



FirstEnergy Nuclear Operating Company

Withhold in accordance with 10 CFR 2.390
Upon removal of Enclosure C, this letter can be decontrolled.

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October 19, 2015
L-15-328

10 CFR 54

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT:

Davis-Besse Nuclear Power Station, Unit No. 1
Docket No. 50-346, License Number NPF-3
Additional Information for the Advisory Committee on Reactor Safeguards Review
of the Davis-Besse Nuclear Power Station, Unit No. 1, License Renewal Application
(TAC No. ME4640)

By letter dated August 27, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML102450565), FirstEnergy Nuclear Operating Company (FENOC) submitted an application pursuant to Title 10 of the *Code of Federal Regulations*, Part 54 for renewal of Operating License NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse). Following the September 23, 2015 meeting between FENOC and the Advisory Committee on Reactor Safeguards (ACRS) License Renewal Subcommittee, the members requested additional information to clarify statements made by FENOC during the meeting and to complete their review of the License Renewal Application (LRA).

The following information is provided to clarify the ACRS Subcommittee meeting discussion regarding the Davis-Besse Shield Building crack propagation margin statements. The 100-foot crack propagation margin value was derived using Shield Building Region 4 margin value in percent of area cracked (i.e., 20% margin) multiplied by the circumference of the Shield Building (i.e., 452 feet), which results in:

$$0.20 \times 452 \text{ feet} = \text{approximately } 100 \text{ feet}$$

The supplemental information provided by FENOC letter dated October 6, 2015 (ML15280A287), provides a more detailed description regarding the determination of the area for crack propagation margin, and is accompanied by a figure. The description in that letter focuses on crack propagation from leading edges and expresses crack propagation margin in years based on the current observed crack growth rate.

The Enclosures listed below provide the requested Davis-Besse Shield Building reinforcing bar (rebar) splice capacity report from Bechtel Power Corporation (Bechtel), which includes the results of testing studies at Purdue University and the University of Kansas:

- A. Bechtel Affidavit to Support the Disclosure Request for the Proprietary Splice Capacity Report
- B. Bechtel Report No. 25593-000-G83-GEG-00016-000, "Effect of Laminar Cracks on Splice Capacity of No. 11 Bars based on Testing Conducted at Purdue University and University of Kansas for Davis-Besse Shield Building" (Non-Proprietary)
- C. Bechtel Report No. 25593-000-G83-GEG-00016-000, "Effect of Laminar Cracks on Splice Capacity of No. 11 Bars based on Testing Conducted at Purdue University and University of Kansas for Davis-Besse Shield Building" (Proprietary)

Bechtel Report No. 25593-000-G83-GEG-00016-000 (Enclosure C) documents Davis-Besse Shield Building rebar splice capacity analysis details that are considered proprietary information that is to be withheld from public disclosure pursuant to 10 CFR 2.390. A non-proprietary version of the document is provided as Enclosure B. Upon removal of Enclosure C, this letter can be decontrolled.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Clifford I. Custer, Fleet License Renewal Project Manager, at 724-682-7139.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 19, 2015.

Sincerely,



Brian D. Boles

Davis-Besse Nuclear Power Station, Unit No. 1

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(Proprietary)

cc: w/o Enclosures

NRC DLR Project Manager
NRC Region III Administrator
NRC DLR Director
NRR DORL Project Manager
NRC Resident Inspector
Utility Radiological Safety Board

Enclosure A

Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse)

Letter L-15-328

**Bechtel Affidavit to Support the Disclosure Request
for the Proprietary Splice Capacity Report**

3 pages follow

**10 CFR 2.390
AFFIDAVIT OF STEPHEN D. ROUTH
SUPPORTING APPLICATION TO WITHHOLD
FROM PUBLIC DISCLOSURE**

**BECHTEL REPORT 25593-000-G83-00016-000,"EFFECT OF LAMINAR CRACKS ON
SPLICE CAPACITY OF NO. 11 BARS BASED ON TESTING CONDUCTED AT PURDUE
UNIVERSITY AND UNIVERSITY OF KANSAS FOR DAVISE-BESSE SHIELD BUILDING,"
July 30, 2012**

I, Stephen D. Routh, Manager of Nuclear Engineering Services, of Bechtel Power Corporation (Bechtel), having been duly sworn, do hereby affirm and state:

I have been authorized by Bechtel to (a) review the information owned by Bechtel which is referenced herein relating to supporting analyses for the Davis-Besse Nuclear Power Station which Bechtel seeks to have withheld from public disclosure pursuant to 10 CFR 2.390(a)(4), and (b) apply for the withholding of such information from public disclosure by the Nuclear Regulatory Commission (NRC) on behalf of Bechtel.

