Operator Manual Actions Q&A (Draft- March 8, 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 no intervening combustibles, 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 protecting 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 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 under the existing rule through the exemption process, and some correctly followed that route. NRC's review of unapproved operator manual actions indicates that most would have been acceptable alternatives to the three compliance options had they been processed as exemptions. Therefore, NRC is changing the rule to 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. Exemptions will still be necessary if all the conditions of the new rule are not satisfied.The NRC has previously approved licensee requests to use operator manual actions based on a set of criteria developed for the inspection process and the NRC is changing the rule to codify this as an acceptable approach to shutting down a plant safely.

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 manualoperator 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. The safety benefit of forcing licensees to comply with the regulation is not significant when compared to the costs in staff time and resources required for enforcement. 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,

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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 manualoperator 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 triennially for compliance with fire protection regulations, such that the entire fleet is covered every three years. This includes the All plants that use of unapproved operator manual actions have been reviewed for safety, and the operator manual actions have been inspected 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 formally specify an approach to addresscorrect 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 the licensee has been cited for a violation (in some cases we use an NCV) and the NRC is conducting an analysis todetermine if a the risk-significance of the 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 released for public comment a draft version of interim acceptance criteria for operator manual actions. The licensees will be required to review aAll unapproved operator manual actions, including any previously deemed acceptable, will again be reviewed against this new set of criteria to determine if these actions 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, iIf any operator manual actions that remain credited are deemed unnot acceptable based on this new criteria, then the NRC will determine risk-significance, and any possible violation, through the Reactor Oversight Process issue a violation and conduct an analysis to determine the risk-significance of the violation.

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 tThe public andor environment have remained paramount even in light of the licensees' use ofhas never been in danger due to unapproved operator manual actions. The NRC's main goal is safety The NRCIt 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. Operator manual actions are required to engage redundant equipment. 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.