

NUCLEAR REGULATORY COMMISSION

[IA-05-053]

Dale Miller; Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately)

I

Mr. Dale Miller was previously employed, at times relevant to this Order, as a Compliance Supervisor at the Davis-Besse Nuclear Power Station (Davis-Besse) operated by FirstEnergy Nuclear Operating Company (FENOC or licensee). The licensee holds License No. NPF-3 which was issued by the Nuclear Regulatory Commission (NRC or Commission) pursuant to 10 CFR Part 50 on April 22, 1977. The license authorizes the operation of Davis-Besse in accordance with the conditions specified therein. The facility is located on the licensee's site near Oak Harbor, Ohio.

II

On August 3, 2001, the NRC issued Bulletin 2001-001, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," (Bulletin). In the Bulletin, the NRC requested that all holders of operating licenses for pressurized water nuclear power reactors (PWR), including FENOC for the Davis-Besse facility, provide information to the NRC relating to the structural integrity of the reactor pressure vessel (RPV) head penetration nozzles at their respective facilities. The information requested from the licensees included the extent of RPV head penetration nozzle leakage and cracking that had been found to date, a description of the inspections and repairs undertaken to satisfy applicable regulatory requirements, and the basis for concluding that a licensee's plans for future inspections would ensure compliance with applicable regulatory requirements. The NRC also required that all the Bulletin addressees, including FENOC, submit a written response to the NRC in accordance with the provisions of 10 CFR 50.54(f). That regulation provides, in part, that upon request of the NRC, an NRC- licensee must submit written statements, signed under oath or affirmation, to enable the NRC to determine whether the license should be modified, suspended, or revoked.

On September 4, October 17, and October 30, 2001, the licensee provided written responses to the Bulletin. Additionally, the licensee met with the NRC staff on numerous occasions during October and November of 2001

to provide clarifying information. Based, in part, on the information provided by FENOC in the written responses to the Bulletin and during meetings with the NRC staff, the NRC staff allowed the licensee to continue operation of the Davis-Besse facility until February 2002, rather than requiring FENOC to shut the unit down to perform inspections by December 31, 2001, as provided in the Bulletin.

On February 16, 2002, FENOC shut down Davis-Besse for refueling and inspection of control rod drive mechanism (CRDM) RPV head penetration nozzles. Using ultrasonic testing, the licensee found cracks in three CRDM RPV head penetration nozzles and on March 6, 2002, the licensee discovered a cavity in the RPV head in the vicinity of CRDM Penetration Nozzle No. 3. The cavity measured approximately 5 to 7 inches long, 4 to 5 inches wide, and penetrated through the 6.63 inch-thick low-alloy steel portion of the RPV head, leaving the stainless steel cladding material (measuring 0.202 to 0.314 inches-thick) as the sole reactor coolant system (RCS) pressure boundary. A smaller cavity was also found near CRDM Penetration Nozzle No. 2.

The licensee conducted a root cause evaluation and determined that, contrary to the earlier information provided to the NRC, the cavities were caused by boric acid from the RCS released through cracks in the CRDM RPV head penetration nozzles. The root cause evaluation found that the licensee conducted limited cleaning and inspections of the RPV head during the Twelfth Refueling Outage (12RFO) that ended on May 18, 2000. However, neither the limited RPV head cleaning nor the resultant inspections during 12RFO were sufficient to ensure that the significant boric acid deposits on the RPV head were only a result of CRDM flange leakage, as supposed, and were not a result of RCS pressure boundary leakage.

On March 6 and March 10, 2002, the licensee provided information to the NRC concerning the identification of a large cavity in the RPV head adjacent to CRDM Penetration Nozzle No. 3. The NRC conducted an Augmented Inspection Team (AIT) inspection at Davis-Besse from March 12 to April 5, 2002, to determine the facts and circumstances related to the significant degradation of the RPV head. The results of the AIT inspection were documented in NRC Inspection Report No. 50-346/2002-03, issued on May 3, 2002. A follow-up Special Inspection was conducted from May 15 to August 9, 2002, and on October 2, 2002, the

NRC issued the AIT Follow-up Special Inspection Report No. 50-346/2002-08 documenting ten apparent violations associated with the RPV head degradation.

