June 18, 1980

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Mr. D. G. Eisenhut, Director
Division of Licensing
United States Nuclear Regulatory Commission
Washington, D. C. 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
EMERGENCY CENTERS

Dear Mr. Eisenhut:

The purpose of this letter is to describe to you and your staff Carolina Power & Light Company's (CP&L) intentions with regard to plant emergency centers which must be constructed or established to meet end of the year commitments and requirements. The plans described herein are based on our understanding of the published guidance[1] presently available, discussions with the NRR Short Term Lessons Learned Implementation Teams and NRR Emergency Planning Teams, and our telephone conversation with your staff on May 13, 1980.

As discussed in the attachment, CP&L is not planning to construct a single Emergency Operations Facility (EOF) as described in your April 25, 1980 letter. Instead, our Recovery Center, Media Center and Local Emergency Operations Center will be established to fulfill the same functions as an EOF. Utilizing these facilities rather than constructing an EOF is a desirable option for the following reasons:

1. It utilizes facilities which are already included in State and Local Emergency Preparedness planning for all types of emergencies.

2. It does not require State and Local officials to relocate from their normal work stations which gives them better access to their resources.

3. All the functional capabilities of NRC guidance are met by use of these existing structures for recovery, media briefing and local emergency operations.

1. Reference a) D. G. Eisenhut's letter of September 13, 1979.
   b) H. R. Denton's letter of October 30, 1979.
   c) D. G. Eisenhut's letter of April 25, 1980.

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The establishment of three facilities was discussed with State and Local officials during the development of the CP&L Corporate Emergency Plan. They fully concur in our method of providing the required functions, as described herein.

CP&L is proceeding with the construction and establishment of these facilities in order to meet our commitments. If you or your staff have any concerns about the plans described herein, you are requested to contact us by July 3, 1980. Any delay beyond that date may result in our scheduled completion not being commensurate with your requirements.

Yours very truly,

E. E. Utley
Executive Vice President
Power Supply
and
Engineering & Construction

JJS/jcb

Attachment

cc: Mr. J. N. Hannon (NRC)

BRUNSWICK STEAM ELECTRIC PLANT

DESCRIPTION OF EMERGENCY RESPONSE FACILITIES

The Emergency Response Facilities which this Company will use at the Brunswick plant were planned to provide a full spectrum of support for the affected plant and surrounding area. We have developed a comprehensive, flexible response complex which facilitates coordinated action by Company, National, State and Local Authorities while providing support to the news media and enhancing receipt of support from outside organizations such as NSSS Vendors, A/E's, etc. The control room meets wide accident spectrum habitability criteria and the On-Site Technical Support Center meets habitability requirements as described later.

The entire emergency response complex will be linked by a comprehensive communications network. The network hardware uses Bell systems, the Company microwave net, data links, and radio to provide: (a) voice communication through normal telephone use, automatic ringdown (hot line) between selected centers, conference call capability, speaker phones and operator assistance where required; (b) radio communications between selected Company vehicles (Radiation Monitoring, Corporate Management, Health Physics) and appropriate fixed locations, as well as with State mobile units and fixed locations; (c) facsimile and telex transmission; (d) data transmission via data link.

Specific information about each of the Emergency Response Facilities and their role in time of an emergency is set forth below:

Control Room

The function of the control room at Brunswick is plant control. Adequate instrumentation, controls, and communications are provided for this purpose. Control room personnel will have direct access to telephone, radio, and data communications (CRT) facilities; however, every effort will be made to route incoming communications to the on-site Technical Support Center, thereby shielding the control room personnel from outside interference while allowing them free access to outside assistance if required.

Wide accident spectrum habitability standards as described in the FSAR are met for the control room. The location and internal configuration are shown in the Brunswick FSAR, Figures 12.2-3 and 12.2-4.

Emergency personnel who will operate the control room area are the Emergency Coordinator and Emergency Team. The shift foreman will serve as the Emergency Coordinator until properly relieved by the plant Operations Manager. The Operations Manager will be assisted by the Shift Operating Supervisor, Shift Foreman, Licensed and Auxiliary Operators and Security Guards.

