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ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649-0001 • 716 546-2700

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ROBERT C. MECREDY Vice President Nuclear Operations

October 19, 2000

U.S. Nuclear Regulatory Commission Document Control Desk Attn: Guy S. Vissing Project Directorate I Washington, D.C. 20555

Subject: LER 2000-003, Source Range Channel Not Promptly Discovered to be Inoperable, Due to Personnel Error, Resulted in Violation of Technical Specifications R.E. Ginna Nuclear Power Plant Docket No. 50-244

Dear Mr. Vissing:

The attached Licensee Event Report LER 2000-003 is submitted in accordance with 10 CFR 50.73, Licensee Event Report System, item (a) (2) (i) (B), which requires a report of, "Any operation or condition prohibited by the plant's Technical Specifications".

Very truly yours,

feccedy oberd Robert C. Mecredy

 xc: Mr. Guy S. Vissing (Mail Stop 8C2) Project Directorate I Division of Licensing Project Management Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, D.C. 20555

> Regional Administrator, Region I U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406

U.S. NRC Ginna Senior Resident Inspector

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|--|--|--|---|---|--|--------------------------------------|---|----------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------|--|--|-------------------------------|--|
| NRC FOR<br>(6-1998)                                | M 366  |  |   | U.S. NUCLE  | AR REC   | GULA                                 | TORY CO   | ОММ                        | ISSIO                          | N                              | APPR<br>Estima                 | ited                       | ED BY OMB NO. 3<br>burden per response t<br>request 50 hrs. Repor    | 0 comply with<br>ted lessons le  | E<br>this m<br>arned          | EXPIRES 06/30/2<br>andatory informati<br>are incorporated in |
|  |  | LIC  | ENSEE E   | VENT REP  | ORT  | LE                                   | R)  |                            |                                |                                | he lic<br>regard               | ens<br>ing l               | sing process and fed<br>burden estimate to the                       | Back to ind<br>Records Man   | ustry.<br>agem                | Forward comme<br>ent Branch (T-6 F3                          |
|  |  | 210  |   | e for required n  | umber o  |                                      | - •   |                            |                                |                                | U.S. N<br>to the i             | Pap                        | ear Regulatory Commis<br>perwork Reduction Pro                       | ject (3150-01)<br>503 If an info   | igion,<br>04), C<br>matic     | of Manageme  |
|  |  |  | digits/cha  | racters for each  | block)   | <i>.</i>                             |   |                            |                                |                                | display<br>sponse<br>collect   | ioy<br>ac<br>or, a<br>jon. | and a person is not  | trol number, the required to re  | he NR<br>spon                 | C may not conduct<br>d to, the informati                     |
| FACILITY   | NAME (1                                      | )  |   |   |  |                                      |   |                            |                                | ٦ <u>٦</u>                     | DOCK                           | ET                         | NUMBER (2)   |  |                               | PAGE (3)   |
| R. E. Gi   | nna N  | uclear   | Power Pl  | ant   |  |                                      |   |                            |                                |                                | (                              | )5(                        | 000244   |  |                               | 1 OF 11  |
| TITLE (4)  |  |  |   |   |  |                                      |   |                            |                                |                                |                                |                            |  |  |                               |  |
| Source<br>Technic                                  | Range<br>al Spe                              | e Char<br>ecificat                             | ions  | romptly Disc  |  | d to                                 | be Inop   | erat                       | ole, D                         | ue t                           | 0 Pe                           | ers                        | onnel Error, Re  | sulted in \  | /iola                         | ition of   |
| EVEN   | T DATE                                       | E (5)  |   | LER NUMBER  | (6)  |                                      | REP   | ORT                        | DATE                           | E (7)                          |                                |                            | OTHER FA   | CILITIES IN  | IVOL                          | VED (8)  |
| MONTH  | DAY  | YEAR   | YEAR  | SEQUENTIAL<br>NUMBER  | REVIS<br>NUMB  | ION<br>BER                           | MONTH   |                            | DAY                            | YEA                            | R                              | ACI                        |  |  | 000                           | 05000  |
| 09   | 20   | 2000   | 2000  | - 03 -  | 00   | )                                    | 10  |                            | 19                             | 200                            | •                              | AC                         |  |  |                               | KET NUMBER<br>05000  |
| OPERA  | TING   | 5  | ТН  | IS REPORT IS  | SUBMI  | TTEL                                 | D PURSU   | ANT                        | το τι                          | HE R                           | EQU                            | RE                         | MENTS OF 10 CF   | R§: (Chec  | one                           | or more) (11)  |
| MODE   | (9)  | 5  | 20.22   | 01(b)   |  |                                      | 20.220  | 3(a)(                      | 2)(v)                          |                                |                                | <u>×</u>                   | 50.73(a)(2)(i)   |  |                               | 50.73(a)(2)(viii)  |
| POW  | ER   | 000  | 20.22   | 03(a)(1)  |  |                                      | 20.220  | <u>3(a)(</u>               | <u>3)(i)</u>                   |                                |                                | ╉                          | 50.73(a)(2)(ii)  |  | +                             | 50.73(a)(2)(x)   |
| LEVEL  | (10)   |  |   | 03(a)(2)(i)   | <u> </u>   |                                      | 20.220  | 3(a)(                      | 3)(11)<br>(4)                  |                                | ╉                              | ╋                          | 50.73(a)(2)(iii)   |  | -+-                           | OTHER  |
|  |  |  | 20.22   | 03(a)(2)(iii)   |  |                                      | 50.36(  | c)(1)                      |                                |                                |                                |                            | 50.73(a)(2)(v)   |  | Spe                           | cify in Abstract bel   |
|  |  |  | 20.22   | 03(a)(2)(iv)  |  |                                      | 50.36(  | c)(2)                      |                                |                                |                                |                            | 50.73(a)(2)(vii)   |  | Or In                         | NRC Form 366A  |
| NAME   |  |  |   |   | LICE   | INSE                                 | E CONT  | ACT                        | FOR                            | THIS                           |                                | (12<br>TELI                | 2)<br>EPHONE NUMBER (Inclu   | de Area Code)  |                               | · · · · · · · · · · · · · · · · · · ·                        |
| John T.  | . St. N                                      | Aartin   | - Technic   | al Assistant  |  |                                      |   |                            |                                |                                |                                |                            | (71  | 6) 771-3   | 364                           | 1  |
| [  |  |  | COMPLE  | TE ONE LINE I   | OR EA  | СН                                   | COMPON  | IENT                       | FAIL                           | URE                            | DES                            | CRI                        | IBED IN THIS REP   | ORT (13)   |                               |  |
| CAUSE  | SYS  | TEM  | COMPONEN  | T MANUFACI  | URER   | RE                                   | Portabli<br>To Epix                               | E                          | CAU                            | SE                             | SYS                            | TE                         |  | MANUFAC  | TURE                          | R REPORTAE   |
| A  |  | G  | MON   | W12   | 0  |                                      | Y   |                            |                                |                                |                                |                            |  |  |                               |  |
|  |  |  |   |   |  |                                      |   |                            |                                |                                |                                |                            |  |  |                               |  |
|  |  | ຣບ   | PPLEMENT  | AL REPORT E   | XPECT  | ED (1                                | 14)   |                            |                                |                                |                                | ł                          | EXPECTED   | MONTH  | 0/                            | Y YEAR   |
| YES<br>(If yes                                     | , comple                                     | te EXPE  | CTED SUBMI  | SSION DATE).  |  |                                      | )   | X                          | 10                             |                                |                                | 5                          | DATE (15)  |  |                               |  |
| ABSTRA   | CT (Lin                                      | nit to 140                                     | 0 spaces, i.e.,   | approximately 15  | single-sp  | baced                                | typewritter                                       | n lines                    | s) <b>(16)</b>                 |                                |                                |                            |  |  |                               |  |
| On Sep<br>source<br>at appro<br>the nee<br>prohibi | otemb<br>range<br>oxima<br>d to a<br>ited by | er 20,<br>chan<br>ately (<br>pply ;<br>y the ; | 2000, at<br>nel becar<br>0650 EDS<br>the action<br>plant's Te | approximat<br>ne inoperab<br>ST, Septeml<br>is required l<br>echnical Spe | ely 10<br>le. There 21<br>ber 21<br>by the<br>cifica | 652<br>his (<br>, 20<br>pla<br>ntion | EDST,<br>conditio<br>000, it v<br>int's Te<br>ns. | , wi<br>on v<br>was<br>chn | th th<br>was r<br>also<br>ical | e pla<br>not p<br>diso<br>Spec | ant i<br>pron<br>cove<br>cific | in<br>npre-<br>ere         | Mode 5, a nuc<br>tly discovered<br>d that the open<br>ions. This cor | lear instr<br>When i<br>rators had<br>stituted                                 | t wa<br>it wa<br>i no<br>a co | ent system<br>as discovere<br>t recognized<br>ndition        |
| The car<br>prompt<br>plant's                       | use of<br>ly dis<br>Tech                     | f the s<br>cover<br>nical                      | ource ran<br>ing this o<br>Specifica                          | ige channel<br>condition, le<br>tions, was p                              | becor<br>ading<br>erson                              | ning<br>to :<br>inel                 | g inope<br>not rec<br>error.                      | rabi<br>ogn                | le wa<br>izing                 | as a<br>g the                  | failt<br>e ne                  | ure<br>ed                  | e of the detector<br>to apply the a                                  | or. The c<br>ctions rec  | aus<br>quir                   | e of not<br>ed by the  |
| After the current range d                          | his co<br>ly in (<br>letecto                 | nditic<br>comp<br>or and                       | on was di<br>liance wi<br>l a source                          | scovered, th<br>th these req<br>e range chan                              | e Cor<br>uirem<br>nel w                              | ntrol<br>ents<br>vas c               | l Room<br>s. The<br>leclared                      | i op<br>sou<br>d op        | erato<br>rce r<br>perab        | ors p<br>ango<br>le.           | erfo<br>e dra                  | orn<br>aw                  | ned actions to<br>ver was connec                                     | assure the ted to the ted to the ted to the test test test test test test test | at ti<br>e sp                 | he plant was<br>pare source                                  |
| Correct  | tive a                                       | ction  | to preven   | at recurrence   | e is ou  | ıtlin                                | ed in S   | lecti                      | ion V                          | / <b>.</b> В.                  |                                |                            |  |  |                               |  |
|  |  |  |   |   |  |                                      |   |                            |                                |                                |                                |                            |  |  |                               |  |

