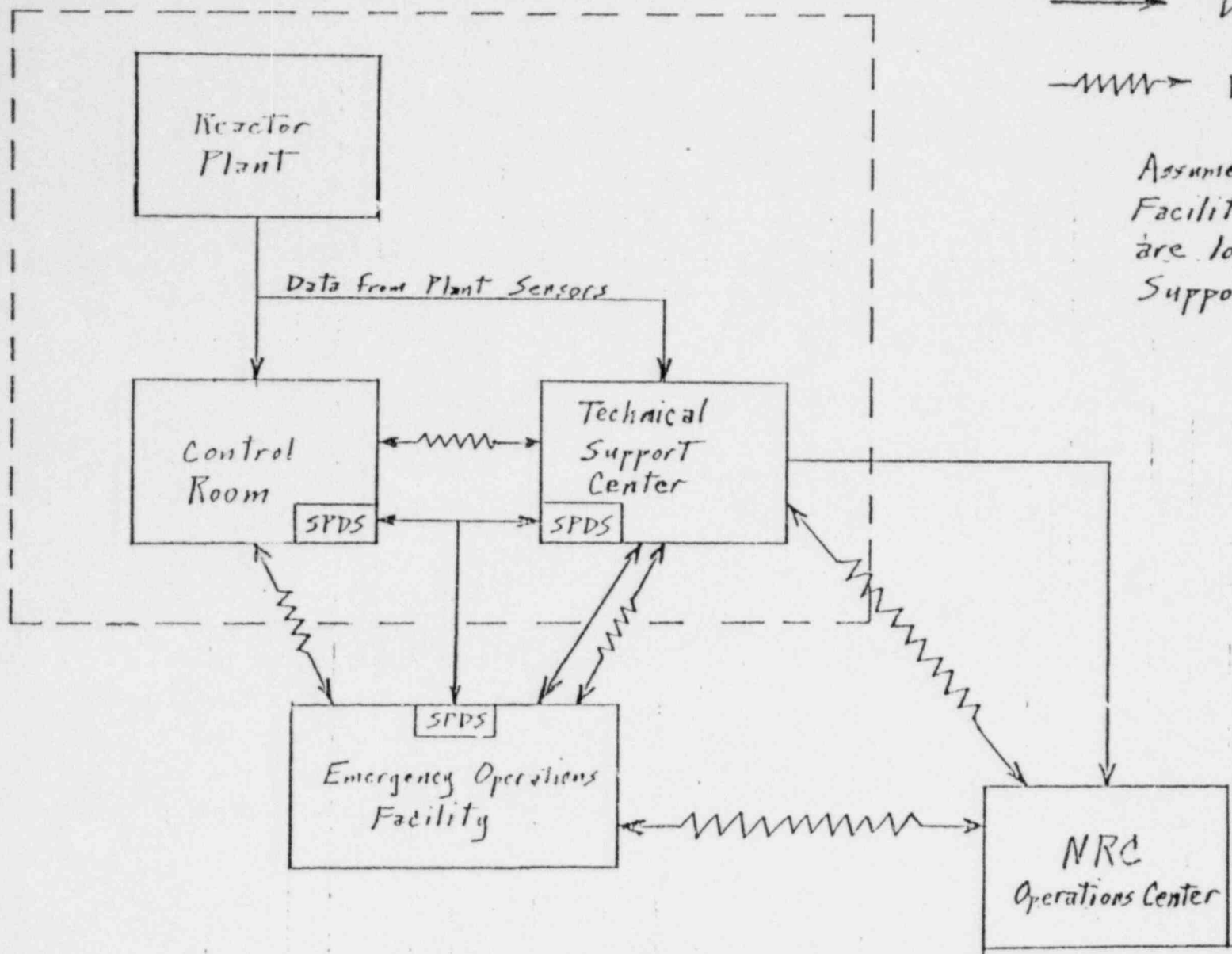


8007240463

EMERGENCY RESPONSE FACILITIES

SYSTEM	LOCATION	TIME OF OPERATION	PRIME USERS	MINIMUM DATA REQUIREMENTS	PRIMARY FUNCTIONS
SPDS	CONTROL RM.	CONTINUOUS	REACTOR OPERATORS	SUBSET OF RG 1.97	<ul style="list-style-type: none"> - MONITOR SAFETY STATUS OF IMPORTANT PLANT SYSTEMS - DISPLAY OVERALL SAFETY STATUS - PROVIDE ALERT (SIGNAL) IF ANY SAFETY PARAMETER APPROACHES AN UNSAFE CONDITION
TSC	NEAR CONTROL ROOM	DURING EMERGENCY & RECOVERY OPERATIONS	LICENSEE MGT. & TECHNICAL SUPPORT STAFF/ NRC SITE TEAM	RG 1.97	<ul style="list-style-type: none"> - PLANT MGT. & TECH. SUPPORT FOR CONTROL ROOM - ADDITIONAL INFO SOURCE FOR EOF & NRC - EOF FUNCTIONS UNTIL EOF IS STAFFED
EOF	NEAR REACTOR (1-3 MILES)	DURING EMERGENCY & RECOVERY	LICENSEE MGT. & TECHNICAL SUPPORT STAFF/ NRC SITE TEAM PLUS STATE OFFICIALS & OTHER FEDERAL AGENCIES	RG 1.97	<ul style="list-style-type: none"> - OVERALL MGT. OF LICENSEE EMERGENCY RESPONSE RESOURCES - COORDINATE & EVALUATE ACTIONS HAVING POTENTIAL ENVIRONMENTAL IMPACT - COORDINATE WITH LOCAL, STATE & FEDERAL AGENCIES - PUBLIC INFORMATION
NDL	NRC HQS	CONTINUOUS	NRC EMERGENCY MGT. TEAM & TECH. STAFF	SUBSET OF RG 1.97	<ul style="list-style-type: none"> - MONITOR & INDEPENDENTLY ASSESS - ADVISE LICENSEE - PROVIDE PUBLIC INFORMATION



→ Data Transmission Link

~ Zigzag ~ Voice Communications Link

Assumes Emergency Response Facilities data processor(s) are located in the Technical Support Center

