February 22, 1984

POLICY ISSUE

(NEGATIVE CONSENT)

SECY-84-89

For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: EMERGENCY OPERATIONS FACILITY FOR THE OCONEE NUCLEAR STATION, UNITS 1, 2 and 3

Purpose: To request Commission review of a staff disapproval of a licensee's request for an exception to establish an Emergency Operations Facility (EOF) 125 miles from the Oconee Nuclear Station, Units 1, 2 and 3.

Category: This paper covers a minor policy question.

Issue: Whether the Duke Power Company can establish a EOF for the Oconee Nuclear Station in the company general offices, 125 miles from the plant site.

Alternatives:

1. The Commission can agree with the proposed staff disapproval of a request for an exception by the Duke Power Company to establish the EOF for the Oconee Nuclear Station 125 miles from the plant site.

2. The Commission can disagree with the proposed staff disapproval of the licensee's request for an exception.

Background: On January 21, 1981, the Commission approved two options for the location of the EOF at nuclear power plant sites in COMJA-80-37. One option allowed for a single EOF location between 10 and 20 miles from the site with no habitability features. The second option allowed for a primary EOF located up to 10 miles from the site with habitability features and a backup EOF without habitability features located between 10 and 20 miles from the site.

In the Chilk to Dircks memorandum of September 30, 1981 responding to SECY 81-509, the Commission disapproved a recommendation that the staff have the authority to approve licensee requests for exceptions to COMJA-80-37 concerning EOF location and backup criteria where the licensee had provided a heavily shielded EOF located within 10 miles or less of the plant site without a backup EOF. The Commission

CONTACT:
E. F. Williams, IE
492-7611

stated in this memorandum that the staff could accept such facilities provided each emergency plan identified an alternate location where utility and government officials can meet and have contingency arrangements for communications to the Technical Support Center (TSC).

On July 16, 1982, the Commission approved SECY 82-111B, and on November 22, 1982 the Commission approved Supplement 1 to NUREG-0737 which was subsequently promulgated in Generic Letter 82-33 dated December 17, 1982. Table 1 included in these documents is the same table from COMJA-80-37 which describes the EOF location options.

On March 2, 1983, the Commission directed the staff to refer all exception requests concerning location and habitability of EOFs, along with proposed staff actions, to the Commission for decision (M830302B).

Discussion:

The original EOF design concept for the Oconee Nuclear Station was to provide a primary EOF in the Oconee Training Center, one half mile from the reactor containments and a backup EOF in Liberty, South Carolina, 14 miles from the plant site as described in Duke Power Company letters of June 1, 1981 (Enclosure 1) and December 3, 1982 (Enclosure 2). The primary EOF was designed to provide a radiation protection factor (PF) of 50, but the ventilation system was not equipped with HEPA filters and was not designed to be isolated. The backup EOF was to be located in the Duke Power retail office in Liberty. Both of these EOFs were to be established in existing buildings.

In a letter dated June 3, 1983 (Enclosure 3), Duke Power proposes to provide a centralized EOF for the Oconee Nuclear Station, the McGuire Nuclear Station and the Catawba Nuclear Station to be located in the Duke General Offices in Charlotte, North Carolina, 16 miles from McGuire, 17 miles from Catawba and 125 miles from Oconee. Since these distances are within those listed in Table 1 of Supplement 1 to NUREG-0737 for both the McGuire and Catawba plant sites, Duke Power requests an exception only for the distance to the Oconee Nuclear Station. The reason given for requesting the exception to the distance requirement for Oconee is that the staff of the EOF normally work in the Duke General Offices which allows them to respond more quickly and efficiently rather than having to transport them to Oconee. Duke Power states that the time required to activate the original primary EOF at the Oconee Station is three hours while the EOF at the Duke General Offices can be activated in one hour or less because of the decreased driving distance. In addition,

the computer for the emergency data acquisition system for all three plant sites is located in the Duke General Offices and the communications system available in Charlotte is better than the communications system near the Oconee plant site. Duke Power has a microwave communications net between Oconee and Charlotte as well as a ring-down system between the TSC and dedicated lines for specific state interfaces for management, radiological information and media coordination. Duke Power states that it makes no difference whether the EOF is located 10 to 20 miles or 125 miles from the plant site, since they communicate with the plant, State and local personnel by telephone and the plant data is as available in Charlotte as it is near Oconee. Also the cost of maintaining one centralized EOF is less than providing a separate EOF for the Oconee Station.

Personnel from Duke Power and the State of South Carolina met with the NRC staff on September 6, 1983 to present their arguments and provide additional information in support of the request for an exception. In this presentation Duke Power stated that the EOF personnel would be transferred to the Oconee plant site as soon as the emergency phase of the accident has concluded. The personnel from the Duke General Offices who staff the Joint News Center at the Oconee Station will be transported by helicopter to a landing pad at the site within one hour. The reason given for not utilizing helicopters for the EOF personnel was that between 75 and 100 individuals must be transported to the EOF. The reason given for not modifying the original primary EOF was that these modifications would cost approximately $350,000 and the operation of a single EOF for all three Duke nuclear power plants was more efficient and effective. Although the representatives from the South Carolina Department of Health and Environmental Control and the Department of State, Emergency Preparedness Division stated that they did not object to the Oconee EOF being located in Charlotte, they intended to respond to the Forward Emergency Operations Center located at the National Guard Armory in Clemson near the site to perform their functions and would send a liaison representative to the Charlotte EOF. In a letter dated October 25, 1983 (Enclosure 4), Duke Power restates the advantages of the Charlotte location and the difficulty in relocating the EOF staff to Oconee.

The staff believes that this type of accident management will not provide for an adequate response. The principal emergency management and the EOF staff will be unable to interact directly with their Federal, State and local counterparts located near the plant site. In addition, the Duke Recovery Manager will not be in face-to-face communication with the NRC Director of Site Operations. While the local communications system around the Oconee site may not have the same capacity as that in the Charlotte area, these same problems of site area communications will exist whether the EOF is in Charlotte or near the site since the same local system must be used. However, since the Recovery Manager is in Charlotte, he cannot go directly to the plant or the State Foward Emergency Operations Center to confer with these managers if needed. All communications between the Recovery Manager and the appropriate Federal, State and local officials will be limited to voice communications. This isolation of the EOF management and staff from the plant site will result in a higher degree of interfacing by the NRC site team and offsite officials with Duke personnel located in the Oconee TSC and the Joint News Center, which is inappropriate and may result in confusion, impeding the emergency response. This type of remote accident management did not prove to be successful during the TMI-2 accident. For these reasons the staff has previously recommended approval of only two EOF locations under Option 2 in Table 1 of Supplement 1 to NUREG-0737 which are located beyond 20 miles of the plant site (Rancho Seco at 23 miles and Turkey Point at 24 miles). Both these EOFs are located at corporate headquarters with helicopter service between the EOF and the plant. The Commission has previously approved a centralized EOF for TVA which is located in Chattanooga, Tennessee, 110 miles from the Browns Ferry Nuclear Plant and 45 miles from the Watts Bar Nuclear Plant.

It is the staff's opinion that Duke Power should either modify the original Oconee primary EOF to meet the habitability requirements or establish an EOF between 10 and 20 miles of the plant site. The problem with staffing a near-site EOF can be overcome by providing helicopter transportation for the key EOF staff. These individuals can operate the EOF with a manpower augmentation from the Oconee Station until the remainder of the EOF staff arrives using other means of transportation.

Recommendation: That the Commission agree with the proposed staff disapproval of the Duke Power Company's request to establish the Oconee EOF in its General Offices in Charlotte, North Carolina, 125 miles from the plant site as an exception to the distance requirement in Table 1 of Supplement 1 to NUREG-0737.

Note: The staff intends to disapprove the licensee's request for an exception to the distance requirement for EOF locations within 10 working days of the date this paper is received by the Secretary unless otherwise instructed by the Commission. A proposed draft letter to be sent to the Duke Power Company is enclosed (Enclosure 5).

William J. Dircks
Executive Director for Operations

Enclosures:
1. Ltr. from Duke Power dtd. 6/1/81
2. " " " " " 12/3/82
3. " " " " " 6/3/83
4. " " " " " 10/25/83
5. Draft ltr. to Duke Power

SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Friday, March 2, that the Commission, by negative consent, assents to the action proposed in this paper.

ENCLOSURE 1

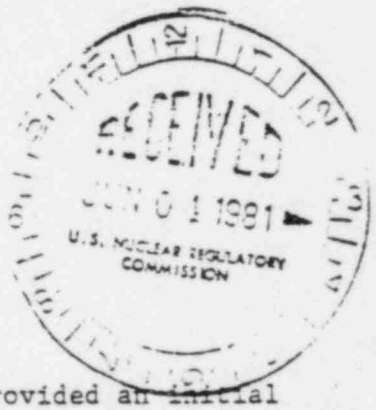
DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

June 1, 1981

TELEPHONE: AREA 704
373-4083

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Attn: J. F. Stolz, Chief
Operating Reactors Branch No. 4

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

Supplementing my letter of April 3, 1981, which provided an initial response to an NRC letter of February 18, 1981 (Generic Letter 81 - 10), please find attached the plans of Duke Power Company for complying with the guidance for emergency response facilities as contained in NUREG-0696. These plans are a part of more extensive overall emergency planning effort under formulation and implementation since September 1979, which incorporates both NRC and AIF guidance as it has become available. All appropriate levels of corporate management have been and continue to be involved in this Crisis Management Plan, which makes maximum use of existing facilities and recognizes the fact that accidents are not predictable. The organization, plan and supporting facilities are structured for maximum flexibility and are not dependent upon data system hardware for successful execution.

Duke's approach to emergency planning lead to the early operability of our emergency facilities (both Oconee and McGuire facilities were operable in early 1981) and takes advantage of the large instrumentation data base available through existing computer systems. These computer systems are part of a family of similar systems which have been successfully applied in fossil, hydro and nuclear plant installations since 1963. Total availability of these systems, even those installed in the 1960's, averages approximately 99%, even considering computer outages during periods of no need, such as a plant shutdown. Very little additional training will be required of plant operators since they are already familiar with existing computer systems. Furthermore, the use of existing equipment tends to eliminate the potential confusion which might occur if a new device were to be installed.