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| NRC FORM 366A<br>(6-1998)   |   |   | u<br>(LER)   | I.S. NUCL   | EAR REG                                   | GULATORY  | COMMIS   | SION                           |
|---|---|---|--|---|---|---|--|--------------------------------|
| FACILITY N  | IAME (1)  | DOCKET (2)  |  | LER NU  | MBER (6                                   | ;)  | PAG  | iE (3)                         |
|   | · · · · · · · · · · · · · · · · · · ·   |   | YEAR   | SEQUE   | NTIAL<br>BER                              | REVISION<br>NUMBER  |  |                                |
| R. E. Ginna Nuclear Power Pla   | nt  | 05000244  | 2000   | - 03  | 3   | 00  | 2 OF   | 11                             |
| TEXT (If more space is required, use a  | dditional copies of NRC Form 366A)  | (17)  |  |   | <u> </u>                                  |   |  |                                |
| I. PRE-EVENT PLANT  | CONDITIONS:   |   |  |   |   |   |  |                                |
| On September 20, 20<br>outage. Reactor cool<br>F. Pressurizer pressu<br>Improved Technical S<br>A, one Nuclear Instru<br>other channel (N-31) | 00, at approximately 1600 I<br>ant system (RCS) temperature was being maintained at<br>Specifications (ITS) Limitin<br>mentation System (NIS) so<br>was inoperable. | EDST, the pla<br>are was being<br>approximatel<br>og Condition<br>urce range (S | nt was i<br>maintai<br>y 320 ps<br>for Oper<br>R) chan | n Mode<br>ned at a<br>sig. As<br>ation (L<br>nel (N-3 | 5 for pproxi<br>allowe<br>CO) 3<br>2) was | the 2000 f<br>imately 12<br>of by Ginu<br>.3.1, COI<br>in service | refuelin<br>35 degr<br>na Stati<br>NDITIC<br>ce, and | ng<br>rees<br>ion<br>DN<br>the |
| II. DESCRIPTION OF I  | EVENT:  |   |  |   |   |   |  |                                |
| A. DATES AND  | APPROXIMATE TIMES   | OF MAJOR  | OCCUR  | RENCI   | ES:                                       |   |  |                                |
| • Septer  | nber 20, 2000, 1652 EDST  | : NIS SR cha  | nnel N-3   | 32 becor  | nes in                                    | operable.   |  |                                |
| • Septer<br>Techn<br>date a   | mber 20, 2000, 2215 EDST<br>ical Specifications was not<br>nd time.   | : The need to<br>recognized, i  | apply th<br>n that ar                                  | ne requin<br>n RCS c                                  | rement<br>ooldov                          | s of the p<br>vn occurr   | lant's<br>ed. Ev                                     | vent                           |
| • Septer<br>Disco   | mber 21, 2000, 0650 EDST<br>very date and time.   | : It is discove   | ered that  | NIS SR  | chanr                                     | nel N-32 i  | s inope  | erable                         |
| • Septer<br>plant'  | mber 21, 2000, 0702 EDST<br>s Technical Specifications.   | : Actions are   | perform  | ied to as   | sure c                                    | ompliance   | e with   | the                            |
| • Septe   | mber 21, 2000, 1136 EDST  | : NIS SR cha  | nnel N-3   | 32 is res   | tored (                                   | o operabl   | le statu   | S.                             |
|   |   |   | •  |   |   |   |  | . •                            |
|   |   |   |  |   |   | •   |  | <u> </u>                       |