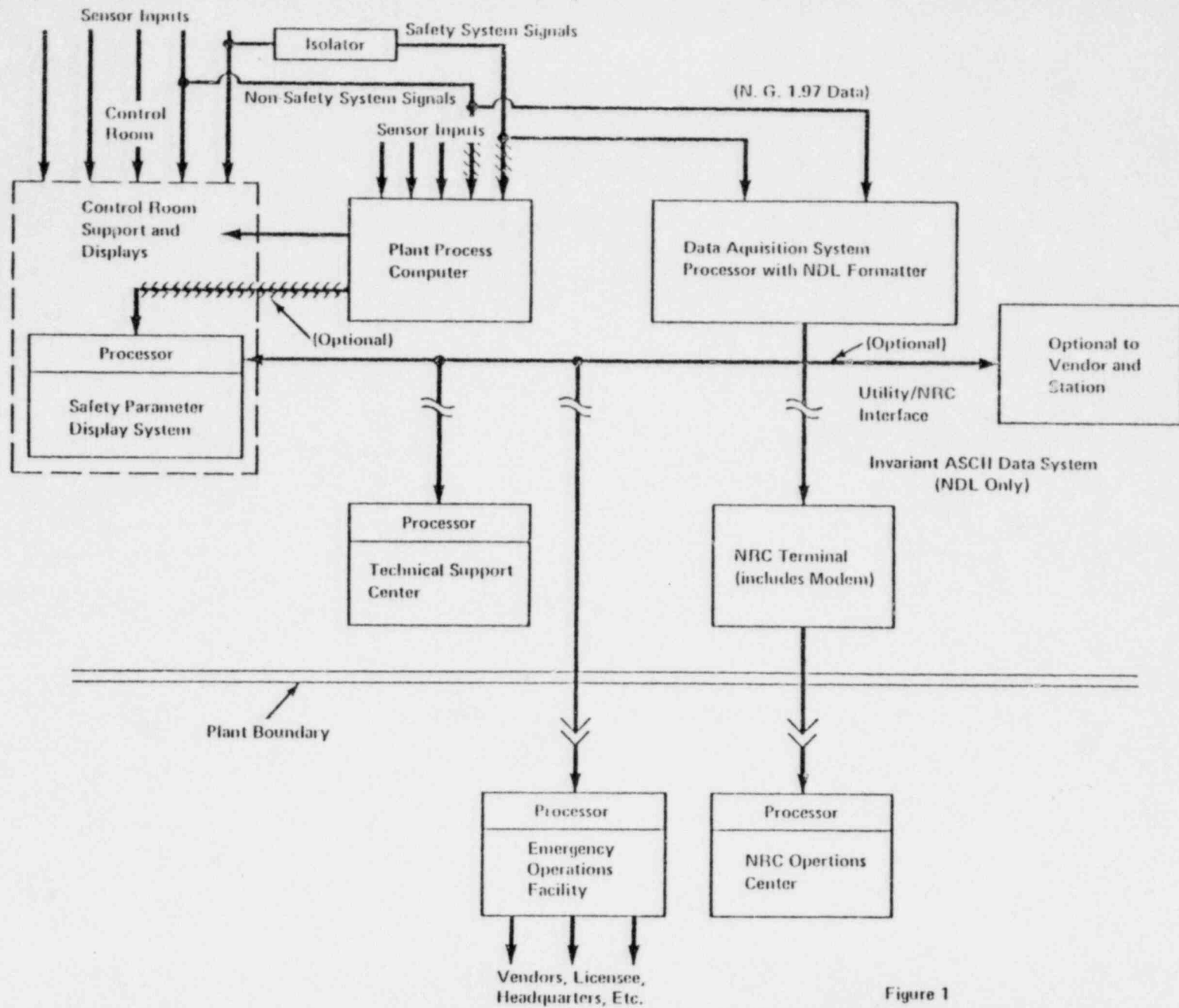
