WOLF CREEK
NUCLEAR OPERATING CORPORATION

John A. Bailey
Vice President
Operations

October 28, 1991
NO 91-0310

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Subject: Docket No. 50-482: Emergency Response Data System (ERDS) Implementation Program

Gentlemen:

The purpose of this letter is to provide Wolf Creek Nuclear Operating Corporation's (WCNOC) ERDS Implementation Program Plan as required by 10 CFR part 50, Appendix E, Section VI 4.a. This plan has been provided in a series of attachments. Hardware, software and plant attributes, have been supplied by completing the ERDS questionnaire contained in NUREG-1394, Revision 1, Appendix B. This questionnaire has been included as Attachment 1. Attachment 2 is a proposed schedule for implementing the ERDS. Attachments 3 and 4 provide supplementary information to augment the implementation plan. ERDS implementation for WCNOC is projected for August 17, 1992. The Data Point Library (DPL) for Wolf Creek Generating Station will be developed and submitted by December 13, 1991.

Administrative and configuration controls will be developed to support implementation of the ERDS. Activation and quarterly testing will be incorporated into Emergency Plan Procedures. These procedures will be revised by July 30, 1992. Hardware and software configuration is controlled by current plant modification and computer software modification programs.

If you have any questions concerning this implementation of ERDS at Wolf Creek Generating Station (WCGS), please contact me or Mr. T. E. Cribbe of my staff.

Very truly yours,

John A. Bailey

John A. Bailey
Vice President
Operations

JAB/aem

cc: L. L. Gundrum (NRC), w/a
R. D. Martin (NRC), w/a
A. T. Howell (NRC), w/a
W. D. Reckley (NRC), w/a

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Attachment 1 to NO 91-0310

ERDS Questionnaire

Appendix B, NUREG-1394, Revision 1

# I. Contacts

Note: Please provide name, title, mailing address, and phone number.

A. Survey Coordinator (i.e., contact for later clarification of questionnaire answers):

Mary Brinkman (WC-IC)
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839 Phone (316) 364-8831 ext. 4734

B. Computer Hardware Specialist(s):

George Cohlmia (MS2-03)
Wolf Creek Nuclear Operating Corporation
P.O. Box 2908
Wichita, KS 67201 Phone (316) 636-6700 ext. 6925

C. System Software Specialist(s):

Anthony Troutman (WC-IC)
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839 Phone (316) 364-8831 ext. 4707

D. Application-Level Software Specialist(s):

E. Telephone Systems Specialist(s):

James Ervin (WC-CS)
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839 Phone (316) 364-8831 ext. 4909

## III. Selection of Data Feeders

A. How many data feeders are there (six maximum)?

The one feeder will interface to SRV001, Port 3

B. Identify the selected data feeders and provide the following for each:

(1) a short description of the categories of data points it will provide (e.g., met, rad, or plant data points, by unit) and

(2) the rationale for selecting it if another system can also provide its categories of data points.

The plant computer system will feed the data feeder. All required data is presently on this system.

C. Which data feeder is the site time determining feeder? This should be the feeder which is providing the majority of the data points.

The plant computer system will provide timing to the feeder.

## IV. Data Feeder Information

Note: A new Section IV must be filled out for each feeder system selected.

### General Questions

1. Identification of Data Feeder

   a. What is the name in local parlance given to this data feeder (e.g. Emergency Response Information System)? Please give both the acronym and the words forming it.

      Emergency Response Data System modem/port/feeder

   b. Is this the site time determining feeder?

      Yes

   c. What is the update frequency of this feeder (in seconds)?

      60

2. Hardware/Software Environment

   a. Identify the manufaturer and model number of the data feeder hardware.

      DEC Server 200 terminal server will provide system interface.

   b. Identify the operating system.

      VMS 5.3.2

   c. What method of timekeeping is implemented on this feeder system (Daylight Savings, Standard, Greenwich)?

      Standard time is system time.

   d. In what time zone is the feeder located?