| NRC FORM 366.<br>(6-1998) | <b>A</b> .                         | LICENSEE E             | VENT REPORT              | (LER)     | J.S. NUCLEAR RE                 | GULATORY                | COMMIS               | SIU        |
|---------------------------|------------------------------------|------------------------|--------------------------|-----------|---------------------------------|-------------------------|----------------------|------------|
|                           | FACILITY NAME (1)                  |                        | DOCKET (2)<br>NUMBER (2) |           | LER NUMBER (                    | 6)                      | PAG                  | E (3)      |
|                           |                                    |                        | 05000044                 | YEAR      | SEQUENTIAL<br>NUMBER            | REVISION<br>NUMBER      |                      |            |
| R. E. Ginna N             | luclear Power Plant                |                        | 05000244                 | 2000      | - 03 -                          | 00                      | 3 OF                 | 1          |
| TEXT (If more s           | pace is required, use additional c | opies of NRC Form      | 366A) (17)               |           |                                 |                         |                      |            |
| В.                        | EVENT:                             |                        |                          |           |                                 |                         |                      |            |
|                           | At approximately 065               | 0 EDST on Se           | ptember 21, with t       | he plan   | in Mode 5, o                    | ff-shift Op             | peration             | S          |
|                           | supervision observed               | that the Main (        | Control Board (MC        | (CPS) met | er indication I<br>which is low | or NIS Sr<br>er than ex | c cnann<br>rected    | ei<br>at   |
|                           | these plant conditions             | s. After further       | evaluation, it was       | conclue   | led that chann                  | el N-32 w               | as                   |            |
|                           | inoperable. Subseque               | ent review of P        | lant Process Comp        | uter Sy   | stem (PPCS) i                   | nformatio               | n for N              | -32        |
|                           | revealed that N-32 ha              | d become inop          | erable at approxim       | ately 10  | 552 EDST on                     | Septembe                | r 20, 20<br>vestigat | 900<br>Hor |
|                           | of this PPCS alarm di              | id not assist the      | e Control Room on        | erators   | in concluding                   | that chan               | nel N-3              | 2          |
|                           | was inoperable, due t              | o factors discu        | ssed in Section III      | of this I | LER.                            |                         |                      |            |
|                           | The time that the seco             | ond source rang        | ge channel became        | inopera   | ble was appro                   | ximately                | 1652 E               | DS         |
|                           | on September 20, 200               | 0. Time of dis         | scovery was 0650         | EDST o    | n September 2                   | 21, 2000.               | ITS LC<br>le is to   | O          |
|                           | immediately suspend                | operations inv         | olving positive rea      | ctivity a | additions and j                 | perform S               | urveilla             | nc         |
|                           | Requirement SR 3.1.                | 1.1. within 12 l       | hours. SR 3.1.1.1        | states: V | erify SDM (s                    | hutdown                 | margin)              | is         |
|                           | within the limits spec             | ified in the CC        | LR (Core Operation       | ng Limi   | ts Report). Fo                  | or approxim             | mately               | 14<br>~~   |
|                           | hours, it was not know             | wn that the plai       | nt was in LCO 3.3        | .1 IOF W  | o source rang                   | e channel               | s moper              | aD         |
|                           | Due to the 14 hour de              | elay from the ti       | me channel N-32 l        | became    | inoperable un                   | til discove             | ry time              | , tł       |
|                           | operators did not reco             | ognize the need        | to apply these ITS       | S LCO I   | REQUIRED A                      | CTIONS.<br>f 720 parts  | . Durin              | g<br>illi  |
|                           | (ppm). Boron sample                | es were taken a        | pproximately ever        | y four h  | ours, and actu                  | al boron                | s per m              |            |
|                           | concentration for this             | time period w          | as:                      | •         |                                 |                         |                      |            |
|                           | DATE                               | TIME                   | BORON CONC               | ENTRA     | TION                            |                         |                      |            |
|                           | September 20, 2000                 | 1300 EDST              | 2330 ppm                 |           |                                 |                         |                      |            |
|                           | September 20, 2000                 | 1655 EDS1<br>2105 FDST | 2333 ppm<br>2333 ppm     |           |                                 |                         |                      |            |
|                           | September 20, 2000                 | 0016 EDST              | 2316 ppm                 |           |                                 |                         |                      |            |
|                           | September 21, 2000                 | 0702 EDST              | 2328 ppm                 |           |                                 |                         |                      |            |
|                           |                                    |                        |                          |           |                                 |                         |                      |            |
|                           |                                    |                        |                          |           |                                 |                         |                      |            |
|                           |                                    |                        |                          |           |                                 |                         |                      |            |
|                           |                                    |                        |                          |           |                                 |                         |                      |            |
|                           |                                    |                        |                          |           |                                 |                         |                      |            |

