

TECHNICAL EVALUATION REPORT
CONFORMANCE TO REGULATORY GUIDE 1.97: INDIAN POINT-3

Alan. C. Udy

Published October 1988

EG&G Idaho, Inc.
Idaho National Engineering Laboratory
Idaho Falls, Idaho 83415

Prepared for the
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Under DOE Contract No. DE-AC07-76ID01570
FIN No. A6483

89 09260358-XA

ABSTRACT

This EG&G Idaho, Inc., report reviews the submittals for Regulatory Guide 1.97, Revision 3, for the Indian Point Three Nuclear Power Plant. Any exceptions to Regulatory Guide 1.97 are evaluated and those areas where sufficient basis for acceptability is not provided are identified.

Docket No. 50-286

TAC No. 51099

FOREWORD

This report is supplied as part of the "Program for Evaluating Licensee/Applicant Conformance to RG 1.97," being conducted for the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Division of Engineering and System Technology, by EG&G Idaho, Inc., Electrical, Instrumentation, and Control Systems Evaluation Unit.

The U.S. Nuclear Regulatory Commission funded the work under authorization B&R 20-19-10-11-3.

Docket No. 50-286

TAC No. 51099

CONTENTS

ABSTRACT	11
FOREWORD	111
1. INTRODUCTION	1
2. REVIEW REQUIREMENTS	2
3. EVALUATION	4
3.1 Adherence to Regulatory Guide 1.97	4
3.2 Type A Variables	4
3.3 Exceptions to Regulatory Guide 1.97	5
4. CONCLUSIONS	12
5. REFERENCES	13
APPENDIX A	14

CONFORMANCE TO REGULATORY GUIDE 1.97

INDIAN POINT-3

1. INTRODUCTION

On December 17, 1982, Generic Letter No. 82-33 (Reference 1) was issued by D. G. Eisenhut, Director of the Division of Licensing, Nuclear Reactor Regulation, to all licensees of operating reactors, applicants for operating licenses and holders of construction permits. This letter included additional clarification regarding Regulatory Guide 1.97, Revision 2 (Reference 2), relating to the requirements for emergency response capability. These requirements have been published as Supplement No. 1 to NUREG-0737, "TMI Action Plan Requirements" (Reference 3).

The New York Power Authority, licensee for Indian Point-3, provided a response to Section 6.2 of the generic letter on June 29, 1984 (Reference 4), that addresses the requirements of Revision 3 of Regulatory Guide 1.97 (Reference 5). Additional information was provided on January 7, 1986 (Reference 6) and December 1, 1986 (Reference 7).

This report is based on the recommendations of Regulatory Guide 1.97, Revision 3, and compares the instrumentation identified in the licensee's submittals with these recommendations.

2. REVIEW REQUIREMENTS

Section 6.2 of NUREG-0737, Supplement No. 1, sets forth the documentation to be submitted to the NRC in a report describing how the licensee complies with Regulatory Guide 1.97 as applied to emergency response facilities. The submittal should include documentation that provides the following information for each variable shown in the applicable table of Regulatory Guide 1.97.

1. Instrument range
2. Environmental qualification
3. Seismic qualification
4. Quality assurance
5. Redundance and sensor location
6. Power supply
7. Location of display
8. Schedule of installation or upgrade

The submittal should identify deviations from the recommendations of Regulatory Guide 1.97 and should provide supporting justification alternatives for the deviations identified.

Subsequent to the issuance of Generic Letter 82-33, the NRC held regional meetings in February and March 1983, to answer licensee and applicant questions and concerns regarding the NRC policy on this subject. At these meetings, it was noted that the NRC review would address only exceptions taken to Regulatory Guide 1.97. It was also noted that, where licensees or applicants explicitly state that instrument systems conform to

the regulatory guide, no further staff review would be necessary. Therefore, this report addresses only exceptions to Regulatory Guide 1.37. The following evaluation of the licensee's submittals is based on the review policy described in the NRC's regional meetings.

3. EVALUATION

The licensee provided a response to Item 6.2 of NRC Generic Letter 82-33 on June 29, 1984. The response describes the licensee's position on post-accident monitoring instrumentation. Additional information was provided on January 7, 1986, and on December 1, 1986. This evaluation is based on these submittals.