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ENCLOSURE 1

Duke's Crisis Management Organization and Nuclear Station Emergency Teams conducted four drills and two exercises during the time period from September, 1980 to February, 1981. Regulatory agency and internal review of these events has indicated that adequate capabilities exist to protect the health and safety of the public in the event of an actual emergency. The data acquisition and transmission system described within this conceptual design description is adequate to allow those persons within the Technical Support Center (TSC), Control Room, and Crisis Management Center (CMC, i.e. Emergency Operations Facility) to fully perform their assigned roles.

The availability of well-organized plant, meteorological, and radiological data in the TSC, Control Room, and CMC during these drills and exercises has enhanced the organizations' capabilities in accident assessment, in making timely protective action recommendations, and in radiological exposure control.

The combination of a well trained emergency organization and emergency facilities, which enable timely review of present and past data, is considered to satisfy the intent of NUREG-0696, while sufficient flexibility is provided to deal with the unexpected.

Very truly yours,

William O. Parker, Jr.

William O. Parker, Jr.

RLG/djs
Attachment

DUKE POWER COMPANY
EMERGENCY RESPONSE FACILITIES
OCONEE NUCLEAR STATION

I. Technical Support Center

Duke Power Company has established Technical Support Center for Oconee Nuclear Station as identified, located and described in the corporate Crisis Management Plan. The TSC is on the same elevation and within two minutes walking distance from the Control Room. The TSC has the following capabilities and characteristics:

1. Redundant two-way communication with the Control Room, the Crisis Management Center (Emergency Operations Facility) and the Nuclear Regulatory Commission Operations Center.

2. Monitoring for direct radiation and airborne radioactive contaminants, with local readout of radiation level and alarms if preset levels are exceeded. Laboratory analysis is required if it becomes necessary to detect radioiodines at concentrations as low as 10^{-7} microcuries/cc.

3. Display, printout or trending of comprehensive data necessary to monitor reactor systems status and to evaluate plant system abnormalities; in-plant and off-site radiological parameters and meteorological parameters are also available. This capability is provided via each unit's Operator Aid Computer, as described in Section VI.

4. Ready access to as-built plant drawings such as general arrangement, flow diagrams, electrical one-lines, instrument details, etc.

5. Habitability during postulated radiological accidents to the same degree as the Control Room.

6. Provisions for staffing by the Station Manager, group superintendents, advisors and representatives from the station's health physics, chemistry, performance, instrument and electrical and maintenance groups, the NSSS supplier and the Nuclear Regulatory Commission. Space for up to 25 persons plus the necessary instrumentation displays is provided and is sufficient for the personnel, activities and equipment necessary for response to emergencies. A separate room for NRC personnel is not available in the Oconee TSC; a single area is more conducive to the teamwork and cooperation necessary between NRC and the licensee during an emergency.

II. Operational Support Center

The OSC is described in Section 7 of the Station Emergency Plan and the Crisis Management Plan.

III. Emergency Operations Facility

The Crisis Management Center consists of both a near-site facility and off-site facility. For Oconee, the near-site facility is the Simulator Complex with the Keowee-Toxaway Visitors Center serving as the media center. These facilities are located within one-half mile of the station. The near-site facility will be staffed by the Recovery Manager and an immediate staff, the off-site radiological coordinator and the crisis news groups. The remainder of the Crisis Management organization will be located in thee off-site facility, the Duke corporate headquarters in Charlotte, N. C. The off-site facilit, also has the capability to support the Recovery Manager and an immediate staff if he determines that it is appropriate to locate in Charlotte other than at the near-site facility.

These facilities have the following capabilities and characteristics:

1. The CMC is a substantial structure, providing significant shielding (protection factor >50) from direct outside radiation.

2. The CMC is large enough to provide working space and facilities for at least 50 persons, including ten NRC personnel. Conference rooms are also available, one of which has been designated for media briefings. Anticipated occupants are the Recovery Manager and his advisors and staff, clerical support, crisis news representatives and appropriate local, State and Federal agency representatives.

3. Redundant, dedicated two-way communications with the TSC, Control Room, NRC and appropriate off-site support agencies (including local government agencies).

4. Provisions for receipt of periodic summaries of plant data sufficient to allow accurate and timely assessments of the actual and potential on-site and off-site environmental consequences of an accident. Timely plant systems and meteorological data can be received periodically as described in Section VI. Environmental radiation monitoring data is gathered by monitoring teams and provided to the CMC via radio. These capabilities are in accordance with the requirements of our corporate Crisis Management Plan.

5. Ready access to as-built plant drawings such as general arrangements, flow diagrams, electrical one-lines, instrument details, etc.

6. There is a possibility of a radiation release of sufficient magnitude to render the near-site facilities uninhabitable. Although this is an extremely unlikely event, alternate facilities have been designated as indicated below. During the evacuation from primary to alternate facility, control of emergency activities will be handled from the TSC.

   Oconee: Backup near-site facility = Liberty Branch Office, approximately 14 miles away in Liberty, S. C.
   Backup near-site media center = Liberty City Hall, Liberty, S. C.

IV. Safety Parameter Display System

Duke Power Company is in the process of developing formats for displays of plant variables representative of safety status of the plant. The functional objectives and display techniques will be addressed as part of the final resolution of Duke's control room review plan and NUREG-0700 and will use those parameters determined by AIF/NSAC as being representative. Displays will be provided via the existing Operator Aid Computer, with data availability as discussed below. Displays will be available for callup in both the Control Room and the TSC. Displays in the Control Room are readily accessible and visible from the normal operation area. SPDS displays will not be provided in the CMC, since real-time data is not necessary to perform the required CMC functions.

V. Nuclear Data Link

Periodic snapshots of plant conditions will be provided on a one-page summary transmitted via telecopier. Voice communications may be used to obtain additional data or to confirm questionable areas. Any real-time means of data transmission to the NRC would only serve to impact existing information available to the operator and add confusion in an emergency situation. Additional justification for this position was provided in W.O. Parker's April 3, 1981 letter to H.R. Denton.

VI. Data Acquisition and Transmission

Each unit's Operator Aid Computer (OAC) is utilized for the acquisition of data for the emergency response facilities. The capability exists to access and display/print thousands of parameters, individually or in groups. A CRT, operator panel and line printer are provided in the TSC such that this capability is independent of control room actions.

Duke Power's experience with similar process computer installations would lead to expectations of data availability in the TSC of over 99%, including the effects of power supply outages.

Power to the OAC is provided from an inverter, which is fed by a battery/charger combination. Automatic swapover to an alternate regulated source occurs in the event of inverter failure.

Scheduled outages cannot be limited to 16 hours nor can the capability to be fully operational within 30 minutes during these outages be assured. Overall unavailability, however, is expected to be less than 0.01 when the reactor is above cold shutdown status.

A combination of strip charts and event recorder and OAC printouts provides sufficient data to analyze an incident from a pre-event/post event aspect. Circuit transients will not cause a loss of this stored data and will not affect vital TSC functions.

Data is provided to the Control Room, TSC and CMC via a combination of the OAC, laboratory analyses and manually gathered measurements. The Regulatory Guide 1.97 parameter set, display techniques and design criteria will be addressed in responses specific to that regulatory guide. Information and conclusions are transmitted to the facilities based upon the functions to be performed in each facility.

The OAC is utilized to acquire most of the data needed in offsite facilities. That data can either be printed in the TSC for subsequent transmission via telecopier or written on floppy disc for subsequent entry into local batch terminals for additional calculations or transmission to corporate headquarters. Data which is not gathered by the OAC (samples, environmental radiation monitor readings, etc.) can be manually entered via keyboard.

ENCLOSURE 2

DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-453

December 3, 1982

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: McGuire Nuclear Station
Catawba Nuclear Station
Oconee Nuclear Station
Docket Nos. 50-369, -370; 50-413, -414, 50-269, -270, -287

Dear Mr. Denton:

Please find attached information on Duke Power Company's Emergency Offsite Facilities. This is in response to a verbal request from Mr. Ralph Birkel of your office on December 3, 1982.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

WHM/php
Attachment

cc: Senior Resident Inspector
McGuire Nuclear Station

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

ENCLOSURE 2

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Attach t 1
Duke Power Company's Emer Offsite Facilities

PERMANENT BACKUP EOF

	MCGUIRE	CATAWBA	OCONEE
ructure	Charlotte General Office	Charlotte General Office	Liberty S. C. Retail Office
cation (Miles)	15 Miles	18 Miles	14 Miles
ructure Type	Concrete	Concrete	Brick
te Started	Existing Building	Existing Building	Existing Building
nstruction Status	Complete	Complete	Complete
terim Primary EOF	N/A	N/A	N/A
terim Backup EOF	N/A	N/A	N/A
proval Status	Interim Approval SSER No. 5	None	None

PERMANENT PRIMARY EOF

sponse to 81-10	April 3, 1981	None	April 3, 1981
ructure	Technical Training Center	Administration Building	Oconee Training Center
cation (Miles)	1/2 Mile	Yards	1/2 Mile
ructure Type	Concrete	Brick	Concrete
otection Factor			> 50
te Started	Existing Building	Existing Building	Existing Building
nstruction Status	Complete	Complete	Complete
PA Filter	None	None	None

ENCLOSURE 3

DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONY
(704) 373-4531

June 3, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

By letter dated December 17, 1982 (Generic Letter 82-33), the NRC issued Supplement 1 to NUREG-0737, the purpose of which was to provide additional clarification regarding, among several items, the Emergency Response Facilities. In Section 8 of the supplement, the NRC provides requirements and guidance relative to Emergency Response Facilities.

Duke requests, pursuant to the above, that an exemption be granted to the location requirements of the Emergency Operations Facility (EOF) for Oconee Nuclear Station.

Option 2 of Table 1 allows use of a single EOF between 10 and 20 miles from the nuclear station. Duke proposes that the EOF for Oconee be located in Charlotte, North Carolina, at the General Office of Duke Power Company, and approximately 125 air miles from Oconee. It should be noted that the Joint News Center will continue to be located at Oconee to allow local, state, and national media a place to obtain official information. Further, the NRC Site Team, which initially responds to the Technical Support Center (TSC), would monitor EOF activities from either the TSC or the NRC Resident Inspector's Office, or by dispatching inspectors to Charlotte.

The known Staff concerns related to locating the EOF are addressed in the attached. Following NRC review of this submittal, Duke would welcome the opportunity to further discuss this justification with the Staff and the Commission.