| NRC FORM 366A    |  |   | Ľ  | I.S. NUCLEAR  | REGULATORY   | COMMIS  | SION                                   |
|------------------|--|---|--|---|--|---|--|
| (0-1998)         | LICENSEE EVEN<br>TEXT CON  | IT REPORT (L<br>TINUATION   | .ER)   |   |  |   |  |
|                  | FACILITY NAME (1)  | DOCKET (2)<br>NUMBER (2)  |  | LER NUMBE   | R (6)  | PAG   | E (3)                                  |
|                  |  |   | YEAR   | SEQUENTIA<br>NUMBER   | ENTIAL REVISION<br>MBER NUMBER   |   |  |
| R. E. Ginna N    | uclear Power Plant   | 05000244  | 2000   | 03  | 00   | 4 OF  | 11                                     |
| TEXT (If more sp | ace is required, use additional copies of NRC Form 366A)   | (17)  |  |   | · · · · · · · · · · · · · · · · · · ·  |   |  |
| C.               | Thus, the SDM was within the limits spec<br>failure. There were no operations in prog<br>none had to be suspended. The Control H<br>remove a reactor coolant pump (RCP) fro<br>September 20. Since the failure of the se<br>stopping the RCP, the ITS LCO 3.3.1 RH<br>of this evolution resulted in an RCS coold<br>accepted that any measurable RCS coold<br>and time was presumed to be approximat<br>positive reactivity addition occurred and<br>to apply the actions required by the plant<br>actions as specified in ITS LCO 3.1.1 RH<br>prohibited by the Technical Specification | cified in the (<br>gress which in<br>Room operato<br>om service, be<br>cond NIS SR<br>QUIRED AC<br>down of appr<br>own adds pos<br>ely 2215 ED<br>the Control F<br>'s Technical S<br>QUIRED AC<br>IS. | COLR for<br>nvolved pors perfo-<br>eginning<br>channel<br>CTIONS<br>toximate<br>sitive rea<br>ST on Se<br>COOM op<br>Specifica<br>CTIONS | or this time positive rea<br>rmed a sche<br>at approxin<br>was not re<br>were not po<br>ly 35 degree<br>activity. The<br>ptember 20<br>erators did<br>ations. Fail<br>A.1, J.1 an | period, from<br>ctivity addit<br>eduled evolu<br>nately 2215<br>cognized pri<br>erformed. P<br>es F. It was<br>erefore, the<br>b, when a po<br>not recogniz<br>ure to perfor<br>d J.2 is a con | the tim<br>ions, so<br>tion to<br>EDST<br>or to<br>erformation<br>event datential<br>e the ne<br>m the<br>ndition | on<br>on<br>ance<br>only<br>ate<br>eed |
|                  | THE EVENT:<br>NIS SR channel N-31 was inoperable pri<br>performing channel checks of N-31 again  | or to this eve<br>1st NIS SR cl   | nt, elimi<br>nannel N  | nating the c<br>-32.  | opportunity f  | õr  |  |
| D.               | OTHER SYSTEMS OR SECONDARY   | FUNCTION  | S AFFE   | CTED:   | •  |   |  |
|                  | None   |   |  |   |  |   |  |
| E.               | METHOD OF DISCOVERY:   |   |  |   |  |   |  |
|                  | This condition was discovered by off-shi<br>MCB indications during the 2000 refueli<br>printouts.  | ft Operations ng outage, ar   | s supervi<br>nd was co   | sion during<br>onfirmed by  | a routine way<br>review of I   | alkdow<br>PCS al  | n of<br>larm                           |
|                  |  |   |  |   |  |   | •                                      |
|                  |  |   |  |   |  |   |  |
| · ·              |  |   |  |   |  |   |  |
|                  | · · · · · · · · · · · · · · · · · · ·  |   |  |   |  |   |  |

