

~~**TREAT AS**~~  
~~**SENSITIVE**~~  
~~**INFORMATION**~~

January 15, 2004

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

SUBJECT: Duke Energy Corporation  
Catawba Nuclear Station Units 1 and 2  
Docket Nos.: 50-413 and 50-414  
Emergency Plan, Revision 03-1


Enclosed for NRC staff use and review is Revision 03-1 to the Catawba Nuclear Station Emergency Plan. This revision is effective on January 15, 2004.

This revision is being submitted in accordance with 10CFR50.54(q) and does not decrease the effectiveness of the Emergency Plan. A detailed revision description is provided as Attachment 1. The 10CFR50.54(q) Evaluation is provided as Attachment 2. All changes have been specifically highlighted (side-barred) to facilitate review.

By copy of this letter, two copies of this document are being provided to the NRC, Region II.

If there are any questions, please call Tom Beadle at (803) 831-4027.

Very truly yours,



D. M. Jamil

Attachments:    1. Detailed Revision Description  
                  2. 10CFR50.54(q) Evaluation  
                  3. Plan Update Instructions  
                  4. Plan Changes

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Page Two

xc: w/attachment

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Detailed Revision Description**

**LIST OF EFFECTIVE PAGES**

- Updated LOEP based on the revisions made to the plan.

**TABLE OF CONTENTS**

- Changed pages 2 and 3 Section G page numbers to match new, revised Section G.
- Reprinted all pages to match fonts.

**LIST OF FIGURES, TABLES, ATTACHMENTS**

- Deleted Figure G-2 "Public Affairs Emergency Response Organization"
- Figure H-9, "Plant Data Sheet," was deleted in a previous Emergency Plan change but was not deleted on List of Figures, page 7.

**INTRODUCTION**

- Revised Section B, page i-1, to reflect South Carolina Emergency Preparedness Division's new name as "South Carolina Emergency Management Division."
- Reprinted all Introduction section pages to match font.

**SECTION A - ASSIGNMENT OF RESPONSIBILITY**

- Revised Section A.1.a on page A-1 under South Carolina State to reflect new name of South Carolina Emergency "Management" Division.
- Revised Section A.3 on page A-4 to add words "Section Q" in front of Appendix 5.
- Revised Section A.3 to delete the agreement letter "DNC" and add a replacement letter from Duke Power named "Dosimetry Laboratory Backup Location."
- Revised Section A.3 to add new agreement letter number 16, "Memorandum of Understanding between CNS EP, Work Control, Operations, Site Services and Information Technology on Use of OSC/OCC Area."

**SECTION B - SITE EMERGENCY ORGANIZATION**

- Revised Section B.7 on page B-2 to add a new (third) sentence: "The Public Affairs Organization is described in the implementing procedure for JIC activation."
- Revised what is now the fourth sentence of section B.7 to change the word "group" to "function."
- Revised Section B.9.b, page B-5, step 4, to reflect new name of South Carolina Emergency Management Division.
- Revised last sentence on Figure B-1, page B-8, to delete the words "upon EOF activation" and add "when EOF Field Monitoring Coordinator is ready."
- Revised Figure B-3 on page B-10. The note at the bottom was revised to delete "upon EOF activation and add "when EOF Field Monitoring Coordinator is ready."
- Revised Figure B-4 on page B-11 to change name of "Senior Vice President of Nuclear Generation Department" to "Executive Vice President of NGD."

**SECTION C - EMERGENCY RESPONSE SUPPORT AND RESOURCES**

No changes.

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**SECTION D - EMERGENCY CLASSIFICATION SYSTEM**

- Revised page D-6 to delete an extra space in the first paragraph of 4.1.C.5.
- Revised page D-11 under Basis: Changed "one" hour report to "four" hour report in fifth sentence.
- Revised pages D-31 and D-33 under the Basis by adding a new sentence: "A failure of the protective signal to trip the turbine that initiates a reactor trip does not constitute an ATWS event if the reactor continues to operate."
- Revised pages D-47 and D-51 under the Basis by adding the words, "electrical breaker flashes" after drive belts. Deleted the sentence, "An electrical breaker flash is a high temperature short duration fire."
- Revised page D-62 to change FSAR to UFSAR.

**SECTION E - NOTIFICATION METHODOLOGY**

- Revised pages E-2, section E.2.b, and E-4, section E.2.c, to change RP/0/A/5000/01 to RP/0/A/5000/001.