3.1 Adherence to Regulatory Guide 1.97

The licensee provided a review of their post-accident monitoring instrumentation that compares the instrumentation characteristics against the recommendations of Regulatory Guide 1.97, Revision 3. The licensee identified where the post-accident monitoring instrumentation conforms to Regulatory Guide 1.97 and where deviations exist. A confirmatory order (issued by the NRC, Reference 8) requires those needed modifications identified by the licensee to bring the instrumentation into full compliance with the regulatory guide to be completed during the cycle 5/6 (1987) refueling. Therefore, we conclude that the licensee has provided an explicit commitment to conformance to Regulatory Guide 1.97. Exceptions to and deviation from the regulatory guide are noted in Section 3.3.

3.2 Type A Variables

Regulatory Guide 1.97 does not specifically identify Type A variables, i.e., those variables that provide the information required to permit the control room operator to take specific, manually-controlled safety actions. The licensee classifies the following instrumentation as Type A.

1. reactor coolant system cold leg water temperature
2. reactor coolant system hot leg water temperature
3. reactor coolant system pressure

4. core exit temperature
5. degrees of subcooling
6. containment sump water level (wide range)
7. containment pressure
8. containment area radiation
9. refueling water storage tank level low level alarm
10. pressurizer level
11. steam generator level (wide range)
12. steam generator level (narrow range)
13. steam generator pressure
14. secondary system radiation - main steam

The above instrumentation meets the Category 1 recommendations consistent with the requirements for Type A variables, with those exceptions listed in Section 3.3.

3.3 Exceptions to Regulatory Guide 1.97

The licensee identified deviations and exceptions from Regulatory Guide 1.97. These are discussed in the following paragraphs.

3.3.1 Initially Unresolved Variables

In Reference 4, the licensee identified 25 variables (listed in Appendix A) that needed either additional analysis and assessment or plant modifications. Additional information was provided in References 6 and 7. These variables are discussed in Appendix A. The instrumentation either meets the recommendations of Regulatory Guide 1.97 or deviates from those recommendations. With the exception of the containment sump water temperature, the instrumentation is acceptable for use with Regulatory Guide 1.97.

3.3.2 Neutron Flux

Regulatory Guide 1.97 recommends Category 1 instrumentation for this variable with a range from 10^{-6} percent to 100 percent of full power. The licensee's then existing instrumentation had a range (identified in Reference 4) of 10^{-5} percent to 120 percent of full power.

Reference 6 states that the neutron flux instrumentation will be modified or upgraded to achieve full compliance with Regulatory Guide 1.97. Reference 7 describes the instrumentation as being displayed, recorded, and accessed on the Qualified Safety Parameter Display System (QSPDS) and on the Critical Functions Monitoring System (CFMS). The QSPDS is fully qualified to display and record Category 1 instrumentation as recommended by Revision 3 of Regulatory Guide 1.97. We find the described instrumentation to be acceptable.

3.3.3 Containment Isolation Valve Position

The licensee identified an exception to Regulatory Guide 1.97 for this variable in that the manually-operated containment isolation valves do not have the recommended instrumentation. Those containment isolation valves that are operated automatically have the recommended instrumentation.

The licensee justifies this exception by stating that these manual valves are maintained in their closed position. When technical specifications permit their opening, it is done only with the approval of the shift supervisor. An operator is specifically assigned to operate that valve, and only with communications established with the control room. This dedicated operator's response, should an accident occur while the valve is open, is to close that valve. The operator has no other duties while that valve is open. We find this exception acceptable.

Regulatory Guide 1.97 recommends Class 1E power sources for this variable. Reference 4 did not identify the power sources for this instrumentation. Based on the licensee's statement in Reference 6 that the recommendations of Regulatory Guide 1.97 are met, we conclude that Class 1E power sources are used for this instrumentation.

Additionally, from the information provided, we find that the licensee deviates from a strict interpretation of the Category 1 recommendation for redundant instrumentation. There is one open/closed indication per valve. Since redundant isolation valves are provided, we find that redundant indication per valve is not intended by the regulatory guide. There is redundant indication of the isolation function. Therefore, we find that the instrumentation provided for this variable is acceptable.

3.3.4 Accumulator Tank Level and Pressure

Regulatory Guide 1.97 recommends Category 2 instrumentation for this variable, with ranges of 10 percent to 90 percent volume for level and zero to 750 psig for pressure. The licensee has provided Category 3 instrumentation, with ranges of 84 percent to 92 percent volume for level and zero to 700 psig for pressure.