      Central

3. Data Communication Details

a. Can this data feeder provide asynchronous serial data communication (RS-232-C) with full-modem contro!?

Yes

b. Will this feeder transmit in ASCII or EBCDIC?

ASCII

c. Can this feeder transmit at a serial baud rate of 2400 bps? If not, at what baud rate can it transmit?

Yes

d. Does the operating system support XON/XOFF flow control?

Yes

1. Are any problems foreseen with the NRC using XON/XOFF to control the transmission of data?

No

e. If it is not feasible to reconfigure a serial port for the ERDS linkup (i.e., change the baud rate, parity, etc.), please explain why.

N/A

f. Can the serial port dedicated to the ERDS be configured so that the NRC need not emulate a specific brand of terminal (i.e., can it be configured to be a "vanilla" terminal)?

Yes

g. Do any ports currently exist for the ERDS linkup?

Yes

1. If not, is it possible to add additional ports?

2. If yes, will the port be used solely by the ERDS or shared with other emergency-time users? Give details.

Yes, dedicated

4. Data Feeder Physical Environment and Management

a. Where is the data feeder located in terms of the TSC, EOF, and Control Room?

TSC Computer Room

b. Is the data feeder protected from loss of supply of electricity?

Yes

c. Is there a human operator for this data feeder?