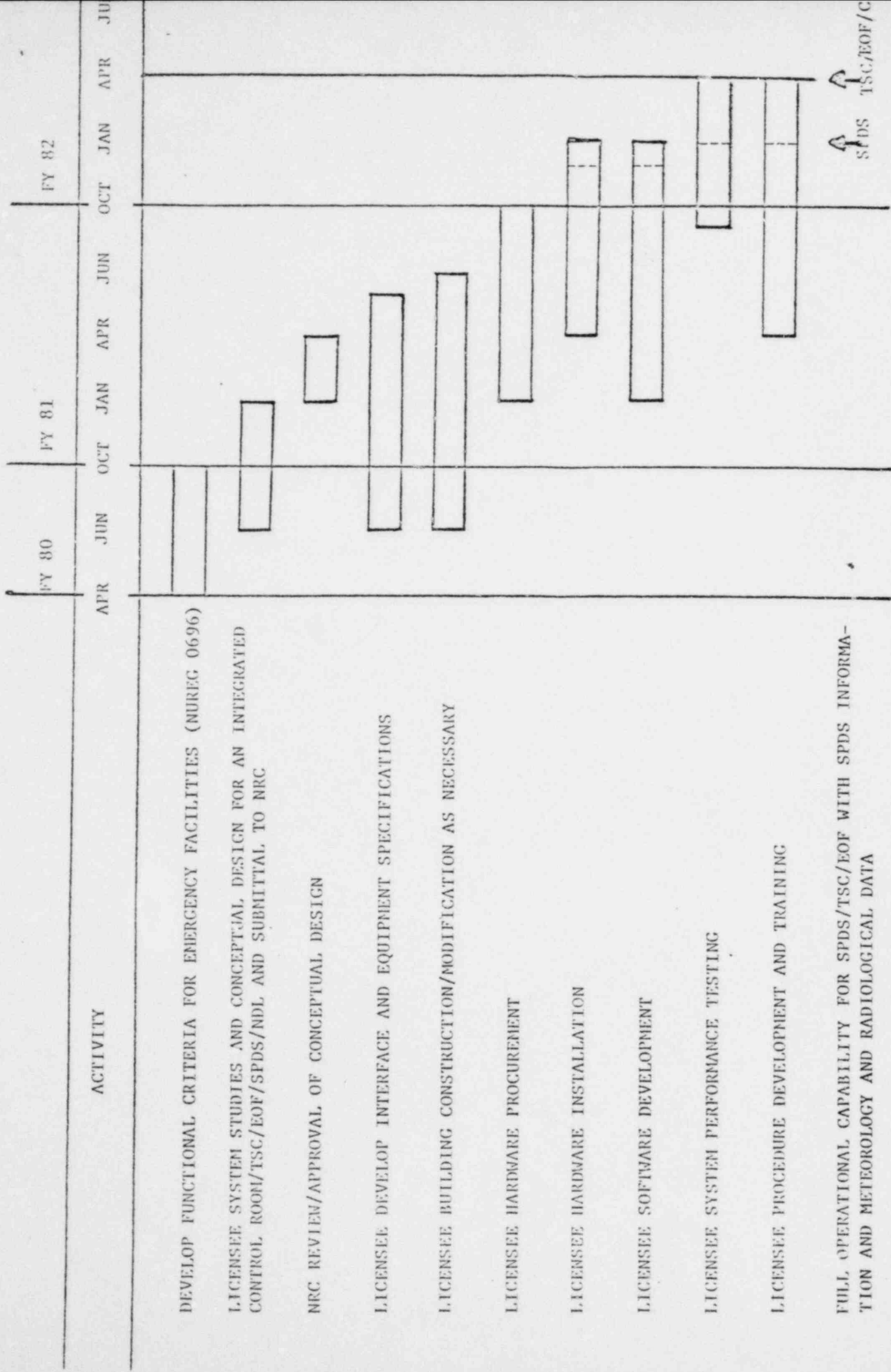


