RAS 12267



## VERMONT YANKEE NUCLEAR POWER CORPORATION

P O BOX 157 COVERNOR HUNT ROAD VERNON, VERMONT 05354

DOCKET NUMBER FROD. & UTIL. FAC.

April 12, 1991 VYV # 91-104

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

REFERENCE: Operating License DFR-28 Docket No. 50-271 Reportable Occurrence No. LER # 91-05

Dear Sirs:

As defined by 10 CFR 50.73, we are reporting the attached Reportable Occurrence as LER  $\neq$  91-05.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

A Wancy Reid Donald A

Plant Manager

Æ

cc: Regional Administrator USNRC Region I 475 Allendale Road King of Prussia, FA 19406

MLB. MINCH FOR REPUBLICIONY COMP

1 10 Marca Enterar Nuclear Vermont Yackee LLL. 50-271 Occlest No.... Official Echibit No. Enterny 17 OFFERED by: (Applicant/Licensee) Intervenor NRC Staff Other 9/13/06 Witness/Panel Nichols <u>Casillas</u> DESTREDO Action Teled REJECTED WITHDRAWN ADMITTED. Reporter Clark

ð

AUJUDICATIONS STAFF

8

V.

7005 SEP

ھ

PM 3: 36

5ECY-02

Template= SECY-028

| NRC FORM 366 U.S. NUCLEAR R. GULATORY COMMISSION   |   |        |        |              |                 |                |          | ON    | APPROYED ONS NO.3150-0104<br>EXPIRES 4/30/92<br>ESTIMATED BURDEN PER RESPONSE TO COMPLY<br>WITH THIS INFORMATION COLLECTION REQUEST:<br>50.0 HRS. FORMARD COMMENTS REGARDING<br>BURDEN ESTIMATE TO THE RECORDS AND REPORTS<br>MANAGEMENT BRANCH (P-530), U.S. NUCLEAR<br>REGULATORY COMMISSION, WASHINGTON, DC<br>20555, AND TO THE PAPERMORK REDUCTION<br>PROJECT (3160-0104), OFFICE OF MANAGEMENT |               |                                     |          |      |            |              |       |  |            |            |            |          |
|--|---|--------|--------|--------------|-----------------|----------------|----------|-------|--|---------------|-------------------------------------|----------|------|------------|--------------|-------|--|------------|------------|------------|----------|
| FACTLE   | TV NAL  | E (1)  |        |              |                 |                | <u> </u> | ~~~~~ |  |               | I AND BUDGET, WASHINGTON, DU ZUBUJ. |          |      |            |              |       |  |            |            |            |          |
| VEDMO  | NT VAL  | KEE M  |        |              | :D CT           | AT 10          |          |       |  |               |                                     |          |      |            |              |       |  |            |            |            |          |
| TITIF  | [4]   | MLC N  | ULLOW  | TUH          | <u>n al</u>     | A110           |          |       |  |               | 1.4                                 | <u> </u> | LY L | <u>× L</u> | <u>× 1 (</u> |       |  | 1.01       |            |            | <u></u>  |
| React  | or Sci  | an du  | e to I | lechar       | lical           | Fai            | Ince     | r of  | 345  |               | itchy                               | ard      | Rus  | . C8       | use          | d bv  |  | sken       | Hiat       |            |          |
| Vol  | tage 1  |        | tor Si | tack         |                 |                |          | - •1  |  |               |                                     |          | ~~~  |            |              | 1     |  |            |            |            |          |
| EVENT  | DATE  | (•)    |        | LER 1        | UMBE            | R (*           | }        |       | RE   | PORT          | DATE                                | (7)      |      | OTH        | ER           | FACI  | LITI                                   | IES 1      | INVOL      | VED        | (•)      |
| MONTH  | DAY   | YEAR   | YEAR   | S            | Q. #            | T              | REV      | /8    | HONT   | H DAY         | YE                                  | RA       | FAC  | ILI        | TY I         | NAME  | S                                      | DO         | KET        | NO.        | S)       |
|  |   |        |        |              |                 |                |          | Т     |  | 1             |                                     |          |      | _          |              |       |  | <b>d</b> ! | <u>d a</u> | <u>  d</u> | LL       |
| 0 3  | 1 3   | 9 1    | 9 1    | -0           | 0               | 5 -            | 0        | 0     | 0 4  | 111:          | 29                                  | 1        |      |            |              |       |  | d          | d 0        | d          |          |
| OPERAT   | ING   | I      | HIS RI | PORT         | IS S            | UBHI           | TTEC     | ) PU  | RSUA   | NT TO         | REQ'                                | ITS      | OF   | 100        | FR           | :     | 70                                     | ME (       | OR MO      | RE         | ••)      |
| MODE   | <u></u>   | ≝      | 20.40  | )2(b)        |                 | _              | Ц        | 20.   | 405 (  | c)            |                                     | L        | 50.  | 73(        | a)(i         | 2)(1  | v)                                     |            | Ц          | 73.1       | 1(b)     |