No

1. If so, how many hours a day is the feeder attended?

Attachment 2 to NO 91-0310

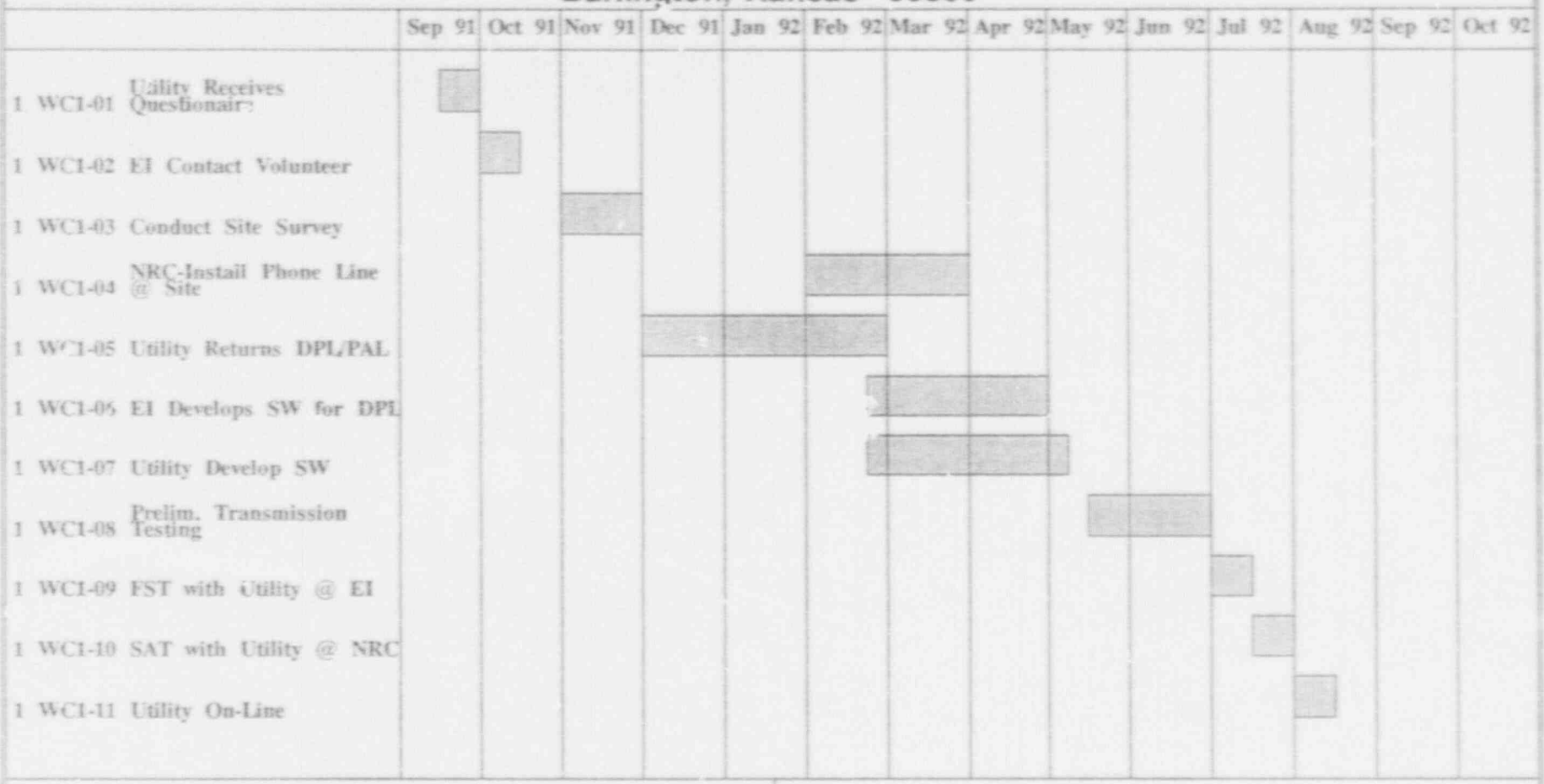
Proposed Schedule

# NRC COMBINED PROJECTS

Data Date: 9/2-/91

## WOLF CREEK NUCLEAR OPERATING CORPORATION

### Burlington, Kansas 66839




| LEGEND | | REVISIONS | |
|---|---|---|---|
| Projected | | | |
| Actual | | | |

Attachment 3 to NO 91-0310

Critical Safety Function Parameters

for Pressurized Water Reactors

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## CRITICAL SAFETY FUNCTION PARAMETERS FOR PRESSURIZED WATER REACTORS

| Reactivity Control | Parameter Description | Point ID |
|---|---|---|
| NI POWER RNG | Nuclear Instruments, Power Range | SEU0001 |
| NI INTER RNG | Nuclear Instruments, Intermediate Range | SEU0003 |
| NI SOURC RNG | Nuclear Instruments, Source Range | SEU0002 |
| **CORE COOLING** | | |
| REAC VES LEV | Reactor Vessel Water Level | BBU0006 |
| TEMP CORE EX | Highest Temperature at the Core Exit | SRU1170 |
| SUB MARGIN | Saturation Temperature - Highest CET | |
| CORE FLOW | Total Reactor Coolant Flow | |
| **STEAM GENERATORS** | | |
| SG LEVEL 1/A | Steam Generator 1 (or A) Water Level | AEU0001 |
| SG LEVEL 2/B | Steam Generator 2 (or B) Water Level | AEU0002 |
| SG LEVEL 3/C | Steam Generator 3 (or C) Water Level | AEU0003 |
| SG LEVEL 4/D | Steam Generator 4 (or D) Water Level | AEU0004 |
| SG PRESS 1/A | Steam Generator 1 (or A) Pressure | ABU0005 |
| SG PRESS 2/B | Steam Generator 2 (or B) Pressure | ABU0006 |
| SG PRESS 3/C | Steam Generator 3 (or C) Pressure | ABU0007 |
| SG PRESS 4/D | Steam Generator 4 (or D) Pressure | ABU0008 |
| MN FD FL 1/A | Stm Gen 1 (or A) Main Feedwater Flow | AEU0005 |
| MN FD FL 2/B | Stm Gen 2 (or B) Main Feedwater Flow | AEU0006 |
| MN FD FL 3/C | Stm Gen 3 (or C) Main Feedwater Flow | AEU0007 |
| MN FD FL 4/D | Stm Gen 4 (or D) Main Feedwater Flow | AEU0008 |
| AX FD FL 1/A | Stm Gen 1 (or A) Auxiliary FW Flow | ALU0702 |
| AX FD FL 2/B | Stm Gen 2 (or B) Auxiliary FW Flow | ALU0703 |
| AX FD FL 3/C | Stm Gen 3 (or C) Auxiliary FW Flow | ALU0704 |
| AX FD FL 4/D | Stm Gen 4 (or D) Auxiliary FW Flow | ALU0701 |
| HL TEMP 1/A | Stm Gen 1 (or A) Inlet Temperature | BBT0413A |
| HL TEMP 2/B | Stm Gen 2 (or B) Inlet Temperature | BBT0423C |
| HL TEMP 3/C | Stm Gen 3 (or C) Inlet Temperature | BBT0433A |
| HL TEMP 4/D | Stm Gen 4 (or D) Inlet Temperature | BBT0443 |
| CL TEMP 1/A | Stm Gen 1 (or A) Outlet Temperature | BBT0413B |
| CL TEMP 2/B | Stm Gen 2 (or B) Outlet Temperature | BBT0423B |
| CL TEMP 3/C | Stm Gen 3 (or C) Outlet Temperature | BBT0433B |
| CL TEMP 4/D | Stm Gen 4 (or D) Outlet Temperature | BBT0443B |

