Mr. Andrew Drake, Project Manager
Westinghouse Owners Group
Westinghouse Electric Corporation
Mail Stop ECE 5-16
P.O. Box 355
Pittsburgh, PA 15230-0355

Dear Mr. Drake:

SUBJECT: REQUEST FOR REVIEW OF REPORT ENTITLED "ASSESSMENT OF RISK SIGNIFICANCE ASSOCIATED WITH ISSUES IDENTIFIED AT D.C. COOK NUCLEAR POWER PLANT"

Attached for your information and review is the draft report entitled "ASSESSMENT OF RISK SIGNIFICANCE ASSOCIATED WITH ISSUES IDENTIFIED AT D.C. COOK NUCLEAR POWER PLANT." This report documents the assessment of the risk significance of 141 issues identified at the Donald C. Cook Nuclear Plant, Units 1 and 2 (Cook) since August 1997.

The Operating Experience Risk Analysis Branch of the office of Nuclear Regulatory Research (RES) conducted this assessment as part of the agency's Accident Sequence Precursor (ASP) Program. In performing this assessment, the RES staff applied the ASP methodology to estimate the risk significance associated with each issue as well as the integrated risk significance associated with the combined issues.

Out of 141 issues analyzed, five issues were identified to be potential accident sequence precursors. The preliminary estimate of the total change in core damage frequency (ΔCDF) resulting from all issues identified at Cook was approximately 4.7×10^{-4}/year for each of the Cook units. The risk significance of the combined impact of all containment-related issues was determined to be small. We plan to finalize the above findings after addressing internal and external peer review comments.

Several high-energy line break (HELB) related issues, degraded seismic capacities, and potential pressure locking conditions in two motor-operated valves were the dominant contributors to the core damage frequency (CDF) increase. The postulated HELB scenarios contributed a ΔCDF of 3.9×10^{-4}/year. The CDF increase attributed to the degraded seismic capacity of block walls and the degraded seismic capacity of the emergency service water pump backwash system was also a dominant contributor, which contributed a ΔCDF of approximately 4.2×10^{-5}/year. The medium and large loss of coolant-accident (LOCA) sequences associated with the potential pressure locking conditions in the motor-operated valves located in the suction path to the residual heat removal pumps from the containment recirculation sump contributed a ΔCDF of 3.6×10^{-5}/year.

In accordance with our peer review process, prior to the distribution of the final report, we want to provide you with the opportunity to review and comment on the attached draft report. In order to meet our planned publication schedule, we would appreciate receiving your comments within 60 days from receipt of this letter.

A copy of this draft report and letter are being placed in the Public Document Room at 2120 L Street NW, Washington, DC 20555.

If you have any questions related to this report, please contact Dr. Sunil Weerakkody of my staff at 301-415-6374 or e-mail: sdw1@nrc.gov.

Sincerely,

Thomas L. King, Director
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

Attachment: As stated

cc w/o att:
A.Thadani, RES
M. Federline, RES
S. Collins, NRR
R. Zimmerman, NRR
B. Sheron, NRR

Multiple Addressees 3

MEMORANDUM DATED: / /00

SUBJECT: REQUEST FOR REVIEW OF REPORT ENTITLED "ASSESSMENT OF RISK SIGNIFICANCE ASSOCIATED WITH ISSUES IDENTIFIED AT D.C. COOK NUCLEAR POWER PLANT"

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IDENTICAL LETTERS

Mr. Andrew Drake, Project Manager
Westinghouse Owners Group
Westinghouse Electric Corporation
Mail Stop ECE 5-16
P.O. Box 355
Pittsburgh, PA 15230-0355

Dr. Theodore U. Marston
Vice President and Chief Nuclear Officer
EPRI
3412 Hillview Avenue
Palo Alto, CA 94304

