

March 30, 2004 (10:00AM)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

UNITED STATES OF AMERICA  
BEFORE THE NUCLEAR REGULATORY COMMISSION

In the Matter of	)	Docket No. 50-346
	)	License No. NPF-3
FirstEnergy Nuclear Operating	)	EA-03-214
Company	)	
	)	<b><u>OBJECTIONS TO CONFIRMATORY</u></b>
(Davis-Besse Nuclear Power	)	<b><u>ORDER MODIFYING LICENSE</u></b>
Station, Unit 1)	)	
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	)	
	)	Counsel for Intervenors

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Now come Michael Keegan, Joanne DiRando, Paul Gunter, and Donna Lueke, Intervenors herein, and state the following as and for their objections to the "Confirmatory Order Modifying License" issued by the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, on March 8, 2004:

1. Intervenor Michael Keegan (hereinafter "Intervenor Keegan") resides at 811 W. Harrison Street, Monroe, MI, approximately 30 straight-line miles from the Davis-Besse Nuclear Power station (hereinafter "Davis-Besse"). Intervenor Keegan is concerned for his personal health and safety, and the public's health and safety, and the living environment as a consequence of the operation of the Davis-Besse Nuclear Power Station. As such, Intervenor Keegan has the

requisite interest and standing to request a hearing in this proceeding and to participate therein.

2. Intervenor Joanne DiRando (hereinafter "Intervenor DiRando") resides at 6747 Garden Road, Maumee, Ohio 43537, which is approximately 28 straight-line miles from Davis-Besse. Intervenor DiRando is concerned for her personal health and safety, and the public's health and safety, and the living environment as a consequence of the operation of the Davis-Besse Nuclear Power Station. As such, Intervenor DiRando has the requisite interest and standing to request a hearing in this proceeding and to participate therein.

3. Intervenor Paul Gunter (hereinafter "Intervenor Gunter") is Director of the Reactor Watchdog Project of the Nuclear Information and Resource Service ("NIRS"). NIRS is a longtime grassroots organization dedicated to the development of safe alternatives to the use of commercial nuclear power for generation of electricity and is located at 1424 16th St., N.W., Ste. 404, Washington, D.C. 20036. Intervenor Keegan is a member of NIRS. Intervenor Gunter is concerned for the public's health and safety, and the living environment of the Great Lakes as a consequence of the operation of the Davis-Besse Nuclear Power Station. As a representative of NIRS and of Intervenor Keegan, Intervenor Gunter possesses the requisite interest and standing to request a hearing in this proceeding and to participate therein.

4. Intervenor Donna Lueke (hereinafter "Intervenor Lueke") resides at 909 Elliott St., Marblehead, OH 43440-2108, which is approximately 18 straight-line miles from Davis-Besse. Intervenor Lueke is concerned for her personal health and safety, and the

public's health and safety, and the living environment as a consequence of the operation of the Davis-Besse Nuclear Power Station. As such, Intervenor Lueke has the requisite interest and standing to request a hearing in this proceeding and to participate therein.

***OBJECTIONS TO CONFIRMATORY ORDER***

**A. Illegal Substitution of Operator Manual Actions  
for Meaningful Fire Protection**

5. On December 29, 2003, NIRS by letter requested the NRC 0350 Panel for the Davis-Besse nuclear power station to address several safety concerns regarding the compliance of FirstEnergy Nuclear Operating Company's (hereinafter "FENOC") current fire protection requirements at Davis-Besse with the Administrative Procedure Act and prior orders issued by NRC. NIRS alleged that these matters have direct bearing on the public safety and the proposed restart of the reactor.

6. Specifically, NIRS produced documents which appear to show that FENOC had illegally substituted non-compliant operator actions for operable fire protection systems as required under 10 CFR 50 Appendix R III.G.2.<sup>1</sup>

7. In the referenced June 23, 2003 email, the lead fire

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<sup>1</sup> Three documents accompanied NIRS' letter: 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 and 26, 2003; Safety Evaluation Report (SER) of fire protection measures at Davis-Besse from 1991 released to the public through the NIRS via 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. The SER is referenced in the June 2003 email exchange between Mr. Qualls and Mr. Kubicki; finally, the commitments embodied in an NRC Order issued in 1998 to restore functionality to fire protection systems required under the CFR 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, "Confirmatory Order Modifying License," Davis-Besse Nuclear Power Station, Unit No. 1 (TAC No. M85542), June 22, 1998.

protection engineer at the NRC noted that "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 . . . ." FOIA 2003-0358 Appendix N-19, email P. Qualls, June 24, 2003. NIRS alleged that there was an agency-identified unresolved safety issue regarding "complete manual actions" per 10 CFR 50 Appendix R Section III.G.2. Per the Qualls email, the Davis-Besse operator has substituted "manual actions"<sup>2</sup> for physical safety protections against fire in the reactor complex. The Qualls email substantiates that the referenced manual actions were not properly granted as license amendments or exemptions before FENOC substituted them for the required physical separation of electrical systems or alternately protection with fire barriers, suppression and detection equipment.