## CRITICAL SAFETY FUNCTION PARAMETERS FOR PRESSURIZED WATER REACTORS (CONT'D)

| Reactivity Control | Parameter Description | Point ID |
|---|---|---|
| **RCS INTEGRITY** | | |
| RCS PRESSURE | Reactor Coolant System Pressure | BBU0004 |
| PRZR LEVEL | Primary System Pressurizer Level | BBU0014 |
| RCS CHG/MU | Primary System Charging or Makeup Flow | BGF0121 |
| HP SI FLOW | High Pressure Safety Injection Flow | BGF0121 |
| LP SI FLOW | Low Pressure Safety Injection Flow | EJF0988 |
| CTMNT SMP NR | Containment Sump Narrow Range Level | LFL0089, 94 |
| CTMNT SMP WR | Containment Sump Wide Range Level | LFL0009, 10 |
| **RADIOACTIVITY CONTROL** | | |
| EFF GAS RAD | Radioactivity of Released Gasses | GTN0213 |
| EFF LIQ RAD | Radioactivity of Released Liquids | SJN0026 |
| COND A/E RAD | Condenser Air Ejector Radioactivity | GEN0925 |
| CNTMNT RAD | Radiation Level in the Containment | GTU0001 |
| RCS LTDN RAD | Rad Level of the RCS Letdown Line | SJN0016 |
| MAIN SL 1/A | Stm Gen 1 (or A) Steam Lire Rad Level | ABN0114 |
| MAIN SL 2/B | Stm Gen 2 (or B) Steam Line Rad Level | ABN0113 |
| MAIN SL 3/C | Stm Gen 3 (or C) Steam Line Rad Level | ABN0112 |
| MAIN SL 4/D | Stm Gen 4 (or D) Steam Line Pad Level | ABN0111 |
| SG BD RAD 1A | Stm Gen 1 (or A) Blowdown Rad Level | |
| SG BD RAD 2B | Stm Gen 2 (or B) Blowdown Rad Level | |
| SG BD RAD 3C | Stm Gen 3 (or C) Blowdown Rad Level | |
| SG BD RAD 4D | Stm Gen 4 (or D) Blowdown Rad Level | |
| **CONTAINMENT CONDITIONS** | | |
| CTMNT PRESS | Containment Pressure | GNU0002 |
| CTMNT TEMP | Containment Temperature | GNU0001 |
| H2 CONC | Containment Hydrogen Concentration | GSU0001 |
| **MISCELLANEOUS PARAMETERS** | | |
| BWST LEVEL | Borated Water Storage Tank Level | BNU0001 |
| WIND SPEED | Wind Speed at the Reactor Site | RDS0001 |
| WIND DIR | Wind Direction at the Reactor Site | RDA0001 |
| STAB CLASS | Air Stability at the Reator Site | |

