Commonwealth Edison
960 North Route 47
Morris, Illinois 60450

May 22, 1985

50-373
50-374

John B. Hickman
Reactor Safety Engineer
United States Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: ERDS TEST AT LA SALLE NUCLEAR POWER STATION

Dear John:

As per our agreement regarding the transmission of station computer parameter data for the ERDS Test scheduled for July, 1985 the attached lists identifies those computer points.

In addition, the specifications for parameter data transmissions are as follows:

1) Frequency - once per minute
2) Baud rate - 1200 via telephone line
3) Format - ASCII language Asynchrous, 8-Bit, no parity with one stop Bit
4) The transmission will consist of a Leader (16 characters) and all of the analog values (20 characters each, and the Follower (5 characters)

   a. The 16 character Leaders consist of:
      1 Unique beginning character
      2 Station identification characters.
        LS for La Salle Nuclear Power Station
      1 Reactor Number character, 1 or 2 or 3
      1 Decimal Point character
      6 Date character. YEAR, MONTH, DAY (YYMMDD)
      1 Decimal Point character
      4 Time characters. 24 hour clock (HHMM)

      Example for a 16 character leader for
      La Salle 2 on May 19, 1985 at 1425 (2:25 p.m.)

      / L S 2 . 8 5 0 5 1 9 . 1 4 2 5

   b. All of the 20 character analog values will consist of:
      6 Sensor Data Base point identifications Alpha Numeric characters (Left Justified)
      10 Analog value characters (+ . 1 2 3 4 E ± 0 0)
      4 Status word characters in HEX format

Example for 20 character analog value for computer point C014 SPDS-Reactor Pressure having a value of +1500 psig that is in High Alarm.

C O 1 4 0 0 + . 1 5 0 0 E + 0 4 0 0 0 4

c. The Follower will consist of:
4 HEX character check sum
1 Unique ending character

Example for a 5 character Follower:

3 F A 6 \

5) The software program uses an X-ON and X-OFF format.

6) Plant parameter data from the PRIME, are the most current at the moment of transmission, except for the scenario data.

7) To initiate the test personnel at La Salle will contact the NRC Operations Center Office in Maryland and establish a telephone link. Data transmission will be as follows:

a. Real plant parameter data will be initially transmitted for a short period of time to be able to assure both CECo and NRC programs are operational.

b. La Salle July, 1985 GSEP Scenario parameter data will then be transmited for the duration of the exercise.

c. Real plant parameter data will follow the Scenario data for a short period of time to indicate the return to a normal condition. This will terminate the ERDS Test.

8) As originally discussed, 15 minute averaged meteorological data was requested. For real plant parameters this is possible, however, the Scenario program can not handle 15 minute averages, instead it has the one minute values. Thus, the one minute averages will be used in the scenario.

May 22, 1985

ERDS TEST AT LA SALLE NUCLEAR POWER STATION

If you have any problems, concerns or questions, please contact me as soon as possible at Mazon EOF, Dresden extension 753. CECo computer personnel have started software development and if there are any changes I need to inform them so that our target data of the test is achieved.

Prepared By: Larry W. Duchek
Larry W. Duchek
Emergency Planning
Supervisor

Approved By: for
John C. Golden
Supervisor
Emergency Planning

LWD:wjm

cc: D.L. Farrar
N.E. Wandke
L.D. Butterfield
J.C. Golden
B.B. Stephenson
L.D. Thompson
G.J. Diederich
C. Gains
P. Tebbe
T.G. Blackmon

EOF-#85-5-151
1222A

LA SALLE BWR PARAMETERS

REACTOR COOLANT SYSTEMS

COMPUTER POINT	DESCRIPTION	UNITS
C014 ✓	SPDS-Reactor Pressure	PSIG
C013 ✓	SPDS-Reactor Level	INCHES
C188 ✓	FW LOOP Branch A	M#/H
C189 ✓	FW LOOP Branch B	M#/H
C019 ✓	SPDS-Reactor Power	%
A840	Total Rx FW FLOW	M#/H
C000	TOTAL FEEDWATER FLOW	M#/H

SAFETY INJECTION SYTEMS

A806 ✓	HPCS PMP Discharge Flow	GPM
A808 ✓	LPCS PUMP DISCH Flow	GPM
A800	RHR PUMP 2A DISCH Flow	GPM
A801	RHR PUMP 2B DISCH Flow	GPM
A802	RHR PUMP 2C DISCH Flow	GPM

