

Nuclear Information and Resource Service

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December 29, 2003

Mr. Jack Grobe, Chair
IMC 0350 Panel for the Davis-Besse Nuclear Power Station
U.S. Nuclear Regulatory Commission Region III Headquarters
801 Warrenville Road
Lisle, Illinois 60532
By Email: jag@nrc.gov

QUESTIONS AND CONCERNS REGARDING FIRST ENERGY COMPLIANCE WITH CURRENT FIRE PROTECTION REQUIREMENTS FOR THE DAVIS- BESSE NUCLEAR POWER STATION AS IT PERTAINS TO THE PROPOSED REACTOR RESTART

Dear Mr. Grobe:

Nuclear Information and Resource Service (NIRS) and Toledo Coalition for Safe Energy request the U.S. Nuclear Regulatory Commission (NRC) 0350 Panel for the Davis-Besse nuclear power station address the following safety concerns regarding First Energy compliance with current fire protection requirements, the agency's administrative procedures and an Order issued by NRC. In our view, these matters have direct bearing on the public safety and the proposed restart of the reactor.

NIRS recently obtained two documents of interest through a Freedom Of Information Act (FOIA) request that sought information pertaining to non-compliant operator actions illegally substituted for operable fire protection systems as required under 10 CFR 50 Appendix R III.G.2.¹

The first document pertaining to Davis-Besse regards an email exchange between Philip Qualls, Fire Protection Engineer, Nuclear Regulatory Commission Headquarters and Dennis Kubicki, U.S. Department of Energy, formerly with NRC Headquarters, Office of Nuclear Reactor Regulation.²

The second document is a Safety Evaluation Report (SER) of fire protection measures at Davis-Besse from 1991 only recently released to the public through the NIRS FOIA request.³ The SER is referenced in the June 2003 email exchange between Mr. Qualls and Mr. Kubicki.

Furthermore, NIRS and Toledo Safe Energy Coalition have public safety concerns and questions regarding a commitment made by the Davis-Besse operator(s) under NRC Order issued in 1998 to restore functionality to fire protection systems required under Code of Federal Regulation to protect control room operated electrical systems for power,

control and instrumentation systems used to remotely shut down the reactor in the event of fire.⁴

BACKGROUND

The agency's own safety studies have identified that fire at a nuclear power station presents a significant risk for events that can lead to damage of the reactor core and the potential catastrophic release of radiation. Such a near catastrophic fire at the Browns Ferry nuclear power station in March of 1975 led to the promulgation of fire protection law mandating in part that reactor operators protect electrical cables to assure the remote shutdown of the reactor from the control room.⁵ The specific Code of Federal Regulation Chapter 10 Part 50 Appendix R Section III.G.2 requires that reactor operators assure that no single fire will destroy the control room's ability to remotely shutdown the reactor in the event of fire by way of protecting emergency backup electrical systems with approved three-hour rated fire barriers or one-hour rated fire barriers used in conjunction with smoke detectors and sprinklers or alternately physical separation of redundant electrical systems by a minimum of 20-feet with detection and suppression equipment in the area.

In the first referenced document dated June 24, 2003, Mr. Qualls states "A Region III inspection recently found a SER dated May 31, 1991 which approves some pretty outrageous stuff. Things like going to TAF [Top of Active Fuel] (for a B&W unit) due to PORV [Pressure Operated Relief Valve] opening (does anybody still remember TMI?), complete operator manual actions (in lieu of barriers for III.G.2), and a variety of fire protection issues..."⁶

We wish to specifically point out an agency identified unresolved safety issue regarding "complete manual actions" per 10 CFR 50 Appendix R Section III.G.2.

Mr. Qualls, who is a lead fire protection engineer at NRC Headquarters, identifies that the Davis-Besse operator has substituted "manual actions" (where the licensee rather than providing the required protection to control room operated electrical systems for the remote shutdown of the reactor in the event of fire has instead in the event of fire sacrificed the remote function to a fire and intends to send a licensed or non-licensed operator into the reactor complex, potential to areas involved in a fire, to manually operate safe shutdown equipment such as turning valves, pulling circuit breakers and flipping switches.) "Manual actions" are not approved alternatives for the protection of safe shutdown electrical systems as specified in Section III.G.2. Moreover, Mr. Qualls points out that the referenced manual actions did not complete nor were granted license amendments or exemptions before the operator implemented them as substitutes for the required physical separation of electrical systems or alternately protection with fire barriers, suppression and detection equipment. These "manual actions" are therefore illegal and constitute an unresolved public safety risk pertaining to the restart issue of Davis-Besse.