| POWER  |   | J.H    | 20.40  | )5(a)        | 1)(1)           | )              | Н        | 50.3  | 36(c   | )(1)          |                                     | Н        | 50.  | 73(        | a)(/         | 2) (V | )                                      |            | Н          | 73.1       | 1(c)     |
| LEYEL (  |   | वव     | 20.40  | )5(a)-       | <b>[1] (</b> 4: | <b>\$</b> }    | Н        | 50.   | 36(C   | )(2)          |                                     | Н        | 50.  | 73(        | a)(:         | 2) (v | 11)                                    |            | Ц          | OTH        | ER:      |
| ••••   | •••••   | ····   | 20.40  | )5[8](       |                 | 11)            | Н        | 50.   | 73(8   | )(2)(         | 1)                                  | Н        | 50.  | 73(        | 8)(2         | Z) (V | 111]                                   | (A)        |            |            |          |
| • • • • • •  | •••••   | ···- - | 20.40  | 15(8)(       |                 | V)<br>\        | Н        | 50.   | 13(a<br>73(a   | ](2)()        | 11)                                 | Н        | 50.  | 73(        | <b>2)(</b> 3 | () (V | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | (B)        | I          |            |          |
| *****  |   |        | 20.40  | 12(9)        |                 | L              |          | 3U.   |  |               |                                     |          | 50.  | 131        | 8/14         |       | <b></b>                                |            |            |            |          |
| MANE   |   |        |        |              | LI              | LCHO           |          | Uni   |  | <u>run 11</u> | 13 L                                | <u> </u> |      |            |              |       |  | TEI        | EDWO       |            | <u> </u> |
| DONAL  | DONALD A DETD DIANT MANAGED   |        |        |              |                 |                |          |       | <u>v.</u><br>1 11 1  |               |                                     |          |      |            |              |       |  |            |            |            |          |
| تفتنقعه  | C   | MPLET  | E ONE  | LINE         | FOR I           | EACH           | COM      | PON   | ENT  | FAILUF        | RE DES                              | SCR      | IBED | IN         | TH           | SR    | EPOR                                   |            | • }        |            |          |
| CAUSE  | SYST  | COMP   | NT M   | IFR          | REPO<br>TO 1    | ORTAL<br>NPRDS | BLE<br>S |       | •••  | CAUSE         | SYS                                 |          | COMP | NT         | M            | R     | RE<br>TO                               | PORT       | ABLE<br>DS | ••         | ••••     |
| _ <u>x</u>   | FIK   | IN     | ब नि   | <u>d a s</u> |                 | N              |          | •••   | •••  | N/A           |                                     |          | 11   |            |              |       |  |            |            |            | ••••     |
| N/A  |   |        |        |              |                 |                |          |       |  | Ш             | 1                                   | 1        |      |            |              |       |  | ••••       |            |            |          |
|  |   | S      | JPPLE  | ENTAL        | <u>REPO</u>     | DRT E          | EXPE     | CTE   |  | <u>•</u>      |                                     |          |      |            | EXF          | ECT   | ED                                     | _          | MO         | DA         | YR       |
| YES  | YES (IF yes, complete EXPECTED SUBMISSION DATE) X NO DATE (18)  |        |        |              |                 |                |          |       |  |               |                                     |          |      |            |              |       |  |            |            |            |          |
| ABSTRA<br>On   | ABSTRACT (Limit to 1400 spaces, i.e., approx. fifteen single-space typewritten lines) (14)<br>On 3/13/91 at 2228 hours, with reactor power at 100%, a Reactor scram occurred due to a |        |        |              |                 |                |          |       |  |               |                                     |          |      |            |              |       |  |            |            |            |          |
| generator/turbine trip as a result of the failure of an 80 ft. vertical section of 345KV<br>Switchward Bur (B. Phase) between the Main Transformer secial Ti disconnect switch and the |   |        |        |              |                 |                |          |       |  |               |                                     |          |      |            |              |       |  |            |            |            |          |