CONTAINMENT SYSTEMS

C015 ✓	SPDS - DW PRESS	PSIG
C016 ✓	SPDS - DW TEMP	DEGF
A810	DW H2 Concentration	%
A837	DW H2 Concentration	%
C018 ✓	SPDS-SUPP TEMP	DEGF
C017 ✓	SPDS-SUPP LVL	FEET

RADIATION MONITORING SYSTEMS

C102 ✓	SPDS-Containment Rad	KR/HR
C218 ✓	SPDS-OFF-GAS Radiation	R/HR
A827	STN VNT STACK GAS-HIGH RNG	uCi/CC
A825 ✓	STN VNT STACK GAS-LOW RNG	uCi/CC
A826	STN VNT STACK GAS-MID RNG	uCi/CC
A836 ✓	STN VNT STACK FLOW	KCFM
A830	SGTS EFF GAS HIGH	uCi/CC
A834	SGTS EFF GAS LOW	uCi/CC
A833	SGTS EFF GAS MID	uCi/cc
A832	SGTS EFF IODINE	KC/M
A831	SGTS EFF PARTICULATE	KC/M
A813 ✓	SGTS TRAIN INLET FLOW	CFM

Attachment - Ltr. EOF#85-5-151

1222A/wjm

LA SALLE BWR PARAMETERS

RADIATION MONITORING SYSTEMS (cont'd)

A946	RHR SERV WTR Loop A	RAD	KC/SEC
A922	RHR SERV WTR Loop B	RAD	KC/SEC
D952	MAIN STEAM RAD DIV A1		
D953	MAIN STEAM RAD DIV A2		
D992	MAIN STEAM RAD DIV B1		
D993	MAIN STEAM RAD DIV B2		
A815 ✓	Rx Bldg HCU MOD NO ARM		MR/HR
A816 ✓	Rx Bldg HCU MOD SO ARM		MR/HR
A817	Rx Bldg HPCS PUMP ARM		MR/HR
A822 ✓	Rx Bldg RCIC TURB ARM		MR/HR
A821 ✓	Rx Bldg RHR H-XCH NW ARM		MR/HR
A820 ✓	Rx Bldg RHR H-XCH SE ARM		MR/HR
A819	Rx Bldg Standby Gas ARM		MR/HR
A921	Service Water Effluent RAD		KC/SEC

METEOROLOGICAL SYSTEMS

P010 ✓	15-Min AVG 200 ft WS	M/SEC
P011	15-Min AVG 33 ft WS	M/SEC
P009	15-Min AVG 375 ft WS	M/SEC
P004 ✓	15-Min AVG 200 ft WD	DEGREES
P005	15-Min AVG 33 ft WD	DEGREES
P003	15-Min AVG 375 ft WS	DEGREES
P013 ✓	15-Min AVG Delta Temp 33/200	DEGF/ft
P012	15-Min AVG Delta Temp 33/375	DEGF/ft
C066	MIN AVG 375 FT WIND DIR	DEG
C067	MIN AVG 200 FT WIND DIR	DEG
C068	MIN AVG 33 FT WIND DIR	DEG
C069	MIN AVG 375 FT WIND VEL	M/sec
C070	MIN AVG 200 FT WIND VEL	M/sec
C071	MIN AVG 33 FT WIND VEL	M/sec
A851	DIFF TEMP AT 33 FT/375	DEGF/FT
A855	DIFF TEMP AT 33 FT/200	DEGF/FT

Attachment - Ltr. EOF#85-5-151

1222A/wjm

Larry Duchet 5/20

LaSalle

Computer Work @ their end done ~ June 14

When completed

TABLE 2
BWR PARAMETER LIST

Primary Coolant System	Reactor pressure
	Reactor vessel level
	Feedwater flow
	Neutron flux - startup range
Safety Injection	RCIC flow
	HPCI/HPCS flow
	Core spray flow
	LPCI flow
	Condensate storage tank level
Containment	Drywell pressure
	Drywell temperatures
	Hydrogen and oxygen concentration
	Drywell sump levels
	Suppression pool temperature
	Suppression pool level
Radiation Monitoring System	Reactor coolant radioactivity level
	Primary containment radiation level
	Condenser off-gas radiation level
	Effluent radiation monitor
	Process radiation levels
Meteorological	Wind speed
	Wind direction
	Atmospheric stability

BWR PARAMETER

Reactor Coolant System

Reactor Pressure. (La Salle) (GE)

A 906 - Rx Pressure NR — PSIG
A 907 - Rx Pressure WR - PSIG
A 934 - Rx Pressure WR - PSIG
C014 - SPDS - Rx Press - PSIG
C147 - SPDS - Rx Press Rate Change - PSI/M

Reactor Vessel level. (La Salle.)