8. "Manual actions" are not approved alternatives for the protection of safe shutdown electrical systems as specified in Section III.G.2. In the view of NIRS and the Intervenors, these "manual actions" are therefore illegal and constitute an unresolved public safety risk requiring resolution prior to the restart of Davis-Besse.

9. NRC safety studies establish that fire at a nuclear power

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<sup>2</sup>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, instead sacrifices the remote function in event of fire with an intention to dispatch licensed or non-licensed operators into the reactor complex, potentially to areas involved in a fire, to shutdown equipment manually by turning valves, pulling circuit breakers and flipping switches.

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 formulation of fire protection regulations requiring reactor operators to protect electrical cables, to assure the remote shutdown of the reactor from the control room. 10 CFR 50 Appendix R "Fire Protection," Section III.G.2. Reactor operators must assure that no single fire will destroy the control room's ability to remotely shutdown the reactor in the event of fire in order to protect 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.

10. In separate but identical Davis-Besse fire code violations involving the same 10 CFR 50 Appendix R III.G.2 requirements, FENOC was placed under an 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. This referred to the use of a product called Thermo-Lag 330 for required fire barriers, which was generically declared "inoperable" by the NRC in 1992 and ordered to be replaced.<sup>3</sup> In 1998, the NRC ordered FENOC, with FENOC's express consent, to restore functionality of the fire barriers no later than December 31, 1998.

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<sup>3</sup>See 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.

11. The NRC responded to NIRS' concerns by letter dated March 4, 2004,<sup>4</sup> stating that staff had "reviewed the . . . procedure for anticipated fire in the control room and cable spreading room, calculations supporting the procedure, and the timeline for operator actions associated with the procedure," concluding that there is "reasonable assurance that the plant can be safely shut down. . . ."

12. This response is inadequate in that the substitution of manual operator actions were accomplished in an informal, effectively secret and *ad hoc* manner, outside the customary public scrutiny and input opportunity afforded by NRC procedures and required by the federal Administrative Procedure Act.

13. This secretive substitution in 1991 of human frailty and fallibility for genuine physical safety measures at Davis-Besse, followed by FENOC's inaction in the face of NRC orders for the next seven (7) years, coincides closely with the time frame within which FENOC evaded regulatory control as the company failed to look for and detect enormous corrosion problems on the Davis-Besse reactor head. FENOC's corporate indifference to the fire protection issue, combined with the fact that the NRC will not enforce safety regulations, is the pre-eminent safety culture problem in the nuclear industry. While the reversal of FENOC's corporate indifference is supposedly at the heart of the NRC's confirmatory order, the NRC itself remains unchanged in its superficial "paper" regulatory approach to matters of safety concern at nuclear power reactors. The "paper" review by the NRC in 2003-2004 has effectively deprived the public, yet again, of the

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<sup>4</sup>Does not appear at NRC website as of this writing.

opportunity to examine and question the adequacy of fire protections at Davis-Besse within the context of a public license amendment proceeding.

**B. A Continued Pattern of Regulatory Indifference to Issues of Potential Safety Concern**

14. In the weeks preceding the March 8 Confirmatory Order and since its issuance, the NRC has continued its pattern of passive regulation. On March 4, 2004, the NRC propounded several important "root cause" questions to FENOC concerning a vent line problem unique to Davis-Besse which potentially could cause "cracking of nearby nozzles . . . [and] if real, could impact the cracking assumptions for the new RPV head."<sup>5</sup> In other words, *as of the date of this writing, neither FENOC nor the NRC have fully identified the core causes of the Davis-Besse corrosion fiasco, much less defined the technical means of preventing its re-occurrence.* In fact, FENOC has been granted until May 25, 2004 to respond (some two (2) months following the Davis-Besse restart) and it is unclear whether even then the root cause(s) for the near-disaster at Davis-Besse will be known.