generator/turbine trip as a result of the failure of an 80 ft. vertical section of 345KV Switchyard Bus (B Phase) between the Main Transformer aerial T1 disconnect switch and the horizental bus bar spanning the 1T-11 and 81-1T-2 disconnect switches. The cause of the bus failure is attributed to a broken insulator stack which secured the bus to the tower. The plant was subsequently stablized by resetting Primary Containment isolations, restarting Reactor Mater Cleanup and establishing level control using the 10% Feedwater Regulator valve. Shutdown Cooling was later employed at 0504 hours on 3/14/91 and maintained until the necessary repairs and testing were completed. The reactor was returned to critical on 3/12/91 at 0055 hours. The need to expand present Switchyard system maintenance is being evaluated.

MRC Form 366 (6-89)

| NNC FORM 366A U.S. NUCLEAR REGULATORY<br>(6-03)<br>LICENSEE EVENT REPORT (LER)<br>TEXT CONTINUATION | CONTISSION  | ES1<br>WI1<br>50.<br>BUF<br>MAN<br>REG<br>205<br>PRC<br>AND | AP<br>TIMATED<br>TH THIS<br>D HRS.<br>IDEN EST<br>IAGEMENT<br>RJLATORY<br>S5, AND<br>DJECT (3<br>BUDGET | PROVED ONS<br>EXPIRES<br>BURDEN PER<br>INFORMATION<br>FORMARD COM<br>IMATE TO TH<br>BRANCH (P-<br>COMMISSION<br>TO THE PAP<br>160-0104),<br>NASHINGTO | NO.3150-(<br>4/30/92<br>RESPONSE<br>COLLECT<br>MENTS REC<br>E RECORDS<br>530), U.S<br>, MASHING<br>ERNORK RE<br>OFFICE OF<br>N, DC 200 | TO (<br>ION F<br>SARDI<br>S AND<br>S | COMPL<br>REQUE<br>ING<br>REP<br>ICLEA<br>DC<br>ION<br>IAGEM | Y<br>ST:<br>ORTS<br>R<br>ENT |
|---|-------------|---|---|---|--|---|---|------------------------------|
| UTILITY NAME (*)  | DOCKET NO.  | (*)   | L   | ER MUMBER (   | •}   | PA  | GE (  | •)                           |
| ч   |             |   | YEAR  | SEQ. #  | REV#   | ł   |   |                              |
|   | املمام أمام |   |   |   |  | ہ ہے ا  |   |                              |

YENVENT YANKEE NUCLEAR POMER STATION | 0| 5| 0| 0| 2| 7| 1 | 9 | 1 | - | 0 | 0 | 5 | - | 0 | 0 | 0 | 2| 0F | 0| 4 TEXT (If more space is required, use additional NRC Form 366A) ('')