The licensee did not provide justification for the deviations from the recommended ranges. The licensee has committed to upgrade either the level or the pressure instrumentation to Category 2. If pressure is the key variable, the existing level range is acceptable; however, the pressure

range should be expanded to zero to 750 psig. If accumulator level is considered the key variable, the level range should be expanded to meet the regulatory guide recommendation.

3.3.5 Pressurizer Heater Status

Regulatory Guide 1.97 recommends monitoring the pressurizer heater electric current with Category 2 instrumentation. The licensee monitors the heater circuit breaker position. The licensee states that this instrumentation is adequate, as pressurizer temperature and pressure are used as backup.

Section II.E.3.1 of NUREG-0737 requires a number of the pressurizer heaters to have the capability of being powered by the emergency power sources. Instrumentation is to be provided to prevent overloading a diesel generator, and technical specifications are to be changed accordingly. The Standard Technical Specifications for Westinghouse reactors, Section 4.4.3.2, require that the emergency pressurizer heater current be measured quarterly. The licensee has diesel loading information in the control room and has procedures to prevent overloading a diesel generator. In addition, an accident signal strips these heaters from the bus. They must then be energized manually by procedure.

We find the supplied instrumentation, procedures and bus stripping on an accident signal to be acceptable.

3.3.6 Quench Tank Temperature

Regulatory Guide 1.97 recommends instrumentation for this variable with a range of 50°F to 750°F. The licensee has provided instrumentation with a range of 50°F to 300°F that will be re-ranged to 50°F to 350°F. The licensee's justification for this deviation is that the upper range limit (350°F) envelops the saturation temperature (327°F) corresponding to the rupture disk relief pressure that prevents the vessel pressure from

exceeding the tank design pressure of 100 psig. The licensee also states that no operator action is required for accident mitigation based on this parameter.

Because pressure relief limits the temperature of the tank contents to saturated steam conditions under 350°F, we find this deviation from the regulatory guide and the 50°F to 350°F range to be acceptable.

3.3.7 Heat Removal by the Containment Fan Heat Removal System

Regulatory Guide 1.97 recommends plant-specific Category 2 instrumentation for this variable. In Reference 4, the licensee identified Category 3 service water flow instrumentation with a range of zero to 2500 gpm. The increase in service water temperature across the containment fan heat removal heat exchangers was also identified by the licensee; however, no instrumentation was identified for this temperature differential. This combination of instrumentation, if Category 2, would give a quantitative look at the operation of this system as recommended by the regulatory guide.

The licensee committed to implement changes to upgrade the flow and heat exchanger differential temperature instrumentation supplied for this variable to Category 2 (Reference 6). We find this commitment to be acceptable.

3.3.8 High Level Radioactive Liquid Tank Level

Regulatory Guide 1.97 recommends instrumentation with a range from the top to the bottom of the tank for this variable. The licensee indicates that this range is equivalent to zero to 12 feet 11 inches. The licensee's instrumentation has a range of zero to 12 feet 2 inches, and this is stated to represent more than 94 percent of the tank volume.

This range is adequate to indicate the storage volume during all accident and post-accident conditions. Therefore, we find this deviation to be acceptable.

3.3.9 Radioactive Gas Holdup Tank Pressure

Regulatory Guide 1.97 recommends instrumentation with a range from zero to 150 percent of design pressure for this variable. The licensee states that this range is equivalent to zero to 165 psig. The range provided by the licensee is zero to 150 psig. The licensee states that 150 psig is the tank pressure relief valve setpoint. The tank pressure will not exceed this range. Also, high pressure alarms are set at 110 psig.

Based on the justification provided by the licensee, we conclude that the instrumentation provided for this variable is adequate to monitor the operation of these tanks and is, therefore, acceptable.

3.3.10 Plant and Environs Radioactivity

Regulatory Guide 1.97 recommends portable instrumentation for this variable for isotopic analysis. The licensee states (Reference 6) that portable instrumentation for isotopic analysis will be supplied. We find this commitment to be acceptable.

3.3.11 Estimation of Atmospheric Stability

Regulatory Guide 1.97 recommends instrumentation for this variable to have either a range of -5°C to $+10^{\circ}\text{C}$ or an analogous range for alternative stability analysis. The licensee has supplied instrumentation with a range of -4.44°C to $+11^{\circ}\text{C}$. The licensee has not provided justification for the deviation from -5°C to -4.44°C .