A 905	RX WTR LVL FUEL ZONE	- INCHES
A 933	Rx WTR LVL FUEL ZONE	- INCHES
A 902	Rx WTR LVL NR	- INCHES
A B39	Rx WTR LVL WR	- IN
A 903	Rx WTR LVL WR LVL 2	- IN
A 904	Rx WTR LVL WR LVL 2	- IN
A 932	" " " " " "	- IN
A 948	" " " " " "	- IN
C013	SPDS Rx Level	- INCHES
C146	SPDS Rx Level Rate Change	- IN/M

Feedwater Flow (La Salle.)

B728	Feedpump A Discharge Flow	M#/H
B729	Feedpump B Discharge Flow	M#/H
C188	FW LOOP BRANCH A	M#/H
C189	FW LOOP BRANCH B	M#H.

Neutron flux - Startup Range (La Salle)

F480 }	SRM CH A LOG COUNT RATE	C/SEC
F477 }	SRM CH A PERIOD	[redacted] SEC
F481 }	" CH B "	
F478 }		
F482 }	" CH C "	
F479 }		

Safety Injection

RCIC Flow (LaSalle)
This information is not available thru the computer at LaSalle County Station

HPCI Flow (LaSalle.) "HPCS"
A806 HPCS PMP DISCHARGE Flow - GPM.

Core Spray Flow (LaSalle.)
(This information is not available thru the computer at LaSalle County Station.
A808 - LPCS PUMP DISCH Flow — GPM
LPCI flow (LaSalle)
A800 - RHR PUMP 2A DISCH Flow - GPM
A801 RHR PUMP 2B DISCH Flow - GPM
A802. RHR PUMP 2C DISCH Flow - GPM
F473 Rx Head Spray flow - GPM
Condensate Storage Tank Level. (LaSalle)
This information is not available thru the computer at LaSalle County Station.

Containment

Drywell Pressure.

L118	Drywell Pressure	PSIG
A910	Drywell Pressure. NR	PSIG
A936	Drywell Pressure NR	PSIG
C015	SPDS - DW PRESS	PSIG
C148	SPDS - DW PRESS RATE CHANGE	PSI/M

Drywell Temperature

A924	DW AIR TEMP	DEG F
A925	" " "	"
A949	" " "	"
A950	" " "	"
C016	SPDS DW TEMP	DEG F
C149	SPDS DW TEMP RATE CHANGE	DEG F/H

Hydrogen + Oxygen Concentration

A810	DW H2 Concentration	%
A837	" " "	%

Oxygen Concentration in DW is not available thru the Computer at LaSalle Station.

Drywell Sump Level
This information is not available thru the computer at LaSalle County Station.

Suppression Pool Temperature

L122	SUPP POOL WATER TEMP NW		DEG F
L123	" " " " SE		DEG F
A912	Supp. Pool Water Temp	14 points	DEG F
thru	" " " "		"
A918	" " " "		"
A938	" " " "		"
thru	" " " "		"
A944	" " " "		"
C018	SPDS SUPP TEMP		"
C151	SPDS SUPP TEMP RATE CHANGE		DEG/M

Suppression Pool Level

A937	SUPP POOL WTR LVL	FEET
L124	SUPP POOL WTR LVL	IN.
A911	SUPP POOL LVL	FEET
C017	SPDS - SUPP LVL	FEET
C150	SPDS - SUPP LVL RATE CHANGE	FEET

Radiation Monitoring Systems

Reactor Coolant Radioactivity level
This information is not available thru the computer at LaSalle County Station

Primary Containment Radiation level.

A814	DW Gross Gamma Rad	KR/HR
A836	" " " "	KR/HR
C102	SPDS. - Containment Rad	KR/HR

Condenser Off-Gas Radiation levels

C218 - SPDS - Off Gas Radiation	R/HR
A919 - Off-Gas RAD	R/HR
A945 - Off Gas RAD	R/HR

Effluent Radiation Monitor

AB27	STN. UNT STACK GAS - High Range	UCi/cc
AB25	" " " " Lo "	UCi/cc
AB26	" " " " MID "	MCi/cc.
AB38	STN UNT STACK FLOW	MCi/cc
C217	- SPDS - GAS EFFLUENT RAD.	MCi/sec.
AB30	SGTS EFF GAS HIGH	uCi/cc
AB34	" " " LOW	uCi/cc
AB33	" " " MID	uCi/cc
AB32	SGTS EFF IODINE	KC/M
AB31	" " PARTICULATE	KC/M
AB13	SGTS TRAIN INLET FLOW	CFM