**SECTION F - EMERGENCY COMMUNICATIONS**

- Revised page F-1, section F.1.a to change the name South Carolina Emergency Preparedness Division to South Carolina Emergency Management Division.
- Revised page F-2, section F.1.c, to add the words, "the TSC/EOF each have..."
- Revised Figure F-1 on page F-4 to show the deletion of Duke Power Lowband Radio between Gaston County and York County.
- Revised Figure F-2 on page F-5 to show the deletion of Duke Power Lowband Radio between Gaston County and York County.
- Revised Figure F-2 on page F-5 to show the state radio links between Catawba TSC and the counties of Mecklenburg, Gaston and York.

**SECTION G - PUBLIC EDUCATION AND INFORMATION**

- Replaced Section G, pages G-1, G-2, G-3 and G-4 with new pages G-1 and G-2. Refer to 50.54q Justification for section G to read the exact changes made.
- Revised Figure G-1, page G-5, which is now page G-3 to add these words: "The Catawba Nuclear Station Public Emergency Notification Brochure is mailed to residents inside the ten-mile EPZ. Additional brochures may be obtained by contacting CNS Public Affairs." A web site location for additional Catawba emergency information was also added.
- Deleted Figure G-2 on page G-6.

**SECTION H - EMERGENCY FACILITIES AND EQUIPMENT**

- Revised Section H.1.c on page H-2 to change "574" to "609" elevation and added the words, "with the OCC."
- Revised Figure H-1 on page H-7 to update the Technical Support Center drawing to match changes made in the TSC.
- Replaced Figure H-2 on page H-8 with a new drawing showing the location and layout of the new Operations Support Center. The new OSC is now co-located with the Outage Control Center (OCC) on the 609 elevation of the Service Building.

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**SECTION I - ACCIDENT ASSESSMENT**

- Revised section I.2.a on page I-1 to add the following words under the first paragraph:

"Chemistry Guideline 3.4.12 describes current post accident contingency plans for obtaining NC and ND/Containment Sump samples. It indicates that procedures OP/1(2)/A/6200/011 have been revised to take required samples during accident conditions utilizing the NM Automation Sample Panel. The samples are cooled by the normal NM sample HXs cooled by YN, thus eliminating the need for the PALS Sample Cooler.

The following procedures are in place to assess core damage and take containment atmosphere samples under accident condition. Emergency Planning Implementing Procedure RP/0/A/5000/015 is used to assess core damage using EMF 53 response. HP/0/B/1001/018 was revised to allow for use of EMF 38, 39 and 40 containment atmosphere sampling capability under emergency conditions.

Also as a result of NRC License Amendments 193/185, OP/0/B/6200/021, "PALSS Operation for Accident Sampling," has been deleted from the Emergency Plan as an Emergency Plan Implementing Procedure. Procedures OP/1(2)/A/6200/011 are not EIPs or a part of the Emergency Plan. They are listed in this section for reference purposes only. Also, Emergency Plan Implementing Procedures HP/1/B/1009/017, "Unit 1 Nuclear Post-Accident Containment Air Sampling System Operating Procedure," and HP/2/B/1009/017, "Unit 2 Nuclear Post-Accident Containment Air Sampling System Operating Procedure," have been deleted. HP/0/B/1001/018, "RP Compliance Sampling," is not an EIP or a part of the Emergency Plan. It is listed in this section for reference purposes only. (PIPs C-01-00384, C-01-04478)"

- Revised section I.2.b, now on page I-2, to change FSAR to UFSAR.
- Reprinted page I-3 due to section I.6 and I.7/I.8 being reformatted to page I-3.

**SECTION J - PROTECTIVE RESPONSE**

- Revised section J.5 on page J-2 to change RP/0/A/5000/10 to RP/0/A/5000/010.
- Revised section J.6 on page J-2 to change HP/0/B/1009/16 to SH/0/B/2005/003.
- Replaced Figure J-2 on page J-7 with new Figure J-2. The new Figure J-2 contains the same information in a re-drawn format.

**SECTION K - RADIOLOGICAL EXPOSURE CONTROL**

No changes.

**SECTION L - MEDICAL AND PUBLIC HEALTH SUPPORT**

No changes.

**SECTION M - RECOVERY AND REENTRY PLANNING AND POST ACCIDENT OPERATIONS**

No changes.

**SECTION N - EXERCISES AND DRILLS**

No changes.