Attachment 4 to NO 91-0310

Wolf Creek Nuclear Plant Block Diagram

FORM ELF-LO/ Rev. 2/91

**WOLF CREEK GENERATING STATION**
**TRANSMITTAL**
**CONCURRENCE / SIGNOFF SHEET**

1. Letter No. NO 91-0310 ~~WM 91-0150~~ DM 10-28-91 Date Response Due: October 28, 1991
[X] Required [ ] Requested

2. Subject: ERDS Implementation Program

3. Responsible Organization(s): E-Planning

4. Responsible Regulatory Services Individual: Diane Hooper ext: 4557

5. Commitments contained in letter: [X] YES [ ] NO If YES, list below:

6. Remarks / comments:

| 7. Technical Review and Concurrence | Date Received | Signature | Date |
|---|---|---|---|
| Brad Norton | | | |
| Merlin Williams | | | |
| Kevin Moles | 10/24/91 | Kevin F Moles | 10/24/91 |
| Gary Boyer | | | |
| M. Dingler Manager Regulatory Services * | 10/24/91 | M Dingler | 10/24/91 |

* Comments generated during review of the attached documents have been resolved and the document is ready for transmittal to the NRC.

| 6. Executive Review and Concurrence | Date Received | Signature | Date |
|---|---|---|---|
| [X] V.P. - Operations | | | |
| [X] V.P. - Eng. & Tech. Services | | | |
| [ ] Director Quality | | | |
| [ ] | | | |

FORM KLF-LU1 Rev. 2/91

**WOLF CREEK GENERATING STATION**
**TRANSMITTAL**
**CONCURRENCE / SIGNOFF SHEET**

1. Letter No. NO 91-0310 ~~WM 91-0150~~ LTR 10-25-91 Date Response Due: October 28, 1991
[X] Required [ ] Requested

2. Subject: ERDS Implementation Program

3. Responsible Organization(s): E-Planning

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6. Remarks / comments:

| 7. Technical Review and Concurrence | Date Received | Signature | Date |
|---|---|---|---|
| Brad Norton | | | |
| Merlin Williams | 10/23/91 | [signature] | 10-25-91 |
| Kevin Moles | 10/24/91 | [signature] | 10/24/91 |
| Gary Boyer | | | |
| M. Dingler<br>Manager Regulatory Services * | | | |

* Comments generated during review of the attached documents have been resolved and the document is ready for transmittal to the NRC.

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|---|---|---|---|
| [X] V.P. - Operations | | | |
| [X] V.P. - Eng. & Tech. Services | | | |
| [ ] Director Quality | | | |
| [ ] | | | |

FORM KLF-LO7 Rev. 2/97

# WOLF CREEK GENERATING STATION
## TRANSMITTAL
## CONCURRENCE / SIGNOFF SHEET

1. Letter No. NO 91-030 WM 91-0150 DM 10.25.91 Date Response Due: October 28, 1991
[X] Required [ ] Requested

2. Subject: ERDS Implementation Program

3. Responsible Organization(s): E-Planning

4. Responsible Regulatory Services Individual: Diane Hooper ext: 4557

5. Commitments contained in letter: [X] YES [ ] NO If YES, list below:

6. Remarks / comments:

| 7. Technical Review and Concurrence | Date Received | Signature | Date |
|---|---|---|---|
| Brad Norton | 10/24/91 | | 10/24/91 |
| Merlin Williams | | | |
| Kevin Moles | 10/24/91 | Kevin J. Moles | 10/24/91 |
| Gary Boyer | | | |
| M. Dingler Manager Regulatory Services * | | | |