Mr. Ralph E. Beedle
Senior Vice President and Chief Nuclear Officer
Nuclear Generation Division
Nuclear Energy Institute
1776 I Street N.W.
Suite 400
Washington, D.C. 20006-3708

Mr. David A. Lochbaum
Union of Concerned Scientists
1616 P Street, N.W.
Suite 310
Washington, D.C. 20035-1495

Mr. Joseph M. Solymossy
Director of Project Services
Institute of Nuclear Power Operations
700 Galleria Parkway, NW
Atlanta, GA 30339-5957

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Dr. Theodore U. Marston
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3412 Hillview Ave.
Palo Alto, CA 94304

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Out of 141 issues analyzed, five issues were identified to be potential accident sequence precursors. The preliminary estimate of the total change in core damage frequency (ΔCDF) resulting from all issues identified at Cook was approximately 4.7×10^{-4}/year for each of the Cook units. The risk significance of the combined impact of all containment-related issues was determined to be small. We plan to finalize the above findings after addressing internal and external peer review comments.

Several high-energy line break (HELB) related issues, degraded seismic capacities, and potential pressure locking conditions in two motor-operated valves were the dominant contributors to the core damage frequency (CDF) increase. The postulated HELB scenarios contributed a ΔCDF of 3.9×10^{-4}/year. The CDF increase attributed to the degraded seismic capacity of block walls and the degraded seismic capacity of the emergency service water pump backwash system was also a dominant contributor, which contributed a ΔCDF of approximately 4.2×10^{-5}/year. The medium and large loss of coolant-accident (LOCA) sequences associated with the potential pressure locking conditions in the motor-operated valves located in the suction path to the residual heat removal pumps from the containment recirculation sump contributed a ΔCDF of 3.6×10^{-5}/year.

Mr. Ralph E. Beedle
Senior Vice President and Chief Nuclear Officer
Nuclear Generation Division
Nuclear Energy Institute
1776 I Street N.W.
Suite 400
Washington, D.C. 20006-3708

Dear Mr. Beedle:

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Out of 141 issues analyzed, five issues were identified to be potential accident sequence precursors. The preliminary estimate of the total change in core damage frequency (ΔCDF) resulting from all issues identified at Cook was approximately 4.7×10^{-4}/year for each of the Cook units. The risk significance of the combined impact of all containment-related issues was determined to be small. We plan to finalize the above findings after addressing internal and external peer review comments.

Several high-energy line break (HELB) related issues, degraded seismic capacities, and potential pressure locking conditions in two motor-operated valves were the dominant contributors to the core damage frequency (CDF) increase. The postulated HELB scenarios contributed a ΔCDF of 3.9×10^{-4}/year. The CDF increase attributed to the degraded seismic capacity of block walls and the degraded seismic capacity of the emergency service water pump backwash system was also a dominant contributor, which contributed a ΔCDF of approximately 4.2×10^{-5}/year. The medium and large loss of coolant-accident (LOCA) sequences associated with the potential pressure locking conditions in the motor-operated valves located in the suction path to the residual heat removal pumps from the containment recirculation sump contributed a ΔCDF of 3.6×10^{-5}/year.

Mr. David A. Lochbaum
Union of Concerned Scientists
1616 P Street, N.W.
Suite 310
Washington, D.C. 20035-1495

Dear Mr. Lochbaum:

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Mr. Joseph M. Solymossy
Director of Project Services
Institute of Nuclear Power Operations
700 Galleria Parkway, NW
Atlanta, GA 30339-5957

Dear Mr. Solymossy:

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ROUTING AND TRANSMITTAL SLIP

Date 5/2/00

TO: (Name, office symbol, room #, building, agency/post)	**Initials**	**Date**
1. S. Weerakkody - Concur		
2. S. Mays - Concur		
3. P. Baranowsky - Concur		
4. T. King - Concur/Signature		
5.		
6.		
7.		
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	Comment		**Investigate**	X	**Concurrence/Signature**
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REMARKS

Identical Letters.

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