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**SECTION O - RADIOLOGICAL EMERGENCY RESPONSE TRAINING**

- Replaced ETQS CNS 111.0 with "CNS Training Addendum 7111.0" in sections O.1.a, O.2.a, O.3, O.4 and O.5.
- Revised section O.2.d on page O-1 to change PT/0/B/4600/06 to PT/0/B/4600/006.
- Revised section O.4.g from Local Support Services Personnel to "Site Services Support Personnel."

**SECTION P - RESPONSIBILITY FOR THE PLANNING EFFORT**

- Revised Figure P-2, pages P-4 and P-5 to correct formatting. Several capital letters in the procedures' titles were changed to lower case as required.
- Revised Figure P-2 on page P-4 to correct the title of RP/0/A/5000/024 to "OSC Activation Procedure."
- Revised Figure P-2 on page P-5 to delete HP/0/B/1009/016, "Distribution of Potassium Iodide Tablets in the Event of a Radioiodine Release." Added SH/0/B/2005/003, "Distribution of Potassium Iodide Tablets in the Event of a Radioiodine Release."

**APPENDIX 1 - DEFINITIONS**

No changes.

**APPENDIX 2 - METEOROLOGICAL PROGRAM**

No changes.

**APPENDIX 3 - ALERT AND NOTIFICATION SYSTEM DESCRIPTION**

- Revised the first sentence on page Q-3.1, section A, to change 88 fixed sirens to 89 and added EPZ after 10 mile.
- Revised section C.2 on page Q-3.2 to change 123 db to "126 db" in the third paragraph. Also near the bottom of this page, deleted the reference to the Thunderbolt and STH-10 sirens.
- Revised Figure 3-1 on page Q-3.4 by deleting the data referenced for Thunderbolt 1000 and STH-10 sirens.
- Replaced Figure 3-2 on page Q-3.5 with a new drawing showing the locations of CNS 89 sirens.

**APPENDIX 4 - EVACUATION TIME ESTIMATES**

No changes.

**APPENDIX 5 - AGREEMENT LETTERS**

Page Q-5.1 revisions:

- The following agreement letters were revised with updated letters:
  - #2 Carolinas Medical Center
  - #7 Memorandum of Understanding between the North Carolina Department of Crime Control and Public Safety and Duke Power Company
  - #8 Memorandum of Understanding between the South Carolina Department of Health and Environmental Control and Duke Power Company
  - #9 Center for Emergency Medicine
  - #11 REACTS
  - #12 DOE - Savannah River
  - #13 INPO
  - #14 Dosimetry Laboratory Backup Location
  - #15 Joint Information Center

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- Name was changed from "Dominion Nuclear Connecticut, Inc." to "Dosimetry Laboratory Backup Location" for agreement letter number 14.
- Added a new agreement letter, number 16, "Memorandum of Understanding between CNS EP, Work Control, Operations, Site Services, and Information Technology on the use of OSC/OCC Area."
- Added the words, "These Letters of Agreement are updated as necessary and at least every three (3) years to ensure adequate awareness on the part of all concerned of the existence and commitment to provide agreed services or assistance" to this page.