Mr. Qualls' June 2003 email further points out to Mr. Kubicki, "I wanted to warn you that your name is on this document [1991 SER]. The s___ could hit the fan hard and you may hear questions (or the s___ may be soft and you never hear about it too.)"⁷

We further point out that in separate but identical Davis-Besse fire code violations involving the same 10 CFR 50 Appendix R III.G.2 requirements, the operators of Davis-Besse were under NRC Confirmatory Order issued on June 22, 1998 to restore functionality to “inoperable” fire barriers relied upon for the safe shutdown of the reactor from the control room in the event of fire. A substantial number of Davis-Besse safe shutdown electrical systems utilized a product called Thermo-Lag 330 for its required fire barriers. The NRC identified that Thermo-Lag 330 fire barriers were “inoperable” in 1992 and began regulatory action to restore fire barrier functionality to Davis-Besse and other reactors.⁸ By 1998, the agency issued to operators of Davis-Besse an Order to restore functionality of the fire barriers by December 31, 1998. The Davis-Besse operators consented to the Order under a potential enforcement action of criminal prosecution and civil penalty per the Atomic Energy Act of 1954 for failure to comply.

We, therefore, submit the following public safety concerns and questions to the 0350 Panel for answers:

1) Mr. Qualls’ states in his email that NRC Region III inspectors recently reviewed the 1991 SER which as Mr. Qualls points out approved “some pretty outrageous stuff” regarding Davis-Besse reactor safety and fire protection systems. Mr. Qualls further points out that the operator never followed up on commitments to make changes to its licensing agreement for fire protection through the license amendment or exemption process.

QUESTION: Has the 0350 Panel inspection of the 1991 Safety Evaluation Report as referenced in Mr. Qualls’s email established that the licensee is in non-compliance with fire protection requirements per 10 CFR 50 Appendix R Section III.G.2?

QUESTION: If so, what enforcement action is the agency taking to bring the licensee into compliance with current fire protection requirements?

QUESTION: Is the agency holding back other Safety Evaluation Reports pertaining to Davis-Besse from public access? If so, NIRS requests that the agency immediately release all SERs to the Public Document Room prior to any further consideration of the restart of Davis-Besse.

QUESTION: It would appear that to grant a restart request without any analysis addressing these fire protection issues would allow the licensee to illegally start up outside its licensing agreement. How does the 0350 Panel plan to visit these fundamental fire protection issues and the lack of analysis as identified by NRC Headquarters communications prior to any proposed restart?

QUESTION: What assurance can you give the people of Ohio and beyond that this is just not another catastrophe in the making?

QUESTION: The 1991 Safety Evaluation Report is missing page 25. Did Region III in its review of the SER note the missing page? Is the agency making an effort to recover the missing page?

2) On June 22, 1998, the operator of Davis-Besse was issued a Confirmatory Order Modifying License regarding a long-standing non-compliance for non-functional Thermo-

Lag fire barriers relied upon to protect the control room's remote operation of equipment used to safely shut down the reactor in the event of fire.⁹ The Order confirmed the licensees' consent and commitment to restore functionality to reactor safety system fire barriers by December 31, 1998.

QUESTION: Has the 0350 Panel inspection process determined that the operator of Davis-Besse has fulfilled the legal obligation per its Consent Agreement dated May 04, 1998 and by NRC Order dated June 22, 1998 to come into compliance with 10 CFR 50 Appendix R III.G.2 by restoring operability to fire barrier systems?

QUESTION: If the 0350 panel has determined that in fact the licensee is not in compliance with Appendix R III.G.2 per the 1998 NRC Order, what enforcement action has NRC taken in follow-up to its Order to restore compliance with current fire protection requirements?

Sincerely,

[Signed by Paul Gunter]

Paul Gunter, Director

Reactor Watchdog Project

[Signed by Terry Lodge]

Terry Lodge, Esquire

Toledo Safe Energy Coalition

¹ FOIA 2003-0358, U.S. Nuclear Regulatory Commission, Request by Nuclear Information and Resource Service.

² FOIA 2003-0358, Appendix N-19, "A Memory Test and Possible Warning," Email exchange between Philip Qualls, US NRC, and Dennis Kubicki, US DOE, June 24&26, 2003.

³ FOIA 2003-0358, Appendix LL, Safety Evaluation of Fire Protection Measures at the Davis-Besse Nuclear Power Station, Unit 1, Per Appendix R to 10 CFR Part 50, May 30, 1991.

⁴ "Confirmatory Order Modifying License---Davis-Besse Nuclear Power Station, Unit No. 1---(TAC No. M85542), June 22, 1998.

⁵ 10 CFR 50 Appendix R "Fire Protection," Section III.G.2.

⁶ FOIA 2003-0358 Appendix N-19, email P. Qualls, June 24, 2003.

⁷ Ibid.

⁸ Bulletin 92-01, "Failure of Thermo-Lag 330 Fire Barriers To Maintain Cabling in Wide Trays and Small Conduits Free From Fire Damage," U.S. Nuclear Regulatory Commission, June 24, 1992.

⁹ Ibid.