| NRC F(<br>(6-1998) | ORM 366A   |  |   |  | U.S. N   | UCLEAI  | R REC   | BULATORY  | COMN   | ISSION                 |
|--------------------|------------|--|---|--|--|---|---|---|--|------------------------|
| • •                |            | LICENSEE EVEN<br>TEXT CON  | IT REPORT   | (LER)  |  |   |   |   |  |                        |
|                    |            | FACILITY NAME (1)  | DOCKET (2)<br>NUMBER (2)  |  | LER  |   | ER (6)  | )   | PA   | GE (3)                 |
|                    | 0          |  | 05000044  | YEAR   | SE   | EQUENTI<br>NUMBER   | AL  | REVISION<br>NUMBER  |  |                        |
| R. E. 9            | Ginna N    | uclear Power Plant   | 05000244  | 2000   | -  | 03  | -   | 00  | 5 C  | DF 11                  |
| TEXT (             | If more sp | ace is required, use additional copies of NRC Form 366A)   | (17)  | -  |  |   |   |   |  |                        |
|                    | F.         | OPERATOR ACTION:   |   |  |  |   |   |   |  |                        |
|                    |            | When channel N-32 became inoperable, t<br>condition, as discussed in Section III of th<br>Room operators performed the appropriat<br>ER-NIS.1, "SR Malfunction". They com<br>REQUIRED ACTIONS A.1, J.1 and J.2.<br>September 21), Control Room operators p<br>in compliance with these requirements. T<br>specified in the COLR. The required SD<br>per million (ppm). A sample was taken, a | the Control R<br>his LER. What<br>the actions of I<br>splied with the<br>At the time of<br>performed ac<br>They verified<br>M correspond<br>and actual bo | oom op<br>en this<br>Equipme<br>e require<br>of disco<br>tions to<br>that the<br>led to a<br>ron con | erato<br>event<br>ent R<br>emen<br>very<br>assur<br>SDN<br>boro<br>centr | rs did<br>t was of<br>estora<br>ts of I<br>(0650<br>rè that<br>A was<br>n cono<br>ation | not<br>lisco<br>tion<br>TS I<br>EDS<br>the<br>with<br>centr | discover<br>overed, the<br>procedur<br>LCO 3.1.<br>ST on<br>plant wa<br>plant wa<br>in the lin<br>ration of<br>2328 ppr | this<br>ne Cor<br>re<br>1<br>s curr<br>mits<br>720 p<br>n. | ntrol<br>ently<br>arts |
| 1                  | G.         | SAFETY SYSTEM RESPONSES:   |   |  |  |   | . 's  |   |  |                        |
|                    |            | None. For Maintenance Rule purposes, t<br>this condition does not meet the definition<br>System Functional Failure", because have<br>prevent the fulfillment of any safety func  | his event is c<br>n for the NR(<br>ing two NIS<br>tion.   | lassified<br>C Perfor<br>SR chan   | l as a<br>mano<br>nels   | Funct<br>ce Ind<br>inoper   | tiona<br>icato<br>rable                                     | ll Failure<br>or (PI) "S<br>e in Mode   | afety<br>afet do   | wever,<br>es not       |
| III.               | CAU        | SE OF EVENT:   |   |  |  |   |   |   |  |                        |
|                    | А.         | IMMEDIATE CAUSE:   |   |  |  |   |   |   |  |                        |
|                    |            | The immediate cause of the condition pro<br>the actions as specified in ITS LCO 3.1.1<br>inoperable.   | ohibited by T<br>REQUIRED   | echnical<br>ACTIC  | Spe<br>SNS   | cificat<br>with t   | ions<br>wo N  | was not<br>IIS SR c   | perfo<br>hanne   | rming<br>els           |
|                    |            |  |   |  |  |   |   |   |  |                        |
|                    |            |  |   |  |  |   |   |   |  |                        |
|                    |            |  |   |  |  |   |   |   |  |                        |
|                    |            |  |   |  |  |   |   |   |  |                        |
|                    |            |  |   |  |  |   |   |   |  |                        |
|                    |            |  |   |  |  |   |   |   |  |                        |

|                      |   |  | L   | J.S. NUCLEAR RE  | GULATORY  | COMMISSI   |
|----------------------|---|--|---|--|---|--|
| 16-1998)<br>(6-1998) |   |  | (  FR)  |  |   |  |
|                      | TEXT  | CONTINUATION   |   |  |   |  |
|                      | FACILITY NAME (1)   | DOCKET (2)<br>NUMBER (2)   |   | LER NUMBER (   | 6)  | PAGE (   |
|                      |   |  | YEAR  | SEQUENTIAL<br>NUMBER   | REVISION<br>NUMBER  |  |
| R. E. Ginna N        | uclear Power Plant  | 05000244   | 2000  | - 03 -   | 00  | 6 OF   |
| TEXT (If more sp     | ace is required, use additional copies of NRC Form  | n 366A) (17)   | <u></u>   |  |   | <u> </u>   |
| <b>B</b> .           | INTERMEDIATE CAUSE:   | ,  |   |  |   |  |
|                      | The intermediate cause of not performed that two NIS SR channels were inobecame inoperable. One of the reast NIS SR channel N-31 was inoperable for performing channel checks of N                                      | perable until approximations for not discover<br>sons for not discover<br>ole prior to and duri                  | EQUIRI<br>kimately<br>cring thi<br>ng this of<br>channe | ED ACTIONS<br>14 hours after<br>s condition m<br>event, elimina<br>1 N-32              | was not over the seco<br>ore promp<br>ting the o                    | discovering<br>and chann<br>otly is that<br>pportunity |
| •                    | The intermediate cause of NIS SR of the SR detector NE-32.  | channel N-32 becor   | ning inc  | operable was a   | a spurious  | failure of   |
| C.                   | ROOT CAUSE:<br>The underlying cause of the spurior<br>determined. The N-32 drawer was<br>N-32 functioned satisfactorily and   | us failure of the NIS<br>connected to the sp<br>was declared operal  | S SR det<br>bare sout<br>ble.                           | tector NE-32 (<br>rce range dete   | could not<br>ctor and c   | be<br>hannel   |
|                      | An Event Evaluation was initiated<br>underlying cause for not discoverin<br>14 hours was personnel error result<br>indications. Due to this delay, the<br>required compliance with ITS LCC<br>contributing factors are: | to determine the room<br>ing that NIS SR char<br>ting from inadequat<br>operators did not re<br>0 3.1.1 REQUIRED | ot cause<br>inel N-3<br>e evalua<br>cognize<br>ACTIC    | and contribut<br>2 was inopera-<br>ation of availa<br>that the plant<br>DNS A.1, J.1 a | ting factor<br>able for ap<br>ble alarms<br>met the c<br>and J.2. T | s. The<br>proximates<br>and<br>onditions<br>The        |
|                      |   |  |   |  |   |  |
|                      |   |  |   |  |   |  |
|                      |   |  |   |  |   |  |
|                      |   |  |   |  |   |  |