# Attachment 2

<b>10CFR50.54(q) EVALUATION CHECKLIST</b> Page 1	
<b>SITE:</b> <input checked="" type="checkbox"/> Catawba Nuclear Site  <input type="checkbox"/> McGuire Nuclear Site  <input type="checkbox"/> Oconee Nuclear Site	<b>EVALUATION CHECKLIST APPLICABLE TO:</b> <input checked="" type="checkbox"/> Emergency Plan Revision No: <u>03-1</u>  <input type="checkbox"/> Emergency Plan Implementing Procedure No: _____  <input type="checkbox"/> Emergency Planning Functional Area Manual Section Number: _____  <input type="checkbox"/> Other Document _____
<p>1. Does the change/revision decrease the effectiveness of the plan resulting in the loss of reasonable assurance that adequate protection can and will be taken in the event of a radiological emergency as required by 10CFR50.47(a)?</p> <p><input type="checkbox"/> YES    <input checked="" type="checkbox"/> NO</p> <p>Justification for Answer (Attach additional pages as needed):                      (Explain how the change/revision maintains reasonable assurance of adequate protective actions. An explanation may be based on an assessment of its effects on public health and safety, a review of applicable plans, procedures, and resources, or by demonstration of the affected capabilities in a drill or exercise. Consideration should be given to any applicable site-specific planning needs.)</p> <p>See 50.54(q) Synopsis of Change Attachment</p>	
<p>2. Does the change/revision result in the loss of ability to meet any of the standards or applicable requirements described in 10CFR50.47(b) and the requirements in 10CFR50 Appendix E or any NRC approved alternatives to those standards and requirements? (See page 2)</p> <p><input type="checkbox"/> YES    <input checked="" type="checkbox"/> NO</p> <p>Justification for Answer (Attach additional pages as needed):                      (Explain any change that reasonably brings into question the ability to meet any of the sixteen standards described in 10CFR50.47(b), and any applicable requirements of 10CFR50.47(d) or any NRC approved alternatives to those requirements.)</p> <p>See 50.54(q) Synopsis of Change Attachment</p>	
<p>3. Does this change/revision delete or contradict any regulatory requirement?</p> <p><input type="checkbox"/> YES    <input checked="" type="checkbox"/> NO</p> <p>Justification for Answer (Attach additional pages as needed):</p> <p>See 50.54(q) Synopsis of Change Attachment</p>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Prepared By: <u>E. J. Buehler</u></p> <p>Reviewed By: <u>GARY L MITCHELL</u></p> </div> <div style="width: 45%;"> <p>Date: <u>1/7/04</u></p> <p>Date: <u>1/7/04</u></p> </div> </div> <p>Provide synopsis of change on page 3.</p>	

## Attachment 2

## 10CFR50.54(q) EVALUATION CHECKLIST

Page 2

## 10CFR50.47 (b) Review

Does this change affect any of the following subject areas of 10 CFR 50.47(b)?

1. Assignment of ERO responsibilities	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Assignment of on-shift ERO personnel	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
3. Arrangement for utilizing State or local resources and staff	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
4. EALs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5. Notifications to off-site agencies, the ERO or the public	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6. Communications between off-site agencies, the ERO, or the public	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7. Dissemination of public information	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8. Adequacy of emergency facilities and equipment	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
9. Methods, systems, and equipment for off-site response to a radiological emergency	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
10. Protective Action Recommendations / Determination	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
11. Emergency Worker radiological control	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
12. Medical services for contamination injured personnel	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
13. Re-entry / Recovery plans	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
14. Drills and exercises	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
15. Radiological emergency response training	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
16. Plan development, review and distribution	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

## 10CFR50. Appendix E Review

Does this change affect any of the following subject areas of 10 CFR 50, Appendix E?

(i)(ii)(iii) Emergency plans as described in the FSAR	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) A. Organization for coping with radiological emergencies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) B. Assessment of radiological emergencies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) C. Classifications, EALs and ERO activation	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) D. Notification of Federal, State and local agencies and the public	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) E. ERFs, equipment, and communications	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) F. Training, drills, and exercises	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
(iv) G. Plans and procedures and surveillance of equipment and supplies	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
(iv) H. Re-entry and Recovery following an accident	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Comments:

See 50.54(q) Synopsis of Change Attachment

**10CFR50.54(q) EVALUATION CHECKLIST**

**SYNOPSIS OF CHANGE**

**DESCRIPTION OF CHANGE:** Revision 03-1

These revisions are described in detail in Attachment 1.

**JUSTIFICATION FOR CHANGE (From Questions 1, 2 & 3 on Page 1**

See Justification for Answer to Question 2. A detailed description is made for each change in Attachment 1 and the reason (justification) for it in Attachment 2.

This revision:

- ◆ Maintains reasonable assurance that protective actions can and will be taken.
- ◆ Does not result in the loss of ability to meet the standards and requirements of 10CFR50.
- ◆ Does not delete, reduce or contradict any Emergency Planning commitment or regulatory requirement.

**Justification for Answer to Question 1:**

Catawba Nuclear Station Emergency Plan Revision 03-1 contains the following categories of revisions as described in detail in Attachment 1 and in the Justification in Attachment 2 for Answers to Question 2.

The changes described above do not have an adverse impact on the ability of Catawba or any off-site agencies to reasonably assure that adequate protection can and will be taken in the event of a radiological emergency; therefore, these changes are not considered to decrease the effectiveness of the Emergency Plan.

**Justification for Answer to Question 2:**

The answer to Question 2 is determined by evaluating the questions listed in the chart provided on page 2. The following Attachment 2 provides the evaluation of the questions on page 2.