Table 1 of Regulatory Guide 1.23 (Reference 9) provides seven atmospheric stability classifications based on the difference in temperature per 100 meters elevation change. These classifications cover from extremely unstable to extremely stable. A temperature difference greater than $+4^{\circ}\text{C}$ or less than -2°C has no impact on the stability classification. The licensee's instrumentation includes this range. Therefore, we find that this instrumentation is acceptable to determine atmospheric stability.

3.3.12 Accident Sampling (Primary Coolant, Containment Air and Sump)

The licensee's post-accident sampling system provides sampling and analysis as recommended by the regulatory guide except for the following deviations.

1. Boron content--the minimum observable concentration is 10 ppm.
2. Chloride content--the minimum observable concentration is 0.04 ppm.
3. Dissolved hydrogen--the maximum observable concentration is 200 cc/kg.

The licensee deviates from Regulatory Guide 1.97 with respect to post-accident sampling capability. This deviation goes beyond the scope of this review and has been addressed by the NRC as part of their review of NUREG-0737, Item II.B.3.

4. CONCLUSIONS

Based on our review, we find that the licensee either conforms to or is justified in deviating from Regulatory Guide 1.97, with the following exceptions:

1. Accumulator tank level and pressure -- The licensee should provide the recommended range for this variable. (Section 3.3.4)
2. Containment sump water temperature -- The licensee should provide instrumentation for a quantitative measure of heat removal. (Appendix A)

5. REFERENCES

1. Letter, NRC (D. G. Eisenhut) to All Licensees of Operating Reactors, Applicants for Operating Licenses, and Holders of Construction Permits, "Supplement No. 1 to NUREG-0737--Requirements for Emergency Response Capability (Generic Letter No. 82-33)," December 17, 1982.
2. Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, Regulatory Guide 1.97, Revision 2, NRC, Office of Standards Development, December 1980.
3. Clarification of TMI Action Plan Requirements, Requirements for Emergency Response Capability, NUREG-0737, Supplement No. 1, NRC, Office of Nuclear Reactor Regulation, January 1983.
4. Letter, New York Power Authority (J. P. Bayne) to NRC, "Regulatory Guide 1.97 Revision 2, Implementation Program," June 29, 1984, IDN-84-20.
5. Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, Regulatory Guide 1.97, Revision 3, NRC, Office of Nuclear Regulatory Research, May 1983.
6. Letter, New York Power Authority (J. C. Brons) to NRC, "Regulatory Guide 1.97 Implementation Program," January 7, 1986, IPN-86-05.
7. Letter, New York Power Authority (J. C. Brons) to NRC (S. A. Varga), "Clarification of Regulatory Guide 1.97 Implementation Program," December 1, 1986, IPN-86-60.
8. Letter, NRC (S. A. Varga) to New York Power Authority (J. C. Brons), "Order Modifying Licensee Confirming Additional Licensee Commitments on Emergency Response Capability (Supplement No. 1 to NUREG-0737)," August 6, 1985.
9. Onsite Meteorological Programs, Regulatory Guide 1.23 (Safety Guide 23), NRC, February 17, 1972 or Meteorological Programs in Support of Nuclear Power Plants, Proposed Revision 1 to Regulatory Guide 1.23, NRC, Office of Standards Development, September 1980.

APPENDIX A

INITIALLY UNRESOLVED VARIABLES

APPENDIX A
INITIALLY UNRESOLVED VARIABLES

Variable	Deviation	Resolution (from Reference 6)
1. Neutron Flux	Environmental Qualification	The licensee has committed to provide or upgrade to Category 1 instrumentation, covering the full recommended range. (Section 3.3.2)
2. Reactor Coolant System Pressure (Type A)	Seismic Qualification	The licensee indicates that this is seismically qualified and that the range of the redundant instrumentation will be zero to 3000 psig.
3. Core Exit Temperature (Type A)	Environmental Qualification Seismic Qualification	The licensee states that this instrumentation will be modified to comply with Regulatory Guide 1.97. This includes display and recording on the QSPDS and the CFMS. This arrangement is an acceptable method to meet the recommendations of Revision 3 of Regulatory Guide 1.97.
4. Degrees of Subcooling (Type A)	Range Environmental Qualification Seismic Qualification	The licensee states that this instrumentation now satisfies all the regulatory guide recommendations.
5. Containment Sump Water Level (Wide Range)	Range	The licensee indicates overlapping sump water level instrumentation covering from 34'4" to 54'1".
6. Radiation Level in Circulating Primary Coolant	Range Environmental Qualification Seismic Qualification	The licensee states that the environmental and seismic qualification, redundancy, and range recommended by the regulatory guide will be provided. Redundant instrumentation will be provided, but only a single sampling line will be added to tap the reactor coolant system. We find this arrangement acceptable.
7. Containment Effluent Radioactivity - Noble Gas	Range Environmental Qualification	The licensee states that R-12 is in a mild environment. R-27, which is environmentally qualified, has a range that overlaps R-12 and extends beyond the recommended range.
8. Radiation Exposure Rate	Range Lack of Monitors in Specific Areas	The licensee states that new instrumentation will be provided that satisfies the regulatory guide.
9. Effluent Radioactivity - Noble Gas	Range Environmental Qualification	As this discharges through the common plant vent, separate instrumentation is not necessary.