Figure 1
Functional Block Diagram of Data Flow.

EMERGENCY FACILITIES
IMPLEMENTATION SCHEDULE

ISSUE DEVELOP FUNCTIONAL CRITERIA	OCTOBER 1980
COMPLETE SPDS (WITH EXISTING INSTRUMENTS)	APRIL 1982
SUPPLY TSC AND EOF WITH SPDS INFORMATION PLUS METEOROLOGY AND RADIATION DATA	APRIL 1982
COMPLETE EMERGENCY FACILITIES (WITH ALL RG 1.97 INSTRUMENTS)	JUNE 1983



JUNE 1983

IMPLEMENTATION SCHEDULE FOR EMERGENCY FACILITIES

BASES FOR IMPLEMENTATION SCHEDULE FOR EMERGENCY FACILITIES

<u>ACTIVITY</u>	<u>LICENSEE CONTRACTS OUT WORK</u>	<u>LICENSEE DOES WORK IN-HOUSE</u>
SYSTEM STUDIES	1 PMY/3 MOS	4 PMY
INTERFACE AND EQUIPMENT SPECIFICATIONS AND SUBMISSION OF CONCEPTUAL DESIGN	1 PMY/3 MOS	7.5 PMY
BUILDING CONSTRUCTION/MODIFICA- TION	1 PMY/1 YR	?
HARDWARE PROCUREMENT	1 PMY/6 MOS	3 PMY
BASED ON 6-9 MOS FOR OFF THE SHELF HARDWARE		
9-12 MOS FOR SPECIAL CONFIGURED HARDWARE		
HARDWARE INSTALLATION	5 PMY/6 MOS	11 PMY
SOFTWARE DEVELOPMENT	2 PMY/1 YR	10 PMY
SYSTEM PERFORMANCE TESTING	2 PMY/6 MOS	3 PMY
PROCEDURE DEVELOPMENT AND TRAINING	2 PMY/12 MOS	2 PMY

NOTE: THE FOREGOING WAS DEVELOPED FROM ESTIMATES FROM LAWRENCE LIVERMORE
LABORATORY AND TORREY PINES COMPUTER SCIENCE AND COMPUTER
INSTALLATION STAFF.