On April 22, 2002, the NRC Office of Investigations (OI) initiated an investigation at Davis-Besse to determine, among other matters, whether FENOC and individual employees at the Davis-Besse facility failed to provide complete and accurate information to the NRC in its September 4, October 17, and October 30, 2001, responses to the Bulletin and during numerous conference calls and meetings in violation of 10 CFR 50.9 and 10 CFR 50.5(a)(2). The OI report (No. 3-2002-006) was issued on August 22, 2003. A copy of the OI report was provided to the U.S. Department of Justice (DOJ), Office of the United States Attorney, Northern District of Ohio for review. The matter remains under continued Federal investigation. Mr. Miller, through the performance of his duties as a supervisor in the licensee's regulatory affairs organization, and through oral and written communications with other FENOC employees was aware of the results of previous RPV head inspections. For example:

- Mr. Miller received several E-mails during August 2001, while FENOC was preparing the September 4, 2001, response to the NRC. These E-mails, in part, made Mr. Miller aware that the boric acid deposits on the RPV head and the RPV head service structure weepholes were an impediment to viewing all RPV head nozzle penetrations.

- Mr. Miller received a copy of an E-mail, dated August 28, 2001, that questioned whether a discussion in the licensee's draft response to the Bulletin relative to a subsequent review of 1998 and 2000 inspection videotaped results should be reworded. The August 28, 2001, E-mail received by Mr. Miller stated, in part:

"the discussion gives an impression to the reader that we were able to look at all the CRDMs. It is very difficult to look at the CRDMs when there is boric acid around it."

- Mr. Miller also received a copy of an E-mail, dated August 30, 2001, in which the author stated, in part:

"I have not seen any EWR [engineering work request] to cut openings in the service structure in the 13th RFO. If we need these it should be funded and P.O. [Purchase Order] issued to Framatome immediately. We do not say anywhere in our response to the Bulletin that inspection thru the mouse holes creates an impediment for 100% visual inspection examination. (Management need[s] to know this)."

- During a sworn, transcribed interview with OI, Mr. Miller stated that if the author of the E-mail was concerned about addressing the impediments [discussed in the E-mails listed above] before the licensee issued its response to the Bulletin the individual should have brought it to the attention of his supervisor and his management chain in the Engineering Department.

- Mr. Miller also told OI that he looked-up the word "impediment" in the dictionary upon being informed of the size of the RPV head service structure weepholes, the two inch gap between the RPV head and the insulation at the top of the RPV head, the RPV head curvature, and the inspection limitations resulting from the presence of boron deposits. Specifically, Mr. Miller stated:

"I even went to the point of looking up the word "impede" in the dictionary, you know. It says obstruct or hinder. Obstruct. Does the mouse hole obstruct? No. Does the curvature of the head obstruct? No. Does the two inch gap obstruct? No. Does it hinder? It may hinder it, but again, I think the collective thought was that it could be done."

Mr. Miller concluded that impediment meant something that obstructed or hindered. Using the dictionary definition, Mr. Miller concluded that none of these issues obstructed an inspection, though these issues may hinder it.

- Mr. Miller also stated in his interview with OI that at the time the September 4, 2001, response was being issued to the NRC:

"From what I knew, at that time they were able to look at them to a degree, but because there was boron, you know, on the head in some areas, it couldn't be credited as a qualified visual inspection. It's very difficult to look at CRDMs when there is boric acid around it.

And in a sense, we were looking—we were—and my understanding at that time was that we were looking, you know, can we inspect to see that there's, you know, popcorn boron, or whatever, and it's very difficult to look at the CRDMs when there's boric acid around it.

In other words, to me, it doesn't really say, it doesn't talk about, you know, and I'm speaking now, you know, somewhat what I know now, too. And this is where it's very difficult.

You look back at this stuff and you could say, oh, for sure, you know, oh, it was obvious to the casual observer. Well, not to me it wasn't, because, you know, I'm this licensing guy taking input from engineering. It is very difficult to look at CRDMs when there's boric acid around it."

The above information demonstrates that Mr. Miller had sufficient knowledge of the results of previous inspections of

the RPV head and that he knew that the licensee's written response to NRC Bulletin 2001-001 was incomplete and inaccurate.

Several FENOC employees, including Mr. Dale Miller, were responsible for the information provided to the NRC by FENOC in response to the Bulletin.