1. Pursuant to the provisions of 10 CFR 2.390(b)(3), the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - i. The information sought to be withheld from public disclosure is owned and has been held in confidence by Bechtel.
 - ii. The information is of a type customarily held in confidence by Bechtel and not customarily disclosed to the public. Bechtel has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute Bechtel policy and provide the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where presentation of its use by any of Bechtel's competitors without license from Bechtel constitutes a competitive economic advantage.
- b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage (e.g., by optimization or improved marketability).
- c) Its use by a competitor would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.

- d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Bechtel, its customers; or suppliers.
- e) It reveals aspects of past, present, or future Bechtel or customer funded development plans and programs of potential commercial value to Bechtel.
- f) It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Bechtel system which include the following:

- a) The use of such information by Bechtel gives Bechtel a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Bechtel competitive position.
 - b) It is information, which is marketable in many ways. The extent to which such information is available to competitors diminishes Bechtel's ability to sell products and services involving the use of the information.
 - c) Use by our competitors would put Bechtel at a competitive disadvantage by reducing their expenditure of resources at Bechtel expense.
 - d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components or proprietary information, anyone component may be the key to the entire puzzle, thereby depriving Bechtel of a competitive advantage.
 - e) Unrestricted disclosure would jeopardize the position of prominence of Bechtel in the world market, and thereby give a market advantage to the competition.
 - f) The Bechtel capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- iii. The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR 2.390, it is to be received in confidence by the Commission.
 - iv. The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
 - v. The proprietary information specifically sought to be withheld is Bechtel Report 25593-000-G83-GEG-00016-000, "Effect of Laminar Cracks on Splice Capacity of No. 11 Bars based on Testing Conducted at Purdue University and University of Kansas for Davis-Besse Shield Building," which was prepared to support evaluations of cracks found in the Davis-Besse concrete Shield Building.

This report was prepared by Bechtel to analyze the potential effects of the concrete cracks on the structural integrity of the concrete Shield Building.

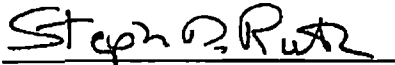
Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Bechtel because it would enhance the ability of competitors to perform similar evaluations and related services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the information described in part is the result of applying the results of many analyst-hours and significant monetary expenditure.

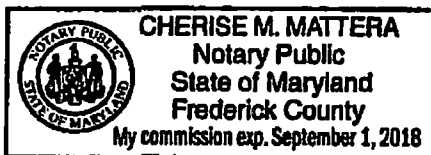
In order for a competitor of Bechtel to duplicate this information, similar evaluations would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended.

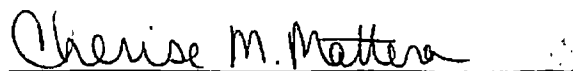
Further affiant sayeth not.

Stephen D. Routh, having been duly sworn, hereby confirms that I am the Manager of Nuclear Engineering Services, of Bechtel Power Corporation, that I am authorized on behalf of Bechtel to review the information attached hereto and to sign and file with the Nuclear Regulatory Commission this affidavit and the attachments hereto, and that the statements made and matters set forth herein are true and correct to the best of my knowledge, information, and belief.


Stephen D. Routh

On this 5 day of October, 2015, the individual signing above personally appeared before me, is known by me to be the person whose name is subscribed to within the instrument, and acknowledged that he executed the same for the purposes therein contained. In witness hereof I hereunto set my hand and official seal.




Notary Public
State of Maryland, Frederick County
My commission expires 9/1/2018