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 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Power      05000397  
 AUTH. NAME      AUTHOR AFFILIATION  
 PARRISH, J.V.      Washington Public Power Supply System *See Proposed Change*  
 RECIP. NAME      RECIPIENT AFFILIATION *to Tech Spec. R*  
    Document Control Branch (Document Control Desk)

SUBJECT: Application for amend to license NPF-21, increasing licensed power level from 3,323 MWt to 3,486 MWt w/extended load line limit & changing safety relief valve setpoint tolerance. I  
 Proprietary "...Power Uprate W/Extended Load..." encl. D

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352-0968 • (509) 372-5000

July 9, 1993  
G02-93-180

Docket No. 50-397

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Subject: **WNP-2, OPERATING LICENSE NPF-21  
REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt WITH  
EXTENDED LOAD LINE LIMIT AND A CHANGE IN SAFETY RELIEF  
VALVE SETPOINT TOLERANCE**

- References:
- 1) GE Nuclear Energy, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate," Licensing Topical Report NEDO-31897, Class I (Non-proprietary), February 1992; and NEDC-31897P-A, Class III (Proprietary), May 1992.
  - 2) GE Nuclear Energy, "Generic Evaluations of General Electric Boiling Water Reactor Power Uprate," Licensing Topical Report NEDC-31984P, Class III (Proprietary), July 1991; NEDO-31984, Class I (Non-proprietary), March 1992; and Supplements 1 and 2.

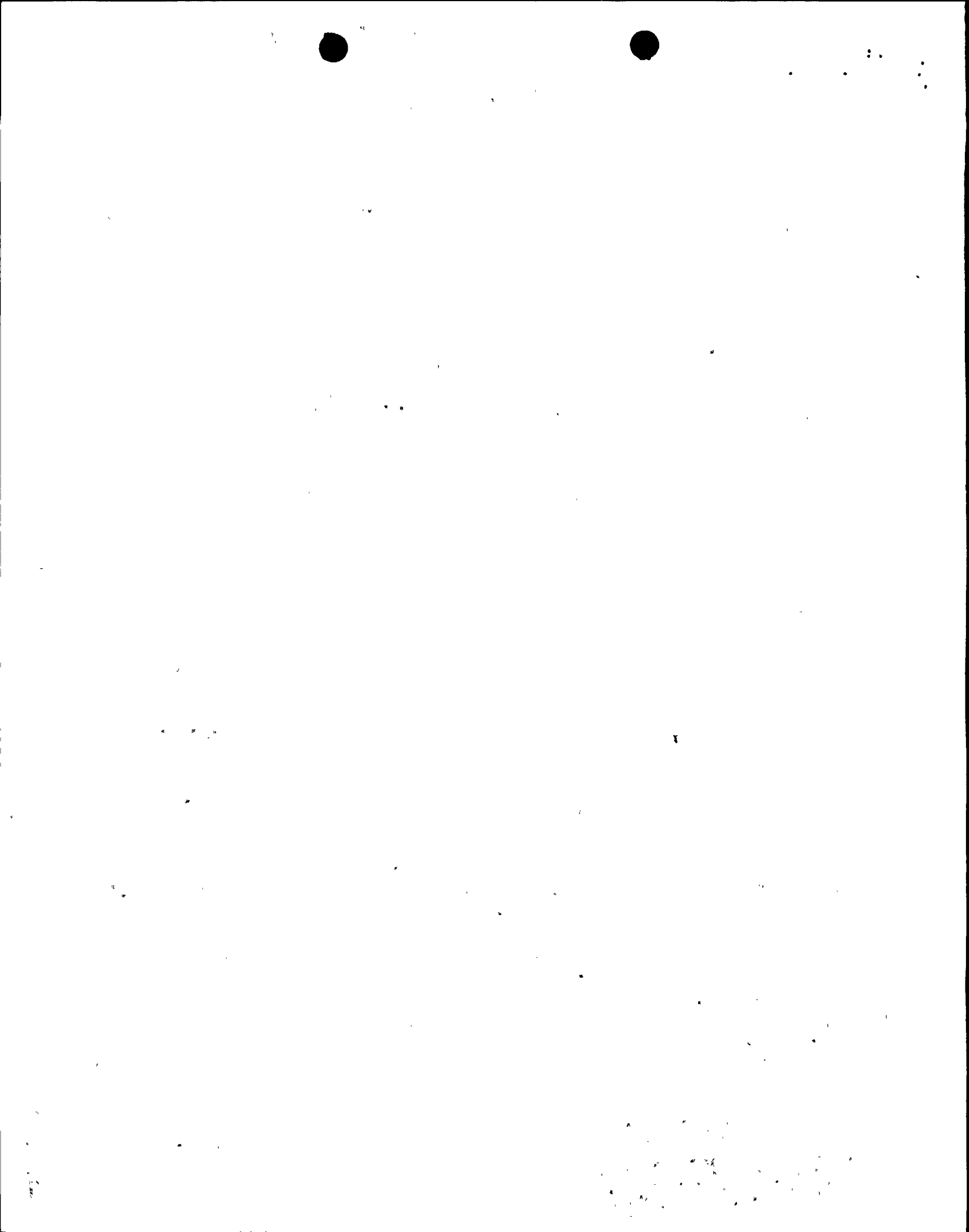
In accordance with the Code of Federal Regulations, Title 10 Parts 50.90 and 2.101, the Supply System is requesting a change to the Facility Operating License and to several sections of the Technical Specifications and Bases to implement a Power Uprate Program with Extended Load Line Limit (ELLL) and a change in Safety Relief Valve (SRV) setpoint tolerance for Nuclear Plant No. 2. The Nuclear Plant No. 2 Power Uprate Program was carried out in conformance with the generic General Electric Power Uprate Program as described in References 1 and 2.

This amendment request includes this cover letter, the Power Uprate With Extended Load Line Limit Safety Analysis For WNP-2 (NEDC-32141P), the SAFER/GESTR-LOCA Loss-Of-Coolant Accident Analysis (NEDC-32115P) and the WNP-2 SRV Setpoint Tolerance and Out-Of-Service Analysis (GE-NE-187-24-0992). Each of these reports contain information provided by General Electric Company (GE) that they have identified as proprietary. Affidavits to that

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**REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt**

effect have been provided by GE and are located behind each report. Therefore, in accordance with 10 CFR 2.790, it is requested that the information identified as proprietary be withheld from public disclosure. The marked-up Operating License and Technical Specification pages indicating anticipated changes needed to support power uprate are attached to this letter.