10CFR50.47(b)

#### **SECTION A - ASSIGNMENT OF RESPONSIBILITY**

- Changed the name of South Carolina Emergency Preparedness to South Carolina Emergency Management Division: to reflect their new name. This name change was also made in other locations throughout the Emergency Plan (A-1, B-5, F-1).
- On page A-4 the words "Section Q" were added as an editorial change.
- Under Section A.3, page A-4, the "DNC Agreement Letter" was replaced with a Duke Power Company "Dosimetry Laboratory Backup Location: agreement letter. This new agreement letter (number 14) explains that Duke Power will now provide our own backup dosimetry reader at the Environmental Center at the McGuire Island. Reference the letter for further explanation.

#### **SECTION B - SITE EMERGENCY ORGANIZATION**

- Detailed descriptions of the public affairs organization are located in the implementing procedure for JIC activation and in other controlled public affairs documents and guidelines. Since the public affairs emergency response organization provides emergency communications support to the entire company (i.e., for storms, environmental events, etc.) and since the information is maintained and monitored in other documents and procedures, having this information in the site emergency plan is redundant.
- Under section B.7, page B-2, the word "group" was changed to "function." The word "function" better describes how section G refers to Public Affairs than does the word "group."
- On pages B-8 and B-10 the words "upon EOF activation" were changed to "when the EOF Field Monitoring Coordinator is ready" to allow the EOF FMT Coordinator to take charge of FMTs before EOF activation. By allowing the EOF to take charge of the FMTs when they are ready and not wait for EOF activation would take this burden from the TSC/OSC sooner.
- On Figure B-4, page B-11, changing the name of Senior VP of NGD to "Executive VP of NGD" is editorial.

#### **SECTION C - EMERGENCY RESPONSE SUPPORT AND RESOURCES**

There are no Emergency Plan changes included in Revision 03-1 that affect emergency response support and resources.

#### **SECTION D - EMERGENCY CLASSIFICATION SYSTEM**

- Deleting the extra space on page D-6 is editorial.
- Revising page D-11 to change one hour to "four" hour report updates the Basis on this page to match the current 10CFR50.72(b) non-emergency event requirements.
- Pages D-31 and D-33 (PIP G-03-00417) (PIP C-03-05658)  
This change is based on industry experience and the fact NRC agrees that "if RPS did not get an input you do not have an ATWS." A new sentence was added in the basis of "Alert" EAL 4.4.A.1, "Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint has been Exceeded and Manual Trip was Successful," and in the basis of SAE EAL 4.4.5.1, "Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint has been Exceeded and Manual Trip was not Successful." The new sentence is "A failure of the protective signal to trip the turbine that initiates a reactor trip does not constitute an ATWS event if the reactor continues to operate."
- Pages D-47 and D-51  
"An electrical breaker flash that creates high temperatures for a short duration and merely localized scorching to that breaker and its compartment should not be considered a fire." This

statement was changed from should be to should not be considered a fire because after conferring with MNS and CNS management, the old statement did not meet the criteria for a fire. The criteria for classification as a result of a fire is the "observation of flames or large quantities of smoke and heat are observed." This EAL basis will now be consistent with MNS, CNS and the industry.

- On page D-52 FSAR was editorially changed to "UFSAR" to reflect the current name.

#### **SECTION E - NOTIFICATION METHODOLOGY**

- The changes on pages E-2 and E-4 are editorial updates of the procedure number RP/0/A/5000/001.

#### **SECTION F - EMERGENCY COMMUNICATIONS**

- The words added in section F.1.c are editorial and reflect that the TSC/EOF have HPN capability.
- Figures F-1 and F-2 were corrected to show that York County does not have a low band radio. There is no requirement to have this low band radio, and they have several other means of communications available.
- Figure F-2 was updated to show the state radio links that are available between Mecklenburg County, Gaston County, York County and Catawba TSC. This radio link has been available but was not shown on Figure F-2.

#### **SECTION G - PUBLIC EDUCATION AND INFORMATION**

- 1<sup>st</sup> paragraph:  
Removed "(in the form of a transient brochure/emergency planning calendar)" to allow flexibility and use of new technologies in providing emergency planning information. Examples of new technologies that may be used in the future include, but are not limited to: laminated cards, posters, phone books inserts, videos, computers, etc.
- 2<sup>nd</sup> paragraph:  
Information moved to G.3.a.