| and the second |                                  |                  |                                |                         |                 |             |
|--|----------------------------------|------------------|--------------------------------|-------------------------|-----------------|-------------|
| NRC FORM 366A  |                                  |                  | J.S. NUCLEAR R                 | EGULATORY               | COMMIS          | SION        |
| (6-1998)<br>LICENSEE EVE<br>TEXT CC  | INT REPORT                       | (LER)            |                                |                         |                 |             |
| FACILITY NAME (1)  | DOCKET (2)<br>NUMBER (2)         |                  |                                | (6)                     | PAG             | E (3)       |
|  | 05000044                         | YEAR             | SEQUENTIAL<br>NUMBER           | REVISION<br>NUMBER      |                 |             |
| R. E. Ginna Nuclear Power Plant  | 05000244                         | 2000             | 03 -                           | - 00                    | 7 OF            | 11          |
| TEXT (If more space is required, use additional copies of NRC Form 366   | A) (17)                          |                  |                                |                         |                 |             |
| • This error was a cognitive error<br>N-32 low warning at approxima<br>was received an operator ackno            | . A valid PPCS<br>ately 1652 EDS | alarm<br>T on Se | was received to<br>ptember 20. | for NIS SF<br>When this | chann<br>PPCS a | el<br>ılarm |

was received, an operator acknowledged the alarm without providing the actual alarm (exponential) value to the other Control Room operators. He asked for the indication on the NIS SR channel N-32 MCB meter. Another operator did not recognize the change on the NIS SR channel N-32 MCB logarithmic meter indication, which went from approximately 6E+1 CPS (60 CPS) to approximately 6E+0 CPS (6 CPS). (This change in indication was almost precisely one decade, so the value was perceived by the operator as not having changed.) This operator reported the value which he perceived. The first operator mentally compared this reported value to the operability value (5 CPS), and did not follow up with questioning the exponential units of the PPCS alarm, but instead observed the MCB NIS SR meter (from a distance) and concluded from comparison of the numerical values that there was no operability concern. The operators incorrectly documented this value beginning with the hourly readings for 1700 EDST on September 20. The incorrect readings continued until time of discovery by off-shift personnel at 0650 the next morning, by which time the N-32 meter indication had decreased to approximately 2E+0 CPS (2 CPS), which was perceived to be 2E+1 CPS and logged as 20 CPS.

- Other indications of NIS SR channel N-32 were not utilized or consulted. The operators did not observe the change on the MCB nuclear power instrument recorder RK-45 chart. NIS protection racks in another area of the Control Room were not reviewed.
- During the subsequent shift turnover, questions about the lower than expected indication on the NIS SR channel N-32 MCB meter were not aggressively pursued. A strong questioning attitude was not in evidence.
- Not promptly identifying the failure of channel N-32 was contrary to approved procedures O-6, "Operations and Process Monitoring" and O-6.13, "Daily Surveillance Log". These procedures state the Operations management expectations for channel checks and logging MCB indications and responding to PPCS alarms.

| (6-1998)  | 366A   |   | U.S. NUCLEAR REGULATORY  | Commission   |
|---|--|---|--|--|
|   | LICENSEE E<br>TEXT   | VENT REPORT   | (LER)  |  |
| NCC FORM 366A         U.S. NUCLEAR RESULATORY COMMISSION           M*1186)         LICENSEE EVENT REPORT (LER)<br>TEXT CONTINUATION         Image: Continue of the control result with the following results and conclusions: |  |   |  |  |
| INCC FORM 366A         U.S. NUCLEAR REGULATORY COMMISSIO           LICENSEE EVENT REPORT (LER)         TEXT CONTINUATION           FACILITY NAME (1)         DOCKET (2)         LER NUMBER (5)           R. E. Ginna Nuclear Power Plant         D5000244         VEAR         STATEMENT         NUMBER (6)           TEXT (If more space is required, use additional copies of NFC Form 366A) (17)         •         There were no unusual characteristics in the Control Room that directly contributed to th error.           This event is NUREG-1022 Cause Code (A), "Personnel Error".         IV.         ANALYSIS OF EVENT:           This event is reportable in accordance with 10 CFR 50.73, Licensee Event Report System, item (a) (2) (i) (B), which requires a report of, "Any operation or condition prohibited by the plant's Technical Specifications". The operators did not recognize the need to apply the requirements of the plant's Technical Specifications, which is a condition prohibited by the plant's Technical Specifications.           An assessment was performed considering both the safety consequences and implications of this event with the following results and conclusions:         There were no operational or safety consequences or implications attributed to not complying with the requirements of the plant's Technical Specifications Because:           •         As stated in the basis for ITS LCO 3.3.1 REQUIRED ACTION J, if the Control Rod Drive System is not capable of rod withdrawal and all rods are fully inserted, the source range detectors are not required to trip the reactor. How was within the limits specified in the COLR.           •   |  |   |  |  |
| . E. Ginn   | a Nuclear Power Plant  | 05000244  | 2000 03 00   | 8 OF 11  |
| INTC FORM 366A         U.S. NUCLEAR REGULATORY COMME<br>LICENSEE EVENT REPORT (LER)           FACILITY NAME (1)         DOCKET (2)         LER NUMBER (4)         PAG           R. E. Ginna Nuclear Power Plant         05000244         VEAR         SEQUENT:         Text on the second of the sec  |  |   |  |  |
|   | • There were no unusual chara error.   | cteristics in the Co  | ontrol Room that directly contrib  | outed to the   |
|   | This event is NUREG-1022 Cause C   | Code (A), "Personi  | nel Error".  |  |
| V. A  | NALYSIS OF EVENT:  |   |  |  |
| it<br>T<br>pl<br>A<br>w   | <ul> <li>em (a) (2) (i) (B), which requires a report of echnical Specifications". The operators dillant's Technical Specifications, which is a an assessment was performed considering brith the following results and conclusions:</li> <li>There were no operational or safety with the requirements of the plant's</li> <li>As stated in the basis for ITS Drive System is not capable range detectors are not requirements be OPERABLE to mor changes that may occur as a stated in the mathematical states are as a state of the state of the states of the sta</li></ul> | of, "Any operation<br>id not recognize th<br>condition prohibit<br>both the safety cor<br>consequences or in<br>Technical Specific<br>S LCO 3.3.1 REQU<br>of rod withdrawal<br>red to trip the reac<br>hitor core neutron is<br>result of events su | a or condition prohibited by the plan or condition prohibited by the plant's ted by the plant's Technical Spectase and implications of the mplications attributed to not contractions because:<br>UIRED ACTION J, if the Control and all rods are fully inserted, the tor. However, their monitoring levels and provide indication of the control as boron dilution. | of the<br>of the<br>difications.<br>his event<br>his event |
|   | • Boron samples during this times the specified in the COLR.   | me period confirm   | ned that the SDM was within the  | limits   |
|   | • There were no evolutions that margin from the time NIS SI  | at would have com<br>R channel N-32 be  | promised the required Mode 5 s<br>came inoperable until the time o   | hutdown<br>of discover   |