This application supports a 4.9% increase in reactor thermal power including an ELLL analysis (ELLLA) and a change in SRV setpoint tolerance. Detailed evaluations of the reactor and engineered safety features, power conversion, emergency power, support systems, environmental issues, design basis accident analyses, and previous licensing evaluations were performed with the details summarized in this application. The application demonstrates that WNP-2 will operate safely with the requested 4.9% increase in reactor thermal power including an extended load line and the revised SRV setpoint tolerance.

A change is being requested to the Facility Operating License to increase the rated thermal power from 3323 MWt to 3486 MWt and to delete the last sentence of paragraph 2.C.(1) to reflect the submitted uprate analysis.

Changes are being requested for the following Technical Specifications and Bases sections:

<u>Location</u>	<u>Effect</u>
1.31A	Add definition for Pa and establish a new value for this parameter which bounds all uprate analyses.
1.35	Revise value of rated thermal power definition to uprated power level.
Table 2.2.1-1	Revise APRM flow biased simulated thermal power-high scram and reactor vessel steam high dome pressure-high setpoints consistent with the uprate and ELLL analyses.
3.2.2	Revise APRM flow biased simulated thermal power-upscale scram and neutron flux-upscale control rod block trip setpoint equations to reflect the submitted uprate and ELLL analyses.
3.2.6, Figure 3.2.6-1, Figure 3.2.7-1, Figure 3.2.8-1 & Figure 3.4.1.1-1	Revise thermal power applicability values by a factor of 1/1.049 consistent with the uprate thermal power increase.



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**REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt**

<u>Location</u>	<u>Effect</u>
Table 3.3.1-1	In Action 6, limit thermal power value to less than 30% of rated thermal power and delete reference to a turbine first stage pressure value.  In Note (d), revise reactor pressure.  In Note (i), limit thermal power value to less than 30% of rated thermal power and delete reference to a turbine first stage pressure value.
Table 3.3.2-1	In Note *, revise reactor steam pressure limit to reflect the uprate analysis.
Table 3.3.2-2	Revise the Main Steam Line High Pressure setpoint to reflect the uprate condition.
Table 4.3.2.1-1	In Note *, revise reactor steam pressure limit to reflect the uprate analysis.
Table 3.3.4.2-1	In Note (b), replace "165 psig" with "the pressure".
Table 3.3.6-2	Revise the Rod Block Monitor and APRM Control Rod Block instrument flow biased setpoints to reflect the uprate and ELLL analyses.
3.4.2	Revise the value of the Group 1 SRV setpoint and the setpoint maximum tolerance to reflect the uprate and SRV setpoint analyses.
3.4.6.1 & 4.4.6.1.1	Revise Figure 3.4.6.1 referral to reflect the uprate analysis.
4.4.6.1.2	Revise Figure 3.4.6.1 referral to reflect the uprate analysis.
Figure 3.4.6.1	Revise vessel pressure-temperature curves to reflect the uprate analysis.
3.4.6.2	Revise the value of the reactor steam dome pressure to reflect the uprate analysis.
3.5.1	Revise the number of required ADS valves available to reflect the uprate and SRV setpoint analyses.
4.6.1.1, 3.6.1.2, 4.6.1.2, 3.6.1.3, 4.6.1.3 & 4.6.6.1	Delete all references to the actual value of Pa consistent with the addition of a definition of Pa as discussed above in definition 1.31a.



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**REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt**

<u>Location</u>	<u>Effect</u>
Table 3.6.3-1	In Note (f), revise the hydraulic leak test pressure to refer to Pa as proposed in new definition 1.31a.
4.7.3	In item b, revise the RCIC test pressure consistent with the uprate analysis.
B3/4.2.6, B3/4.2.7 & B3/4.2.8	Add the comment that the 80% rod line is based on the original rated power for clarity.
B3/4.3.1 B3/4.3.4	Add insert stating bases for turbine first stage pressure relationship to turbine bypass enabling at 30% RTP.
B3/4.4.6	Revise to reflect the new pressure-temperature limits basis.
Table B3/4.4.6-1	Revise to reflect the new reactor vessel toughness analysis and to correct some editorial mistakes.
Figure B3/4.4.6-1	Delete as outdated and unnecessary.
B3/4.5.1	Revise HPCS system operating pressure range to reflect the uprate analysis.
B3/4.5.2	Revise number of required ADS valves to reflect the uprate and SRV setpoint analyses.
B3/4.6.1.2, B3/4.6.1.5 & B3/4.6.1.6	Delete all references to the actual value of Pa and clarify that Pa bounds the calculated peak containment pressure resulting from the design basis LOCA.
B3/4.6.2	Delete the references to the actual value of Pa and revise the reactor pressure value to be consistent with the initial conditions assumed in the uprate containment analysis. In addition, change the suppression chamber water temperature to reflect the submitted analysis.

The Supply System submits this amendment with the request that the NRC review be completed by April 4, 1994, to support continued plant operation after the 1994 refueling outage. A significant amount of resources must be used to implement the Power Uprate Program. Therefore, approval is requested prior to the 1994 refueling outage so that implementation can proceed during that shutdown period.





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**REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt**

The Supply System has reviewed this amendment request per 10 CFR 50.92 and has determined that it does not represent a significant hazard because it does not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

The probability or frequency of occurrence of a Design Basis Accident is not affected by the increased power level with ELLL, as the regulatory criteria established for plant equipment (ASME code, IEEE standards, NEMA standards, Reg. Guide criteria, etc.) will still be complied with at the uprated power level. An evaluation of the BWR probabilistic risk assessments (PRA) concludes that the calculated core damage frequencies will not significantly change due to power uprate. A review of the WNP-2 plant specific PRA against the bases and conclusions of the generic PRA evaluation has concluded that the conclusions of the generic PRA are applicable to WNP-2. Scram setpoints will be established such that there is no significant increase in scram frequency due to uprate. No new challenges to safety-related equipment will result from power uprate with ELLL. Therefore, the probability of a previously reviewed accident is not significantly increased as a result of these changes.

