



Public Service Electric and Gas Company 80 Park Place Newark, N.J. 07101 Phone 201/430-7000

November 20, 1978
CAW-78-81

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Olan D. Parr, Chief
Light Water Reactors Branch 3
Division of Project Management

Gentlemen:

APPLICATION FOR WITHHOLDING
PROPRIETARY INFORMATION FROM
PUBLIC DISCLOSURE
NO. 2 UNIT
SALEM NUCLEAR GENERATING STATION
DOCKET NO. 50-311

Attached are copies of Tables 3a, 3b, and 3c. This information is being submitted in support of the response to NRC Questions 5.62 and 5.82 dated April 18, 1978 associated with Salem Nuclear Generating Station Unit 2.

As this subject contains information proprietary to Westinghouse Electric Corporation, it is supported by the attached and by previously submitted affidavits signed by Westinghouse, the owner of the information. The affidavits set forth the basis on which the information may be withheld from public disclosure by the Commission, and address with specificity the considerations listed in paragraph (b)(4) of Section 2.790 of the Commission's regulations.

Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR Section 2.790 of the Commission's regulations. Correspondence with respect to the

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The Energy People

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proprietary aspects of the application for withholding or the supporting Westinghouse affidavits should reference CAW-78-81, and should be addressed to R. A. Wiesemann, Manager, Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230.

Very truly yours,



R. L. Mittl
General Manager -
Licensing and Environment
Engineering and Construction

Attachment

CC: J. A. Cooke, Esq.
Office of the Executive Legal Director, NRC

P78 155 49/50

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Robert A. Wiesemann, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Corporation ("Westinghouse") and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information and belief:

The proprietary material of Westinghouse being transmitted by the Public Service Electric and Gas Company - tables showing Mass and Energy Releases to Containment, Main Steam Line Break - is of the same technical type as that proprietary material previously submitted to the Commission in August 1976.

Justification for withholding such information from public disclosure has been provided by Westinghouse in a previously submitted affidavit, AW-76-29, dated July 23, 1976, which was approved by the Commission on June 14, 1978, a copy of which is attached. The averments in that affidavit apply equally to the above referenced transmittal and are incorporated herein by reference.

Further the deponent sayeth not.

Robert A. Wiesemann
Robert A. Wiesemann, Manager
Regulatory & Legislative Affairs

Sworn to and subscribed
before me this 15 day
of November, 1978.

Rebecca J. Beynon
Notary Public
Member, Pennsylvania Association of Notaries
My Commission Expires Apr. 15, 1982

- (1) I am Manager, Licensing Programs, in the Pressurized Water Reactor Systems Division, of Westinghouse Electric Corporation and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing or rule-making proceedings, and am authorized to apply for its withholding on behalf of the Westinghouse Water Reactor Divisions.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.790 of the Commission's regulations and in conjunction with the Alabama Power Company application for withholding accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse Nuclear Energy Systems in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.790 of the Commission's regulations, 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 Westinghouse.

(ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse 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 constitutes Westinghouse policy and provides 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 prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.
- (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 his expenditure of resources or improve his 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 Westinghouse, its customers or suppliers.
- (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
- (f) It contains patentable ideas, for which patent protection may be desirable.
- (g) It is not the property of Westinghouse, but must be treated as proprietary by Westinghouse according to agreements with the owner.

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

- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.

- (b) It is information which is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.
- (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our 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 of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.
- (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition in those countries.
- (f) The Westinghouse 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 Section 2.790, it is to be received in confidence by the Commission.
- (iv) The information is not available in public sources to the best of our knowledge and belief.
- (v) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in the enclosed material with regard to Steam Line Break Release To The Containment being transmitted to the Commission by Alabama Power Company letter, Clayton to Boyd dated August 1976.

This information enables Westinghouse to:

- (a) Justify the design basis for emergency systems.
- (b) Assist its customers to obtain licenses.
- (c) Optimize long-term cooling design.
- (d) Verify computer codes used for accident analyses.

Further, this information has substantial commercial value as follows:

- (a) Westinghouse sells the use of the information to its customers for purposes of meeting NRC requirements for licensing documentation.
- (b) Westinghouse uses the information to perform and justify analyses which are sold to customers.

Public disclosure of this information is likely to cause substantial harm to the competitive position of Westinghouse because it 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 this information is the result of many years of Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar experimental test programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended for data analyses and code development.

Further the deponent sayeth not.

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AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Robert A. Wiesemann, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Corporation ("Westinghouse") and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

Robert A. Wiesemann
Robert A. Wiesemann, Manager
Licensing Programs

Sworn to and subscribed
before me this 23 day
of July 1976.

Robert A. Lawrence
Notary Public

NOTARY PUBLIC
ALLEGHENY COUNTY
MY COMMISSION EXPIRES APR. 15, 1978

TABLE 3A - MASS AND ENERGY RELEASES FROM A 0.908 FT² SPLIT BREAK
AT 70% POWER (Worst Temperature Case)

<u>Time</u> <u>(sec.)</u>	<u>Break Flow</u> <u>(lb/sec.)</u>	<u>Energy Flow</u> <u>(million Btu/sec.)</u>
0	1654.0	1.972
1	1631.2	1.952
2	1610.3	1.928
3	1590.5	1.905
4	1572.5	1.883
5	1555.9	1.864
6	1540.6	1.846
7	1526.7	1.830
8	1513.8	1.814
9	1501.9	1.800
10	1490.9	1.787
12	1471.4	1.765
14	1454.6	1.745
16	1441.4	1.729
18	1430.4	1.716
20	1421.7	1.706
25	1423.0	1.707
30	1526.7	1.829
35	1554.0	1.861
40	1538.0	1.843
45	1510.3	1.810
50	1476.0	1.770

a,c

TABLE 3A (Cont'd)