Technical Support Center (TSC)

The Technical Support Center will provide a location to house individuals who are knowledgeable of and responsible for engineering and management support of plant operations following an event. The plant operators and operating staff are responsible for the safe operation of the plant, and for the initial action to minimize the consequences of the event.

The function of the TSC is to serve as a location from which solutions to long term problems are determined in support of the operations staff. Examples of this support are recommendations for system line-up and long term plant assessment. In order to provide this support, plant design/operation information in the form of drawings, FSAR, unit Technical Specifications, visual display of parameters (CRT), a line printer for selected plant parameters, and local TSC radiation monitors and alarms, will be available. This information will allow the TSC personnel to assess the status of the plant and stay abreast of the plant parameters.

The Brunswick Technical Support Center (TSC) will be incorporated into the new Document Control Building previously scheduled for construction in 1980. As shown in Figure 1 and Figure 3.1 of the Brunswick Security Plan, the TSC will be located outside the protected area security fence south of the existing Training Building. This location is approximately 400 feet from the Unit 2 Reactor Building. Travel time between the TSC and the control room is approximately five (5) minutes. Upon activation of the TSC, entry will be controlled by a security guard that will be stationed at the entrance.

It will be built in accordance with the local building code and is designed to meet the habitability requirements specified in H. R. Denton's letter of October 30, 1979. Dose limits from direct radiation, using the assumptions and calculations described in our December 31, 1979 correspondence on Short Term Lessons Learned Item 2.1.6.b, will allow continuous occupancy once the TSC is activated. A backup facility is not planned and is not deemed necessary.

The TSC building will be supplied electrical service from two separate sources through an automatic transfer switch. Upon loss or degradation of the normal source, the entire building load will be automatically transferred to the alternate source. The building will not be supplied from an emergency bus. One of the power sources is fed from the Unit 1 startup transformer and the other source is fed from the Unit 2 startup transformer. A complete loss of off-site power to both switchyard grids is deemed to be a highly unlikely event in view of the eight available high voltage lines. A complete loss of off-site power to both units has not occurred to date.

The TSC data acquisition system will consist of a dedicated computer system. All data displayed or recorded in the TSC will be provided by this system. The system hardware includes the following as shown in Figure 2:

1. 16 Bit CPU, 64K memory with battery backup and dual diskette drives.

2. Color operators console.

3. Video copier.

4. Two keyboard/printers.

5. Universal field mulitplexer cabinets with signal input cards for unit parameters.

The system will have the following capabilities:

1. Display or print out real time values or parameters.

2. Provide a time history record of vital parameters from the time of the initiating event.

3. Record historical data on diskettes.

4. Perform special calculations with parameter values.

5. Print out alarm messages when parameters exceed predetermined values.

Computer input signals will be paralleled from the process computers so that they will not be dependent upon operation of the process computer. Signals deemed necessary that are not available at the process computers will be obtained from the individual instrument loops. Signals taken from class 1E instrument loops will be through suitable isolation devices.

The computer system as configured is expandable for extra input parameters, off-site data transmission, and other foreseeable future requirements.

The power supply for the computer and peripherals will be from the TSC building power. The power supply for the universal field multiplexer cabinets will be the plant UPS system. One cabinet will be supplied from Unit 1 and the other from Unit 2.

There will also be a separate terminal and video copier located in the TSC which may be connected to either unit's process computer. This will provide an additional information gathering ability if the process computer is operational.

The On-Site Technical Support Center will be staffed by the Plant General Manager and by on-site personnel. The plant Emergency Plan designates the following personnel to staff the TSC:

Manager	-	Technical & Administrative
Manager	-	Maintenance
Supervisor	-	Environmental & Radiation Control
Others	-	As Required

Emergency Operations Facility

The functions of the Emergency Operations Facility, as described in D. G. Eisenhut's letter of April 25, 1980, are:

1. Overall management of utility resources.

2. Analyses of plant effluents.

3. Off-site monitoring for off-site action decisions.

4. Briefing location for off-site officials and press people.

CP&L will provide the above functions with redundant coverage by the interaction of the Recovery Center, Plant Media Center, and Local Emergency Operations Center (LEOC). These three centers will be connected with a comprehensive, redundant communications network which allows personnel located in the centers to act in concert to perform all functions as if they were housed together, while retaining the ability to relocate from any one of the three should it become uninhabitable.