Evaluation of accidents at power uprate with ELLL and conditions of 105% steam flow will not result in exceeding the NRC approved acceptance limits. The spectrum of hypothetical accidents and transients at uprate conditions has been investigated and is shown to meet current regulatory criteria for WNP-2. In the area of core design, for example, the fuel operating limits will still be met at the uprated power level and fuel reload analyses will show plant transients meet the criteria accepted by the NRC. Challenges to fuel or ECCS performance have been evaluated and shown to still meet the criteria of 10 CFR 50.46 and Appendix K. Challenges to the containment have been evaluated and still meet 10 CFR 50 Appendix A Criterion 38, "Containment Heat Removal," and Criterion 50, "Containment Design Basis." Radiological release events have been evaluated and shown to meet the criteria of 10 CFR 100 (Reg. Guide 1.70 SAR Chapter 15). Hence, the consequences of a previously reviewed accident are not significantly increased by these changes.

The SRVs are not used to mitigate the radiological consequences of an accident. Therefore, the FSAR Chapter 15 accident analyses will not be affected. Challenges to fuel or ECCS performance are evaluated and shown to still meet the criteria of 10 CFR 50.46 and Appendix K. Challenges to the containment have been evaluated and still meet 10 CFR 50 Appendix A Criterion 38 and Criterion 50.

For these reasons the increase in power level with ELLL will not significantly increase the probability or consequences of an accident previously evaluated.



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**REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt**

- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated.

Equipment that could be affected by power uprate with ELLL and the change in SRV setpoint tolerance have been evaluated. No new operating mode, safety-related equipment lineup, accident scenario or equipment failure mode was identified. The full spectrum of accident considerations defined in Reg. Guide 1.70 has been evaluated and no new or different kind of accident has been identified. Uprate with ELLL uses already developed technology and applies it within the capabilities of already existing plant equipment in accordance with presently existing regulatory criteria including NRC approved codes, standards, and methods. GE has designed BWRs of higher power level than the uprated power of any of the currently operating BWR fleet and no new power dependent accidents have been identified.

The Technical Specification changes required to implement power uprate with ELLL and the change in SRV setpoint tolerance require little change to the plant's configuration and all changes have been evaluated and are acceptable.

- 3) Involve a significant reduction in a margin of safety.

As discussed in Section 5 of Reference 2, the safety margins prescribed by the Code of Federal Regulations have been maintained by meeting the appropriate regulatory criteria. Similarly, the margins provided by the application of the American Society of Mechanical Engineers (ASME) design acceptance criteria have been maintained where applicable, as well as other margin-assuring acceptance criteria used to judge the acceptability of the plant.

Several accident and transient analyses have been reperformed at uprated plant operating conditions consistent with the Technical Specification changes. The NRC approved SAFER/GESTR-LOCA methodology was used in the LOCA analysis.

Additionally, Reference 2 addresses the BWR generic acceptability of analytical evaluations for the loss of feedwater transient, stability, core spray distribution, safety limit minimum critical power ratio, containment atmosphere combustibility, materials and coolant chemistry, and anticipated transients without scram (ATWS).

The radiological doses have been recalculated for the events discussed in Section 9.2 of NEDC-32141P. As discussed in Section 5.2.3 of Reference 2, actual offsite doses for the DBA/LOCA will increase proportionately to reactor power when compared on a consistent basis. As noted in Table 9-3 through 9-5 of NEDC-32141P, the resultant radiological consequences from power uprate are still below the 10 CFR 100 criteria.



The following information was obtained from the records of the  
 Bureau of the Census, Department of Commerce, Washington, D. C.  
 for the year 1954:

State	Population	Area (sq. miles)	Density (per sq. mile)
Alabama	2,450,000	52,400	46.7
Alaska	100,000	588,000	0.17
Arizona	1,200,000	114,000	10.5
Arkansas	1,800,000	53,000	33.9
California	15,000,000	160,000	93.8
Colorado	2,500,000	104,000	24.0
Connecticut	3,500,000	5,600	625.0
Delaware	600,000	2,400	250.0
District of Columbia	400,000	68	5,882.4
Florida	7,500,000	55,000	136.4
Georgia	4,500,000	59,000	76.3
Idaho	1,000,000	84,000	11.9
Illinois	12,000,000	143,000	83.9
Indiana	6,000,000	36,400	164.8
Iowa	3,000,000	71,400	42.0
Kansas	2,800,000	82,000	34.1
Kentucky	3,800,000	40,400	94.1
Louisiana	3,200,000	52,400	61.1
Maine	1,200,000	33,000	36.4
Maryland	4,500,000	12,100	371.9
Massachusetts	6,000,000	8,000	750.0
Michigan	8,000,000	96,000	83.3
Minnesota	4,500,000	225,000	19.9
Mississippi	2,500,000	47,000	53.2
Missouri	5,500,000	69,000	79.7
Montana	1,000,000	147,000	6.8
Nebraska	2,500,000	77,000	32.5
Nevada	500,000	110,000	4.5
New Hampshire	1,200,000	9,300	129.0
New Jersey	8,500,000	14,100	603.5
New Mexico	1,500,000	121,000	12.4
New York	19,000,000		
North Carolina	6,500,000	53,000	122.6
North Dakota	1,000,000	70,000	14.3
Ohio	11,000,000	44,800	245.5
Oklahoma	2,500,000	69,000	36.2
Oregon	2,000,000	46,000	43.5
Pennsylvania	12,000,000	46,000	260.9
Rhode Island	1,000,000	1,500	666.7
South Carolina	3,000,000	32,000	93.8
South Dakota	1,000,000	77,000	13.0
Tennessee	4,500,000	42,000	107.1
Texas	11,000,000	695,000	15.8
Utah	1,500,000	165,000	9.1
Vermont	1,000,000	9,400	106.4
Virginia	5,500,000	40,000	137.5
Washington	4,000,000	71,000	56.3
West Virginia	2,000,000	62,000	32.3
Wisconsin	5,000,000	65,000	76.9
Wyoming	1,000,000	97,000	10.3

**REQUEST FOR AMENDMENT TO THE FACILITY OPERATING  
LICENSE AND TECHNICAL SPECIFICATIONS TO INCREASE  
LICENSED POWER LEVEL FROM 3323 MWt TO 3486 MWt**

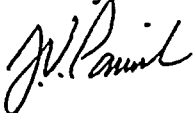
As discussed throughout NEDC-32141P, in each case the relevant acceptance criteria is met which preserves the margin of safety provided by these criteria. It is therefore concluded that the power uprate with ELLL will not involve a reduction in a margin of safety, as plant equipment performance and reactions to transients and hypothetical accidents will not result in exceeding the presently approved NRC acceptance limits.

