

April 21, 2005

IA-05-021

Andrew Siemaszko
[Home Address Deleted
Under 10 CFR 2.390(a)]

SUBJECT: ORDER PROHIBITING INVOLVEMENT IN NRC-LICENSED ACTIVITIES
(NRC SPECIAL INSPECTION REPORT NO. 50-346/2002-08(DRS))

Dear Mr. Siemaszko:

The enclosed Order Prohibiting Involvement in U.S. Nuclear Regulatory Commission (NRC) Licensed Activities (Order) is being issued because you engaged in deliberate misconduct as defined in 10 CFR 50.5, causing the FirstEnergy Nuclear Operating Company (FENOC) to be in violation of 10 CFR 50.9 at the Davis-Besse Nuclear Power Station. The incomplete and inaccurate information you deliberately provided concerned the description of the efforts and results associated with removal of boric acid deposits from the reactor pressure vessel head and was a significant contributing factor to FENOC's decision to return the reactor to power on May 18, 2000, with reactor coolant system leakage. Davis-Besse Station Technical Specification 3.4.6.2.a prohibits operation of the Davis-Besse Nuclear Power Station with any reactor coolant system pressure boundary leakage. The matter was investigated by the NRC's Office of Investigations (OI) and the results were documented in OI Report No. 3-2002-006. The OI investigation results were provided to the U.S. Department of Justice (DOJ) for its review.

The enclosed Order prohibits your involvement in all NRC-licensed activities for a period of five years commencing 90 days from the effective date of this Order. However, since this enforcement action is being proposed prior to the DOJ completing its review of the OI investigation results, consideration may be given to extending the effective date of the Order, when good cause is shown. The Order also requires you to cease your involvement in NRC-licensed activities, if you are involved with an NRC licensee at the time the Order becomes effective, to provide a copy of the Order to the NRC licensee, and to inform the NRC of the name, address, and telephone number of that licensee at that time. Additionally, for a period of five years, after the five-year period of prohibition has expired, you are required, within 20 days of your acceptance of your first employment offer involving NRC-licensed activities or becoming involved in NRC-licensed activities, to 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 you are, or will be, involved in the NRC-licensed activities.

Pursuant to Section 223 of the Atomic Energy Act of 1954, as amended, any person who willfully violates, attempts to violate, or conspires to violate, any provision of this Order shall be subject to criminal prosecution as set forth in that section. Violation of this order may also subject the person to civil monetary penalty.

A copy of this letter and its enclosure is being sent to FENOC, the operator of the Davis-Besse Nuclear Power Station.

Questions concerning this Order should be addressed to Frank J. Congel, Director, Office of Enforcement, who can be reached at (301) 415-2741.

This letter will be maintained by the Office of Enforcement in an NRC Privacy Act system of records, NRC-3, "Enforcement Actions Against Individuals." The NRC-3 system notice, which provides detailed information about this system of records, can be accessed from our Web site at <http://www.nrc.gov/reading-rm/foia/privacy-systems.html>.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

A. Siemaszko

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The NRC also includes significant enforcement actions on its Web site at www.nrc.gov; select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

Sincerely,

/RA/

Ellis W. Merschoff
Deputy Executive Director for Reactor Programs
Office of the Executive Director for Operations

Enclosure: As Stated

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

[7590-01-P]

In the Matter of
Andrew Siemaszko

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IA-05-021

ORDER PROHIBITING INVOLVEMENT IN
NRC-LICENSED ACTIVITIES

I

Mr. Andrew Siemaszko was previously employed as a system engineer 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 February 16, 2002, Davis-Besse was shut down for refueling and inspection of control rod drive mechanism (CRDM) reactor pressure vessel (RPV) head penetration nozzles. Using ultrasonic testing, the Licensee found cracks in three CRDM 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 clad 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 had conducted a root cause evaluation and determined that the cavities were caused by boric acid from the RCS released through cracks in the CRDM penetration nozzles. 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 the Davis-Besse Station 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. Based upon an investigation into the causes for the apparent violations documented in the special inspection report, the NRC Office of Investigations (OI) determined that the apparent violations involved deliberate failures to comply with NRC requirements and regulations. The OI investigation results were

documented in OI Report No. 3-2002-006, dated August 22, 2003 and the matter remains under Federal investigation.