<u>Time (sec.)</u>	<u>Break Flow (lb/sec.)</u>	<u>Energy Flow (million Btu/sec.)</u>
60	1404.3	1.685
70	1335.3	1.604
80	1270.6	1.527
90	1210.1	1.455
100	1093.0	1.316
110	862.1	1.038
120	736.9	.887
130	659.9	.794
140	609.1	.733
150	573.9	.690
175	519.1	.624
200	485.8	.584
225	461.8	.555
250	442.4	.531
275	423.0	.508
300	406.4	.487
325	390.9	.469
350	376.6	.451
375	362.7	.435
400	349.6	.419
425	337.3	.404
450	325.8	.390
475	315.2	.377

a,c

TABLE 3A
SHEET 2 OF 3

TABLE 3A (Cont'd)

<u>Time (sec.)</u>	<u>Break Flow (lb/sec.)</u>	<u>Energy Flow (million Btu/sec.)</u>	
500	305.2	.365	a,c
525	295.9	.354	
550	287.3	.343	
575	279.2	.333	
600	271.7	.324	
700	229.5	.273	
800	197.4	.234	
900	165.2	.196	

TABLE 3B - MASS AND ENERGY RELEASES FROM A 0.86 FT² SPLIT RUPTURE
AT 102% POWER - Worst Pressure Case

<u>TIME</u> <u>(sec)</u>	<u>BREAKFLOW</u> <u>(lb/sec)</u>	<u>ENERGY FLOW</u> <u>(MILLION BTU/SEC)</u>
0	1456.9	1.743
1	1437.9	1.723
2	1420.4	1.703
3	1404.7	1.684
4	1390.7	1.668
5	1378.0	1.653
6	1366.6	1.639
7	1356.3	1.627
8	1346.9	1.616
9	1338.4	1.606
10	1330.9	1.597
12	1317.8	1.582
14	1307.5	1.570
16	1299.6	1.560
18	1318.2	1.582
20	1401.2	1.680
25	1519.3	1.819
30	1512.8	1.811
35	1487.9	1.782
40	1471.7	1.763
45	1444.5	1.731
50	1413.8	1.695
60	1351.7	1.622

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TABLE 3B (Continued)

<u>TIME</u> <u>(sec)</u>	<u>BREAKFLOW</u> <u>(lb/sec)</u>	<u>ENERGY FLOW</u> <u>(MILLION BTU/SEC)</u>
70	1291.6	1.551
80	1234.7	1.483
90	1181.0	1.420
100	1131.4	1.360
110	940.2	1.132
120	771.3	.929
130	697.3	.818
140	621.5	.748
150	584.9	.704
175	531.4	.639
200	499.0	.600
225	476.1	.572
250	457.9	.550
275	442.0	.531
300	423.4	.508
325	406.5	.488
350	391.2	.469
375	377.3	.452
400	364.5	.437
425	352.7	.423
450	341.6	.409
475	331.4	.397
500	322.1	.386

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TABLE 3B (Continued)

<u>TIME</u> <u>(sec)</u>	<u>BREAKFLOW</u> <u>(lb/sec)</u>	<u>ENERGY FLOW</u> <u>(MILLION BTU/SEC)</u>	
525	313.1	.375	a.c
550	304.9	.365	
575	297.3	.356	
600	290.2	.347	
700	237.9	.284	
800	189.9	.226	
900	123.3	.145	
950	83.2	.098	

TABLE 3C - MASS AND ENERGY RELEASES FROM A 1.4 FT² DER AT 70%
POWER - INCLUDING ENTRAINED MOISTURE EFFECTS

<u>Time (sec.)</u>	<u>Break Flow (lb/sec.)</u>	<u>Energy flow (million Btu/sec.)</u>
0	9362.8	11.204
1	9781.4	11.562
2	15059.7	12.648
3	18078.7	13.168
4	18678.7	13.124
5	17976.2	12.768
6	16696.1	12.229
7	15338.4	11.657
8	14111.7	11.114
9	3122.0	2.548
10	2868.3	2.421
12	2445.0	2.204
14	2092.7	2.009
16	1800.0	1.834
18	1643.3	1.709
20	1517.8	1.603
25	1107.3	1.333
30	989.2	1.191
35	904.2	1.088
40	841.6	1.012
45	793.8	.954
50	752.9	.905

a,c

TABLE 3C (Cont'd)

<u>Time (sec.)</u>	<u>Break Flow (lb/sec.)</u>	<u>Energy Flow (million Btu/sec.)</u>
60	700.2	.841
70	658.4	.790
80	632.5	.759
90	616.0	.739
100	600.5	.720
110	584.9	.701
120	567.6	.680
130	550.2	.659
140	533.6	.639
150	517.5	.619
175	479.8	.574
200	445.6	.532
225	415.1	.495
250	387.4	.462
275	361.5	.430
300	339.6	.404
325	321.2	.382
350	305.8	.363
375	293.0	.348
400	282.5	.335
425	273.8	.325
450	266.6	.316
475	260.5	.309

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TABLE 3C
SHEET 2 OF 3

TABLE 3C (Cont'd)

<u>Time (sec.)</u>	<u>Break Flow (lb/sec.)</u>	<u>Energy Flow (million Btu/sec.)</u>
500	255.6	.303
525	251.4	.298
550	247.8	.293
575	244.8	.290
600	242.7	.287
700	103.1	.120

a,c