The above discussion is a summary. The complete discussion of the 50.92 analysis may be found in Chapter 11 of NEDC-32141P and in Supplement 1 of GE-NE-187-24-0992, Rev. 1, Supplement 1.

As stated above, the Supply System has concluded that this change does not involve a significant hazards consideration, nor is there a potential for a significant change in the types or significant increase in the amount of any effluents that may be released off-site, nor does the change involve a significant increase in individual or cumulative occupational exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and therefore, per 10 CFR 51.22(b), an environmental assessment of these changes is not required.

This request has been reviewed and approved by the WNP-2 Plant Operations Committee and the Supply System Corporate Nuclear Safety Review Board. In accordance with 10 CFR 50.91, the State of Washington has been provided a copy of this letter.

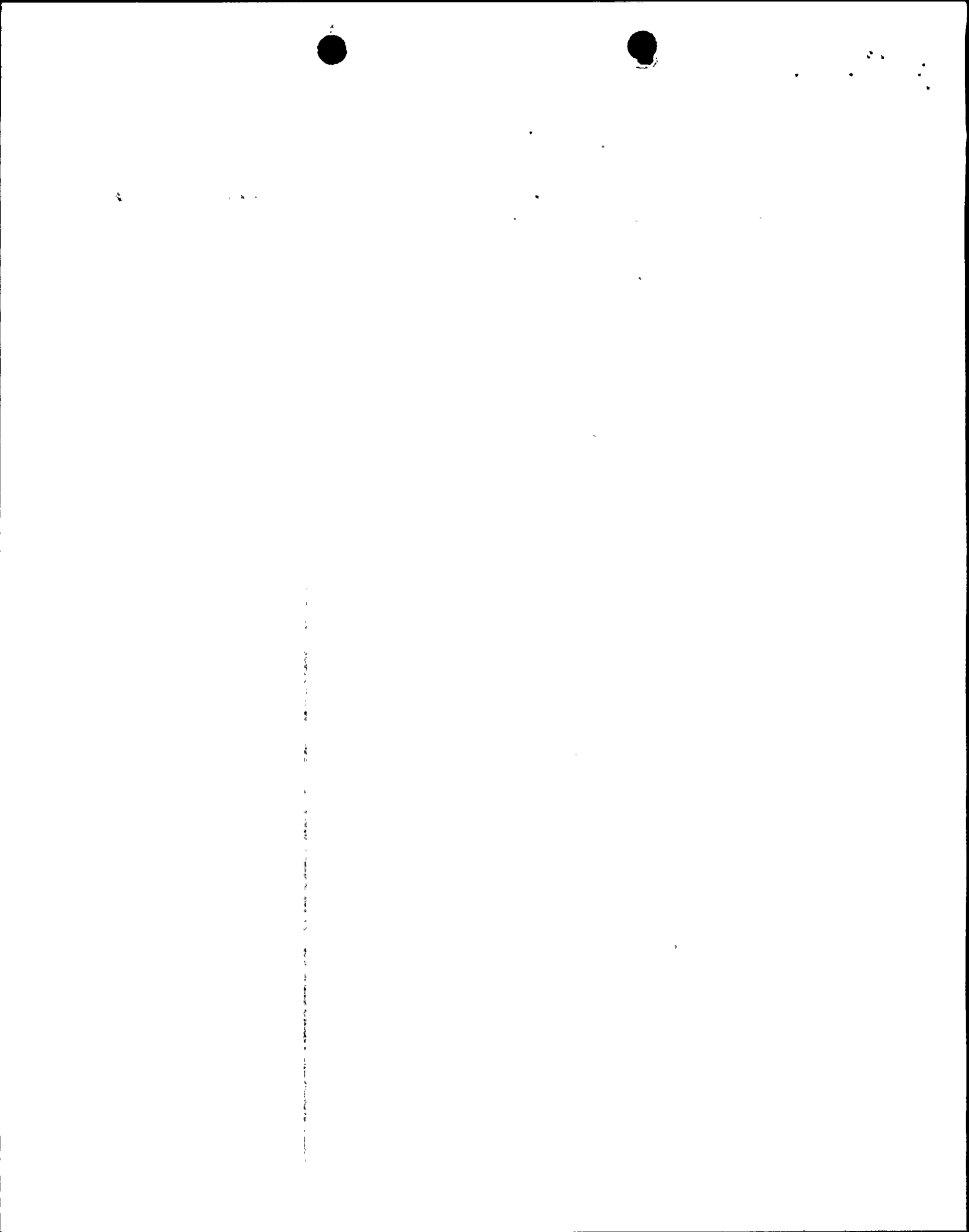
Sincerely,



J. V. Parrish (Mail Drop 1023)  
Assistant Managing Director, Operations

WCW/bk  
Attachments

cc: BH Faulkenberry - NRC RV  
NS Reynolds - Winston & Strawn  
JW Clifford - NRC  
DL Williams - BPA/399  
NRC Site Inspector - 901A  
W Bishop - EFSEC



