NRC has approved the use of operator manual actions on a case-by-case basis at a licensee's formal request through the exemption/deviation process.

8. During the process of rulemaking, if the NRC determines that certain operator manual actions are not acceptable, will the agency pursue enforcement action against the plant?

The NRC has just released for public comment a draft version of interim acceptance criteria for operator manual actions. The licensees will be required to review all unapproved operator manual actions, including any previously deemed acceptable, against this new set of criteria to determine if they satisfy the enhanced acceptance criteria. Those that do not will either have to be revised, or else the licensee must submit an exemption or revert to one of the barrier/separation options for compliance. During the NRC inspection process, if any operator manual actions that remain credited are deemed unacceptable, then the NRC will determine risk-significance, and any possible violation, through the Reactor Oversight Process.

9. If a plant is implementing currently unapproved operator manual actions, how can the NRC be certain that there is no danger to the public or to the environment?

The NRC's main goal is safety, and the need to protect the public and environment have remained paramount even in light of the licensees' use of unapproved operator manual actions. The NRC achieves this goal partly by the use of the defense-in-depth methods. Defense-in-depth is required in the regulations and implemented in the case of fire with 1) physical containment; 2) detection and suppression; and 3) redundant equipment. Operator manual actions do not affect the plants' ability to physically contain a fire or detect and suppress a fire. These elements ensure a reasonably high level of safety themselves. The acceptance criteria, which will be used to evaluate all currently unapproved and any future proposed operator manual actions, have been developed from existing criteria used to evaluate other types of operator manual actions, from criteria that inspectors have used to determine overall plant safety, from human factors principles and research, from discussions with the industry and the public, and from other sources that are applicable to this issue. Therefore, the defense-in-depth elements and the carefully developed acceptance criteria for operator manual actions ensure a reasonable level of safety for both the public and the environment.

Operator Manual Actions Key Messages (Draft-01/26/2004)

- The NRC's mission is to protect the public health and safety and the environment. The fire protection regulations ensure that each plant maintains the ability to achieve safe shutdown after a fire. Operator manual actions have been recognized in certain cases by the NRC as acceptable means of providing safe shutdown of a plant.
- Recent inspections by the NRC revealed that there are licensees who rely on operator manual actions that have not been reviewed and approved by the NRC. These licensees are considered by the NRC to be in non-compliance with the regulations.
- When NRC inspectors have reviewed unapproved operator manual actions, they have emphasized maintenance of the public health and safety. When unapproved operator manual actions that may not be feasible have been discovered, they have been subjected to the Reactor Oversight Process to determine any safety impact. If found, the licensee must institute corrective actions. I don't know what *compromised safety* means in this case. However, I suspect that some manual actions represent an increase in risk over a properly functioning passive DID element and thus affect safety. Thus, I am not sure that this statement is entirely accurate in all cases. This would be an even more difficult statement to support in the case of unapproved manual actions that the inspection staff has found won't work. Further, I am not sure that we have inspected all unapproved manual actions. Recommend reword and tone down.
- The new rule will subject those licensees with unapproved operator manual actions to new requirements in order to demonstrate the acceptability of those and any future proposed actions. If operator manual actions are not acceptable based on this new criteria, then the NRC will conduct an analysis through the Reactor Oversight Process to determine the risk-significance of the finding and determine if a violation is warranted. .

Operator Manual Actions Q&A (Draft-01/26/2004)

1. Why is the NRC revising the rule to allow operator manual actions in lieu of fire barrier separation without an NRC-approved exemption?

The NRC is revising the rule to allow an additional option for protecting the redundant equipment necessary for shutting down a nuclear power plant. To separate the redundant equipment, the current rule allows licensees to use a 3-hour rated fire barrier; physical separation with combustible elimination, plus automatic fire detection and suppression; or a 1-hour rated fire barrier enclosure plus automatic fire detection and suppression. In the past, the NRC has approved ~~(some, selected)~~ licensee requests, on a plant-specific basis, to use operator manual actions instead of those three options. As such, the NRC has recognized that operator manual actions, subject to certain criteria, can be included as a fourth option for protection of redundant equipment for shutting down the plant.

2. Is the NRC changing the rule to accommodate licensees who don't want to meet the current regulations?

Even under the new III.G.2 rule, the licensees will still have to meet one of the current three compliance options unless their credited operator manual actions meet all the acceptance criteria. Licensees have always had the option to use operator manual actions for compliance with III.G.2 through the exemption process, and some correctly followed that route. NRC's review of unapproved operator manual actions credited by licensees indicates that most would have been acceptable alternatives to the three compliance options had they been processed as exemptions. Therefore, NRC is reducing the burden on both itself and the licensees of the need to process a potentially large number of exemptions that would routinely be approved by changing the rule. Exemptions will still be necessary if all the conditions of the new rule are not satisfied. I am not sure I agree with this statement. (And I am not sure all the inspectors on my staff would agree either.) The timing of the original response back to NEI discussing our position on manual actions followed by the subsequent change in NRC direction on this issue would probably also not support this position. I'd recommend that this be toned down to stress the benefits to the NRC w/o an unreasonable impact on safety. Further the logic that follows in this statement compares unapproved manual actions against approved manual actions. A more reasonable comparison would be between approved strategies in III.G.2 and unapproved manual actions.