Based on the results of the special inspection conducted by the NRC staff and the OI investigation, the NRC determined that Mr. Andrew Siemaszko engaged in deliberate misconduct that caused the Licensee to be in violation of the NRC requirement to maintain and provide to the NRC materially complete and accurate information, 10 CFR 50.9.

Andrew Siemaszko, a System Engineer at Davis-Besse Station, was responsible for ensuring the RPV head was cleaned during April 2000. Davis-Besse Work Order No. 00-001846-000 described the problem to be resolved as:

“Large boron accumulation was noted on the top of the RX [reactor] head and on top of the insulation. Boric acid corrosion may occur . . . Work Description . . . Clean boron accumulation from top of reactor head and on top of insulation. See Andrew Siemaszko (Plant Engineering) . . . for additional details.”

On April 25, 2000, in the “Failure Evaluation/Description of Work Performed” section of Work Order No.00-001846-000, Mr. Siemaszko wrote “work performed without deviation.”

Mr. Siemaszko initiated Condition Report (CR) No. 2000-1037 on April 17, 2000, and described the condition as:

“Inspection of the Reactor Head indicated accumulation of boron in the area of the CRD [control rod drive] nozzle penetrations through the head. Boron accumulation was also discovered on top of the thermal insulation under the CRD flanges. Boron accumulated on the top of the thermal insulation resulted from the CRD leakage. The CRD leakage issues are discussed in CR 2000-0782.”

Entered in the “Remedial Actions” Section of CR No. 2000-1037 was,

“Accumulated boron deposited between the reactor head and the thermal insulation was removed during the cleaning process performed under W.O. (Work Order) 00-001846-000. No boric acid induced damage to the head surface was noted during the subsequent inspection.”

Also included on Condition Report No. 2000-0137 was,

“MODE 4 RESTRAINT - Complete all actions necessary to restore equipment to allow the Mode change. When all actions are complete, document on a Cause/Action Sheet (ED83242B) and provide a copy of the CR to Quality Programs.”

Information that Mr. Siemaszko told OI during a sworn, transcribed interview indicated that Mr. Siemaszko knew at the completion of 12RFO that the RPV head had not been cleaned of all boric acid deposits, yet he provided information on Condition Report No. 2000-0137 and

Work Order No. 00-001846-000 indicating that the RPV head was cleaned of boric acid deposits.

The Licensee removed the restraint to changing operations to Mode 4 on April 27, 2000, based, in part, on the information provided to the Licensee by Mr. Siemaszko that the reactor vessel had been cleaned of boric acid deposits, as documented on CR No. 2000-1037 and Work Order No. 00-001846-000.

10 CFR Part 50, Appendix B, Criterion XVI, requires that the Licensee establish measures to ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall ensure that the cause of the condition is determined and corrective action taken to preclude repetition. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported to appropriate levels of management.

10 CFR Part 50, Appendix B, Criterion XVII, requires, in part, that the Licensee maintain sufficient records to furnish evidence of activities affecting quality, including records of work performance.

Condition Report (CR) No. 2000-1037 described a significant condition adverse to quality and the corrective actions taken to preclude repetition. Work Order No. 00-001846-000 is a record of an activity affecting quality and documented work performance.

Review of documents and videotapes concerning the inspection of the RPV head during 12RFO, that ended on May 18, 2000, and the inspections of the RPV head during Refueling Outage 13, that began on February 12, 2002, indicated that boric acid deposits remained on the RPV head following 12RFO. This is contrary to information Mr. Siemaszko documented in:

- (1) Work Order No. 00-001846-000 that work was performed without deviation; and
- (2) CR No. 2000-1037 that the accumulated boron deposited between the reactor head and the thermal insulation was removed during the cleaning process performed and no boric acid induced damage to the head surface was noted during the subsequent inspection.