## DESCRIPTION OF EVENT

On 3/13/91 at 2228 hours, during normal operation with Reactor power at 100%, a Reactor scram occurred as a result of a turbine trip on Generator Load Reject due to a 345KV Switchyard Tie Line Differential Fault. During the first 14 seconds of the event, the following automatic system responses occurred without Operator intervention:

- a. Trip of Tie Line breakers 1T and 81-1T.
- D. Fast Transfer of 4KV Buses and 1 and 2 to the Startup transformers.
- c. Reactor scram on Turbine Control Valve Fast Closure signal.
- d. Primary Containment Isolation System (PCIS)(JM\*) Initiation, Groups 2, and 3 on Reactor Vessel "Lo" water level.

**Operations personnel responded** to the scram by implementing the required steps delineated in **Emergency Operating Procedure OE-3100** "Scram Procedure" which governs reactor operation in a **post-scram environment**.

Automatic system responses a) thru c) were anticipated as a result of the 345KV Tie Line Fault. The Primary Containment Isolation System (PCIS) initiations experienced subsequent to the turbine trip were in response to the characteristic drop in Reactor water level from vessel void collapse. Vessel level, which initially dropped to a 120 inch level from the void collapse, quickly recovered with the "A" and "C" Reactor Feedwater pumps running. In an effort to control the increasing level, the "C" Reactor Feedwater pump was secured by Operations personnel. At 2230 hours (2 minutes into the event), the "A" Reactor Feedwater pump tripped on High Reactor water level (177 inches).

At 2231 hours, the Reactor scram was reset and the plant subsequently stabilized in Hot Standby by: restarting Reactor Nater Cleanup; resetting PCIS Group 2, 3, and 5 isolations and establishing level control using the 10% Feedwater Regulator value.

At 2235 hours, operators received a report from Security that a large flash had been observed in the Switchyard just prior to the Reactor scram. The local Fire Department was notified, but no fire ensued. The flash that had been observed was an electrical arc resulting from the connection break of the "B" phase.

At 2356 hours, Reactor depressurization and cooldown began using the Main Condenser and the Bypass Opening Jack. At 0504 hours on 3/14/91, RHR Shutdown Cooling was established on the "B" RHR loop.

#Energy Information Identification System (EIIS) Component Identifier
INC Form 366A (6-39)