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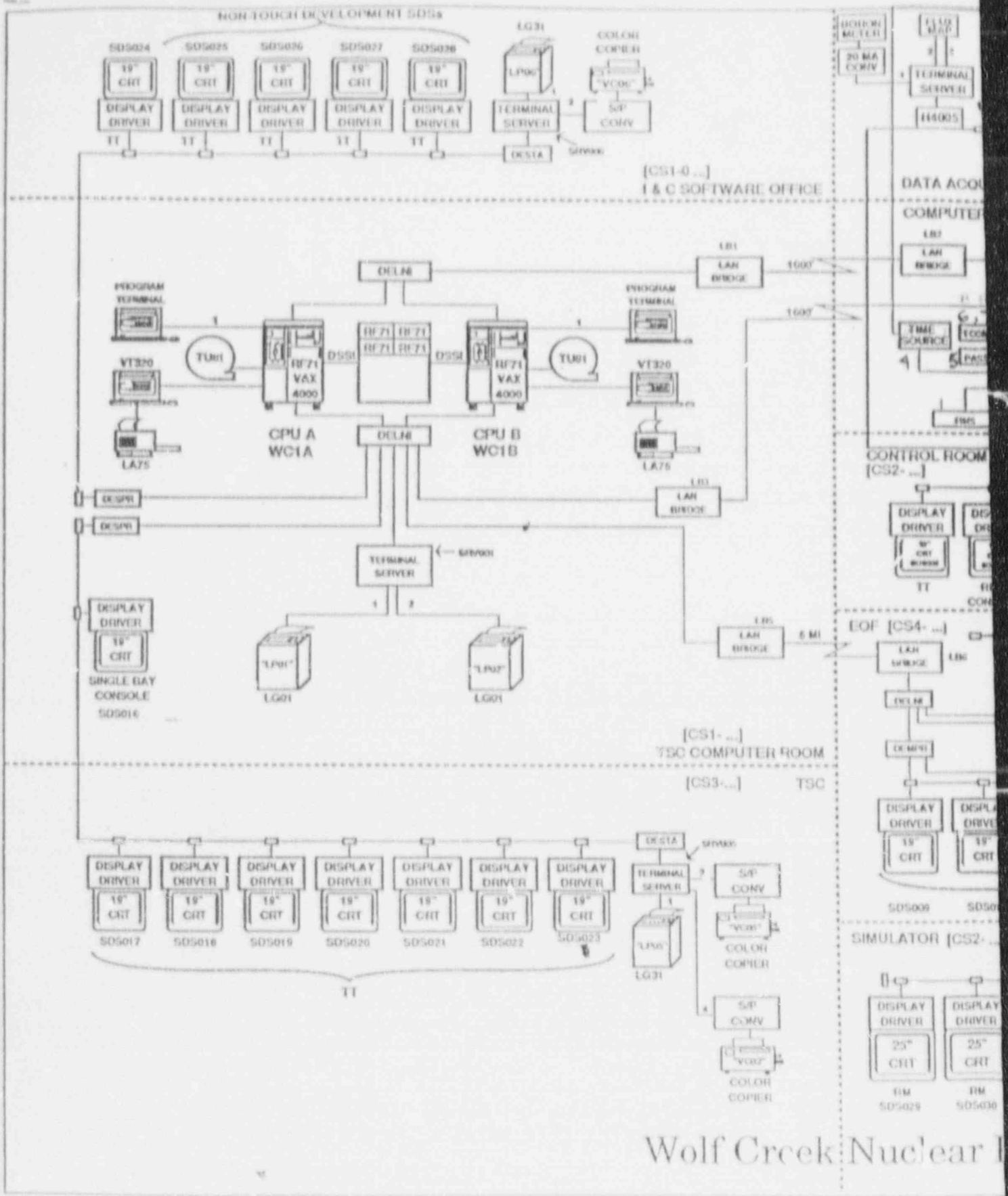
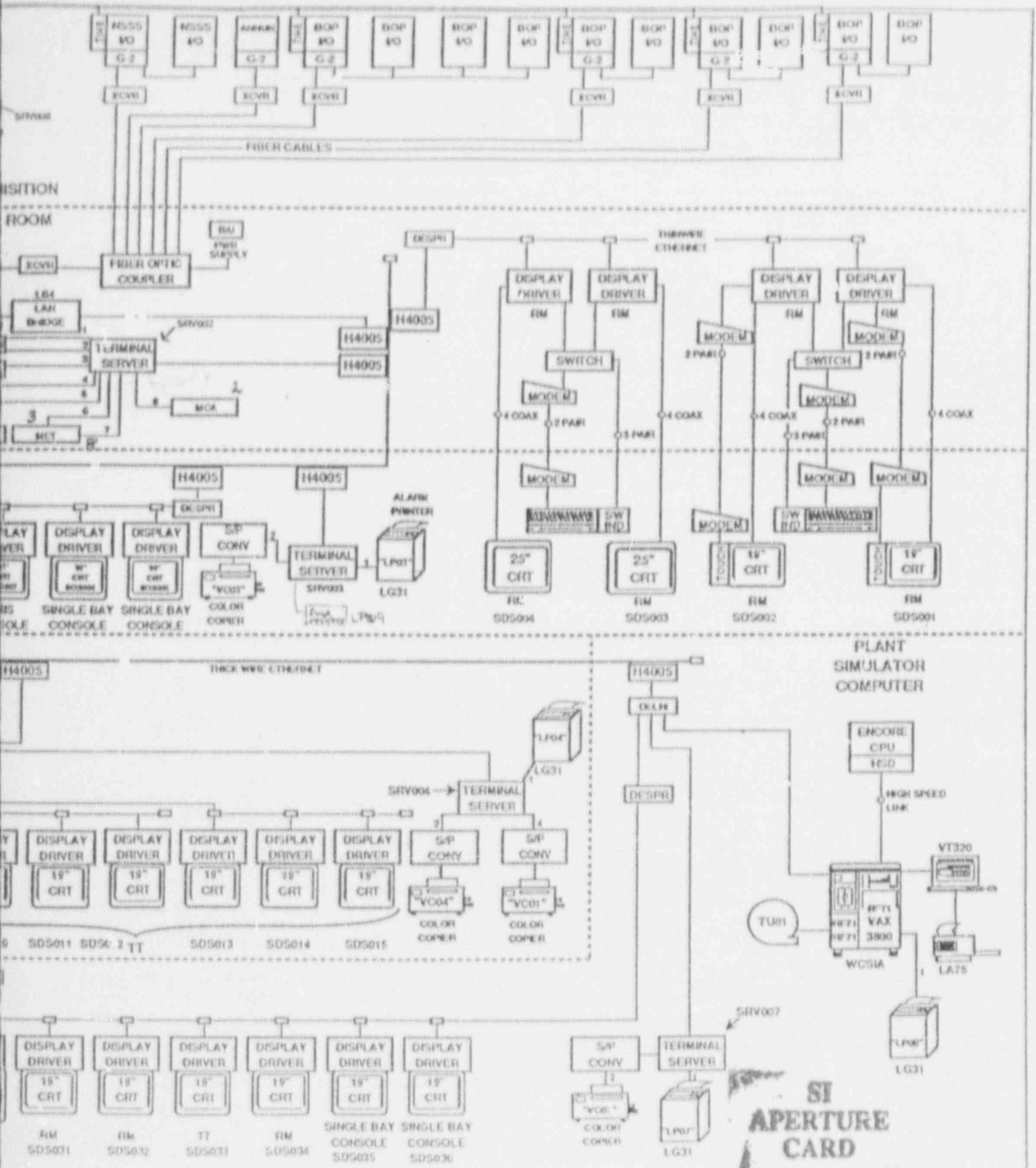
| 6. Executive Review and Concurrence | Date Received | Signature | Date |
|---|---|---|---|
| [X] V.P. - Operations | | | |
| [X] V.P. - Eng. & Tech. Services | | | |
| [ ] Director Quality | | | |
| [ ] | | | |






Plant Block Diagram



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