

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

To: Collins, NRR  
Ref. G20030048

Date Printed: Jul 07, 2003 12:09

PAPER NUMBER: LTR-03-0427

LOGGING DATE: 07/07/2003

ACTION OFFICE: EDO

CYS: EDO  
DEDMRS  
DEDR  
DEDM  
AO

AUTHOR: Ulrich Witte

AFFILIATION: CT

ADDRESSEE: Nils Diaz

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OGC  
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Gowberg,  
OGC

SUBJECT: Response to NRC's final ruling of Congressman Dennis Kucinich's petition to revoke and relicense the Davis Besse nuclear power station

ACTION: Appropriate

DISTRIBUTION: Chairman, Comrs

LETTER DATE: 07/06/2003

ACKNOWLEDGED No

SPECIAL HANDLING:

NOTES:

FILE LOCATION: Adams

DATE DUE:

DATE SIGNED:

Template: SECY-017

ERIDS: SECY01

**From:** "Ulrich K. Witte" <Ulrich@ulrichwitte.com>  
**To:** <Chairman@NRC.gov>  
**Date:** Sun, Jul 6, 2003 12:33 PM  
**Subject:** Response to NRC's final ruling of Congressman Dennis Kucinich's petition to revoke and relicense the Davis Besse Nuclear Power Station

Honorable Chairman Diaz,

Attached please find my letter that responds to the above petition. A signed copy is being mailed to you today.

Sincerely,

Ulrich Witte

<<Letter to Chairman Diaz.doc>>

**Ulrich K. Witte  
15 Oak Tree Lane  
Lyme, CT 06371**

July 6, 2003

Dr. Nils Diaz  
Chairman  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

*Re: Response to Davis Besse 2.206 petition and pending final ruling*

Honorable Chairman Diaz,

I am writing to you today regarding the final decision on the above petition to be rendered after July 7th, 2003 by the Director of the Office of Nuclear Reactor Regulation. This petition was submitted by United States Congressman Dennis Kucinich, and calls for the operating license for the Davis Besse Nuclear Power Station to be revoked and the plant to be relicensed under a formal and public process. As a professional engineer in the nuclear power industry for more than 23 years, I have never seen a more compelling argument for Congressman Kucinich's 2.206 petition.

Why? The basis for granting this petition includes: (1) a history of significant degradation of equipment required for safely operating the plant, (2) two distinct near misses where core damage would have been likely, and (3) a management team that continues to demonstrate that it is not accountable and does not accept responsibility for its errors. The fundamental need for this petition, as provided under 10 CFR 2.206, is that the public has an opportunity to challenge the status quo. That is that the health and safety of the public is no longer placed at risk as had been done repeatedly by the licensee in the past.

The conditions leading to the many events at Davis Besse and the recent event involving the severely corroded reactor vessel (that almost caused a loss of coolant accident) were avoidable. Had the last event occurred with its worst-case scenario together with all the safety equipment found to be inoperable, the consequences could have caused loss of lives, contaminated considerable land areas and potentially ended the domestic nuclear industry.

The fundamental questions that NRC and the public are seeking answers to are: First, to what extent did the recent near miss of operating the plant with a damaged reactor vessel place the health and safety of the public at risk? Second are we confident that the licensee will abide with regulatory requirements, and restore all aspects of meeting Davis Besse's license conditions including the design of the plant. Third, is there confidence in the licensee safely operating, inspecting and maintaining the plant in the future?

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To answer the first question one only needs to examine the public record surrounding the numerous problems brought to light regarding the material condition of the plant and the loss of major emergency systems required in the event of the very likely accident.

The list includes:

**The loss of reactor vessel integrity --** with a football size area corroded fully through the 6.75 inches of the vessel head leaving a thin cladding that was budging and cracked.

**The lack of operability of the emergency sumps --** In the event of a loss of coolant accident, the sumps were likely to clog from debris (i.e., paint peeling from the containment dome, unqualified coatings applied to piping and equipment inside containment, and insulation blown off piping by the violence of the escaping coolant).

**The lack of operability of the high pressure injection system,** caused by (1) clogging of emergency sumps, (2) debris deposited in the pumps and a second design deficiency causing lack of pump cooling due under low flow conditions associated with high pressure oscillations of the reactor coolant

**The lack of operability of containment spray system,** required to mitigate the LOCA due to the emergency sump clogging.

**The lack of operability of the recirculation pumps** required to mitigate the LOCA due to emergency sump clogging.

**The lack of operability of the three of four reactor coolant pumps --** due to seal leakage of primary coolant.

**The lack of operability of low pressure injection system**

**Leaking and cracked Control Rod Drive Mechanism nozzles --** The plant operated for many years, instead of the six hours permitted by the plant's Technical Specifications

**Service water system inoperable due to an 8-inch service water relief valve incorrectly set** for years leading to loss of cooling water needed for emergency systems.