Very truly yours,

Hal B. Tucker

RLG/php
Attachment

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ENCLOSURE 3

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW. Suite 2900
Atlanta, Georgia 30303

Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

Mr. John F. Suermann
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Duke Power Company

Request for Exemption to Locate
Emergency Operations Facility
Outside 20 Miles from
Oconee Nuclear Station

I. Introduction and Purpose

Duke Power Company is committed to the protection of the health and safety of the public in all facets of its operations at its nuclear stations. This commitment extends into the plans and procedures developed for use in an emergency. In a recent review of the Emergency Response Facility (ERF) concept being used at Oconee, McGuire, and Catawba, Duke Management determined that the present plans for use of a near-site EOF with a backup should be revised to a centralized EOF concept of operations. Section III of this submittal discusses in detail the reasons for this decision. The purpose of this exemption request is to allow use of the Duke Power Company Charlotte General Office as the EOF for Oconee. The distance between the two facilities (125 air miles) exceeds twenty miles and Commission approval is required. An exemption is not being requested for McGuire and Catawba since they are located 15 to 20 miles away from the General Office in Charlotte and thus fall within existing Commission guidelines for location of an EOF (NUREG-0737, Supplement 1, Table 1, Option 2).

II. Executive Summary

This document provides several points that support the request to locate the Oconee EOF at the General Office of Duke Power, located in Charlotte, North Carolina. The following are brief summaries of the principal points:

1. The main role of the EOF is to take the burden off the plant staff for keeping the state and county emergency organizations informed, for directing dose assessment and field monitoring, for managing the informational needs of the media, interested industry groups, and elected officials, and for supporting the technical system analysis needs of the TSC Staff. By locating the Oconee EOF in Charlotte, each of these activities can be performed as quickly and efficiently, if not better, than by using a facility 125 miles away from the normal work location of the EOF Staff.

2. Whether communicating with someone who is 10 miles away or 125 miles away, if the communications are by telephone, there is no difference. The important consideration is whether or not the functions of the facility can be performed.

3. By operating out of Charlotte rather than near Oconee, EOF activation time is reduced by three hours, people who man the EOF are closer to their day-to-day resources, and utilization of existing capabilities without splitting them to man two facilities is available.

4. Provisions for access of the NRC site team to the station, for the South Carolina liaison in Charlotte, and for the state/county Public Information Team will be made to allow each group to best perform its role.

5. Communications from the Charlotte General Office to the station and to state/county officials are better than those of a facility in the 10 to 20 mile area around the Oconee plan because of the availability of the Duke microwave system and the use of a non-local switch network (Charlotte).

6. Plant data are available more readily in Charlotte than in a facility 10 to 20 miles away from Oconee.

7. It is much less expensive to operate a centralized facility than separate primary and backup facilities for each site.

III. Background

Following the Three Mile Island accident, Duke Power Company formed an Emergency Response Facility Task Force to direct the activities needed to establish Technical Support Centers, Operations Support Centers, and Emergency Operations Facilities for Oconee and McGuire. At that time, they chose to establish a near-site EOF at the Training Centers close to each plant (~0.5 mile) with a backup facility 10 to 20 miles away. However, they did not establish HEPA filtration systems in the near-site facilities since the cost was very high. During 1980, 1981, 1982, and early 1983, exercises and drills were conducted at these facilities and it became apparent that the potential existed, in a worst case scenario, for evacuation of the near-site facilities. This evacuation would often disrupt an orderly transfer of responsibility to other EOFs. For this reason and the others listed below, a new concept of EOF operations was developed allowing use of the Charlotte General Office as the EOF for all facilities (see Figures 1, 2, 3, and 4). For Oconee, a site 10 to 20 miles away was considered as an alternative EOF; however, the benefits of using the General Office outweighed the perceived value of a facility in this "closer to the site" area. Duke Power Company's April 14, 1983 submittal in response to NUREG-0737 indicates the McGuire/Catawba EOF should be operational in the General Office on July 1, 1983. Upon approval of the Commission to add the Oconee EOF to the General Office, three months will be required to relocate equipment, revise plans and procedures, make emergency response personnel aware of the change, and to test communications between Oconee and the General Office.

IV. Justification for Duke Power Company's Centralized EOF Concept of Operations

In initial discussions with the NRC Staff on this concept of operations it became apparent that several concerns relative to this mode of operation exist. Thus, we will address the Staff concerns for this concept initially and then discuss other benefits we have identified in use of a centralized facility.

The NRC Staff expressed the following concerns:

1. State and local response groups will be unable to access the EOF in Charlotte because of the distance.

2. Data communications are hampered by the distance to Charlotte.

3. Verbal communications between EOF and TSC management as well as support staff lacks redundancy.

4. NRC's site team will not go to Charlotte, yet will impact decision-making.

5. TMI experience shows that the EOF technical support groups must be established near-site in a short amount of time.

6. The only other utility with an approved EOF beyond 100 miles from the plant is TVA-Brown's Ferry. Their exercises have shown it is very difficult to operate from a remote location.

Response:

1. State and Local Response:

The State of South Carolina, in its emergency plan, designates one liaison to respond to the EOF and to interact with those responsible for off-site minitoring, dose assessment, and for making protective action recommendations. This individual would be able to respond from Columbia, South Carolina, to Charlotte quicker than to the Oconee area and, by the time the South Carolina Forward Emergency Operations Center (FEOC) is established, would be up-to-date on plant and off-site radiological status. The state also dispatches its Public Information Team to the Joint News Center. This News Center will continue to be established at the Oconee Visitors Center and will allow the local, state, and national media a place to get the official source of information in an emergency (communications to this facility and to the Public Spokesman will be discussed later in this section).

Oconee and Pickens County, South Carolina, are the only counties in the 10 mile Emergency Planning Zone of Oconee Nuclear Station. Their plans require dispatch of the County Public Information Officer (PIO) to the Joint News Center, but there is no liaison to the EOF.

Thus, the state and local response groups will be able to implement their plans as now written and to respond as called for in the plans more expeditiously if the Oconee EOF is in Charlotte rather than being near-site.

2. Data Communications

The Staff expressed concerns that plant and effluent data would not be available in Charlotte in a timely manner due to the distance from Oconee.

The Duke Power Company Crisis Management Data Transmittal System is described in detail in a formal operators' manual developed for use with that system. Personnel at the NRC headquarters and in the Region II office have been trained in the use of that system. Figure 5 describes its operation. In that system description it should be noted that the plant parameters selected for review are provided by the "ESS VAX" which is the VAX computer in the Charlotte General Office. The datum is available for review in the EOF 5-10 minutes after it is pulled off the OAC onto the floppy disc (i.e., 0900 data are available by 0905 - 0910). This verified, near-real time datum is adequate to support the technical support function of the EOF in that the EOF does not direct the minute-to-minute operations of the plant, but provides mid to long term support to the TSC staff on necessary actions. Figures 6, 7, and 8 describe the format for displays (Fig. 6 & 7) and available OAC data points (Fig. 8). These outputs are now available to Duke personnel in the TSC, EOF, and other General Office locations, to the NRC, state, and vendor staffs. Once the data are printed out on a computer terminal in Charlotte, copies are made and provided to the managers of each group in the EOF.

Communications to the field monitoring teams are provided via a radio/microwave link from the General Office to the Oconee microwave/radio tower. Actual release information is provided via the teams and is used in determining appropriate protective action recommendations.

Thus, plant and effluent data would be provided on as timely a basis at an EOF for Oconee in Charlotte as it would be at a near-site location.

3. Redundancy in Verbal Communications

The Staff expressed concerns that the distance involved would hamper verbal communications channels and that there was insufficient redundancy in types of verbal communications.

The communications channels that would be available to an EOF in Charlotte are as follow:

- o Duke Power Company microwave system
- o Selective Signaling System (for state/county interface primarily)
- o Ringdown from EOF Recovery Manager to TSC Emergency Coordinator
- o Long Distance calls from Charlotte switch network to Oconee
- o Radio System via Duke microwave
- o Bell lines dedicated for specific state interfaces (management, radiological, news)

Redundancy exists for the critical functions of Emergency Management, coordination of radiological and environmental assessments, and for making protective action recommendations as follow:

Emergency Management

Primary: Ringdown from EOF Recovery Manager to TSC Emergency Coordinator and Selective Signaling System
Backup: Microwave or long distance

Coordination of Assessments

Primary: Microwave and radio via microwave
Backup: Long distance Bell lines

Protective Action Recommendations

Primary: Dedicated Bell lines
Backup: Selective signaling system

Thus, sufficient redundancy exists in the communications available from the General Office in Charlotte. Further, with adequate redundancy, if communications are by telephone there is no difference if the parties are 10 to 20 miles apart or 125 miles apart. The key consideration should be whether adequate capability exists to perform the functions of the facility.

4. NRC Site Team

The NRC Staff expressed concerns that the Regional Emergency Response Team will not be able to directly interact with the EOF staff if the EOF for Oconee is in Charlotte.

Region II personnel have indicated their intention to initally respond to the TSC and then, for a near-site EOF, to relocate a portion of the team to the EOF as the situation stabilizes or as they become fully aware of plant conditions.

Provisions are in place for five members of the NRC Site Team in the TSC. This would be continued and the remaining members would be given work space in the Site Inspection office along with sufficient communications to monitor activities in the EOF. Certainly, part of

the Site Team could be dispatched to Charlotte initially (instead of to Oconee) and would provide the ability for closer monitoring of activities. However, if this is not possible, they could remotely monitor EOF activities from the TSC and Site Inspector's office.

5. TMI Experience

The NRC Staff expressed concerns that, based on experience at TMI, EOF technical and management support must be near-site.

Since TMI, emergency response capabilities have improved dramatically. At Duke we have found, through experience in the six exercises and numerous drills conducted since 1980, that the technical groups in the EOF support the TSC in their role of accident assessment and incident mitigation better if they are located in the same area they work in day-to-day and have access to their normal sources of information rather than being at a remote location. This exemption request allows Duke to take this one step further and enables the EOF management to remain in the same location as their technical staff. This reduces the activation time of the EOF by three hours (driving time to Oconee) and does not separate the management from their information sources. Further, since one facility would now be used for all response, training of personnel is simplified, costs are reduced, and the overall ability to support the plant and to perform the functions of the EOF is increased.

6. TVA Experience

The NRC Staff expressed concerns that the exercise experience of TVA-Brown's Ferry has not been favorable due to the excessive distance involved.

Emergency planners at Duke have spoken recently with TVA's staff on this subject to determine any problem areas that have arisen during exercises for Brown's Ferry. The concensus of opinion at TVA is that their exercise experience, in terms of performance of EOF functions has been good. A problem area identified is NRC Site Team interface. However, they are following up to improve this capability.