15. The NRC on February 26, 2004 expanded the time from March 4, 2004 until March 31, 2005 for FENOC to inspect and plug worn steam generator tubes.<sup>6</sup>

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<sup>5</sup>Letter, Jon B. Hopkins, (NRC) to Lew W. Myers (FENOC), "Request for Additional Information Re: Root Cause Analysis", Accession No. ML0406404, [http://adamswebsearch.nrc.gov/scripts/rwisapi.dll/@pip.env?CQ\\_SESSION\\_KEY=GFI RFHXUWJSR&CQ\\_QUERY\\_HANDLE=125114&CQONUM=1&CQ\\_DOCUMENT=YES&CQ\\_SAVE\[ResultsReturnPage\]=results\\_list.html&CQ\\_CUR\\_DOCUMENT=1](http://adamswebsearch.nrc.gov/scripts/rwisapi.dll/@pip.env?CQ_SESSION_KEY=GFI RFHXUWJSR&CQ_QUERY_HANDLE=125114&CQONUM=1&CQ_DOCUMENT=YES&CQ_SAVE[ResultsReturnPage]=results_list.html&CQ_CUR_DOCUMENT=1)

<sup>6</sup>Davis-Besse, Package, One-Time Extension of Steam Generator Tube Inservice Inspection Interval, ML040580026 2004-02-27 ML040440169+ML040570370+ FNWEBNAVIGATE=1.0 SYSTEMTYPE=MEZZANINE DOCUMENTID=040580026 STARTPAGE=1 LIBRARYNAME=ml\_adams^hqntad01; "Davis-Besse, License Amendment 262 regarding One-Time Extension of Steam Generator Tube Inservice Inspection Interval," ML040440169 2004-02-26 13 05000346 NPF-003 TAC MC1573 2004-02-26 2004-02-27 ML040580026+ February 26, 2004.

16. The lack of regulatory consistency evidenced by these acts of the NRC demonstrates the absence of cultural change with the Commission itself, following discovery of the near-catastrophe at Davis-Besse.

**C. The Suspicious Lack of Civil Monetary and Non-monetary Penalties Against FENOC for the Corrosion Failures**

17. As of the time of this writing, there have been no civil monetary or non-monetary sanctions of any sort imposed upon FENOC as a result of the acts or omissions which culminated in the corrosion holes and associated damage to the Davis-Besse reactor.

18. Not only have NRC staff directly involved in the illegal decision to allow the continued operation of Davis-Besse for an additional 75 days in 2001-2002 not been subjected to discipline, the NRC staff director, Sam Collins, has actually been promoted.

19. FENOC mysteriously placed an order, in or about December 2001, for the manufacture of a new reactor head for Davis-Besse. FENOC asserts the new head was to be used as a future routine replacement<sup>7</sup> and was not related to the discovery, some months later, of severe damage to the original Davis-Besse reactor head. After the corrosion damage was discovered and for weeks thereafter, the utility resisted replacement of the damaged head, and instead planned to install a metal "plug" in the largest of the corrosion holes. The fact that the

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<sup>7</sup> "Corrosion on another reactor head spurs review," Cleveland Plain Dealer, 3/29/02, <http://www.cleveland.com/davisbesse/index.ssf?/davisbesse/more/21.html>; "Lid for Davis-Besse reactor on order FirstEnergy faces costs of repairs, energy purchases," Cleveland Plain Dealer, 3/19/02, <http://cleveessf.dev.advance.net/davisbesse/more/28.html>



utility ordered a new reactor head at the end of a serious controversy with NRC staff over whether to replace the existing head, but before discovery of the advanced corrosion at Davis-Besse is a very remarkable coincidence.

20. Six (6) FENOC executives allegedly sold their stock shares in FirstEnergy Corporation before public announcement of the discovery of the corrosion holes was made in early 2002.<sup>8</sup>

21. FirstEnergy has acknowledged in financial reports that there is believed to be a federal criminal grand jury convened in Cleveland, Ohio to investigate potential criminal wrongdoing associated with the Davis-Besse corrosion debacle.