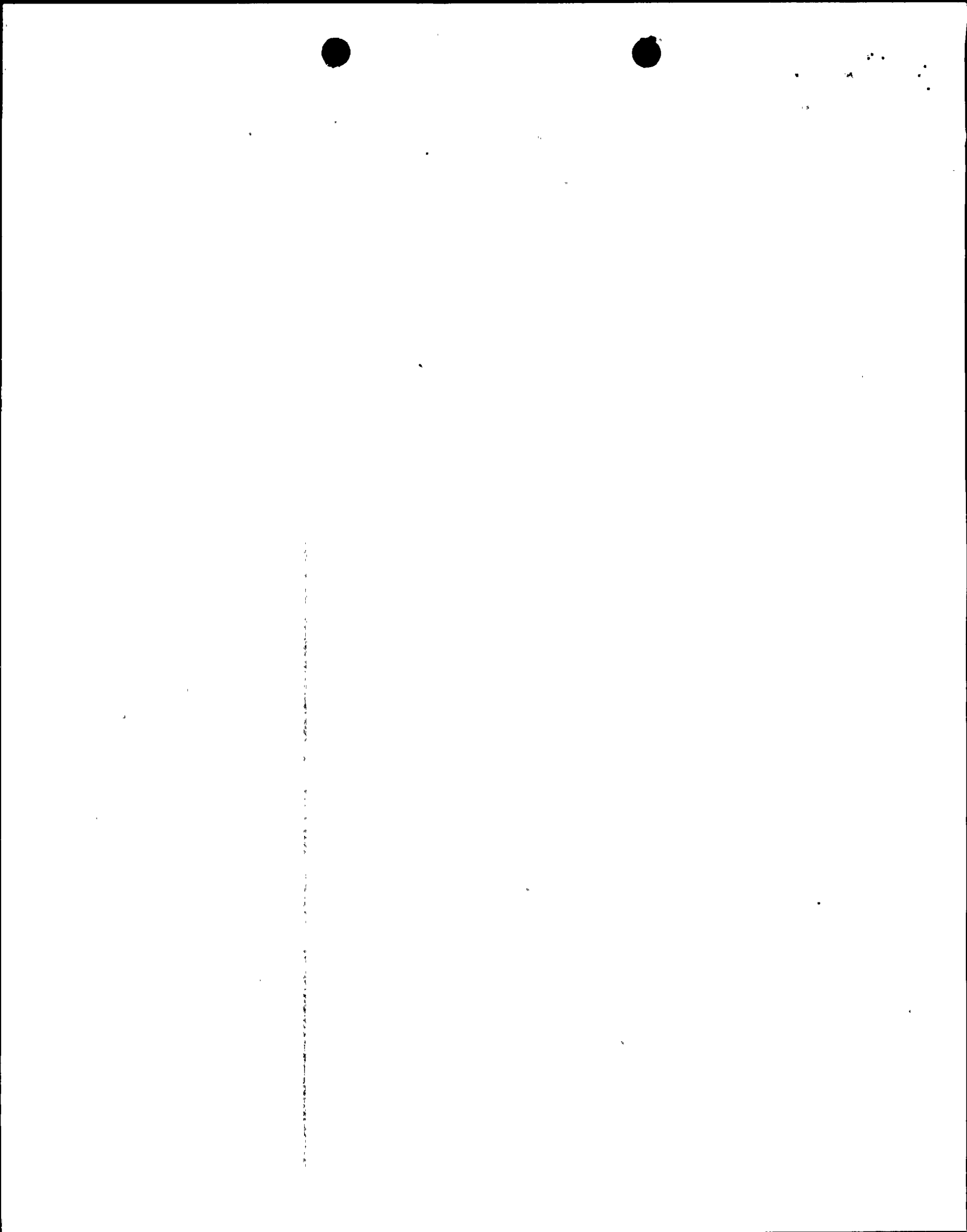
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Pa

1.31a Pa (psig) is  $\geq$  the calculated peak containment internal pressure related to design basis accidents, and is equal to 38 psig.





STATE OF WASHINGTON )  
 )  
COUNTY OF BENTON )

Subject: Request for Amendment to TS  
Power Uprate

I, J. V. PARRISH, being duly sworn, subscribe to and say that I am the Assistant Managing Director, Operations for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have the full authority to execute this oath; that I have reviewed the foregoing; and that to the best of my knowledge, information, and belief the statements made in it are true.

Attached to this submittal are copies of the following reports which are considered by their owner to contain proprietary information:

- NEDC-32115P, "Washington Public Power Supply System Nuclear Project 2 SAFER/ GESTR-LOCA Loss-of-Coolant Accident Analysis", Revision 2, Class III, dated July 1993
- GE-NE-187-24-0992, Rev. 2, "Washington Public Power Supply System Nuclear Project 2 SRV Setpoint Tolerance and Out-of-Service Analysis", Class III, dated July 1993.
- NEDC-32141P, "Power Uprate With Extended Load Line Limit Safety Analysis for WNP-2", Class III, dated June 1993.

Also attached are affidavits executed by David J. Robare, Project Manager, Plant Licensing, General Electric Company, dated July 8, 1993, which provide the basis on which it is claimed that the subject reports should be withheld from public disclosure under the provisions of 10 CFR 2.790.

The Washington Public Power Supply System treats the subject reports as proprietary information on the basis of statements by its owner. In submitting this information to the NRC in support of the "WNP-2 Request for Amendment to Technical Specifications to Increase Licensed Power Level," the Supply System requests that the subject reports be withheld from public disclosure in accordance with 10 CFR 2.790.

DATE 9 July, 1993

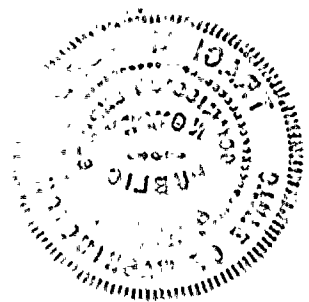
J. V. Parrish  
J. V. Parrish, Assistant Managing Director  
Operations

On this date personally appeared before me J. V. PARRISH, to me known to be the individual who executed the foregoing instrument, and acknowledged that he signed the same as his free act and deed for the uses and purposes herein mentioned.

GIVEN under my hand and seal this 9<sup>th</sup> day of July 1993.