| (6-89)  | IN JOON U.S. WUCLEAR REGULATORY<br>LICENSEE EVENT REPORT (LER)<br>TEXT CONTINUATION  | CUNNISSION  | ESI<br>WII<br>50.<br>BUF<br>MAD<br>REG<br>205<br>PRC<br>AND               | I INATED<br>IN THIS<br>O HRS.<br>IDEN ES<br>IAGEMEN<br>NULATOR<br>ISS, AN<br>IJECT (<br>BUDGE | UPPROVED 0<br>EXPIR<br>BURDEN P<br>INFORMAT<br>FORMARD<br>TIMATE TO<br>TIMATE TO<br>T BRANCH<br>Y COMMISS<br>D TO THE<br>3160-0104<br>T, MASHIN | PIS N<br>ES 4<br>ER R<br>ION (<br>COPPI<br>THE<br>(P-5;<br>ION,<br>PAPEI<br>), OI<br>3TON, | U.3150-<br>/30/92<br>ESPONSE<br>COLLECT<br>ENTS RE<br>RECORD<br>30), U.S<br>MASHIM<br>WASHIM<br>WIDRK RI<br>FFICE OI<br>, DC 200 | DID4<br>TO (<br>ION (<br>GARD)<br>S AN<br>S. M<br>GTON,<br>EDUCT<br>F MAJ<br>503. | COMPI<br>REQUI<br>ING<br>D REI<br>JCLEJ<br>JCLEJ<br>I ION<br>VAGEP | LY<br>EST :<br>PORTE<br>VR<br>NR |
|---|--|---|---|---|---|--|--|---|--|----------------------------------|
| UTILIT  | r NAME (1)   | DOCKET NO.  | (*)   | YEAD  | LER NUMBER  |  | I DEMA   | P/  | ICE (  | 9                                |
|   |  |   |   | TEAR  | JEV.  | -+-  | I NEVO   | 1.  |  |                                  |
| TEXT ()   | IT YANKEE NUCLEAR POWER STATION  | dditional MR  | T1<br>C For   | 9 1<br>9 366A   | - 10 0  | 5 -  | 000  | 193   | OF   | <u>  d</u>                       |
| DESCRI<br>The<br>Dur  | IPTION OF EVENT (Contd.)<br>reactor was returned to critica<br>ing the course of the event, the  | 1 on 3/18/91<br>following a   | at O<br>dditi   | 055 ho<br>onal a  | urs.<br>nomalies (  | ccur   | red:   |   |  |                                  |
| •)  | Turbine Pressure Control switc<br>which remained in effect durin   | hed from Ele<br>g_Reactor co  | ctric<br>oldow  | al reg<br>n   | ulation to  | Hec  | hanical  | reg   | ulat   | ion                              |
| D)  | AOG "A" and "B" Train Recombin<br>and returned to service.   | ers tripped a   | and i   | solate  | d. The "E   | " Re   | combine  | ir Ma   | s re   | set                              |
| c)  | RPS Alternate Power Supply bre sequently manually reset.   | akers fro <b>m H</b>  | CC 88   | tripp   | ed. The t   | reak   | ers wer  | e su  | <b>b-</b>  |                                  |
| (۵  | Spurious Reactor and Turbine A<br>The alarms were subsequently c   | rea Radiation<br>leared and d   | n ala<br>id no  | ras vei<br>t retui  | re receive<br>m.  | d du   | ring th  | e ev  | ent.   |                                  |
| e}  | The PCIS group 2A, 3A, 5A and 5<br>of the trip. These isolations<br>8.5 seconds into the event.  | 58 (RMCU) iso<br>were expecto   | oleti<br>ed to  | on sign<br>occur  | als occur<br>after the  | red<br>Ion   | within<br>water  | one<br>leve   | seco<br>1 tr   | nd<br>ip                         |