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| (-1880)                     |  |  | ι   | I.S. NUCLEAR R  | EGULATORY   | COMMIS  | 5101  |
|-----------------------------|--|--|---|---|---|---|-------|
|                             | LICENSEE EVE   | NT REPORT  | (LER)   |   |   |   |       |
|                             | TEXT CO  | NTINUATION   | r======   |   |   |   |       |
|                             | FACILITY NAME (1)  | NUMBER (2)   | 4 m 5   | LER NUMBER  | (6)   | PAGE  | : (3) |
| P. E. Cinno Nuclo           | ar Bower Blant   | 05000244   | YEAR  | SEQUENTIAL<br>NUMBER  | REVISION<br>NUMBER  |   |       |
| X. E. Ginna Nucle           |  | 0000244  | 2000  | - 03 -  | - 00  | 9 OF  | 11    |
| EXT (If more space is       | s required, use additional copies of NRC Form 366A   | ) (17)   |   | <u>,                                     </u>   |   |   |       |
| •<br>Based on<br>public's i | The RCS cooldown that occurre<br>approximately 35 degrees F. It y<br>positive reactivity. While this is<br>and lower boron concentrations,<br>the condition of boron concentra<br>Results of calculations show that<br>considerably positive at the spece<br>addition of positive reactivity to<br>conditions.<br>The most probable and conseque<br>dilution transient. Dilution trans<br>Safety Analysis Report (UFSAR<br>Volume Control System (CVCS)<br>The CVCS is designed to limit,<br>rate of dilution to a value which<br>provides the operator sufficient to<br>These alarms and instrumentation<br>indications, audible indication on<br>NIS SR indication, there were st<br>transient, if an unintentional dilut<br>occurred. For the conditions pre-<br>have to have been reduced from<br>critical. This would have requir<br>makeup water (RMW), which is | d when an RCI<br>was commonly<br>a certainly true<br>it was subsequ-<br>ation greater that<br>the isotherma<br>ified condition<br>the core for a d<br>ential event to<br>sients are analy<br>Chapter 15.<br>Chapter 15.<br>Malfunctions<br>even under var<br>, after indication<br>time to correct<br>on include Main<br>f dilution flow<br>till numerous n<br>ation of boron i<br>esent at this tim<br>2300 ppm to 3<br>ed a dilution of<br>s greater than th | P was re-<br>accepte<br>for cond-<br>iently ve<br>an 2300<br>il temper<br>is. This<br>cooldow<br>add posi-<br>vzed in the<br>Section<br>ious pos-<br>on throug<br>the situa<br>n Contro<br>, and PP<br>neans av-<br>in the re-<br>ne, the R<br>890 ppm<br>f more the<br>capac | moved from a<br>d that an RC<br>litions at high<br>crified that the<br>ppm and low<br>rature coeffic<br>indicates that<br>n conducted<br>tive reactivity<br>he Ginna Stat<br>15.4.4 discus<br>dilution is a<br>stulated failur<br>gh alarms and<br>ation in a safe<br>of Board annu<br>CS alarms. T<br>ailable to ind<br>actor coolant<br>CS boron con<br>before the re<br>nan 80,000 ga<br>ity of the RM | service wa<br>S cooldow<br>her RCS te<br>is is not the<br>temperatu-<br>ient (ITC)<br>t there wou<br>at these cool<br>y would be<br>tion Updat<br>sses Chem<br>manual op<br>re modes, t<br>l instrumer<br>e and order<br>inciators as<br>Thus, in the<br>licate a dilu-<br>were to han<br>actor could<br>allons of re<br>IW tank. | s<br>m adds<br>mperatu<br>e case foures.<br>was<br>ald be not<br>re<br>a boron<br>ed Final<br>ical and<br>beration,<br>the poten<br>ntation,<br>cly manu-<br>nd mete<br>e absendution<br>ave<br>n would<br>d have g<br>eactor |       |