In addition to the normal communications systems, an emergency system will tie the three centers together and provide access to all required locations. Telephone circuits and radio nets will provide redundant, flexible communications for the centers.

Recovery Center

The Recovery Center at BSEP is in the existing Training Building. Provisions have been made for expansion into construction buildings and mobile facilities if required. The Training Building is pre-engineered masonry and steel construction. The need for a comprehensive backup facility is under investigation and one will be provided if deemed necessary.

The Recovery Center will be managed by the Vice President, Nuclear Operations. The Recovery Organization is staffed to provide support in:

Plant Operations

Construction

Technical Support

Administration and Logistics

Engineering

Radiological Control and Waste

Each of these support functions is directed by an experienced manager who reports to the Recovery Manager.

Plant Media Center

The existing visitors center at Brunswick and temporary trailers will serve as an interim media center. In addition to normal communications, the visitors center and the trailers--to be placed in the center parking lot for the duration of an emergency--will be tied into the emergency network. The visitors center will provide a small briefing area equipped with some visual aid capacity, while the trailers will provide office space for company personnel, state agency representatives, Nuclear Regulatory Commission public information representatives, and work space for media representatives. Provisions have been made for the Bell system to provide telephones for use by company and regulatory personnel as well as separate telephone facilities for news personnel.

It is anticipated that an additional permanent building will be constructed at the Brunswick plant. When this is constructed, it will be designated as the permanent media center. All of the facilities will be moved to this center. This facility will provide work and office space for company and regulatory personnel as well as work space for the media and an assembly area for news briefings.

The plant Media Center is staffed by the Site Public Information Coordinator and Corporate Public Information personnel. The facility is designed to facilitate use by Corporate, State and Federal spokesmen.

Local Emergency Operations Center (LEOC)

The Brunswick plant has a local emergency operations center located nearby. This center is provided by local governmental agencies. The facility, which is tied into our Company emergency communications nets, provides Local, State and Federal authorities a location from which they can direct off-site activities. In addition, briefing rooms and work areas are available which can support media personnel. Dedicated telephone circuits and radio communications will connect the LEOC with the plant. The Building housing the LEOC is of brick construction and is located in the County Administration Complex at Bolivia, North Carolina about fifteen miles from the plant. This center is primarly staffed by Local, State and Federal authorities; however, CP&L provides liaison personnel to them.

On-Site Operational Support Center

The function of this center is to provide an area for assembly and briefing of off-shift and other unassigned personnel. This center is tied into the emergency communications network in addition to its normal communications capability. The location is in the existing plant lunchroom at Brunswick.

Corporate Emergency Operations Center (CEOC)

The function of this center is to provide personnel, facilities, communications and equipment to support the affected plant, coordinate with outside agencies and provide interface with Corporate Management. This center, to be located in the Corporate headquarters in Raleigh, North Carolina, will be staffed and equipped to perform the functions stated above. It will be tied into the emergency communications network and is managed by the Vice President - Power Supply.

The CEOC, in addition to the Manager, will be staffed by communications personnel, clerical personnel, and support personnel as required.

Corporate Headquarters Media Center

The functions of this center are to assimilate all information flowing from the plant and Corporate Management which is to be distributed to the news media; to support the plant media center and distribute background information; and to make information available directly to the news media as well as distributing it through the plant media centers. It will be tied into the emergency network. Adequate space, equipment, and personnel will be provided to accomplish the functions listed above.

Other Headquarters/Centers

State Emergency Operations Center

Location: Raleigh, North Carolina

This center is established by the Governor of North Carolina and is staffed to support State and Local activities. Carolina Power & Light Company provides representatives from Corporate Communications and Nuclear Operations to the center. Bell and State communications equipment is provided.

NRC Headquarters

Coordinates through local NRC representatives. May provide supporting personnel who will work out of the Recovery Center and/or LEOC.

Federal Emergency Management Agency

May send representatives who will work out of the LEOC.