Traci M. Hardy  
Notary Public in and for the  
STATE OF WASHINGTON

Residing at Kennewick, Washington  
My Commission Expires August 9, 1995

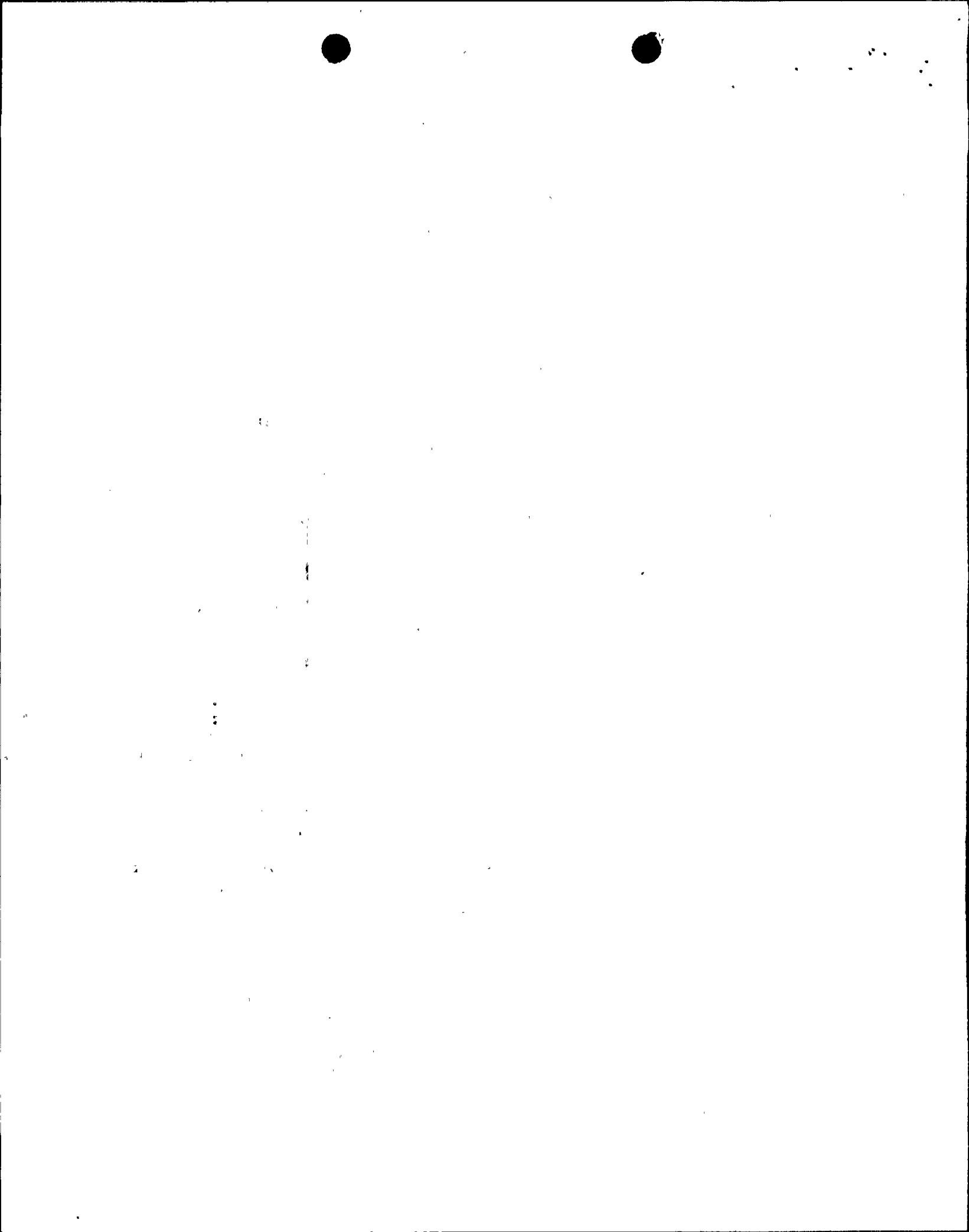


GENERAL ELECTRIC COMPANY

AFFIDAVIT

I, DAVID J. ROBARE, being duly sworn, depose and state as follows:

- (1) I am Project Manager, Plant Licensing, General Electric Company ("GE") and have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is the entirety of GE proprietary report NEDC-32141P, "Power Uprate With Extended Load Line Limit Safety Analysis for WNP-2", Class III, dated June 1993. This document, taken as a whole, constitutes a proprietary compilation of information, some of it also independently proprietary, prepared by the General Electric Company. The independently proprietary elements are delineated by bars marked in the margin adjacent to the specific material.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
  - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric

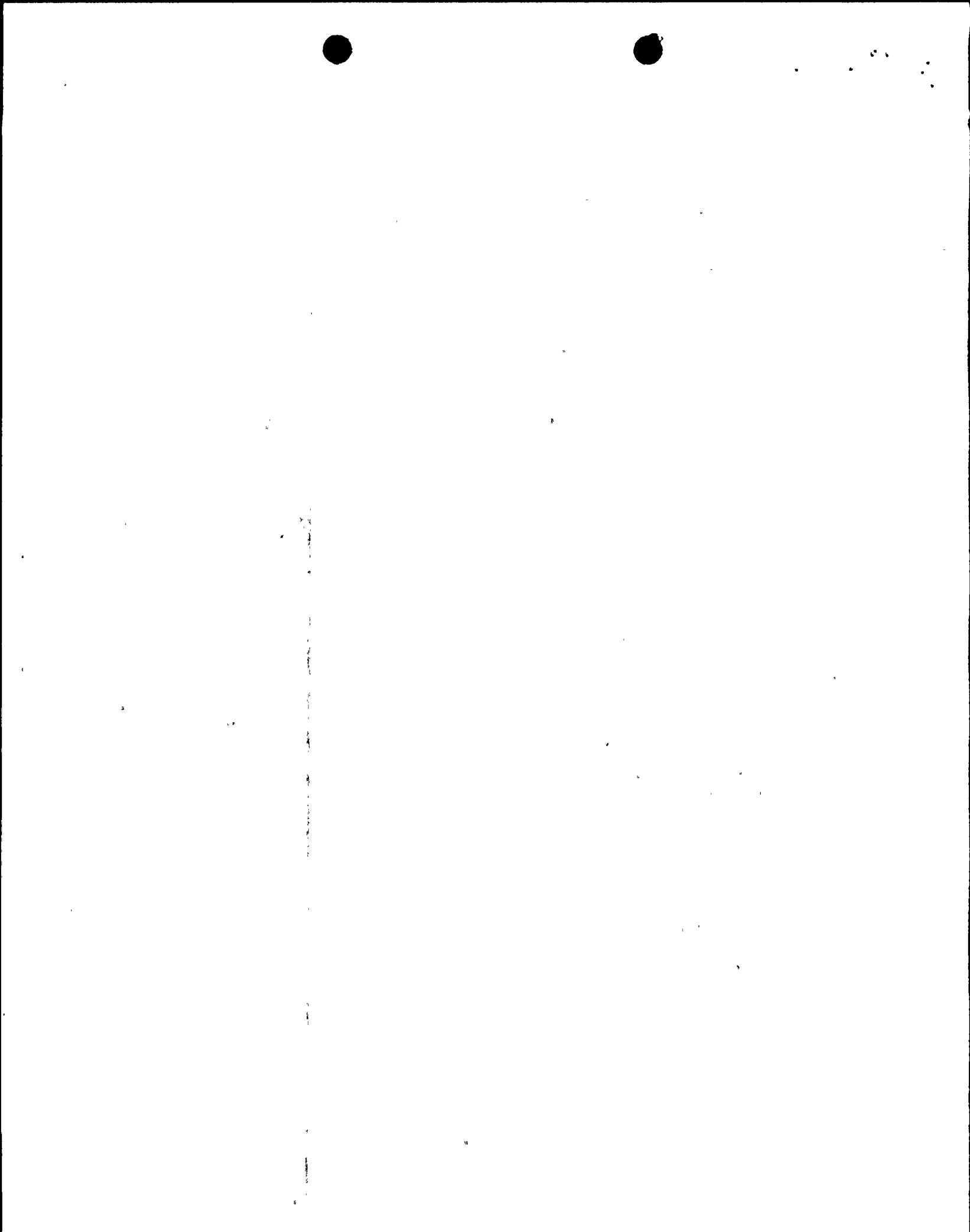


constitutes a competitive economic advantage over other companies;

- b. Information which, if used 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 of a similar product;
- c. Information which reveals cost or price information, production capacities, budget levels, or commercial strategies of General Electric, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, of potential commercial value to General Electric;
- e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

Both the compilation as a whole and the marked independently proprietary elements incorporated in that compilation are considered proprietary for the reason described in items (4)a. and (4)b., above.