##### **Section G.1&G.2**

###### **1<sup>st</sup> paragraph:**

- Removed company name due to changing department organizations.
- Moved information about primary radio control stations from 2<sup>nd</sup> paragraph to 1<sup>st</sup> paragraph to tighten wording and updated name to primary emergency alert system radio stations.
- Added clarification that pickup points are specific to SC.
- Moved wording about local numbers to call for further information from 2<sup>nd</sup> paragraph to 1<sup>st</sup> paragraph to make information more concise.

###### **2<sup>nd</sup> paragraph:**

- Removed words "the general office public affairs staff" from the list of those identifying transient populations because this function is no longer performed by the general office public affairs staff.
- Deleted sentence describing what is in publications because more concise information is included in the first paragraph of this section, making this redundant information.
- Moved information about primary radio control stations and local numbers to first paragraph in this section.

###### **3<sup>rd</sup> paragraph:**

- Reworded paragraph to be more concise.

## Attachment 2

### 4<sup>th</sup> paragraph:

- Deleted paragraph – is statement of the obvious and adds no value to the utility plan.

### Section G.3.a

#### 1<sup>st</sup> paragraph:

- Reworded first sentence to clarify function of joint information center and media centers.
- Clarified location of on-site media center.
- Clarified location of Charlotte media center.
- Clarified that the PRIMARY contacts for news media are the news manager and public spokesperson (the other positions listed provide support for the primary contacts and therefore they are being removed).
- Public Affairs' established process is to deal with the media at the site, as long as conditions or circumstances allow. The process involves coordination with the site VP, Security and EP. If the site is being evacuated or access to the site is restricted, the on-site media center is closed with operations and personnel relocated to the Charlotte media center. The process provides flexibility by using either or both media centers.

#### 2<sup>nd</sup> paragraph:

- Reworded section to indicate that processes and procedures within public affairs address how information is gathered and disseminated and referenced the applicable procedures.
- The current public affairs processes and procedures have been modified slightly from those created to address the 1996 Annual Exercise weaknesses. These minor changes were made to enhance communications flow and coordination between the various locations that provide support to the public affairs emergency response organization. The current processes and procedures have been tested in drills and actual response to other emergencies such as storms, hurricanes, etc. and they do not result in a decrease in the plan or our commitment to provide timely, accurate information to the media and other stakeholders.

### Section G.3.b

#### 1<sup>st</sup> paragraph:

- Removed company name due to changing department organizations.
- Removed information that was repeated from G.3.a. referencing the primary contact/spokesperson for the news media.
- Eliminated repeated information and tighten wording to more accurately address the requirements of NUREG 0654.

### Section G.4.a

#### 1<sup>st</sup> paragraph:

- Removed company name due to changing department organizations.
- Reworded section to more accurately reflect our processes for providing information to the media.
- Removed specific titles for spokespersons to allow for title changes within the company.

### Section G.4.b

#### 1<sup>st</sup> paragraph:

- Removed specific titles because of changes in roles and responsibilities.
- Reworded sections to more accurately address the requirements of NUREG 0654 – current wording addresses only news conference times.

**2<sup>nd</sup> paragraph:**

- Removed state and county responsibilities from the utility plan. A Memorandum of Understanding (MOU) exists with each state/risk county. The MOU outlines state, county and licensee responsibilities. Therefore, this information does not belong in the emergency plan.
- The responsibility for staffing and maintaining state and county technical liaisons is being transferred from public affairs to site emergency planning. Therefore, this information is being removed.

**Section G.4.c**

**1<sup>st</sup> paragraph:**

- Removed specific position titles to allow changes in roles and responsibilities.
- Removed words "during news conferences" to allow PIOs to address rumors via appropriate communication vehicles.

**2<sup>nd</sup> - 6<sup>th</sup> paragraphs:**

- Combined information to concisely address how information is shared with customers (neighbors/the public), employees, elected officials, regulatory agencies, governmental affairs, and industry groups.
- Removed specific information about processes at our customer service center because roles and responsibilities change with technological enhancements at our service center. Updated name of customer service center to customer contact center.

**Section G.5**

**1<sup>st</sup> paragraph:**

- Clarified wording and removed specifics from the plan to allow flexibility in providing information to the news media to meet the changing needs of the news media.
- The Procedure to Verify the Availability of Emergency Response Supplies, Equipment, and Telephone Numbers (PA ADM1) requires that an annual update to the media be performed.