Architect/Engineer

Via dedicated line communications to On-Site Technical Support Center, Recovery Center, and control room. May send representatives who will work in the On-Site Technical Support Center and/or the Recovery Center.

Nuclear Steam Supply System Vendor

Via dedicated line communications to Plant Media Center, On-Site Technical Support Center and control room. May send representatives who will work in the On-Site Technical Support Center and/or the Recovery Center.

Location of Brunswick

TSC

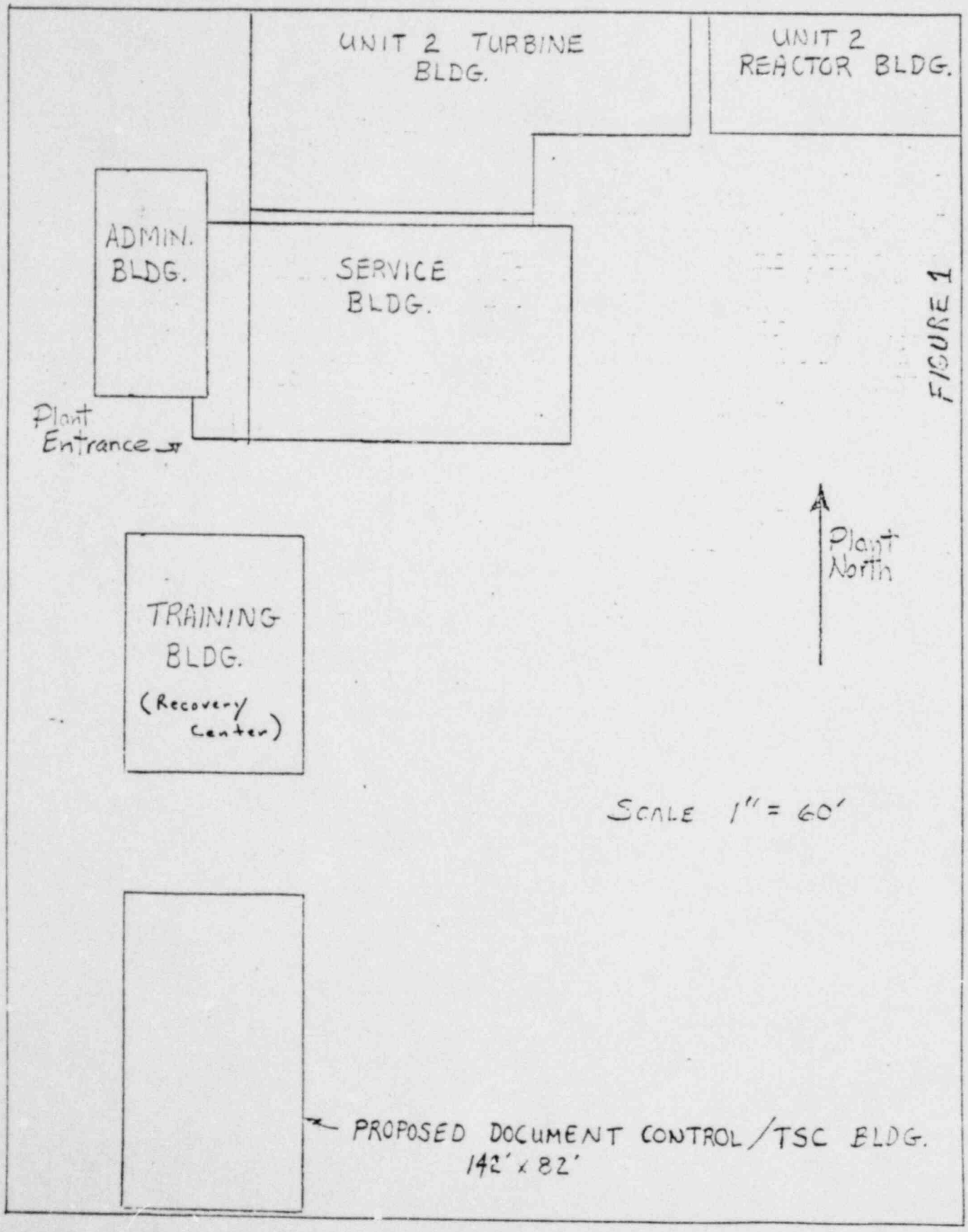

FIGURE 1

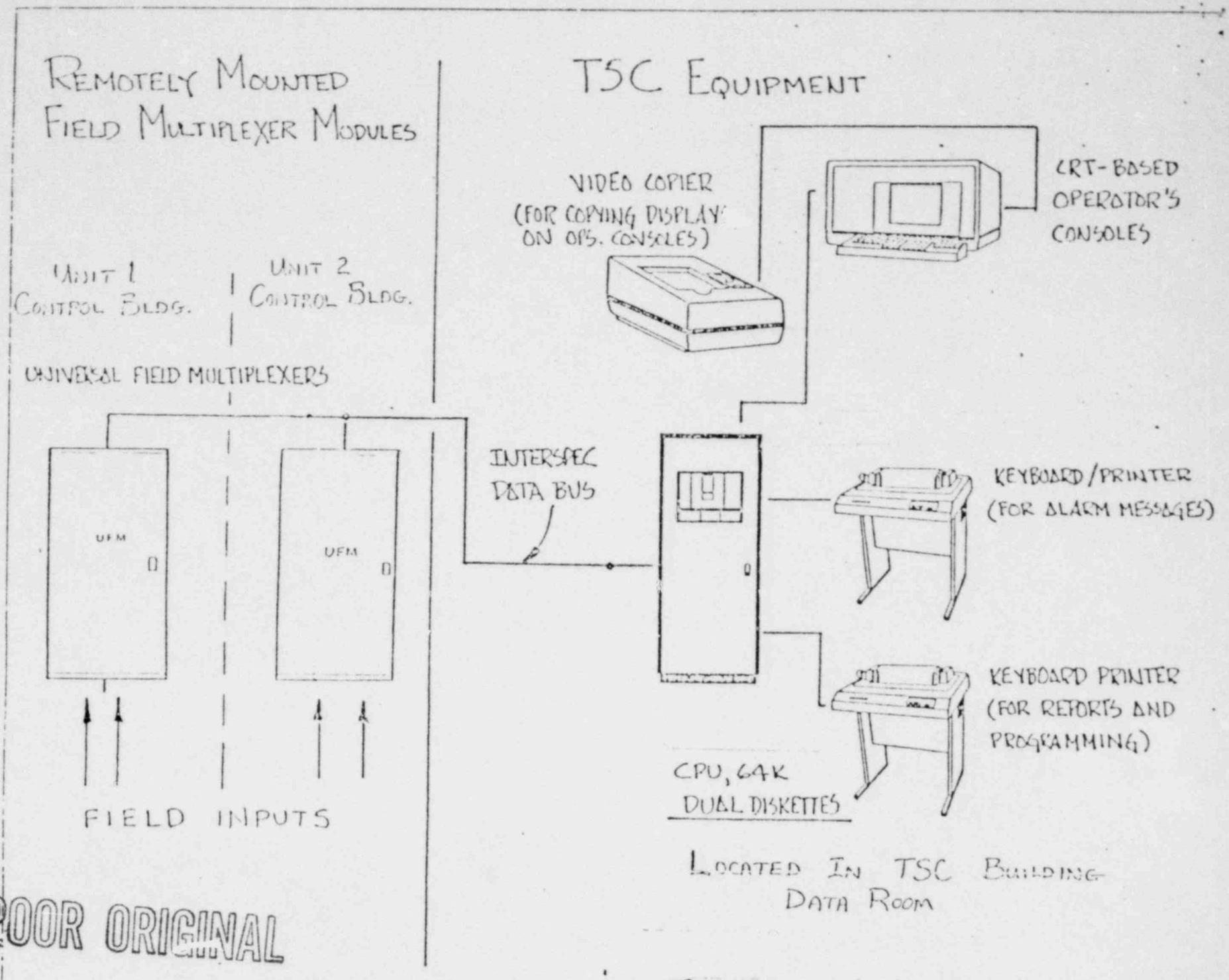

Figure 2