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Division of Administrative Services, Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

To Whom It May Concern:

As a result of the near catastrophic fire at Browns Ferry nuclear power station in 1975, NRC is mandated by federal law to require electrical systems used for the automated shutdown of the reactor from the control room be maintained free from fire damage in the event of a serious fire. I am opposed to the proposed relaxation of enforcement of current fire code that would allow non-compliant reactor operators to sacrifice automated reactor shutdown electrical systems and instead substitute non-validated manual actions that increase unacceptable and undue risks to public health and safety and the environment in the event of a reactor fire.

1. Sending someone down a potentially burning, smoke filled corridor to manually operate safe shutdown equipment after required control room automated functions are burned away is not a reasonable or acceptable substitute for "upgrading" currently inoperable fire protection features. Such actions do not provide the equivalent level of safety as restoring qualified fire barriers used in conjunction with sprinklers and smoke detectors and physical separation of redundant electrical cables used to shutdown the reactor.
   Manual operator actions, while made "compliant" by permitting the sacrifice of control room operated shutdown functions will possibly send licensed and non-licensed operators into harms way making reactor safety dubiously reliant upon heroic, at best, and potentially suicidal actions in an effort to head off a catastrophic nuclear accident.

2. Reliance on "Feasible" Manual Actions Sets an Unreasonably Low and Unacceptable Standard for Fire Protection at U.S. Nuclear Power Stations
   As stated, the affected fire code (Chapter 10 of the Code of Federal Regulation Part 50 Section III.G.2) mandates that reactor shutdown electrical systems be protected by three hour rated fire barriers, one-hour rated fire barriers with sprinklers and smoke detectors that are qualified through independent laboratory testing and inspections. Cable separation requirements are required to be maintained through design controls and inspections. Under the proposed interim criteria the licensee need only deem the replacement manual actions "feasible," clearly a lower and nebulous standard. NRC staff has publicly expressed its own misgivings over the choice of a "feasible" standard. Moreover, NRC staff identified that the substitution of manual actions for Appendix R III.G.2 requirements "will make Appendix R virtually uninspectable [sic]." Further more, NRC's Advisory Committee on Reactor Safeguards Subcommittee (ACRS) on Fire Protection had numerous problems with the use of "feasible" manual actions. ACRS identified that "feasibility" does not provide reasonable assurance that any given action is "reliable." The "feasible" standard is not effectively enforceable by NRC. As one ACRS member repeatedly interrupted both industry and NRC presenters, "I'll make a plea again for not using the word 'feasibility." "Don't use the word," he emphatically stated.

   By ignoring the comments of public interest groups, its own staff and its advisory committee to inappropriately qualify manual actions as merely "feasible," NRC's proposed interim criteria for relaxation of enforcement for illegal operator manual actions is establishing an inadequate and inappropriate standard for inspection and enforcement which will significantly jeopardizes public health and safety. It is unreasonable, arbitrary and capricious to lower public safety standards to unduly accommodate the nuclear industry with "compliance."

3. "Environmental Considerations" During a Fire Cannot Be Reliably Predicted To Assure Manual Actions Will Provide the Equivalent Safety of Control Room Automated Actions Protected by Barriers, Suppression, Detection and Separation

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NRC states that the full effects of a fire (flame, temperature, smoke, toxic gases and possibly radiation) can be accurately predicted so as to provide confidence that licensed operators or employees will arrive at destinations within the station to successfully complete the manual actions required to shutdown the reactor before the radioactive core is damaged. To the contrary, on March 07, 1997 a main transformer fault resulted in the previously unanalyzed spill of 4,300 gallons of combustible lubricating oil into the Pilgrim nuclear power station turbine building spreading out over 2,200 square feet on the ground floor potentially affecting both division of safety-related switchgear leading to station blackout and core damage. The environmental conditions of this potential fire were unpredictable.

4. The Interim Criteria for Proposed Operator Manual Actions Only Requires a "Demonstration" Without Validation by Simulation and Graded Exercises
The agency's proposed criteria state that the licensee shall demonstrate and document its capability to successfully accomplish operator manual actions within the allowable time using the designated procedures and equipment. However, the September 09, 2003 ACRS Fire Protection Subcommittee raised serious questions regarding the qualitative difference between "demonstration" and validation of the manual actions. "Is there any hope? It's not like you can set up a simulator and test an operator action," queried a subcommittee member. "How do you simulate smoke, light, fire, ringing bells, fire engines, crazy people running around." A mere demonstration does not simulate potential environmental conditions and challenge human behavior to adequately evaluate whether the manual actions can be accomplished with any level of confidence. A demonstration does not qualify manual actions nor provides an equivalence in confidence of performance as do the currently required standardized fire tests to qualify fire barriers.

Sincerely
Mark K Boughton