10 CFR 50.9 requires, in part, that information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the licensee shall be complete and accurate in all material respects.

Based on the above information, the NRC concludes that Mr. Siemaszko deliberately provided materially incomplete and inaccurate information in CR No. 2000-1037 and Work Order No. 00-001846-000, that are records the NRC requires the Licensee to maintain. The information provided by Mr. Siemaszko in CR No. 2000-1037 and Work Order No. 00-001846-000 was material to the NRC because the presence of boric acid deposits on the RPV head is a significant condition adverse to quality that went uncorrected, in part, due to Mr. Siemaszko's incomplete and inaccurate description of the work activities and corrective actions.

Based on the above, Mr. Andrew Siemaszko, while employed by the Licensee, engaged in deliberate misconduct that has caused the Licensee to be in violation of 10 CFR 50.9 by deliberately providing to the Licensee information that he knew to be incomplete or inaccurate in a respect material to the NRC, in violation of 10 CFR 50.5. The NRC determined that these violations were of very high safety and regulatory significance because they documented a pattern of deliberate inaccurate or incomplete documentation of information that was required to be maintained or submitted to the NRC. 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.

III

As a direct result of these violations, the NRC determined that FENOC started up and operated the plant, for the last operating cycle prior to the February 16, 2002, shutdown without: (1) fully understanding or characterizing the condition of the reactor pressure vessel head and the control rod drive penetrations; (2) determining the cause of significant boric acid build up on the reactor pressure vessel head, the control rod drive penetrations, and several other components in the reactor containment building; (3) properly identifying the presence of ongoing reactor coolant system pressure boundary leakage and taking appropriate corrective actions, and; (4) identifying a very significant ongoing degradation of the reactor pressure vessel head which required a number of years to reach the level of material wastage observed in March 2002. Finally, the NRC determined that the inaccurate and incomplete information provided by Mr. Siemaszko contributed to continued operation of the plant with ongoing reactor coolant

system pressure boundary leakage and the significant degradation of the reactor pressure vessel head, a significant condition adverse to quality.

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. Siemaszko's action caused the Licensee to violate 10 CFR 50.9 and 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. Siemaszko is permitted to be involved in NRC-licensed activities. Therefore, the public health, safety and interest require that Mr. Siemaszko be prohibited from any involvement in NRC-licensed activities for a period of five years from the effective date of this Order. Additionally, Mr. Siemaszko is required to notify the NRC of his first employment in NRC-licensed activities for a period of five years following the prohibition period.

IV

Accordingly, pursuant to sections 103, 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 30.10, and 10 CFR 150.20, IT IS HEREBY ORDERED THAT:

1. Mr. Andrew Siemaszko is prohibited for five years from the effective 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. Siemaszko 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. Siemaszko 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. Siemaszko 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. Siemaszko of good cause.

In accordance with 10 CFR 2.202, Andrew Siemaszko 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 90 days of the date of this Order. However, since this enforcement action is being proposed prior to the U.S. Department of Justice completing its review of the OI investigation results, 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. Siemaszko 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. Siemaszko if the answer or hearing request is by a person other than Mr. Siemaszko. 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. Siemaszko 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. Siemaszko 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.

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 IV above shall be effective and final 90 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 IV shall be final when the extension expires if a hearing request has not been received.

FOR THE NUCLEAR REGULATORY COMMISSION

Ellis W. Merschoff
Deputy Executive Director for Reactor Programs
Office of the Executive Director for Operations

Dated this 21 day of April 2005

Siemaszko

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The NRC also includes significant enforcement actions on its Web site at www.nrc.gov; select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

Sincerely,

/RA/

Ellis W. Merschoff
Deputy Executive Director for Reactor Programs
Office of the Executive Director for Operations

Enclosure: As Stated

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