Other Considerations

Some of the key points concerning viability of a Charlotte EOF for Oconee have been mentioned in the responses to Staff concerns (e.g., interface with federal, state, local response, the ability to access data and communicate to necessary locations, and training/response time/capabilities of the EOF staff operating out of Charlotte). Other considerations that the Commission should be aware of that make the General Office in Charlotte an excellent EOF location are based upon that facility's ability to support the functions of the EOF:

EOF Function--Overall Management--Is Supported by:

1. The selective signaling system (see Figure 9)
This is the equivalent of a ringdown system but is located on the Duke microwave with short leased Bell lines to state/local response centers. It is used by the EOF's Offsite Radiological Coordination Group to update the counties on the situation prior to arrival of the State. After South Carolina activates its facility at the Clemson Armory, the state uses it to communicate with the counties. After the state is activated, dedicated Bell lines are kept open between the management, radiological health and public information functions to ensure timely updates.

2. The News Center
This is a joint Duke, state, and county facility located at the Keowee-Toxaway Visitors' Center. The Public Spokesman is a member of Duke's management responsible for providing the single source of official information on the plant condition. The Public Spokesman and the News Director work together with the off-site authorities in determining appropriate news releases, agendas for news conferences, and responses to outside requests for information. To ensure that the News Group is kept up-to-date on the situation and that concerns or problems at the News Center are brought to the attention of the Recovery Manager, two News Staffs will operate. In Charlotte, the News Staff will continuously monitor operations in the Recovery Manager's room, will develop news releases for approval, and will channel information to the Public Spokesman at the News Center. At the near-site news center, the Staff will register representatives of the media, will provide them copies of the news releases and will coordinate with the state and county PIOs their needs for information on plant conditions. Radiological monitoring will be provided for that facility.

   A dedicated Bell line hook-up will be provided between the General Office News Director and the near-site News Director and Public Spokesman.

   These steps will ensure that support function to overall emergency management adequately provides for the informational needs of the public through the local and national media.

3. Keeping management and technical staff together
This has been mentioned previously but warrants emphasis as this is a key point. In reducing activation time of the CMC by three hours and in keeping the EOF group intact in an area they use day-to-day, support for the plant personnel, for the needs of the public, states, and counties is improved. It is not logical to travel three hours to a point near Oconee and communicate with plant personnel and the state and counties by phone. With proper pre-planning of needs, the telephone interface can be done in Charlotte more quickly, effectively, and cost-beneficially.

EOF Function--Protective Action Recommendations--Is Supported by:

1. Data evaluation capability (See part IV.2)
2. Dedicated Bell lines to State Director and Radiological Health (See part IV.3)
3. Dose Assessment line from EOF to TSC for data support
4. Selective signaling system (See part IV.3)

Clearly, the ability to receive and analyze the data, develop a recommendation, and provide that recommendation to off-site authorities exists in the EOF at the General Office.

EOF Function--Coordination of Radiological Environmental Assessments--Is Supported By:

1. Radio link to field monitoring teams (See part IV.3)
2. Access to near real time plant effluent parameters via the VAX system (See part IV.2)
3. Dedicated Bell line to state Radiological Health (See part IV.3)
4. Access to South Carolina Radiological Health Liaison in Charlotte (See part IV.1)
5. Dedicated Bell line from EOF dose assessment to TSC-HP (See Part IV.3)

A final consideration is that Duke sends a liaison to the state FEOC to assist them in evaluation of data and messages from the EOF. This individual has an operations background and some knowledge of HP terminology and use of HP practices. This is another necessary step taken to ensure necessary coordination between the state and Duke Power Company.

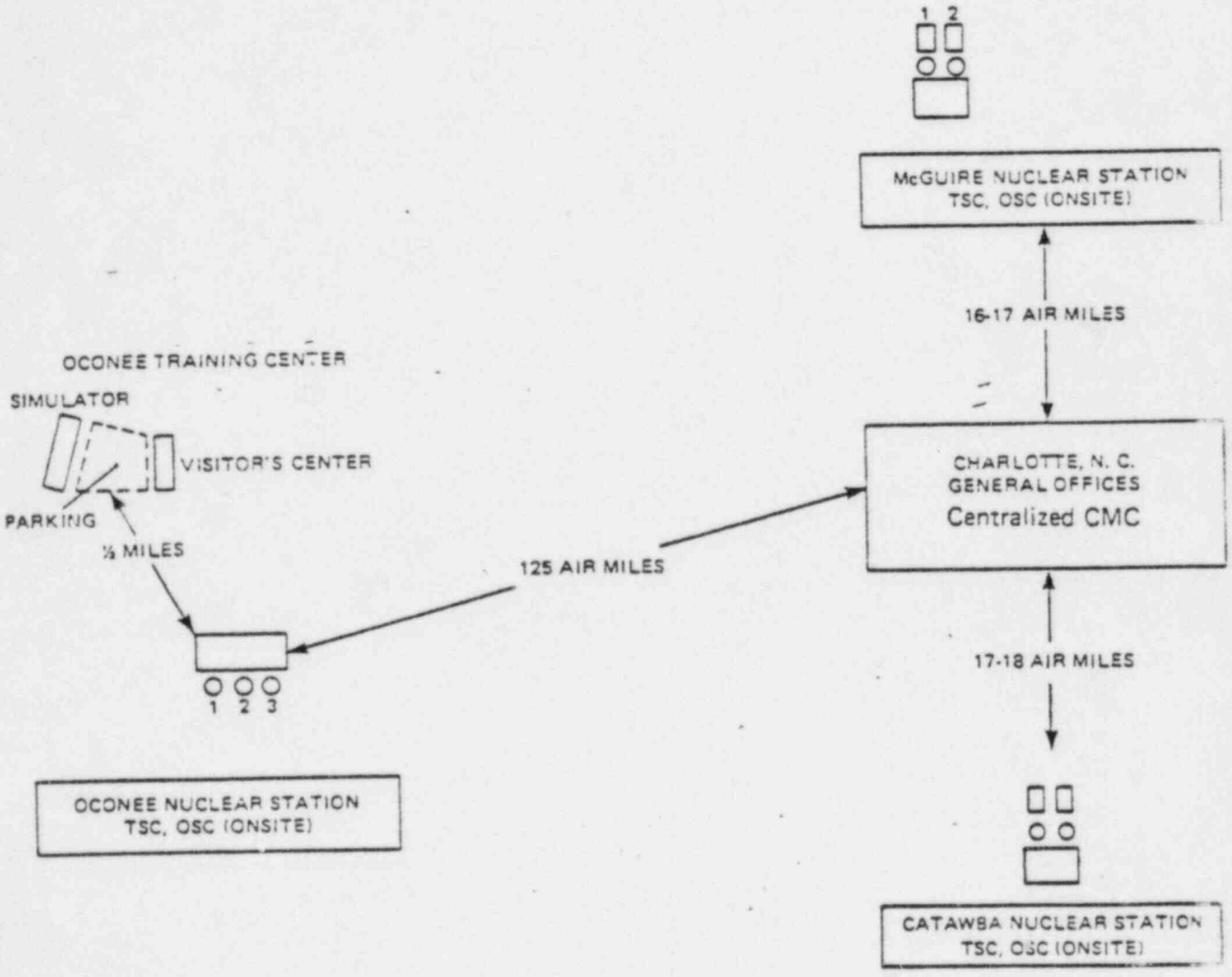
V. Conclusion

In conclusion, this exemption has been provided to request Commission approval of Duke Power Company's intended use of its corporate headquarters in Charlotte, North Carolina as the EOF for Oconee Nuclear Station. The discussion provided in the paper is intended to address known Staff concerns as well as to discuss the ability to perform EOF functins from Charlotte.

Duke Power Company would like to present its justification to the Commission in person as soon as possible. Contact will be made to establish a time and place.

DUKE POWER COMPANY
EMERGENCY RESPONSE FACILITIES

FIGURE 1



DUKE POWER COMPANY
GENERAL OFFICE RESPONSE FACILITIES

FIGURE 2

Oconee/McGUIRE/CATAWBA CMC

GENERAL OFFICE BUILDING LAYOUT - CHARLOTTE, N. C.