ROLE OF NRC IN EMERGENCIES

- SPECTRUM OF ROLES

- MONITORING - VERIFY AND EVALUATE DATA FROM MULTIPLE SOURCES TO ASSURE THAT PROPER AND ADEQUATE OPERATIONAL AND PROTECTIVE MEASURES ARE BEING TAKEN AND INFORM THE PUBLIC.
- ADVISORY - PROVIDES REQUESTED OR VOLUNTEERED ASSISTANCE IN DIAGNOSING THE SITUATION AND ISOLATING CRITICAL PROBLEMS.
 - PROTECTIVE ACTION DETERMINATIONS - ADVISE OTHER CONCERNED AGENCIES.

-
- DIRECTION - ASSUME INITIATIVE IN MAKING OPERATIONAL DECISIONS REGARDING LICENSEE ACTIONS TO BE TAKEN.
 - ASSUME MANAGEMENT CONTROL - TASKING OF THE LICENSEE AND SUPERVISION OF THE IMPLEMENTATION OF THE ACTIONS ORDERED.
 - CONSTRAINTS - NRC WOULD NOT PHYSICALLY OPERATE FACILITY.

AIF CONCERNS REGARDING NDAL

- . BETTER DEFINITION OF THE ROLE OF NRC AND USE OF NDAL
- . QUANTITY OF DATA REQUIRED FOR NDAL IS IN EXCESS OF THAT
NEEDED BY NRC
- . PROTOTYPE BE INSTALLED ON ONE OR A FEW PLANTS

REEVALUATION OF NDL ALTERNATIVES

- . ALTERNATIVE 1 - BASIC SANDIA CONCEPT
- . ALTERNATIVE 2 - MODIFIED SANDIA CONCEPT
- . ALTERNATIVE 3 - LINE PRINTER W/MINIMAL DISPLAY
CAPABILITY
- . ALTERNATIVE 4 - LINE PRINTER ONLY

ALTERNATIVE 3 AND 4 DEFICIENCIES

. OPERATIONS CENTER DISPLAY SYSTEMS

. DATA RECALL

. STORAGE

. TRANSMISSION SPEED

. TRANSIENT ACQUISITION

ALTERNATIVE 2

- . MODIFICATION OF ALTERNATIVE 1 (NO LONGER ACTIVELY CONSIDERED)
- . INTERRELATIONSHIP WITH SPDS, TSC AND EOF NOT A PROBLEM
- . CONCURRENT IMPLEMENTATION
- . REASONABLE APPROACH
- . NRC DATA RECEIVING TERMINAL DESIREABLE
 - .. ASSURE RELIABLE AND VERIFIABLE DATA
 - .. MAINTAIN UNIFORMITY OF DATA TRANSMISSION
 - .. FAULT ISOLATION
 - .. ERROR CONTROL