3. What are operator manual actions?

Operator manual actions are those actions taken by operators to perform manipulation of components and equipment from outside the main control room (MCR) to achieve and maintain post-fire safe shutdown. These actions are performed locally by operators, typically at the equipment. Can personnel other than operators perform manual actions? (Yes, but the wording is "official.")

4. Instead of changing the rule, can the NRC issue a violation to the licensee for not being in compliance with the regulation?

Under the current rule, all unapproved operator manual actions would be considered a violation for plants that were licensed before 01/01/1979. Plants licensed after 01/01/1979 would need to be assessed on a case-by-case basis. I find this statement particularly troubling. It seems to be predicated on the idea that all manual actions we review are acceptable or prudent. In fact this is not the case. I'd strongly recommend deleting this concept. Since the NRC has previously approved certain operator manual actions at some plants, there is reason to believe that most licensees would seek similar approval, further stressing the resources of both the licensee and the NRC and diverting attention away from potentially more safety-significant issues.

5. How long have plants been implementing operator manual actions, which are unapproved by the NRC? In addition, if resident inspectors are in the plant every day, why didn't the NRC know about it sooner?

The NRC has been aware of plants implementing unapproved operator manual actions for about 3 years. The NRC believes that use of unapproved operator manual actions became prevalent with licensees' resolution of the Thermo-Lag issue from the early 1990s. The NRC became aware of the operator manual action issue as a result of more recent inspections focused specifically on a plant's ability to safely shutdown. These types of inspections are not routinely performed by resident inspectors.

6. What is the NRC doing now about plants who have implemented non-NRC approved operator manual actions in certain fire areas?

Plants are reviewed tri-ennially for compliance with fire protection regulations, such that the entire fleet is covered every three years. This includes the use of unapproved operator manual actions against a set of criteria, established in March 2003 and based on inspection experience to determine their acceptability. This is not a true statement. First, we have not inspected all the plants yet against the criteria contained in the existing inspection module. Second, we typically only inspect 3-5 fire areas during a TFP. Thus even for the plants we have inspected manual actions at, we may not have looked at all the manual actions. If an unapproved operator manual action met the criteria and was deemed acceptable, the licensee has been required to address the non-compliance through its corrective action program. I don't know what this means. If you all are trying to say enter it into their corrective action program, then I would recommend that you all say that. If the operator manual action did not meet the criteria and was deemed unacceptable, the finding has been entered into the Reactor Oversight Process to estimate its risk-significance and determine if a violation is warranted.

7. Has the NRC approved operator manual actions at nuclear power plants in the past?

Yes. In the past the NRC has approved the use of operator manual actions on a case-by-case basis at a licensee's formal request through the exemption/deviation process.

8. During the process of rulemaking, if the NRC determines that certain operator manual actions are not acceptable, will the agency pursue enforcement action against the plant?

The NRC has just released for public comment a draft version of interim acceptance criteria for operator manual actions. The licensees will be required to review all unapproved operator manual actions, including any previously deemed acceptable, against this new set of criteria to determine if they satisfy the enhanced acceptance criteria. Those that do not will either have to be revised, or else the licensee must submit an exemption or revert to one of the barrier/separation options for compliance. If the NRC is going to perform this review, I think this is a very broad statement that may have dire resource implications. First, are you committing us to go back and look at all unapproved manual actions or those we have previously inspected. Second, are we going to go back and look at the manual actions that we have found unacceptable or that the licensee has fixed. I think some serious thought about resource impact needs to be given before we commit to this. During the NRC inspection process, if any operator manual actions that remain credited are deemed unacceptable, then the NRC will determine risk-significance, and any possible violation, through the Reactor Oversight Process.

9. If a plant is implementing currently unapproved operator manual actions, how can the NRC be certain that there is no danger to the public or to the environment?

The NRC's main goal is safety, and the need to protect the public and environment have remained paramount even in light of the licensees' use of unapproved operator manual actions. . The NRC achieves this goal partly by the use of the defense-in-depth methods. Defense-in-depth is required in the regulations and implemented in the case of fire with 1) physical containment; 2) detection and suppression; and 3) redundant equipment. Operator manual actions do not affect the plants' ability to physically contain a fire or detect and suppress a fire. These elements ensure a reasonably high level of safety themselves. This is somewhat confusing and should be clarified. We have found manual actions that have been required to protect equipment that is required for

safe shutdown. I'd recommend that this be reworded to use the same language as in III.G.2.. As currently written it almost implies that the equipment is redundant. The acceptance criteria, which will be used to evaluate all currently unapproved and any future proposed operator manual actions, have been developed from existing criteria used to evaluate other types of operator manual actions, from criteria that inspectors have used to determine overall plant safety, from human factors principles and research, from discussions with the industry and the public, and from other sources that are applicable to this issue. Therefore, the defense-in-depth elements and the carefully developed acceptance criteria for operator manual actions ensure a reasonable level of safety for both the public and the environment.