Process Radiation levels

AB23 } ARM		MR/HR
AB18 }		
A946	RHR SERV. WTR LOOP A RAD	KC/sec
A922	" " " " B RAD	"
AB15 - AB16 - AB17 } ARM.		MR/HR
AB22 - AB21 - AB20 AB19 }		
D952/D953/D992/D993 - Main Steam Rad Div		A1, A2 B1, B2

Meteorological

Wind Speed

AB50	WS at 200 ft	M.P.H.
AB52	WS at 33 ft	"
AB44	WS at 375 ft	"
C070	MIN AVG 200 WIND VEL.	M/S
C071	" " 33 " "	M/S
C069	" " 375 " "	M/S.
P010	15 MIN AVG 200 ft WS	M/sec
P011	" " " 33 " "	M/sec
P009	" " " 375 "	M/sec

WIND DIRECTION

P004	15-MIN AVG 200 FT WD	Degrees.
P005	" " 33 WD	"
P003	375 WD	"
AB48	WD at 200 ft	"
AB53	WD at 33	"
AB47	WD at 375	"
C067	WD at 200	"
C068	WD at 33	"
C069	WD at 375	"

atmosphere stability

A855	- Delta Temp. 33/200	DEGF/F
A851	- Delta Temp 33/375	DEGF/F
P013	15-min Avg. Delta Temp. 33/200	Deg. F/ft
P012	" " " " 33/375	Deg F/ft.
P007	15-MIN STD. DEV WD. 200	Degrees
P008	" " " " 33	Degrees
P006	" " " " 375	Degrees.

4/24/85

Send data once / minute

For test - dial up access

For test :

1) set up line
2) send live plant data
3) break
4) send scenario data
5) break
6) send live data

Larry Duchek (312) 294-3285

Mel Gehrs — (Larry Thompson's Boss ?).

~~Tabby~~ Patty Tabby

Bell 212 / 1200 Baud ?
Capture in File Yes

Do we need flow control or can we contiously capture Need flow control

Propose to send ASCII charrcters OK

Will call @ 4:30

X-ON X-OFF → Ok

Non-bit parity ?

4/10

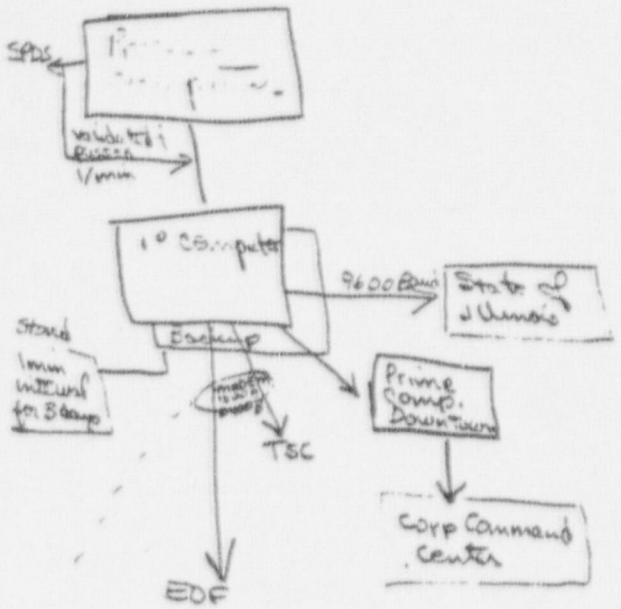
Com Ed Mtg

Larry Duchek
Terry Blackmon

1) Review Parameter List

2) Line up ADP expert and trip to Com Ed or telecon.

Talk to Larry on Monday



Ops CTR

★ Dial up ISK for our transmitters.

Quantities Aug. 26-28

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need to get Bill NPA drill before Quad Cities

- [illegible]
- [illegible] Center
- [illegible]

ROUTING AND TRANSMITTAL SLIP

1 TO (Name, office symbol or location) Ken Perkins	INITIALS	ACTION: CIRCULATE
	DATE 3/5	COORDINATION
2 John Hickman Action	INITIALS	FILE
	DATE	INFORMATION
3	INITIALS	NOTE AND RETURN
	DATE	PER CONVERSATION
4	INITIALS	SEE ME
	DATE	SIGNATURE

REMARKS

Cordell Reed of CE has agreed to EROS testing. Contacts are Norm Wandke, Asst VP Nuclear Services and Del Butterfield Tech Services, John Golden EP. I know the first two - Lets meet before or after April 3-4

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM (Name, office symbol or location) Ed Jordan	DATE
	PHONE

OPTIONAL FORM 41
AUGUST 1967
GSA FPMR (41CFR) 100-11.206

GPO 968-16-81418-1 419-018 5041-101