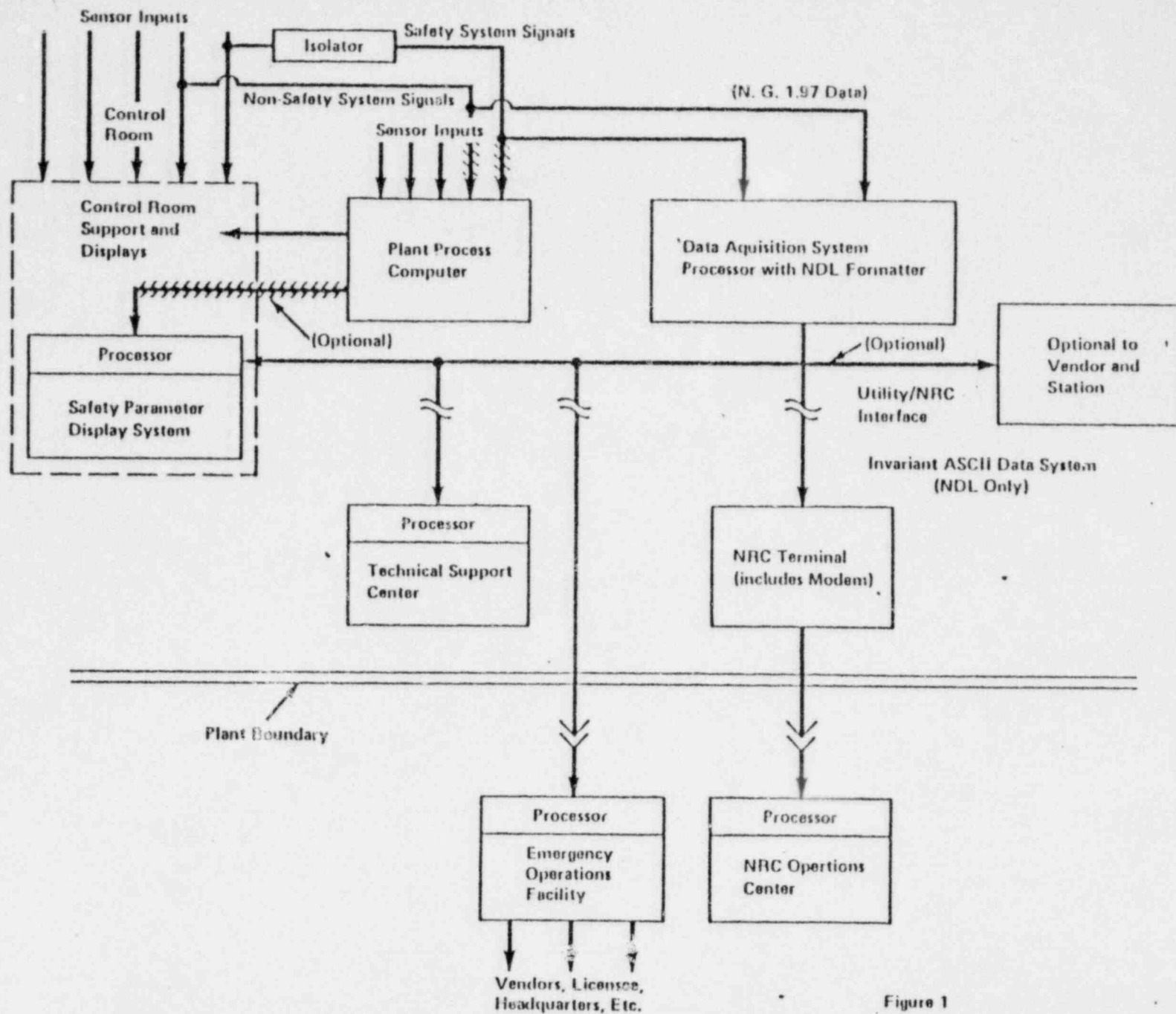
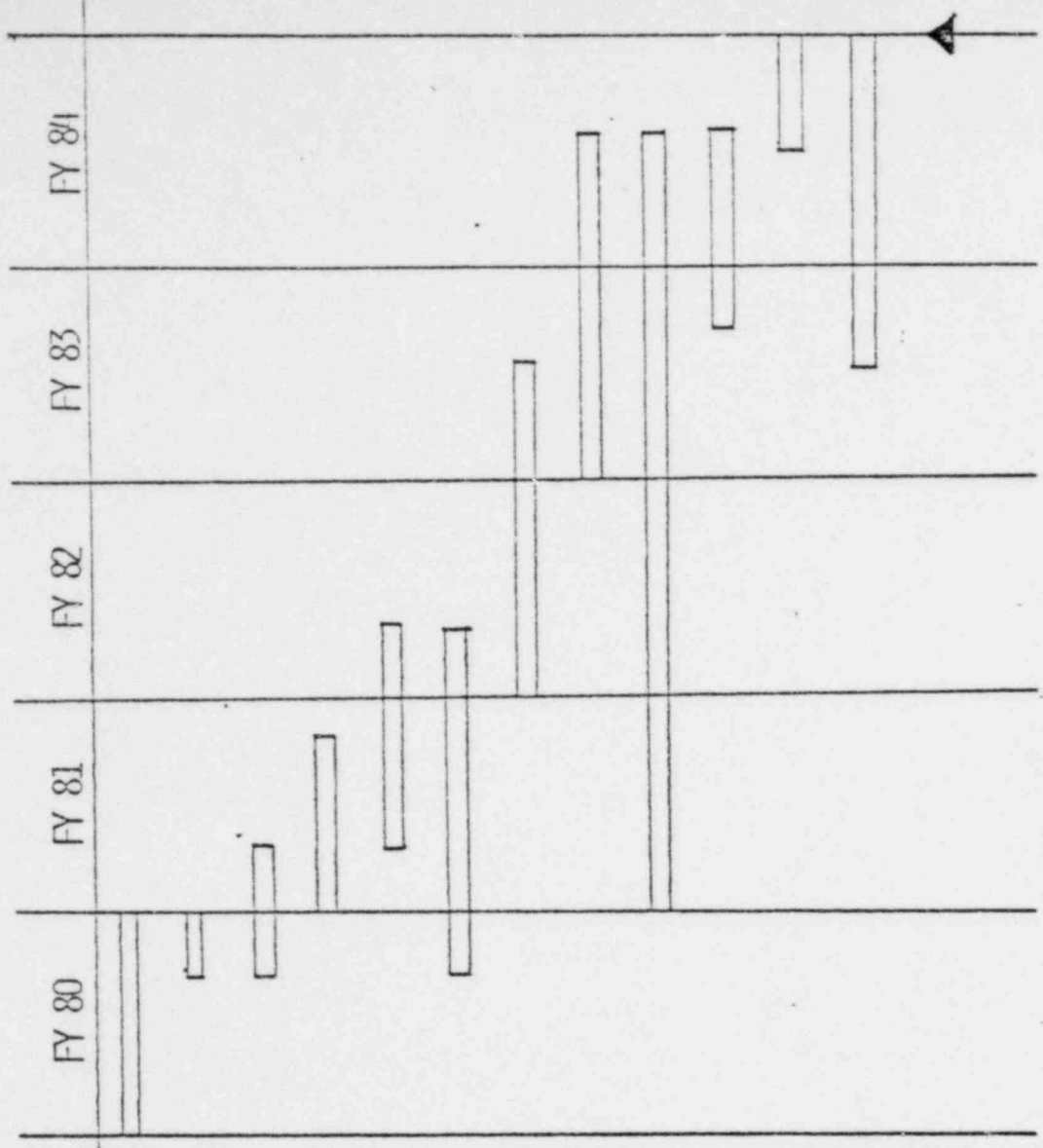


Figure 1
Functional Block Diagram of Data Flow.



TIME PHASING OF MAJOR ND L ACTIVITIES

NDL RECURRING COSTS* THROUGH FY 1984

<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>
-	300	1800	2230

*INCLUDES, WHERE APPLICABLE:

LEASE LINE CHARGES

OPERATIONS CENTER PERSONNEL

EQUIPMENT MAINTENANCE

SYSTEM TESTING

NRC TERMINAL REPAIR AND SERVICING

RECOMMENDATIONS

- . APPROVE MDL CONCEPT
 - .. DEVELOP INTERFACE SPECIFICATIONS & EQUIPMENT SPECIFICATIONS
 - .. DEVELOP RFP

- . NOTE PUBLICATION OF NUREG 0696 FOR COMMENT
 - .. MODIFYING JANUARY 1, 1981 FULL IMPLEMENTATION OF TSC & EOF