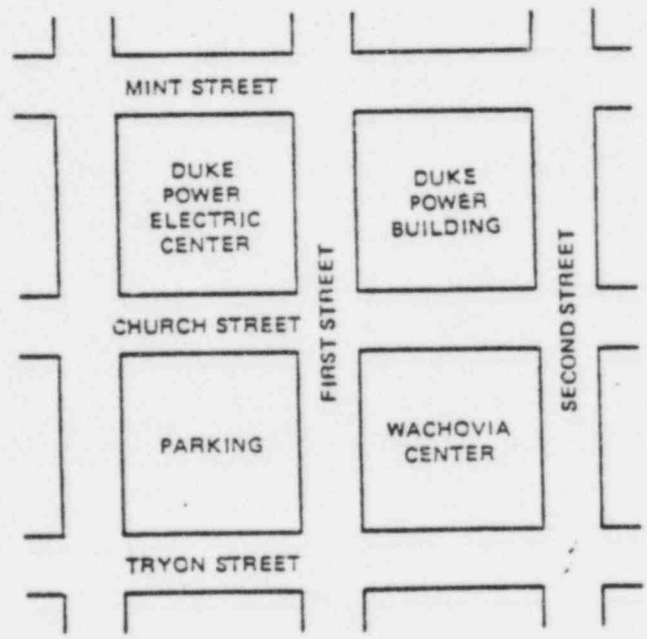
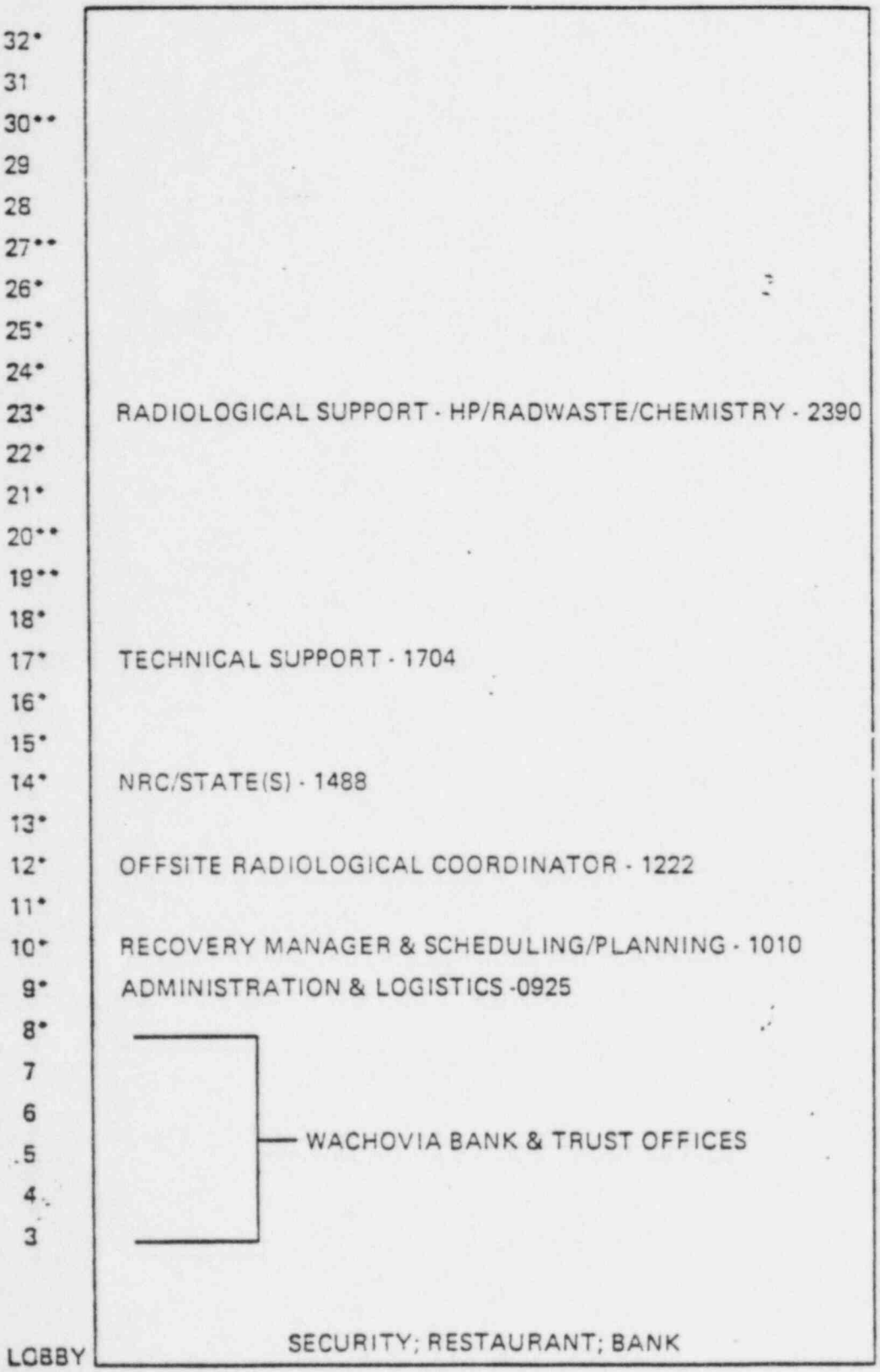


FIGURE 3 - WACHOVIA CENTER LAYOUT - CMC GROUP LOCATIONS



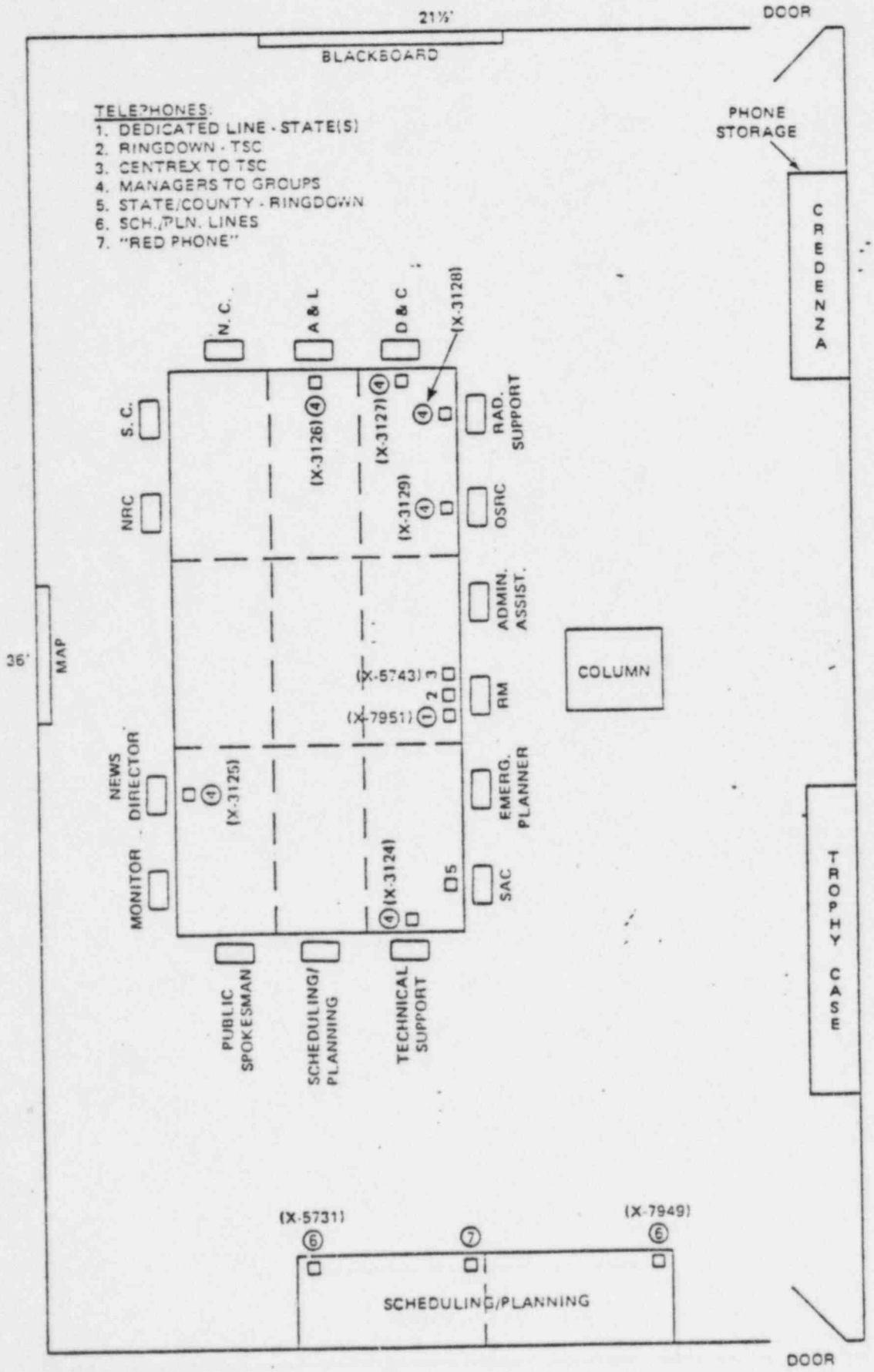
OTHER CMC FACILITIES.

1. CRISIS NEWS - 5TH FLOOR POWER BUILDING
2. DESIGN & CONSTRUCTION - ELECTRIC CENTER 3RD FLOOR

NOTE:
* - DUKE POWER CO. FLOOR
** - PARTIAL DUKE POWER CO. FLOOR

DUKE POWER COMPANY
GENERAL OFFICE RESPONSE FACILITIES

RECOVERY MANAGER/SCHEDULING & PLANNING OFFICE
WACHOVIA CENTER – ROOM 1010
FIGURE 4



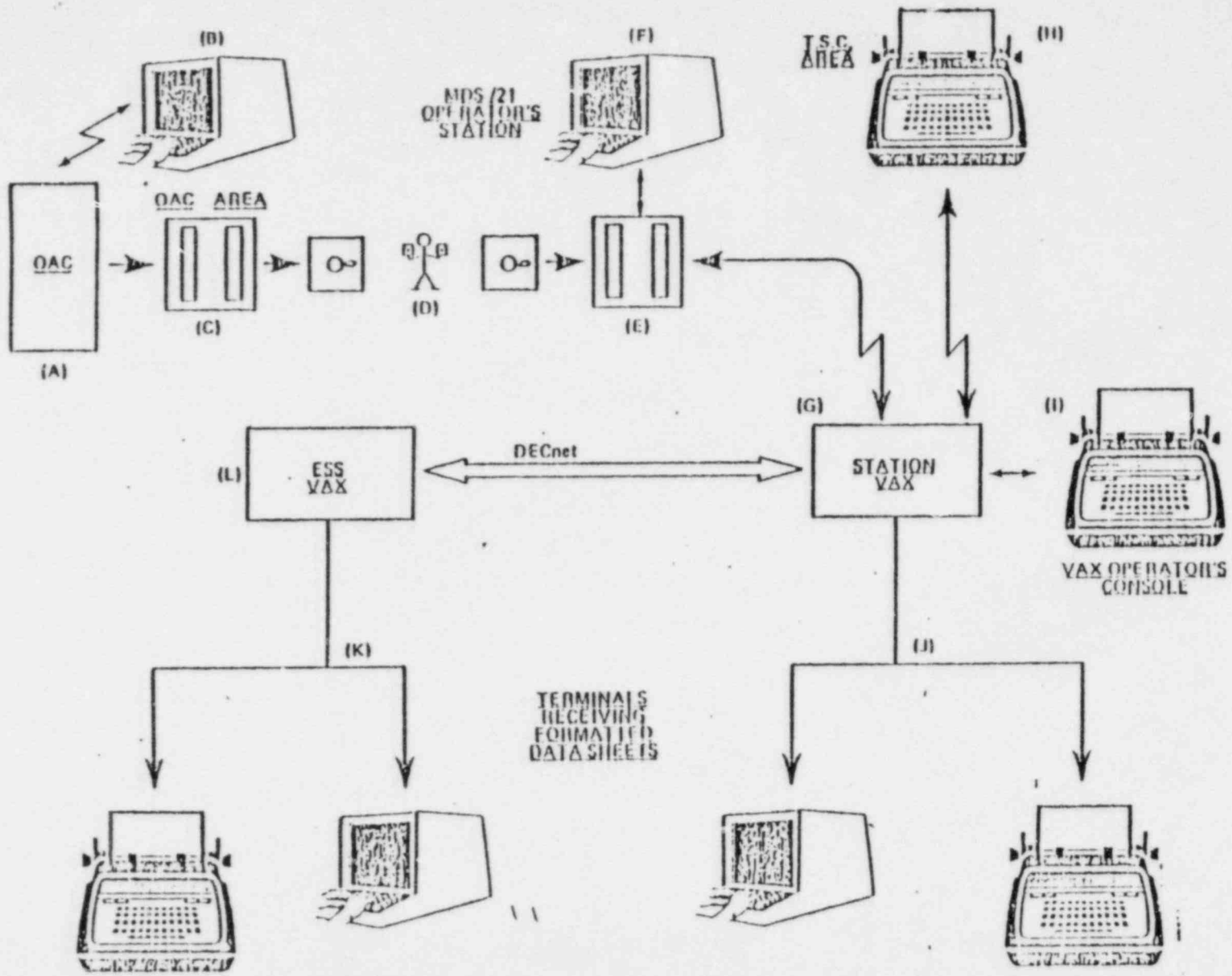


Figure 5 Crisis Management Data Transmittal System for Oconee Nuclear Station

UNIT 1
PLANT STATUS:

OCONEE NUCLEAR STATION
PLANT DATA AND STATUS
INFORMATION

Page
Date
Time

A. PRIMARY COOLANT SYSTEM
1. (Point ID) T/Hot - Loop A _____ °F
2. (Point ID) T/Hot - Loop B _____ °F
3. (Point ID) T/Cold - Loop A1 _____ °F
4. (Point ID) T/Cold - Loop A2 _____ °F
5. (Point ID) T/Cold - Loop B1 _____ °F
6. (Point ID) T/Cold - Loop B2 _____ °F
7. (Point ID) RC System Press. _____ PSIG
8. (Point ID) Pzr. Water Level _____ In.H2O
9. (Point ID) Latest Boron Conc. _____ PPM
10. (Point ID) Neutron Flux (SR) _____ CPS
11. (Point ID) Neutron Flux (IR) _____ E-6 Amps
12. (Point ID) Neutron Flux (PR) _____ %FP
13. (Point ID) RCP/A1 Status: _____
14. (Point ID) RCP/A2 Status: _____
15. (Point ID) RCP/B1 Status: _____
16. (Point ID) RCP/B2 Status: _____

B. SECONDARY COOLANT SYSTEM
1. (Point ID) SG/A Level _____ In.H2O
2. (Point ID) SG/B Level _____ In.H2O
3. (Point ID) SG/A Press. _____ PSIG
4. (Point ID) SG/B Press. _____ PSIG
5. (Point ID) Main FW Flow _____ KLB/HR
6. (Point ID) SG/A Emer FW Flow _____ GPM
7. (Point ID) SG/B Emer FW Flow _____ GPM
8. (Point ID) Upper Surge T Lev _____ FT.H_2O

C. AUXILIARY SYSTEMS
1. (Point ID) HPI Letdown Flow _____ GPM
2. (Point ID) HPI Makeup Flow _____ #/HR

D. SAFETY INJECTION
1. (Point ID) HPI Loop A Flow _____ GPM
2. (Point ID) HPI Loop B Flow _____ GPM
3. (Point ID) LPI Loop A Flow _____ GPM
4. (Point ID) LPI Loop B Flow _____ GPM
5. (Point ID) LPI Pump A Status: _____

D. continued . . .
6. (Point ID) LPI Pump B Status: _____
7. (Point ID) LPI Pump C Status: _____
8. (Point ID) HPI Pump A Status: _____
9. (Point ID) HPI Pump B Status: _____
10. (Point ID) HPI Pump C Status: _____

E. CONTAINMENT SYSTEMS
1. (Point ID) Containment Press. _____ PSIG
2. (Point ID) Containment Temp. _____ °F
3. (Point ID) Containment Emer Sump Level _____ FT
4. (Point ID) Containment H_2 Concen. _____ %
5. (Point ID) RB Normal Sump Level _____ In.H_2O

F. RADIATION MONITORING SYSTEM
1. (Point ID) SG/A RIA 16-Gross Activity _____ MR/HR.
2. (Point ID) SG/B RIA 17-Gross Activity _____ MR/HR
3. (Point ID) RIA-40 CSAE Monitor _____ CPM
4. (Point ID) RIA-44 Vent Iodine _____ CPM
5. (Point ID) RIA-45 LR Vent Noble Gas _____ CPM
6. (Point ID) RIA-46 HR Vent Noble Gas _____ CPM
7. (Point ID) RIA-56 Vent Noble Gas _____ MR/HR
8. (Point ID) RIA-4 Cont HR Area _____ MR/HR
9. (Point ID) RIA-57 Cont HR _____ R/HR
10. (Point ID) RIA-58 Cont HR _____ R/HR

G. ENVIRONMENTAL SYSTEMS
1. (Point ID) Upper Wind Speed _____ MPH
2. (Point ID) Lower Wind Speed _____ MPH
3. (Point ID) Upper Wind Direction from _____ DEG
4. (Point ID) Lower Wind Direction from _____ DEG
5. (Point ID) Delta Temp _____ °F
6. (Point ID) Dew Point _____ °F
7. (Point ID) Ambient Temp. _____ °F
8. (Point ID) Precipitation _____ IN

UNIT:_____
PLANT STATUS:

OCONEE NUCLEAR STATION
PLANT DATA AND STATUS
INFORMATION

Page_____
Date_____
Time_____

II. ADDITIONAL INFORMATION

	Point ID	42 Char. Description	Digital Status (If Any)	Value	Units
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Figure 8

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 1

NOTE: Other points are available on request to the CMC Data Coordinator.

	Point I.D.	Description	Units	Range
A				
1.	A1632	RC Hot Leg A WR Temp.	°F	50-650
	A1634	RC Hot Leg A Temp. 1	°F	520-620
	A1635	RC Hot Leg A Temp. 2	°F	520-620
2.	A1633	RC Hot Leg B WR Temp.	°F	50-650
	A1492	RC Hot Leg B Temp. 1	°F	520-620
	A1493	RC Hot Leg B Temp. 2	°F	520-620
3.	A1638	RC Cold Leg A1 NR Temp.	°F	520-620
	A1639	RC Cold Leg A1 WR Temp.	°F	50-650
4.	A1636	RC Cold Leg A2 NR Temp.	°F	520-620
	A1637	RC Cold Leg A2 WR Temp.	°F	50-650
5.	A1046	RC Cold Leg B1 NR Temp.	°F	520-620
	A1047	RC Cold Leg B1 WR Temp.	°F	50-650
6.	A1494	RC Cold Leg B2 NR Temp.	°F	520-620
	A1495	RC Cold Leg B2 WR Temp.	°F	50-650
7.	A1416	RC Loop A WR Press. 1	PSIG	0-2500
	A1418	RC Loop A WR Press. 2	PSIG	0-2500
	A1417	RC Loop B WR Press.	PSIG	0-2500
8.	A1939	RC PRZR LVL 1 Corr.	In. H_2O	
	A1940	RC PRZR LVL 2 Corr.	In. H_2O	
	A1941	RC PRZR LVL 3 Corr.	In. H_2O	
	A1717	RC PRZR LVL 1 Uncorrected	In. H_2O	0-400
	A1718	RC PRZR LVL 2 Uncorrected	In. H_2O	0-400
	A1719	RC PRZR LVL 3 Uncorrected	In. H_2O	0-400
9.	A1920	CA Boron Conc. PPM	PPM	
10.	A1536	NI 1 SR Flux	CPS	0.1-E6
	A1537	NI 2 SR Flux	CPS	0.1-E6
11.	A1540	NI 3 IR Flux	E^{-6}Amps	E^{-11}-E^{-3}
	A1541	NI 4 IR Flux	E^{-6}Amps	E^{-11}-E^{-3}
12.	A1544	NI 5 PR Flux	≈≈	0-125
	A1545	NI 6 PR Flux	≈≈	0-125
	A1546	NI 7 PR Flux	≈≈	0-125
	A1547	NI 8 PR Flux	≈≈	0-125
13.	D2306	RC Pump A1 ON (OFF)		
14.	D2307	RC Pump A2 ON (OFF)		
15.	D2308	RC Pump B1 ON (OFF)		
16.	D2309	RC Pump B2 ON (OFF)		
B				
1.	A1026	FDW SG A Full LVL	In. H_2O	0-650
	A1213	FDW SG A TR A LVL	In. H_2O	0-388
	A1214	FDW SG A TR B LVL	In. H_2O	0-388
2.	A1031	FDW SG B Full LVL	In. H_2O	0-650

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 1

	Point I.D.	Description	Units	Range
B (cont'd)				
	A1215	FDW SG B TR A LVL	In. H_2O	0-388
	A1216	FDW SG B TR B LVL	In. H_2O	0-388
3.	A1470	MS Stm. Gen. A Press. 1	PSIG	0-1200
	A1471	MS Stm. Gen. A. Press 2	PSIG	0-1200
4.	A1466	MS Stm. Gen. B. Press. 1	PSIG	0-1200
	A1467	MS Stm. Gen. B. Press. 2	PSIG	0-1200
5.	A1563	FDW Flow A Comp. & Sel.	LBS/Hr.	0-6E6
	A1564	FDW Flow B Comp. & Sel.	LBS/Hr.	0-6E6
6.	A1644	EMR FDW Flow 1 SG A	GPM	0-1200
7.	A1758	EMR FDW Flow 1 SG B	GPM	0-1200
8.	A0158	C UST A LVL	FT-H_2O	0-12
	A0014	C UST B LVL	FT-H_2O	0-12
C				
1.	A1044	HP Letdn. Flow	GPM	0-160
2.	A0944	DW UST MKUP Flow	LBS/HR	0-225000
D				
1.	A1238	HP Loop A Inj. Flow	GPM	0-6000
2.	A1239	HP Loop B Inj. Flow	GPM	0-6000
3.	A1310	LP Loop A Inj. Flow	GPM	0-1200
4.	A1311	LP Loop B Inj. Flow	GPM	0-1200
5.	A2214	LP Pump A ON (OFF)		
6.	A2215	LP Pump B ON (OFF)		
7.	A2216	LP Pump C ON (OFF)		
8.	D2125	HP Pump A ON (OFF)		
9.	D2127	HP Pump B ON (OFF)		
10.	D2129	HP Pump C ON (OFF)		
E				
1.	A1011	Reactor Bldg. Press. CH. A	PSIG	-5-175
	A1315	Reactor Bldg. Press. CH. B	PSIG	-5-175
2.	A0043	RBV Dome Temp.	°F	0-390
	A0005	RBV RB LWR Temp.	°F	0-390
3.	A1565	RB Sump Level CH. A	Ft.	0-15
	A1033	RB Sump LVL CH. B	Ft.	0-15
4.	A1465	CA H2 Conc.	%	0-5
5.	A0049	LWD RB NOR Sump LVL	In. H_2O	0-30