| An and<br>equips<br>record<br>that 4<br>were 0<br>in eac                    | lysis of the above events was po-<br>ent/circuitry responses occurred<br>led bus voltage data for buses so<br>separate voltage dips on the ba-<br>concluded significant enough to o<br>th case, the equipment had Unders   | erformed. Re<br>d coincident<br>upplying the<br>uses had occu<br>cause the equ<br>voltage featu                                   | cord<br>with<br>abovi<br>irred<br>ifpaci                                  | ed data<br>the So<br>e equip<br>during<br>nt resp<br>or Seal                                  | confirm<br>ritchyard<br>ment and<br>the faul<br>onses exp<br>I-In circu   | d th<br>Faul<br>circ<br>t.<br>erie<br>itry   | at the<br>t. A r<br>uitry r<br>These v<br>nced, w  | abov<br>evie<br>cvea<br>olta<br>hich  | t<br>w of<br>led<br>ge d   | ips                              |
| An fi<br>the lo<br>attach<br>tor wh<br>betwee<br>attach<br>gust o<br>fall t | nspection of the Switchyard was<br>wer section of "B" Phase bus bar<br>ment point. (Reference attacher<br>lich served as a tie point for the<br>n the third and fourth insulator<br>ed to the buswork. During the of<br>f wind caused the hanging bus wo<br>o the ground. No additional Switcher | performed in<br>r to be broke<br>d pictorial.)<br>he lower and<br>rs with the f<br>course of ins<br>brk to break<br>itchyard dama | media<br>in off<br>The<br>upper<br>ourth<br>pection<br>off a<br>upper off | ately a<br>f at the<br>upper<br>bus to<br>insult<br>ions the<br>iccurred                      | ifter the<br>ne lower h<br>insulato<br>par sectio<br>lator and<br>ne next wo<br>T-1 disco<br>I from the   | even<br>orizo<br>r sti<br>ns w<br>T col<br>rnin<br>nneci<br>fal                            | t which<br>ontal b<br>ack and<br>as obse<br>nnector<br>g (on 3,<br>t switc<br>ling bu  | revi<br>us bi<br>T ci<br>rved<br>sti<br>/14/9<br>h jau<br>s.                      | ealed<br>ar<br>broi<br>broi<br>11<br>91),<br>4 and                 | d<br>c-<br>cen<br>s              |
| CAUSE<br>The<br>betwee<br>tors c<br>caused<br>the in<br>horizo<br>flasho    | OF EVENT<br>noot cause of the Switchyard bus<br>n the bus and the tower. The lo<br>oupled together, broke away from<br>a swinging moment arm developin<br>sulator. The excessive force so<br>ntal bus bar. This resulted in<br>ver as the bus swung past the "C                                  | s failure is<br>ower insulato<br>the tower a<br>ng a force on<br>happed the ve<br>an open circ<br>C" Phase vert                   | attri<br>ir sta<br>it the<br>the<br>intical                               | ibuted<br>ick, wh<br>base<br>bus co<br>il bar<br>in "B"<br>bus ba                             | to a fail<br>tich is co<br>of the fi<br>nnector a<br>out of th<br>Phase and<br>tr. The c  | ed in<br>nprim<br>rst<br>t the<br>c we<br>a "l<br>ombin                                    | nsulato<br>sed of<br>insulato<br>coppos<br>lded so<br>B" to "(<br>nation (   | r su<br>four<br>or.<br>ite (<br>cket<br>C" Pi<br>of ti                            | pport<br>insu<br>This<br>and c<br>on t<br>base<br>base             | t<br>ula-<br>i<br>of<br>the      |