Variable	Deviation	Resolution (from Reference 6)
10. Boric Acid Charging Flow	Environmental Qualification Seismic Qualification	This variable is monitored by the high pressure injection flow instrumentation.
11. Refueling Water Storage Tank Level (Type A)	Redundancy	The Type A variable consists of alarms that will be upgraded to Category 1, including redundancy. The Type B variable has the recommended instrumentation.
12. Containment Atmosphere Temperature	Range	The licensee states that this instrumentation will be upgraded to comply with Regulatory Guide 1.97.
13. Containment Sump Water Temperature	Cat. 2 Instrumentation Not Provided	This variable is monitored by the RHR heat exchanger outlet temperature, containment spray flow and containment temperature. The licensee states that this instrumentation provides indication of containment heat removal capability. However, it does not show a quantitative measure of heat removed. The licensee should provide instrumentation to accomplish this.
14. Makeup Flow-In	Environmental Qualification	The licensee states that this is in a mild environment.
15. Letdown Flow-Out	Range	Administrative controls limit the letdown flow to 120 gpm. Therefore the range of zero to 125 gpm is acceptable.
16. Volume Control Tank Level	Range	The licensee states that expanding the range beyond 18 percent to 82 percent is not justified due to exposure and cost/benefit. The range covers the cylindrical portion of the tank. Beyond this range, in the hemispherical tank ends, the volume/level ratio is not linear. Therefore, the provided range is acceptable.
17. Component Cooling Water Temperature to Engineered Safety Feature System Components	Range	The licensee has never experienced a temperature of <50°F for this variable. In an accident, the temperature would increase. Therefore the range of 50°F to 200°F is acceptable.
18. Component Cooling Water Flow to Engineered Safety Feature System Components	Range (Low Limit)	The licensee states that the minimum indicated flow (2000 gpm) is acceptable because any post-accident flow would be greater than this. Also, pump motor circuit breaker and low output pressure alarms exist. We find this instrumentation acceptable.
19. Emergency Ventilation Damper Position	Range	This is indicated by red and green lights operated off the same position switches. Low flow is also alarmed. We find this instrumentation acceptable.

Variable	Deviation	Resolution (from Reference 6)
20. Status of Standby Power	Lack of DC Bus Current Instrumentation	The licensee states that sufficient parameters are monitored to assure the bus status, including charger output current and bus voltage. We find this acceptable for monitoring this plant specific variable.
21. Condenser Air Removal System Exhaust-Noble Gas and Vent Flow Rate (Type A)	Seismic Qualification Redundancy	The licensee shows this meeting the Type A, Category 1 requirements. The flow indication for the Type E instruments will be modified to comply with Regulatory Guide 1.97. The noble gas indication for the Type E variable is routed to containment for levels $>1.4 \times 10^{-3} \mu\text{Ci/cc}$ to be monitored by the common plant vent. We find this acceptable.
22. Vent from Steam Generator Safety Relief Valves-Noble Gas, Duration of Release and Mass of Steam Per Unit Time	Range Lack of Monitors in Specific Areas	This is no longer considered a Type A variable. It meets the Type E variable requirements. Duration of release and mass flow rate are recorded on the plant computer.
23. All Other Identified Release Points-Noble Gas and Vent Flow Rate	Range Lack of Monitors in Specific Areas	Instrumentation for the radioactive machine shop exhaust noble gas will be modified to comply with the regulatory guide. Flow instrumentation that conforms to Regulatory Guide 1.97 will be added to the steam generator blowdown flash tank vent. The flow rate instrumentation will be provided as recommended. The 4th floor administrative building exhaust is not part of the unit and does not come under the regulatory guide.
24. Particulates and Halogens	Range Lack of Monitors in Specific Areas	The instrumentation for this variable either meets or will be modified to meet the expected levels of particulates and halogens. The flow rate instrumentation will be provided as recommended. The 4th floor administrative building exhaust is not part of the unit and does not come under the regulatory guide.