**Containment Air Coolers, and subsequently CAC Service Water Tree damaged, and bellows assembly damaged**

**Vital service water system was determined to be inoperable due to air-operated valves design deficiencies.**

With so many safety-related systems inoperable and a loss of coolant accident eminent, the operators would have been forced to vent the primary containment building because of the loss of many safety systems in place for mitigating the LOCA. This accident was avoided by the grace of God, but would have likely resulted in melted fuel, and fission products exceeding the 10 CFR 100 dose limits, and would have resulted in public casualties. This accident makes the

loss of feedwater accident at Davis Besse in 1985 (where the plant was within 17 minutes of a core melt) seem like a walk in the park. It also would have been far worse than Three Mile Island. Along with the severe consequences to the public, it surely would have permanently altered nuclear power industry in the United States -- potentially even ending it.

**The second fundamental question is: Are we confident that the licensee will abide by regulatory rules and comply with all licensing conditions?**

The answer lies in some of the recent documents and statements made by the licensee. For example if we look at the recent Licensee Event Report dated June 10th, 2003 the licensee responded to the discovery that the high pressure injection pumps would not be operable due to a design problem under certain conditions where the pumps would not function. The NRC and not the licensee discovered the problem. But even more troubling is the licensee's response in the LER. In that response the licensee credits non-safety grade pumps to "easily mitigate the consequences of the small break loss of coolant condition." Given that no credit can be taken for non-safety grade equipment the response contained in the letter as signed by a vice president of FENOC is in error.

A second example is a recent statement made by Mr. Lew Meyers, "*When Davis-Besse was designed, we all had slide rules, you know, and we have come a long ways since then,*" appears to blame the current significant number of design deficiencies and material break downs of the plant on immature technical skill during the design phase of the plant as opposed to inappropriate actions by the licensee. As with the previous example, this indicates a lack of accountability by First Energy management. With these examples one is compelled to ask what licensing conditions continue to not be met and what other equipment will remain inoperable.

**The third fundamental question: Are we confident that the licensee will safely operate, inspect, and maintain the plant in the future?**

The answer to this is partly centered with whether the public and the NRC believe that the FENOC management team is now accountable and accepts responsibility for its actions. One only needs to examine a letter written by the president of FENOC that responds to the Congressman's petition to find the answer. In that letter Robert Saunders placed essentially all responsibility associated with the reactor vessel's severe corrosion on one system engineer. That individual first raised concerns about the source of boron acid precipitation (indicating leaks) in 2000, and vigorously pursued full inspection and clean up of the reactor head only to be stopped by his management. He was terminated in September 2002. The Saunders letter is chilling to any employee of FENOC who even considers raising a safety concerns about Davis Besse. The Saunders letter allegedly contains inaccurate and misleading statements in at least four areas and is the subject of an investigation being conducted by OI.

It is inconceivable that the Director of NRR could reject a 2.206 petition from a U.S. Congressman, partially based on a letter from the President of FENCO to the NRC allegedly containing inaccurate, misleading and possibly false information. These allegations have been provided to the NRC and acknowledged in a letter dated June 17, 2003. (ALLEGATION NRR-2003-A-0022) Until these allegations are fully investigated, any rejection of this petition would be inappropriate.

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If nothing else, First Energy's letter to NRC and the complaint filed by the terminated system engineer with DOL provide prima facie evidence that there's an ongoing, unresolved issue regarding the reasons for his termination in September 2002. At this time, it is unknown whether FirstEnergy fired the individual for legitimate reasons, or fired him as a scapegoat for its bigger problems, or fired him to silence a man of conscience.

Consider the implications if the individual was wrongfully terminated. It means the current management at Davis-Besse made a huge mistake. Not the former management that FirstEnergy blamed for the boric acid problems. If the individual's termination was unlawful, it implicates the current management at Davis-Besse. This issue is presently being investigated and litigated through the US Department of Labor process. Only after this process is completed and concurrence by the NRC's Office of Investigations and Office of Enforcement is received, will the public know if there were any criminal actions conducted by the management still in place at Davis Besse.

The petition along with the relicensing process would support a comprehensive investigation and may provide opportunity for testimony or bring evidence to light that could be relevant. The consequences of not ferreting out possible criminal activity would clearly leave the plants future safe operation in question, and leave recovery of plant's material condition as well as conformity to its design and license conditions in doubt.

The Saunders letter should be considered in the context of the recent Sonja Haber report regarding the safety culture at Davis Besse. The report was highly critical of the management of FENOC failing to make changes and bona fide progress with respect to a problematic safety culture at Davis Besse.

With letters such as the Saunders letter as well as problems with the safety culture continuing at Davis Besse there is clearly no confidence that the licensee will operate the plant and maintain it safely in the future.