**Section G.6**

**1<sup>st</sup> paragraph:**

- Section G.6 is not a part of NUREG 0654. Per NUREG 0654, Rev.01, B.7.d, we must specify those responsible for the release of information to the news media. Those roles are specified in section G.3.a. Therefore, this section was removed from the emergency plan.

**Figure G-2**

- Deleted Figure G-2. This information is included in the implementing procedure for JIC activation and is redundant information in the emergency plan. Hard copies are available on request. This information is also included on our web site at:  
<http://www.dukepower.com/community/safety/nuclear/catawba/>

**SECTION H - EMERGENCY FACILITIES AND EQUIPMENT**

- Changes on page H-2 and Figure H-2 on page H-8 concern moving the OSC from 574 elevation of service building to 609 elevation of service building. The following is a copy of the 50.54q evaluation and justification for moving the OSC dated 8/4/03:

The current OSC is located in the service building on elevation 574. This is a cable spreading room that has been upgraded to accommodate the utilization of this area as the OSC. This area functioned well as the OSC with exception of the ventilation noise level.

The OCC is an office-type area located next to the Site's Work Control Center (WCC) in the service building on elevation 609. The purpose of the OCC is to provide a common, central location for key outage management personnel during the execution phase of the outage. It may also be used by the Unit Threat Team when activation of a team is required. These are the only times the OCC is utilized.

The OCC area that will be utilized as the OSC is comparable to the area currently being used. The environment in this area is actually more conducive to facility command and control since it is much quieter than the current OSC (i.e.: no plant ventilation noise)

The following documents specify the requirements for the OSC. Each requirement as specified will be addressed with regards to the relocation of the OSC to the OCC Area.

**NUREG - 0654**

*H.9 Each licensee shall provide for an onsite operations support center (assembly area) which shall have adequate capacity, and supplies, including, for example, respiratory protection, protective clothing, portable lighting, portable radiation monitoring equipment, cameras, and communications equipment for personnel present in the assembly area.*

The OCC area is comparable in size to the current OSC. Each OSC position in the new location will have the same computer and phone resources as in the old. All supplies, Radiation protection kits, monitoring equipment, and maintenance kits will be relocated to the new OSC area.

**NUREG - 0696**

**3.1 Functions**

*The operational support center (OSC) is an onsite area separate from the control room and the TSC where licensee operations support personnel will assemble in an emergency. The OSC shall:*

*Provide a location where plant logistic support can be coordinated during an emergency and*

**The new OSC is located next to the Work Control Center (WCC) (outside the control room and TSC). Logistical support of plant operations under normal conditions is coordinated from the WCC. Moving the OSC to the OCC area closely parallels emergency logistical support with normal operations. This reduces the differences in support operations based on varied plant situations. A total of 4 ERO Drills have been conducted utilizing this area as the OSC. This area proved to be more than adequate in regards to logistic support of the control room and TSC.**

*Restrict control room access to those support personnel specifically requested by the shift supervisor.*

**The new OSC is located outside the control room. A total of 4 ERO Drills have been conducted utilizing this area as the OSC. Utilizing the OCC for OSC operations closely parallels outage operations management and WCC operations for normal plant operations. Similarity between emergency and**



**normal operations is a training experience enhancement.**

### **3.2 Habitability**

*No specific habitability criteria are established for the OSC. If the OSC habitability is not comparable to that of the control room, the licensee's emergency plan shall include procedures for evacuation of OSC personnel in the event of a large radioactive release. These procedures also shall include provisions for the performance of the OSC functions by essential support personnel from other onsite locations*

**Procedures for monitoring the OSC, evacuation of personnel from the OSC, and performance of OSC functions in the event of a large radiological release include the following:**

**HP/0/B/1009/026**

**HP/0/B/1009/009**

**RP/0/B/5000/024**

**RP/0/B/5000/020**

### **3.3 Communications**

*The OSC shall have direct communications with the control room and with the TSC so that the personnel reporting to the OSC can be assigned to duties in support of emergency operations. The OSC communications system shall consist of one dedicated telephone extension to the control room, one dedicated telephone extension to the TSC, and one dial telephone capable of reaching onsite and off-site locations, as a minimum. Direct voice intercommunications and/or reliable direct radio communications may be used to supplement these telephone communication links.*