III

Dale Miller was employed by FENOC as a Compliance Supervisor in the Regulatory Affairs organization at Davis-Besse at the time the responses to the Bulletin were developed and transmitted to the NRC. Additionally, Mr. Miller was the supervisor of the individual assigned the responsibility to prepare the September 4, 2001, response to the Bulletin. On August 30, 2001, Mr. Miller concurred as the "Supervisor, DB Compliance" in the issuance of the licensee's September 4, 2001, response to the Bulletin.

Item 1.d of the Bulletin requested each PWR licensee, including FENOC for Davis-Besse, provide a description of the RPV head penetration nozzles and RPV head inspection (including type, scope, qualification requirements, and acceptance criteria) that were performed at PWRs in the 4 years preceding the date of the Bulletin, and the findings resulting from the inspections. The licensee's were requested to include a description of any limitations (insulation or other impediments) to accessibility of the bare metal of the RPV head for visual examinations.

On September 4, 2001, FENOC submitted its written response to the Bulletin for Davis-Besse. Item 1.d of the licensee's September 4, 2001, response to the Bulletin stated, in part,

"a gap exists between the RPV head and the insulation, the minimum gap being at the dome center of the RPV head where it is approximately 2 inches, and does not impede visual inspection."

The licensee included a description of the Eleventh Refueling Outage (11RFO) (April 1998) inspection of RPV head penetration nozzles and RPV head at Davis-Besse in its September 4, 2001, letter to the NRC, and stated, in part,

"The head was cleaned by use of a manual scrubber and vacuum through the weepholes."

The licensee's September 4, 2001, response also described the results of the inspections conducted during 12RFO (April 2000) and included a statement that:

"Inspection of the RPV head/nozzles area indicated some accumulation of boric acid deposits. The boric acid deposits were located beneath the leaking flanges with clear

evidence of downward flow. No visible evidence of nozzle leakage was detected."

The licensee's September 4, 2001, response was materially incomplete and inaccurate in that the response did not describe impediments to accessing the RPV head bare metal during the 11RFO (1998) and 12RFO (2000). Access to the RPV head bare metal was limited due to significant accumulations of boric acid deposits and the size of the service structure access holes.

Based on the above information, the NRC concludes that Mr. Miller had sufficient knowledge of the condition of the RPV head and the limitations experienced during RPV head inspections, and he deliberately provided materially incomplete and inaccurate information when, on August 30, 2001, Mr. Miller concurred on the licensee's September 4, 2001, response to the NRC.

The information provided by the licensee under oath in the Bulletin response, based, in part, on the concurrence of Mr. Miller, was material to the NRC because the NRC used the information, in part, to allow FENOC to operate Davis-Besse until February 2002 rather than requiring the plant to shut down by December 31, 2001, to conduct inspections of the head as discussed in Item 3.v.1. of the Bulletin.

Based on the above information, Mr. Dale Miller, while employed by the licensee, engaged in deliberate misconduct by deliberately providing FENOC and the NRC information that he knew was not complete or accurate in all material respects to the NRC, a violation of 10 CFR 50.5(a)(2). Mr. Miller's actions also placed FENOC in violation of 10 CFR 50.9. The NRC determined that these violations were of very high safety and regulatory significance because they demonstrated a pattern of deliberate inaccurate or incomplete documentation of information that was required to be submitted to the NRC pursuant to 10 CFR 50.54(f). Had the NRC been aware of this incomplete and inaccurate information, the NRC would likely have taken immediate regulatory action to shut down the plant and require the licensee to implement appropriate corrective actions.

IV

The NRC must be able to rely on the licensee and its employees to comply with NRC requirements, including the requirement to provide information and maintain records that are complete and accurate in all material respects. Mr. Miller's deliberate actions raised serious doubt as to whether he can be relied upon to comply with NRC requirements

and to provide complete and accurate information to the NRC.

Consequently, I lack the requisite reasonable assurance that licensed activities can be conducted in compliance with the Commission's requirements and that the health and safety of the public will be protected if Mr. Miller is permitted to be involved in NRC-licensed activities. Therefore, the public health, safety and interest require that Mr. Miller be prohibited from any involvement in NRC-licensed activities for a period of five years effective immediately. Additionally, Mr. Miller is required to notify the NRC of his first employment in NRC-licensed activities for a period of five years following the prohibition period.