- (5) The information sought to be withheld is being submitted to NRC in confidence. That information (both the entire body of information in the form compiled in this document, and the marked individual proprietary elements) is of a sort customarily held in confidence by GE, and has, to the best of my knowledge, consistently been held in confidence by GE, has not been publicly disclosed, and is not available in public sources. All disclosures to third parties, including any required transmittals to NRC, have been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in (6) and (7) following.
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a



document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for

technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.

- (8) The information identified by bars in the margin is classified as proprietary because it contains detailed results and conclusions from these evaluations, utilizing analytical models and methods, including computer codes, which GE has developed, obtained NRC approval of, and applied to perform evaluations of transient and accident events in the GE Boiling Water Reactor ("BWR"). The development and approval of these system, component, and thermal hydraulic models and computer codes was achieved at a significant cost to GE, on the order of several million dollars.

The remainder of the information identified in paragraph (2) is classified as proprietary because it constitutes a confidential compilation of information, including detailed results of analytical models, methods, and processes, including computer codes, and conclusions from these applications, which represent, as a whole, an integrated process or approach which GE has developed, obtained NRC approval of, and applied to perform evaluations of the safety-significant changes necessary to demonstrate the regulatory acceptability of a given increase in licensed power output for a GE BWR. The development and approval of this overall approach was achieved at a significant additional cost to GE, in excess of a million dollars, over and above the very large cost of developing the underlying individual proprietary analyses.

To effect a change to the licensing basis of a plant requires a thorough evaluation of the impact of the change on all postulated accident and transient events, and all other regulatory requirements and commitments included in the plant's FSAR. The analytical process to perform and document these evaluations for a proposed power uprate was developed at a substantial investment in GE resources and expertise. The results from these evaluations identify those BWR systems and components, and those postulated events, which are impacted by the changes required to accommodate operation at increased power levels, and, just



as importantly, those which are not so impacted, and the technical justification for not considering the latter in changing the licensing basis. The scope thus determined forms the basis for GE's offerings to support utilities in both performing analyses and providing licensing consulting services. Clearly, the scope and magnitude of effort of any attempt by a competitor to effect a similar licensing change can be narrowed considerably based upon these results. Having invested in the initial evaluations and developed the solution strategy and process described in the subject document GE derives an important competitive advantage in selling and performing these services. However, the mere knowledge of the impact on each system and component reveals the process, and provides a guide to the solution strategy.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods, including justifications for not including certain analyses in applications to change the licensing basis.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to avoid fruitless avenues, or to normalize or verify their own process, or to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions. In particular, the specific areas addressed by any document and submittal to support a change in the safety or licensing bases of the plant will clearly reveal those areas where detailed evaluations must be performed and specific analyses revised, and also, by omission, reveal those areas not so affected.

While some of the underlying analyses, and some of the gross structure of the process, may at various times have been publicly revealed, enough of both the analyses and the detailed structural framework of the process have been held in confidence that this information, in this compiled form, continues to have great competitive value to GE. This value would be lost if the information as a whole, in the context and level of detail provided in the subject GE document, were to be disclosed to the public. Making such

information available to competitors without their having been required to undertake a similar expenditure of resources, including that required to determine the areas that are not affected by a power uprate and are therefore blind alleys, would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing its analytical process.

STATE OF CALIFORNIA            )  
  )    SS:  
COUNTY OF SANTA CLARA        )

David J. Robare, being duly sworn, deposes and says:

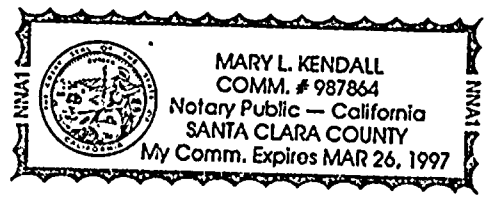
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