**Leadership and oversight by the Nuclear Regulatory Commission are now required in order to change the status quo.**

What is the status quo in the industry regarding regulatory compliance and safety and is FENOC unique?

The answer is evident by examining the nuclear industry over the last decade. During the past 10 years, 24 plants in the United States have been shutdown for greater than one year to correct problems with safety systems according to the Union of Concerned Scientists. That is about 1/4 of all the U.S. nuclear plants. The common theme across these plants was a willingness by the licensees to operate the plant outside the plants licensing bases. In each case short term thinking with the belief that toleration of violating regulatory requirements and rules would yield short term fiscal gains. But in each case the gamble resulted in real and long term financial catastrophes.

The role of the regulator in Davis Besse's deadly near miss is deeply troubling. The complacency of the regulator in its lack of diligence adds complexity to Davis Besse's

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management decisions by the NRC's own poor decisions. Examples include the decision by the director of nuclear reactor regulation to allow the plant to operate from December 2001 until February 2002 with the many clear symptoms of leakage, and strong suspicions of at least one cracked nozzle associated with the CRDMs is highly questionable. Second, the practice of "discretionary enforcement" of regulatory rules created an environment in the industry that led to licensee management "pushing the limits" of discretionary enforcement, and they were easily getting away with it. Third is the NRC's prudence of moving from prescriptive based rules for regulating the nuclear industry to risk based regulation based upon unsound probabilistic analyses.

Given the above, the facts supporting that changes are needed by the regulator and are glaring. The Davis Besse situation is a clear example. Poor judgment by the licensee (coupled with a complacent regulator) led to severe economic consequences. The Davis Besse plant has a record of non-operable safety systems dating back to the early 1990s and some even from original operation. It also has a record of deliberately delaying instead of immediately correcting these problems.

Based upon the track record of the industry, it is absolutely clear that current way of doing business must change. Regulatory rules are there for a reason, and should be complied with. The NRC's job is not so much to inspect, but to enact and enforce rules that protect the health and safety of the public. The licensee's job is to comply, but ultimately, to protect the health and safety of the public. Operating within the legally specified licensing bases should be accomplished without question.

Given the wide range of significant issues with the licensee -- spanning decades of dangerously neglected plant equipment (such as the reactor vessel itself), and what appears to be lack of accountability and ownership by the licensee, as well as the danger that the public faced due to the two near misses (that were clearly caused by licensee and avoidable), the Congressman's petition to relicense the Davis Besse facility should be granted. It has the highest chance of causing fundamental improvement in First Energy's approach towards management of the facility and compliance with all licensing conditions. It has the highest probability of making the operation of Davis Besse safe and to protect the health and safety of the public.

Equally important, relicensing the Davis Besse Nuclear Power Station sends the proper message to those licensees who have devoted the resources as to be able to operate their plants within design and licensing bases, that their actions are valued. And to those licensees who have thus far circumvented compliance with their license conditions -- that their decisions will have regulatory consequences.

Sincerely,

Ulrich Witte

cc:

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Congressman Dennis Kucinich  
United States House of Representatives  
Attention: Auke Mahar-Piersma  
Legislative Assistant  
1730 Longworth Office Building  
Washington, D.C. 20515

Congressman James Greenwood  
United States House of Representatives  
2436 Rayburn House Office Building  
Washington, D.C. 20515

Congressman W. J. (Billy) Tauzin  
United States House of Representatives  
2183 Rayburn House Office Building  
Washington, DC 20515

Ms. Jaime Bouvier, Esquire  
Counsel for Congressman Kucinich  
(By email: [jaima.Bouvier@mail.house.gov](mailto:jaima.Bouvier@mail.house.gov))

Mr. Dave Lochbaum  
Senior Scientist  
Union of Concerned Scientists  
1707 H Street, N.W. Suite 600  
Washington, D.C. 20006-3962

Ms. Billie Pernier Garde, Esquire  
Clifford and Garde  
1620 L Street, Suite 625  
Washington, D.C. 20036

Mr. Paul Blanch  
(By email: [pdblanch@attbi.com](mailto:pdblanch@attbi.com))

Mr. Matthew Wald  
The New York Times  
(By email: [mattwald@nytimes.com](mailto:mattwald@nytimes.com))

Mr. Tom Henry  
The Toledo Blade  
(By email: [thehenry@theblade.com](mailto:thehenry@theblade.com))

Mr. John Mangels  
Mr. John Funk  
Cleveland Plain Dealer  
(By email: [jfunk@plaind.com](mailto:jfunk@plaind.com) and [jmangels@plaind.com](mailto:jmangels@plaind.com))



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CBS News--60 Minutes  
Attention: Philip Scheffler, Executive Editor  
524 West 57th St.  
New York, NY 10019