V

Accordingly, pursuant to sections 103, 104, 161b, 161i, 161o, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202, 10 CFR 50.5, and 10 CFR 150.20, *It is hereby ordered* that effective immediately:

1. Mr. Dale Miller is prohibited for five years from the date of this Order from engaging in NRC-licensed activities. The NRC considers NRC-licensed activities to be those activities that are conducted pursuant to a specific or general license issued by the NRC, including those activities of Agreement State licensees conducted pursuant to the authority granted by 10 CFR 150.20.

2. If Mr. Miller is currently involved with another licensee in NRC-licensed activities, he must immediately cease those activities, and inform the NRC of the name, address and telephone number of the employer, and provide a copy of this Order to the employer.

3. For a period of five years after the five-year period of prohibition has expired, Mr. Miller shall, within 20 days of acceptance of his first employment offer involving NRC-licensed activities or his becoming involved in NRC-licensed activities, as defined in Paragraph IV.1 above, provide notice to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, of the name, address, and telephone number of the employer or the entity where he is, or will be, involved in NRC-licensed activities. In the notification, Mr. Miller shall include a statement of his commitment to compliance with regulatory requirements and the basis why the Commission should have confidence that he will now comply with applicable NRC requirements.

The Director, Office of Enforcement, may, in writing, relax or rescind any of

the above conditions upon demonstration by Mr. Miller of good cause.

VI

In accordance with 10 CFR 2.202, Dale Miller must, and any other person adversely affected by this Order may, submit an answer to this Order, and may request a hearing on this Order within 20 days of the date of this Order, consideration may be given to extending the response time for submitting an answer as well as the time for requesting a hearing, for good cause shown. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension. The answer may consent to this Order. Unless the answer consents to this Order, the answer shall, in writing and under oath or affirmation, specifically admit or deny each allegation or charge made in this Order and shall set forth the matters of fact and law on which Mr. Miller or other person adversely affected relies and the reasons as to why the Order should not have been issued. Any answer or request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, Attn: Rulemakings and Adjudications Staff, Washington, DC 20555. Copies also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, to the Assistant General Counsel for Materials Litigation and Enforcement at the same address, to the Regional Administrator, NRC Region III, 2443 Warrenville Road, Lisle, IL 60532-4352, and to Mr. Miller if the answer or hearing request is by a person other than Mr. Miller. Because of continuing disruptions in delivery of mail to United States Government offices, it is requested that answers and requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to hearingdocket@nrc.gov and also to the Office of the General Counsel either by means of facsimile transmission to 301-415-3725 or by e-mail to OGCMailCenter@nrc.gov. If a person other than the Mr. Miller requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.309.

If a hearing is requested by Mr. Miller or a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held, the

issue to be considered at such hearing shall be whether this Order should be sustained.

Pursuant to 10 CFR 2.202(c)(2)(I), Mr. Miller, may, in addition to demanding a hearing, at the time the answer is filed or sooner, move the presiding officer to set aside the immediate effectiveness of the Order on the ground that the Order, including the need for immediate effectiveness, is not based on adequate evidence but on mere suspicion, unfounded allegations, or error.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section V above shall be effective immediately and final 20 days from the date of this Order without further order or proceedings. If an extension of time for requesting a hearing has been approved, the provisions specified in Section V shall be final when the extension expires if a hearing request has not been received.

Dated this 4th day of January 2006.

For the Nuclear Regulatory Commission.

Martin J. Virgilio,

Deputy Executive Director for Materials, Research, State, and Compliance Programs, Office of the Executive Director for Operations.

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NUCLEAR REGULATORY COMMISSION

[IA-05-054]

Steven Moffitt; Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately)

I

Mr. Steven Moffitt was previously employed, at times relevant to this Order, as the Technical Services Director at the Davis-Besse Nuclear Power Station (Davis-Besse) operated by FirstEnergy Nuclear Operating Company (FENOC or licensee). The licensee holds License No. NPF-3 which was issued by the Nuclear Regulatory Commission (NRC or Commission) pursuant to 10 CFR Part 50 on April 22, 1977. The license authorizes the operation of Davis-Besse in accordance with the conditions specified therein. The facility is located on the Licensee's site near Oak Harbor, Ohio.

II

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