22. In February 2003, it was learned that the emergency water circulation system, a sump pump, probably would have clogged and been inoperable if the reactor head had burst due to the severe corrosion - and it was further calculated that it would not have functioned correctly during the entire operating history of the plant.<sup>9</sup>

23. In July 2003 at Davis-Besse it was discovered that valves in hydrogen-detection equipment have improperly been left in "closed" position *since the plant was built*. Those valves had since corroded shut, and so the system to determine how much highly-explosive hydrogen has escaped into the air in the reactor building (not theoretical; a huge hydrogen bubble exploded at TMI) might not have worked as it should during an emergency at Davis-Besse and a hydrogen

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<sup>8</sup>'6 FirstEnergy execs sell stock for \$3 million; Share sales occurred before news on corroded nuclear reactor head', Toledo Blade 3/29/02, <http://www.toledoblade.com/apps/pbcs.dll/artikkel?Avis=TO&Dato=20020329&Kategori=BUSINESS03&Lopenr=103290096&Ref=AR>

<sup>9</sup><http://www.cleveland.com/davisbesse/index.ssf?/davisbesse/more/104495960865922.html>

buildup might not have been detected or the explosion threat correctly evaluated.<sup>10</sup>

24. No less than Harold Denton, former director of nuclear reactor regulation at the NRC, who became known worldwide during his oversight of the Three Mile Island disaster in 1979 as President Jimmy Carter's direct-reporting deputy on site, has pronounced the two worst U.S. commercial nuclear plant failings since 1979 to have taken place at Davis-Besse: (1) the corrosion holes discovered in 2002, and (2) the 12-minute interruption of feedwater to steam generators on June 9, 1985, which came within minutes of causing a meltdown in the reactor.<sup>11</sup>

25. The NRC is inexplicably withholding the imposition of civil sanctions under the Atomic Energy Act against FENOC at this late date, more than two years after discovery of the corrosion hole and the management misdeeds which allowed damage to occur to the reactor. Deferring civil sanctions protects FirstEnergy by minimizing the negative perception a criminal grand jury might take of FENOC as a result of a publicly-administered penalty. Deferring civil sanctions also has the effect of holding open an option to help FirstEnergy avoid the negative effects of criminal indictment, by allowing a large civil fine to be imposed *in lieu* of criminal punishment of a corporation or its officers. This is precisely what the U.S. Department of Justice has been credibly accused of doing after Rockwell International was purportedly indicted for criminal malfeasance in the mishandling of dangerous plutonium and other

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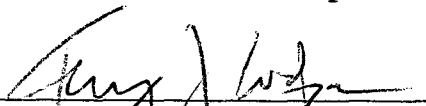
<sup>10</sup><http://www.cleveland.com/davisbesse/index.ssf/?davisbesse/more/1058348503157842.html>

<sup>11</sup>" Davis-Besse woes rated among America's worst,"  
<http://www.toledoblade.com/apps/pbcs.dll/article?AID=/20040312/NEWS17/103120128/-1/ARCHIVES30>

weapons materials at the Rocky Flats Arsenal in Colorado in the late 1980's and early 1990's.<sup>12</sup>

26. It is against the public health and safety and the safety of the environment to allow Davis-Besse to restart operations until after the grand jury has made its report and until obvious, anticipated civil sanctions have been imposed under the Atomic Energy Act.

**WHEREFORE**, the Intervenors pray the Commission grant them a hearing, at which they be allowed to put on evidence of their allegations; further, Intervenors request the Commission to suspend the operating license and halt the restart of Davis-Besse, and require FirstEnergy Nuclear Operating Company to satisfy all licensing criteria prior to being authorized to operate Davis-Besse Nuclear Power Station for the commercial generation of electricity.



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**CERTIFICATION OF SERVICE**

I hereby certify that I served a copy of the foregoing "Objections to Confirmatory Order Modifying License" by faxing and emailing the same to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Chief, Rulemakings and Adjudications Staff, Washington, DC 20555 (facsimile no. 301-415-1672; email \_\_\_\_\_) and by mail copies via regular U.S. mail, postage prepaid, to Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555; Assistant General Counsel for Materials Litigation and Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555; Regional Administrator U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle,

<sup>12</sup>"Colorado Congressman Seeks Rocky Flats Probe,"  
<http://www.guardian.co.uk/uslatest/story/0%2C1282%2C-3892290%2C00.html>

Illinois 60532-4351; and to Mr. Lew W. Myers, Chief Operating Officer, FirstEnergy Nuclear Operating Company, Davis-Besse Nuclear Power Station, 5501 North State Route 2, Oak Harbor, OH 43449-9760; all on this 29<sup>th</sup> day of March, 2004.

  
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