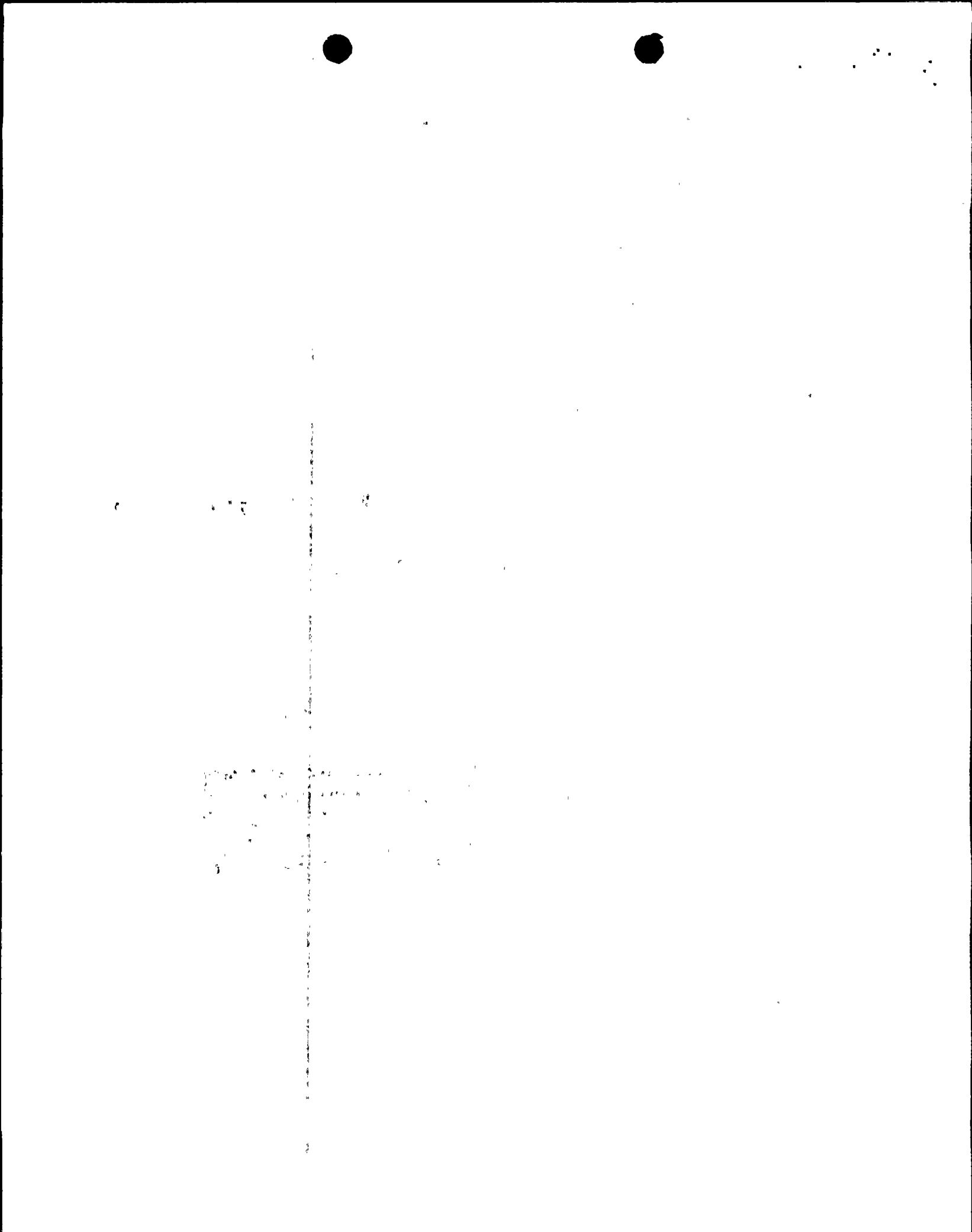
Executed at San Jose, California, this 8<sup>TH</sup> day of JULY, 1993

David J. Robare  
David J. Robare  
General Electric Company

Subscribed and sworn before me this 8<sup>th</sup> day of July, 1993

Mary L. Kendall  
Notary Public, State of California





GENERAL ELECTRIC COMPANY

AFFIDAVIT

I, DAVID J. ROBARE, being duly sworn, depose and state as follows:

- (1) I am Project Manager, Plant Licensing, General Electric Company ("GE") and have been delegated the function of reviewing the information described in paragraph 2 which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in the GE proprietary report NEDC-32115P, "Washington Public Power Supply System Nuclear Project 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis", Revision 2, Class III, dated July 1993. This information is delineated by single bars marked in the margin adjacent to the specific material.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
  - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by General Electric's competitors without license from General Electric constitutes a competitive economic advantage over other companies;
  - b. Information which, if used 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 of a similar product;

- c. Information which reveals cost or price information, production capacities, budget levels, or commercial strategies of General Electric, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, of potential commercial value to General Electric;
- e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in both paragraphs (4)a. and (4)b., above.

- (5) The information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GE, and is in fact so held. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in (6) and (7) following. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GE, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.
- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures

outside GE are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.

- (8) The information identified in paragraph (2) is classified as proprietary because it contains detailed results of analytical models, methods and processes, including computer codes, which GE has developed, obtained NRC approval of, and applied to perform evaluations of the loss-of-coolant accident for the BWR.

The development and approval of the loss-of-coolant accident computer codes used in this analysis was achieved at a significant cost, on the order of several million dollars, to GE.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GE's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of GE's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical, and NRC review costs comprise a substantial investment of time and money by GE.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GE's competitive advantage will be lost if its competitors are able to use the results of the GE experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GE would be lost if the

information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GE of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

STATE OF CALIFORNIA )  
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COUNTY OF SANTA CLARA ) SS:

David J. Robare, being duly sworn, deposes and says:

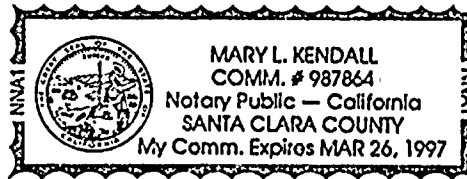
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 8<sup>TH</sup> day of JULY, 1993

David J. Robare  
David J. Robare  
General Electric Company

Subscribed and sworn before me this 8<sup>th</sup> day of July, 1993

Mary L. Kendall  
Notary Public, State of California



GENERAL ELECTRIC COMPANY

AFFIDAVIT

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- (1) I am Project Manager, Plant Licensing, General Electric Company ("GE") and have been delegated the function of reviewing the information described in paragraph 2 which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in the GE proprietary report GE-NE-187-24-0992, Rev. 2, "Washington Public Power Supply System Nuclear Project 2 SRV Setpoint Tolerance and Out-of-Service Analysis", Revision 2, Class III, dated July 1993. This information is delineated by bars marked in the margin adjacent to the specific material.
- (3) In making this application for withholding of proprietary information of which it is the owner, GE relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).
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- b. Information which, if used 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 of a similar product;
- c. Information which reveals cost or price information, production capacities, budget levels, or commercial strategies of General Electric, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future General Electric customer-funded development plans and programs, of potential commercial value to General Electric;
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The information sought to be withheld is considered to be proprietary for the reasons set forth in both paragraphs (4)a. and (4)b., above.

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- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within GE is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of



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- (8) The information identified in paragraph (2) is classified as proprietary because it contains detailed results of analytical models, methods and processes, including computer codes, which GE has developed, obtained NRC approval of, and applied to perform evaluations of the functional capability of the Safety/Relief Valves ("SRVs") installed in a GE Boiling Water Reactor ("BWR"), in transient and accident conditions.

The development and approval of the transient, accident and heat transfer computer codes used in this analysis was achieved at a significant cost, on the order of several million dollars, to GE.

The development of the evaluation process along with the interpretation and application of the of the analytical results is derived from the extensive experience database that constitutes a major GE asset.

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STATE OF CALIFORNIA )  
 )  
COUNTY OF SANTA CLARA ) SS:

David J. Robare, being duly sworn, deposes and says:

That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at San Jose, California, this 8<sup>TH</sup> day of JULY, 1993

David J. Robare  
David J. Robare  
General Electric Company

Subscribed and sworn before me this 8<sup>th</sup> day of July, 1993

Mary L. Kendall  
Notary Public, State of California





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