NRC FORM 230 (2-84) NRCM 1102 2201 2202	U.S. NUCLEAR REGULATORY COMMISSION BIBLIOGRAPHIC DATA SHEET	1 REPORT NUMBER (Assigned by TDC add Vol No. if any) EGG-NTA-7061, Rev. 1				
SEE INSTRUCTIONS ON THE REVERSE						
2 TITLE AND SUBTITLE CONFORMANCE TO REGULATORY GUIDE 1.97: INDIAN POINT-3	3 LEAVE BLANK					
4 AUTHOR(S) Alan C. Udy	4 DATE REPORT COMPLETED <table border="1" style="width: 100%;"> <tr> <th>MONTH</th> <th>YEAR</th> </tr> <tr> <td>October</td> <td>1988</td> </tr> </table>		MONTH	YEAR	October	1988
MONTH	YEAR					
October	1988					
7 PERFORMING ORGANIZATION NAME AND MAILING ADDRESS (Include Zip Code) EG&G Idaho, Inc. P.O. Box 1625 Idaho Falls, ID 83415	5 PROJECT/TASK WORK UNIT NUMBER	6 DATE REPORT ISSUED <table border="1" style="width: 100%;"> <tr> <th>MONTH</th> <th>YEAR</th> </tr> <tr> <td>October</td> <td>1988</td> </tr> </table>	MONTH	YEAR	October	1988
MONTH	YEAR					
October	1988					
10 SPONSORING ORGANIZATION NAME AND MAILING ADDRESS (Include Zip Code) Division of Engineering and System Technology Office of Nuclear Regulation U.S. Nuclear Regulatory Commission Washington, DC 20555	8 PROJECT/TASK WORK UNIT NUMBER A6483	11a TYPE OF REPORT Technical Evaluation Report 11b PERIOD COVERED (Indicate dates)				
12 SUPPLEMENTARY NOTES						
13 ABSTRACT (200 words or less) <p style="text-align: center;"> This EG&G Idaho, Inc., report documents the review of the applicable submittals for the Indian Point-3 Nuclear Power Plant and identifies areas of nonconformance to Regulatory Guide 1.97. Exceptions to these guidelines are evaluated and those areas where sufficient basis for acceptability is not provided are identified. </p>						
14 DOCUMENT ANALYSIS - KEYWORDS DESCRIPTORS 15 IDENTIFIERS-OPEN ENDED TERMS	15 AVAILABILITY STATEMENT Unlimited Distribution 16 SECURITY CLASSIFICATION (This paper) Unclassified (This report) Unclassified 17 NUMBER OF PAGES 18 PRICE					

Mr. Ralph E. Beedle

- 2 -

April 3, 1991

This requirement affects one respondent and, therefore, is not subject to Office of Management and Budget review under P.L. 96-511.

Sincerely,

ORIGINAL SIGNED BY:

Franc's J. Williams, Jr., for
Joseph D. Neighbors, Senior Project Manager
Project Directorate 1-1
Division of Reactor Projects - 1/11
Office of Nuclear Reactor Regulation

Enclosures:

1. Safety Evaluation
2. TER EGG-NTA-7061, Revision 1

cc w/enclosures:
See next page

Distribution:

Docket File	NRC & Local PDRs
PDI Reading	SVarga
EGreenman	CVogan
FWilliams	RACapra
JLinville	BMarcus
OGC	EJordan
ACRS (10)	Plant File
DNeighbors	ETomlinson

OFC	:PDI-1:LA	:PDI-1:PM	:PDI-1:PM	:PDI-1:D	:
NAME	:CVogan <i>CV</i>	:FWilliams:av1 <i>[Signature]</i>	:DNeighbors <i>[Signature]</i>	:RACapra <i>RC</i>	:
DATE	: 4/2/91 <i>4/3</i>	: 4/2/91	: 4/2/91	: 4/3/91	:

OFFICIAL RECORD COPY
Document Name: IP3 RG1.97 LTR 51099