| •                |              |  | 1. N. 1. 199  |   |  |  |  |   |   |                                 |
|------------------|--------------|--|---|---|--|--|--|---|---|---------------------------------|
| NRC FORM 366A    |              |  | · ·   | ι   | J.S. NI  | JCLEAR   | REG  | ULATORY   | COMMIS  | SION                            |
| (0-1990)         |              | LICENSEE EVEN<br>TEXT CON  | TINUATION   | (LER)   |  |  |  |   |   |                                 |
|                  | F            | ACILITY NAME (1)   | DOCKET (2)<br>NUMBER (2)  |   | LER  | NUMBE  | R (6)  |   | PAGE  | E (3)                           |
|                  |              |  |   | YEAR  | SE   | QUENTIAI<br>NUMBER   |  | REVISION<br>NUMBER  |   |                                 |
| R. E. Ginna N    | uclear Po    | wer Plant  | 05000244  | 2000  |  | 03   | 1  | 00  | 10 OF   | : 11                            |
| TEXT (If more sp | ace is requi | red, use additional copies of NRC Form 366A)   | (17)  |   |  |  |  |   |   |                                 |
|                  | •            | The NIS SR N-32 drawer was cor<br>channel N-32 was restored to oper<br>21, 2000.   | nnected to the<br>rable status a  | e spare so<br>t approx  | ource  | e range<br>ely 113   | dete<br>6 El   | ector, an<br>DST on   | d NIS S<br>Septem   | SR<br>iber                      |
|                  | •            | The failed source range detector N reconnected to the channel N-32 c   | NE-32 was re<br>lrawer and re   | placed.<br>calibrate  | The i<br>ed pri  | new NI<br>ior to p   | E-32<br>lant   | 2 detecto<br>startup.   | r was   |                                 |
| B.               | ACTI         | ON TAKEN OR PLANNED TO P   | REVENT RE   | CURRE   | ENCH   | Ξ:   |  |   |   |                                 |
|                  | NOTE         | : There are no NRC regulatory con  | nmitments in  | this Lic  | ensee  | e Event  | t Re   | port.   |   |                                 |
|                  | •            | Operations management directed<br>Report (AR 2000-1176) associate<br>stressing the importance of attenti   | each Operation<br>d with this evident to detail.  | ons Shift<br>vent with  | t Sup<br>1 his   | ervisoi<br>shift at  | to i<br>the  | review t<br>next shi  | he ACT<br>ift turno   | ION<br>over,                    |
|                  | •            | A facilitated crew debriefing was<br>channel N-32 failed. At this debr<br>dynamics/interaction to promote a<br>supporting behaviors, and persona<br>attitude, and that failure to meet n<br>contributing factor of this event.<br>follow up questioning was not as<br>transfer). | held with the<br>iefing, station<br>self-revealing<br>ally stressed to<br>nanagement of<br>(The PPCS a<br>rigorous as p | e operato<br>n manag<br>g of error<br>the impo<br>expectati<br>larm wa<br>ossible t | ors when the second sec | ho were<br>the focus<br>information<br>ce of a<br>for purs<br>fully d<br>ose the | e on<br>sed o<br>ation<br>stron<br>suin<br>lescr<br>loop | n-shift when crew<br>on crew<br>ng quest<br>g valid a<br>ribed to<br>o on the s | hen NIS<br>ige and<br>ioning<br>ilarms v<br>the crev<br>informa | S SR<br>was a<br>w and<br>ation |
|                  | •            | Management will meet with the o<br>discovered, and will stress the im-<br>rigorously pursue acceptable resp  | perators who<br>portance of a<br>onses to ques  | were or<br>strong o<br>stions rai   | n-shif<br>questi<br>ised.  | ft when<br>ioning  | this<br>attit  | s event v<br>ude and  | vas<br>the nee  | d to:                           |
|                  | •            | A Training Work Request will be<br>operating shifts of the Event Eval<br>alarms, the continuing need for a<br>indications to verify plant conditi  | submitted for<br>uation, which<br>questioning a<br>ons.   | or this ev<br>h will str<br>attitude,   | rent, f<br>ress p<br>and p   | to prese<br>pursuin;<br>proper   | ent a<br>g the<br>use e                                  | a case str<br>e cause of<br>of altern   | udy to a<br>of PPCS<br>ate                                      | ป1<br>5                         |
|                  |              |  |   |   |  |  |  |   |   |                                 |

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| NRC F(<br>(6-1998) | ORM 366A                                   | LK  |   | REPORT                     | (LER)                | U.S. N            | IUGLEAR H              | (EGULATUK)               |      | 1991 |
|--------------------|--|---|---|----------------------------|----------------------|-------------------|------------------------|--------------------------|------|------|
|                    |  | JUS. NUCLEAR REGULATORY COMMISSI         LICENSEE EVENTINATION         International Control Contentate detector Control Control Control Control Contro |   |                            |                      |                   |                        |                          |      |      |
|                    |  |   | ····                                    | NUMBER (2)                 | YEAR                 | SE                | QUENTIAL               | REVISION                 |      |      |
| R. E.              | Ginna Nuc                                  | clear Power Plant   | (                                       | 05000244                   | 2000                 | -                 | 03                     | - 00                     | 11   | OF   |
| TEXT (             | lf more spac                               | e is required, use additional copie   | s of NRC Form 366A) (1                  | 7)                         |                      |                   |                        | <u></u>                  |      |      |
| VI.                | ADDI                                       | TIONAL INFORMATIO   | N:                                      |                            |                      |                   |                        |                          |      |      |
|                    | <b>A.</b>                                  | FAILED COMPONENT  | <b>[S:</b>                              |                            |                      |                   |                        |                          |      |      |
|                    |  | The NIS SR detector NE assembly housing, suppl  | -32 is a model NY<br>ied by Imaging and | -10032 dete<br>1 Sensing T | ector, h<br>echnolo  | ouse<br>ogy (     | d in a mo<br>Corporati | odel NY-1<br>ion         | 0362 |      |
|                    | B.   | PREVIOUS LERS ON S  | SIMILAR EVENTS                          | 5:                         |                      |                   |                        |                          |      |      |
|                    |  | A similar LER event his documentation of simila identified.   | torical search was or LER events with   | conducted w<br>the same ro | with the<br>oot caus | e foll<br>se at s | owing re<br>Ginna St   | sults: No<br>ation could | d be |      |
|                    | C.   | SPECIAL COMMENTS  | 5:                                      |                            |                      |                   |                        |                          |      |      |
|                    |  | None  |   |                            |                      |                   |                        |                          |      |      |
|                    | D.   | IDENTIFICATION OF   | COMPONENTS F                            | REFERRED                   |                      | 1 TH              | IS LER:                |                          |      |      |
|                    | COMI                                       | PONENT  | IEEE 803<br>FUNCTION                    | IEEE 80:<br>SYSTEM         | 5<br>1 IDEN          | TIFI              | CATION                 | V                        |      |      |
|                    | nuclea<br>reactor<br>source<br>PPCS<br>RMW | r instrument system<br>coolant pump<br>range detector<br>tank   | ЛС<br>Р<br>MON<br>CPU<br>TK             | IG<br>AB<br>IG<br>ID<br>CB |                      |                   |                        |                          |      |      |
|                    |  |   |   |                            |                      |                   |                        | ,                        |      |      |