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 1

	Point I.D.	Description	Units	Range
F				
1.	A1670	RM 36 RC Letdn.	CNT/MIN	10-106
2.	A1663	RM 16 MS HDR A	MR/HR	.01-E7
3.	A1676	RM 17 MS HDR B	MR/HR	.01-E7
4.	A1674	RM 40 CSAE EXH	CNT/MIN	10-106
5.	A1264	RM HR CONT AREA MON TR A	R/HR	1-1E8
	A1265	RM HR CONT AREA MON TR B	R/HR	1-1E8
6.	A1680	RM 46 Unit Vent Gas HR	CNT/MIN	10-106
G				
1.	A0012	MC Wind Speed	MPH	0-30
2.			(Not Available)	
3.	A0013	MC Wind Direction	Deg L	0-+/-180
4.			(Not Available)	
5.	A0953	MC Delta CS Air Temp. Top	°F	-30-(+30)
6.			(Not Available)	
7.			(Not Available)	
8.			(Not Available)	

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 2

	Point I.D.	Description	Units	Range
A				
1.	A1632	RC Hot Leg A WR Temp.	°F	50-650
	A1634	RC Hot Leg A Temp. 1	°F	520-620
	A1635	RC Hot Leg A Temp. 2	°F	520-620
2.	A1633	RC Hot Leg B WR Temp.	°F	50-650
	A1492	RC Hot Leg B Temp. 1	°F	520-620
	A1493	RC Hot Leg B Temp. 2	°F	520-620
3.	A1638	RC Cold Leg A1 NR Temp.	°F	520-620
	A1639	Cold Leg A1 WR Temp.	°F	60-650
4.	A1636	RC Cold Leg A2 NR Temp.	°F	520-620
	A1637	RC Cold Leg A2 WR Temp.	°F	60-650
5.	A1046	RC Cold B1 NR Temp.	°F	520-620
	A1047	RC Cold Leg B1 WR Temp.	°F	50-650
6.	A1494	RC Cold Leg B2 NR Temp.	°F	520-620
	A1495	RC Cold Leg B2 WR Temp.	°F	50-650
7.	A1416	RC Loop A WR Press. 1	PSIG	0-2500
	A1418	RC Loop A WR Press. 2	PSIG	0-2500
	A1417	RC Loop B WR Press.	PSIG	0-2500
8.	A1939	RC PRZR LVL 1 Corr.	In. H_2O	
	A1940	RC PRZR LVL 2 Corr.	In. H_2O	
	A1941	RC PRZR LVL 3 Corr.	In. H_2O	
	A1717	RC PRZR LVL 1 Uncorrected	In. H_2O	0-400
	A1718	RC PRZR LVL 2 Uncorrected	In. H_2O	0-400
	A1719	RC PRZR LVL 3 Uncorrected	In. H_2O	0-400
9.	A1009	CA Boron Conc. PPM	PPM	0-2050
10.	A1536	NI 1 SR Flux	CPS	0.1-E6
	A1537	NI 2 SR Flux	CPS	0.1-E6
11.	A1540	NI 3 IR FLux	E^{-6}Amps	E^{-11}-E^{-3}
	A1541	NI 4 IR FLux	E^{-6}Amps	E^{-11}-E^{-3}
12.	A1544	NI 5 PR Flux	%	0-125
	A1545	NI 6 PR Flux	%	0-125
	A1546	NI 7 PR Flux	%	0-125
	A1547	NI 8 PR Flux	%	0-125
13.	D2306	RC Pump A1 ON (OFF)		
14.	D2307	RC Pump A2 ON (OFF)		
15.	D2308	RC Pump B1 ON (OFF)		
16.	D2309	RC Pump B2 ON (OFF)		
B				
1.	A1026	FDW SG A Full LVL	In. H_2O	0-648
	A1213	FDW SG A TR A LVL	In. H_2O	0-389
	A1214	FDW SG A TR A LVL	In. H_2O	0-388

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 2

	Point I.D.	Description	Units	Range
B (cont'd)				
2.	A1031	FDW SG B Full LVL	In. H_2O	0-648
	A1215	FDW SG B TR A LVL	In. H_2O	0-388
	A1216	FDW SG B TR B LVL	In. H_2O	0-388
3.	A1470	MS Stm. Gen. A Press. 1	PSIG	0-1200
	A1471	MS Stm. Gen. A Press. 2	PSIG	0-1200
4.	A1466	MS Stm. Gen. B Press. 1	PSIG	0-1200
	A1467	MS Stm. Gen. B Press. 2	PSIG	0-1200
5.	A1563	FDW Flow B Comp. & Sel.	LBS/Hr.	0-6E6
	A1564	FDW Flow B Comp. & Sel.	LBS/Hr.	0-6E6
6.	A0012	EMR FDW Flow 1 SG A	GPM	0-1200
7.	A0013	EMR FDW Flow 1 SG B	GPM	0-1200
8.	A0014	C UST A LVL	FT-H_2O	0-12
	A0158	C UST B LVL	FT-H_2O	0-12
C				
1.	A1044	HP Letdn. Flow	GPM	0-160
2.	A0944	DW UST MKUP Flow	LBS/Hr.	0-225000
D				
1.	A1238	HP Loop A Inj. Flow.	GPM	0-1200
2.	A1239	HP Loop B Inj. Flow	GPM	0-1200
3.	A1310	LP Loop A Inj. Flow	GPM	0-1300
4.	A1311	LP Loop B Inj. Flow	GPM	0-1300
5.	D2214	LP Pump A ON (OFF)		
6.	D2215	LP Pump B ON (OFF)		
7.	D2216	LP Pump C ON (OFF)		
8.	D2125	HP Pump A ON (OFF)		
9.	D2127	HP Pump B ON (OFF)		
10.	D2129	HP PUmp C ON (OFF)		
E				
1.	A1011	Reactor Bldg. Press. CH. A	PSIG	-5-175
	A1315	Reactor Bldg. Press. CH. B	PSIG	-5-175
2.	A0043	RBV Dome Temp.	°F	0-390
	A0005	RBV RB LWR Temp.	°F	0-390
3.	A0792	RB Sump Level Ch. A	Ft.	0-15
	A0793	RB Sump LVL CH. B	Ft.	0-15
4.		CA H2 Conc.	(Not Available)	
5.	A0049	LWD RB NOR Sump LVL	In. H_2O	0-30

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 2

	Point I.D.	Description	Units	Range
F				
1.	A1670	RM 36 RC Letdn.	CNT/MIN	10-106
2.	A1663	RM 16 MS HDR A	MR/HR	.01-E7
3.	A1676	RM 17 MS HDR B	MR/HR	.01-E7
4.	A1674	RM 40 CSAE EXH	CNT/MIN	10-106
5.	A1264	RM HR CONT AREA MON TR A	R/HR	1-1E8
	A1265	RM HR CONT AREA MON TR B	R/HR	1-1E8
6.	A1680	RM 46 Unit Vent Gas HR	CNT/MIN	10-106
G				
1.		MC Wind Speed	(Not Available)	
2.				
3.		MC Wind Direction	(Not Available)	
4.				
5.	A0953	MC Delta OS Air Temp. Top	°F	-30-(+30)
6.			(Not Available)	
7.			(Not Available)	
8.			(Not Available)	
9.			(Not Available)	

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 3

	Point I.D.	Description	Units	Range
A				
1.	A1632	RC Hot Leg A WR Temp.	°F	50-650
	A1634	RC Hot Leg A Temp. 1	°F	520-620
	A1635	RC Hot Leg A Temp. 2	°F	520-620
2.	A1633	RC Hot Leg B WR Temp.	°F	50-650
	A1492	RC Hot Leg B Temp. 1	°F	520-620
	A1493	RC Hot Leg B Temp. 2	°F	520-620
3.	A1638	RC Cold Leg A1 NR Temp.	°F	520-620
	A1639	RC Cold Leg A1 WR Temp.	°F	50-650
4.	A1636	RC Cold Leg A2 NR Temp.	°F	520-620
	A1637	RC Cold Leg A2 WR Temp.	°F	50-650
5.	A1046	RC Cold Leg B1 NR Temp.	°F	520-620
	A1047	RC Cold Leg B1 WR Temp.	°F	50-650
6.	A1494	RC Cold Leg B2 NR Temp.	°F	520-620
	A1495	RC Cold Leg B2 WR Temp.	°F	50-650
7.	A1416	RC Loop A WR Press. 1	PSIG	0-2500
	A1418	RC Loop A WR Press. 2	PSIG	0-2500
	A1417	RC Loop B WR Press.	PSIG	0-2500
8.	A1939	RC PRZR LVL 1 Corr.	In. H_2O	
	A1940	RC PRZR LVL 2 Corr.	In. H_2O	
	A1941	RC PRZR LVL 3 Corr.	In. H_2O	
	A1717	RC PRZR LVL 1 Uncorrected	In. H_2O	0-400
	A1718	RC PRZR LVL 2 Uncorrected	In. H_2O	0-400
	A1719	RC PRZR LVL 3 Uncorrected	In. H_2O	0-400
9.	A1009	CA Boron Conc. PPM	PPM	0-2050
10.	A1536	NI 1 SR Flux	CPS	0.1-E6
	A1537	NI 2 SR Flux	CPS	0.1-E6
11.	A1540	NI 3 IR Flux	E^{-6}Amps	E^{-11}-E^{-3}
	A1541	NI 4 IR Flux	E^{-6}Amps	E^{-11}-E^{-3}
12.	A1544	NI 5 PR Flux	%	0-125
	A1545	NI 6 PR Flux	%	0-125
	A1546	NI 7 PR Flux	%	0-125
	A1547	NI 8 PR Flux	%	0-125
13.	D2306	RC Pump A1 ON (OFF)		
14.	D2307	RC Pump A2 ON (OFF)		
15.	D2308	RC Pump B1 ON (OFF)		
16.	D2309	RC Pump B2 ON (OFF)		
B				
1.	A1026	FDW SG A Full LVL	In. H_2O	0-650
	A1213	FDW SG A TR A LVL	In. H_2O	0-388
	A1214	FDW SG A TR A LVL	In. H_2O	0-388

Underline indicates points used on data sheet.

AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 3

	Point I.D.	Description	Units	Range
B (cont'd)				
2.	A1031	FDW SG B Full LVL	In. H_2O	0-650
	A1215	FDW SG B TR A LVL	In. H_2O	0-388
	A1216	FDW SG B TR B LVL	In. H_2O	0-388
3.	A1470	MS Stm. Gen. A Press. 1	PSIG	0-1200
	A1471	MS Stm. Gen. A Press. 2	PSIG	0-1200
4.	A1466	MS Stm. Gen. B Press. 1	PSIG	0-1200
	A1467	MS Stm. Gen. B Press. 2	PSIG	0-1200
5.	A1563	FDW Flow A Comp. & Sel.	LBS/Hr.	0-6E6
	A1564	FDW Flow B Comp. & Sel.	LBS/Hr.	0-6E6
6.	A0012	EMR FDW Flow 1 SG A	GPM	0-1200
7.	A0013	EMR FDW Flow 1 SG B	GPM	0-1200
8.	A0158	C UST A LVL	FT-H_2O	0-12
	A0014	C UST B LVL	FT-H_2O	0-12
C				
1.	A1044	HP Letdn. Flow	GPM	0-160
2.	A0944	DW UST MKUP Flow	LBS/HR	0-225000
D				
1.	A1238	HP Loop A inj. Flow.	GPM	0-1200
2.	A1239	HP Loop B Inj. Flow	GPM	0-1200
3.	A1310	LP Loop A Inj. Flow	GPM	0-1300
4.	A1311	LP Loop B Inj. Flow	GPM	0-1300
5.	D2214	LP Pump A ON (OFF)		
6.	D2215	LP Pump B ON (OFF)		
7.	D2216	LP Pump C ON (OFF)		
8.	D2125	HP Pump A ON (OFF)		
9.	D2127	HP Pump B ON (OFF)		
10.	D2129	HP Pump C ON (OFF)		
E				
1.	A1011	Reactor Bldg. Press. CH. A	PSIG	-5-175
	A1315	Reactor Bldg. Press. CH. B	PSIG	-5-175
2.	A0043	RBV Dome Temp.	°F	0-390
	A0005	RBV RB LWR Temp.	°F	0-390
3.	A0792	RB Sump Level CH. A	Ft.	0-15
	A0793	RB Sump LVL CH. B	Ft.	0-15
4.	A1465	CA A2 Conc.	%	0-5
5.	A0049	LWD RB NOR Sump LVL	In. H_2O	0-30

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AVAILABLE OAC POINT ID's - OCONEE

Oconee Unit 3

	Point I.D.	Description	Units	Range
F				
1.	A1670	RM 36 RC Letdn.	CNT/MIN	10-106
2.	A1663	RM 16 MS HDR A	MR/HR	.01-E7
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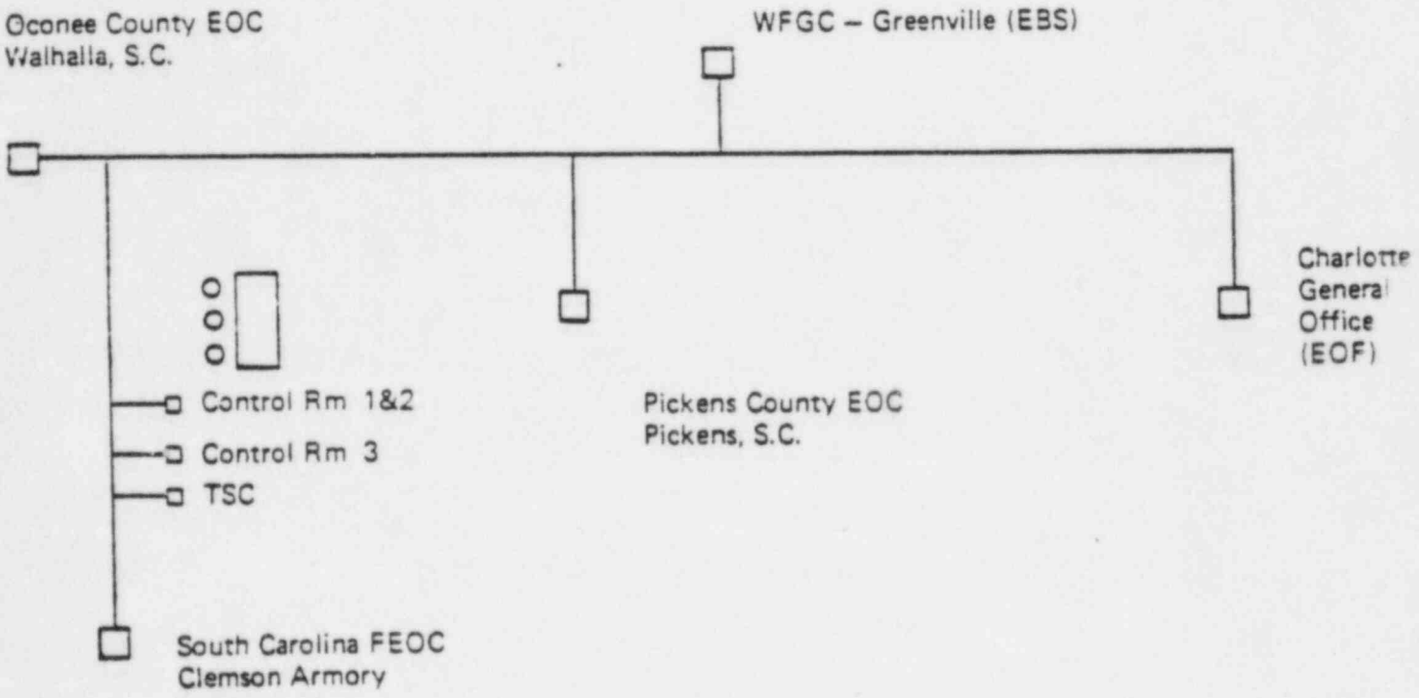
4.	A1674	RM 40 CSAE EXH	CNT/MIN	10-106
5.	A1264	RM HR CONT AREA MON TR A	R/HR	.1-1E8
	A1265	RM HR CONT AREA MON TR B	R/HR	1-1E8
6.	A1680	RM 46 Unit Vent Gas HR	CNT/MIN	10-106
G				
1.		MC Wind Speed	(Not Available)	
2.			(Not Available)	
3.		MC Wind Direction	(Not Available)	
4.			(Not Available)	
5.		MC Delta OS Air Temp Top	(Not Available)	
6.			(Not Available)	
7.			(Not Available)	
8.			(Not Available)	
9.			(Not Available)	

Underline indicates points used on data sheet.

FIGURE 9

SELECTIVE SIGNALING SYSTEM LAYOUT – OCONEE



ENCLOSURE 4

DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

October 25, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

This letter supplements my letter of June 3, 1983 regarding an exemption request to the location requirements of the Emergency Operations Facility (EOF) for Oconee Nuclear Station. On September 6, 1983 Duke representatives met with the NRC Staff to further explain our plan and to receive Staff feedback. We would like to reiterate the points made at that meeting.

First, we believe that Duke Power is unique in the industry. Unlike most utilities, Duke has its staff with nuclear design and analysis capability in one location outside the plant, that being in the Charlotte General Office. Further, Duke's management and main public information staff are located there. Thus, the key personnel with the necessary expertise to support the station's needs are located in one area during normal day-to-day activities and, during an emergency, would be readily available to perform to support the station personnel from that location in Charlotte. Secondly, Oconee is located on the very western edge of the Duke service area. It is in a relatively remote location. Access to the area by car requires about three hours. Access to the area by plane would take just as long, as pilot and plane availability are limited, and landings at the nearest airport, Clemson, are not possible after dark. Third, existing Duke facilities within 20 miles of Oconee, of sufficient size and layout to accomodate the Crisis Management Team, are limited to the Oconee Training Center/Visitors' Center Complex. However, this complex does not meet the habitability requirements for being within 10 miles of the plant. It was due consideration of the above factors that led Duke to propose an EOF location that is functionally equivalent to the Staff position on locating the EOF within 20 miles, but is located at the Charlotte General Office.

The proposed EOF utilizes existing Duke resources in Charlotte and we consider that it provides the most effective means to perform the functions of the EOF. As noted during our September 6, 1983 meeting, the Public Information function, including the Public Spokesperson, will be performed near-site and is not part of the exemption request. The proposed Charlotte EOF is capable of providing timely support for Oconee as all EOF personnel live within relatively short commuting distance; excellent communications exist through multiple networks as described during the meeting; and there is rapid access to additional resources that are normally available in day-to-day activities but that would not be available to a near-site EOF.

ENCLOSURE 4

A045
1/0

Duke does not believe that a significant benefit is achieved by a near-site EOF, at up to 20 miles from Oconee, over and above that provided by the proposed Charlotte EOF. In fact, there may be a decrease in safety benefit solely by the fact that communications and resources at the near-site EOF immediately after the start of an emergency would be limited in a time-frame when they are most needed. It should be noted that Duke fully plans that once the recovery phase is initiated, Duke resources would be located near-site to conduct the necessary activities and it is only during the emergency phase that the exemption request is applicable.

Duke understands that this item is under active Staff review and requests that the Staff decision and its bases be provided when available but prior to final Commission action. In the event our request for exemption is not approved by the Staff, Duke requests a meeting at either the Office Director or Commission level in order to discuss the bases of the Staff decision.

Very truly yours,

Hal B. Tucker

RLG/php

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Mr. John F. Suermann
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

ENCLOSURE 5

D R A F T

Docket Nos.: 50-269
50-270
50-287

Mr. Hal B. Tucker
Vice President, Nuclear Production
Duke Power Company
P.O. Box 33189
Charlotte, North Carolina 28242

Dear Mr. Tucker:

This is in response to your letters of October 25, 1983 and June 3, 1983 in which you requested the NRC to approve an exception to the distance requirements for an Emergency Operations Facility (EOF) for the Oconee Nuclear Station by locating this facility in your General Offices in Charlotte, North Carolina.

This letter is to advise you that the Commission finds your request is not acceptable. Accordingly, pursuant to 10 CFR 50.54(f), you are requested to furnish no later than __ days from receipt of this letter, your plans for establishing an EOF design for the Oconee Nuclear Station consistent with the requirements of Supplement 1 to NUREG-0737. Supplement 1 to NUREG-0737 was forwarded to you by Generic Letter 82-33 dated December 17, 1982.

This request for information was approved by the Office of Management and Budget under clearance number 31500-0065 which expires September 30, 1985. Comments on burden and duplication may be directed to the Office of Management and Budget, Reports Management, Room 3208, New Executive Office Building, Washington, D.C. 20503.

Sincerely,

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure 5