|   |   |        |         |          |           | •••••      |               |            |                              |
|---|---|--------|---------|----------|-----------|------------|---------------|------------|------------------------------|
|   | A |        |         |          |           |            |               |            |                              |
|   |   | EVENTS | 5 10171 | 3160 160 | · ::e  :c | VE 1111166 | - I & F T D A | Protective | Delevies.                    |
|   |   |        |         | 9109 (IN |           |            | CITC IMI I    |            |                              |
| - |   |        |         |          |           |            |               |            | والمتحديد والمحديد والمتحديد |

| I and run   |                                       | NUTESTATION  | I      | APPRUVEU UND NU.JIDU-UIU4                                   |
|-------------|---------------------------------------|--------------|--------|---|
| (6-89)      |                                       |              |        | EXPIRES 4/30/92   |
| 1           |                                       |              | ES1    | IIMATED BURDEN PER RESPONSE TO COMPLY                       |
| 1           |                                       |              | WII    | TH THIS INFORMATION COLLECTION REQUEST:                     |
|             | •                                     |              | 50.    | O HRS. FORMARD COMMENTS REGARDING                           |
| 1           | LICENSEE EVENT REPORT (LER)           |              | i Bur  | NDEN ESTIMATE TO THE RECORDS AND REPORTS                    |
| 1           | TEXT CONTINUATION                     |              | [ MAN  | AGEMENT BRANCH (P-530), U.S. NUCLEAR                        |
| 1           |                                       | •            | j REG  | RULATORY COMMISSION, WASHINGTON, DC                         |
| 1           |                                       |              | 205    | 555, AND TO THE PAPERWORK REDUCTION                         |
|             |                                       |              | PRO    | JECT (3160-0104), OFFICE OF MANAGEMENT                      |
|             | · · · · · · · · · · · · · · · · · · · |              | AND    | BUDGET, WASHINGTON, DC 20603.                               |
| UTILITY     | NAME (1)                              | DOCKET NO.   | (*)    | LER WUMBER (*) PAGE (*)                                     |
|             |                                       |              |        | YEAR SEQ REVE   |
| 1 ·         | · · · · · ·                           |              |        |   |
| VERHONT     | T YANKEE NUCLEAR POWER STATION        |              | 711    | 9   1   -   0   0   5   -   0   0   0   0   0   0 F   0   4 |
| TEXT (II    | f more space is required, use ad      | ditional NR  | C For  | * 366A) (17)  |
|             |                                       |              |        |   |
| ANALYS      | IS OF EVENT                           |              |        |   |
| The         | wents detailed in this report d       | lid not have | adve   | rse safety implications.                                    |
|             |                                       |              | 4410   | ac survey imprivations.                                     |
| 1           | The Tie Line Differential Prote       | ctive Relay  | 100.0  | nerated as designed which initiated                         |
|             | the generator trip and East Tra       | acter of all | ant b  | were to the Startup transformere                            |
|             | the generator trip and rast ine       | marci or pr  |        | uses to the startup transformers.                           |
| ,           | The Deactor Destantive Sustan o       | merstad as   | daeto  | and and compared the reactor after                          |
| ·····       | Deceiving a Turbine Control Val       | he fact alo  | uca iy | cionel  |
| 1           | receiving a turbine control val       | VE TASE CIO  | sure   | signal.   |
|             | All other setety system second        |              |        |   |
|             | All other sarety system respond       | ed az expec  | teg.   |   |
|             |                                       |              |        |   |
| CURRECT     | IVE ALTIUNS                           |              |        |   |
|             |                                       |              |        |   |
| 1 Intel     | JIATE CURRECTIVE ACTIONS              |              |        |   |
| <b>j</b> 1. | Impediate corrective actions in       | cluded reco  | verin  | g from the Reactor scram utilizing                          |
|             | appropriate plant procedures.         |              |        |   |
|             |                                       |              |        |   |
| , z.        | Efforts were immediately initia       | ited to repa | ir th  | e "8" and "C" phase vertical bus                            |
| ļ           | work. A visual and thermograph        | y inspection | n was  | conducted of the entire Switchyard                          |
|             | to identify any additional trou       | ble spots.   | An a   | dditional insulator on the "A" Phase                        |
| }           | was found with arc damage and s       | ubsequently  | repla  | aced.   |
|             |                                       |              |        |   |
| 3.          | The Main and Auxiliary transfor       | acrs were De | oble ' | tested and oil samples were taken to                        |
|             | assess any damage which night h       | ave been cal | used I | by the Switchyard fault. No anoma-                          |
| ł           | lies or degradation were found.       | The fault    | effa   | cts on the transformers were analyzed                       |
| 1           | and determined to be bounded by       | the design.  | •      |   |
|             |                                       |              |        |   |
| LONG        | TERM CORRECTIVE ACTIONS               |              |        |   |
| 1.          | The plant will seet with VFICO        | (Versont Fle | ectri  | c Power Co., Inc.) and evaluate the                         |
|             | adequacy of the Suitchward Main       | tenance Drov |        |   |
|             | acquery of the uniterity of them      | Complete rig |        |   |
|             | The feiled inculator has been a       | aturned to a | the m  | anufactures for anolysic and                                |
|             |                                       | eturneu to t |        | anuracturer for analysis and                                |
| ł           |                                       |              |        |   |
|             | A detailed protocology and the to     |              |        |   |
| l *·        | A Detailed engineering analysis       | OT THE SHIT  | conyai | ru vertical bushork will be performed                       |
|             | to determine the adequacy of th       | e present m  | punti  | ng contiguration.   |
|             |                                       |              |        |   |
| The a       | bove long term corrective actio       | ns are expec | cted ( | to be completed by 12/31/91. Based                          |
| upon        | analysis results and findings,        | additional o | correc | ctive actions will be initiated as                          |
| appro       | priate.                               |              |        |   |
|             |                                       |              |        |   |
| ADOITIO     | NAL INFORMATION                       |              |        |   |
| There       | have been no similar events of        | this type a  | report | ted to the Commission in the past                           |
| five        | years.                                | ••           | -      |   |
|             | -                                     |              |        |   |
|             |                                       |              |        |   |



. . . .