**The new OSC will have the same phone resources as the current OSC. Designated phones will have preprogrammed numbers to the C/R and TSC. The Ericsson phone system for OPS bridge line access has also been installed in this area. Duke radio system will also be available in the OCC location for emergency communications as well. A total of 4 ERO Drills have been conducted utilizing this area as the OSC. This area proved to be more than adequate in regards to logistical support of the control room and TSC. Other enhancements will be made as part of an overall modification to relocate current enhancements to the OCC area.**

## **NUREG - 0797, Supplement 1**

### **Operational Support Center (OSC)**

#### **8.3.1 Requirements**

- a. *When activated, the OSC will be the onsite area separate from the control room where pre-designated operation support personnel will assemble. A pre-designated licensee official shall be responsible for coordinating and assigning the personnel to tasks designated by the control room, TSC and EOF.*

**The new OSC is separate from the Control Room and is in close proximity to the Control Room complex. OSC ERO members will be notified of the official transition date (Currently scheduled for August 4, 2003). ERO personnel will have the same phone resources as the current OSC. Designated phones will have preprogrammed numbers to the C/R and TSC. The Ericsson phone system for OPS bridge line access**

has also been installed in this area. A total of 4 ERO Drills have been conducted utilizing this area as the OSC. The change in location of the OSC will not affect the staffing of the OSC. The seating arrangement at the new location and acoustics of the area will enhance response support functions.

*The OSC will be:*

- b. Located onsite to serve as an assembly point for support personnel and to facilitate performance of support functions and tasks.*

The location of the new OSC will be 2 floors above the current location and similar in location with respect to the site layout and proximity. The new OSC is separate from the Control Room and is in close proximity to the Control Room complex. OSC ERO members will be notified of the official transition date (Currently scheduled for August 4, 2003). The facility will have the same phone resources as the current OSC. Designated phones will have preprogrammed numbers to the C/R and TSC. The Ericsson phone system for OPS bridge line access has also been installed in this area. A total of 4 ERO Drills have been conducted utilizing this area as the OSC. This area proved to be more than adequate in regards to logistic support of the control room, TSC, and EOF.

*Capable of reliable voice communications with the control room, TSC and EOF.*

The facility will have the same phone resources as the current OSC. Designated phones will have preprogrammed numbers to the C/R, TSC, and EOF.

#### **Additional information**

Although the new OSC facility will be operationally functional when the transition takes place, a number of enhancements of the facility have been included in a station modification that is awaiting budget and implementation consideration.

The OSC relocation plan does not change, delete or add to any Emergency Plan commitments contained in the Emergency Plan or other associated documents.

- Figure H-1 on page H-7 was revised to update the TSC facility drawing to match some minor changes in the facility. The changes made to the TSC consist of rearranging some tables and cabinets and some plant telephone line locations. The changes were made to better facilitate the flow of communications and enhance our business practices.

#### **SECTION I - ACCIDENT ASSESSMENT**

- The NRC issued Amendments No. 193 (Facility Operating License NPF-35) and No. 185 (Facility Operating License NPF-52). The amendments delete TS section 5.5.4, "Post Accident Sampling," for Catawba Nuclear Station, Units 1 and 2, and thereby eliminate the requirements to have and maintain the post-accident sampling systems (PASS-Palss/Pacs).
- In Emergency Plan change 02-1 a justification was made to eliminate the requirements to have and maintain the post-accident sampling system (PASS-Palss/Pacs). This justification was made based on meeting NRC sampling requirements according to the WCAP-14986. The Chemistry and RP staffs revised their procedures and guidelines used to obtain these sample requirements. In this Emergency Plan change Section I.2.a was revised to add additional words to describe CNS current

post accident contingency plans (procedures and guidelines) for obtaining NC and ND containment sump samples and post accident containment air samples.

#### **SECTION J - PROTECTIVE RESPONSE**

- Section J-5 on page J-2 is an editorial change of RP/0/A/5000/010.
- Section J-6 on page J-2 was revised as per the following:  
The new standard procedure, SH/0/B/2005/003 (Distribution of Potassium Iodide tablets in the Event of a Radioiodine Release), was implemented to replace CNS site procedure HP/0/B/1009/016 with the same title.

This new procedure implemented a new "trigger" level for the distribution of potassium iodide. The previous level was 25 Rem Committed Dose Equivalent (CDE) to the thyroid. The new level is 5 rem CDE-Thyroid. This change is being made based on new guidance from the FDA, the NRC, and the World Health Organization.

There are no other substantive changes being made with the implementation of this new procedure.

- Figure J-2 on page J-7 was replaced with another Figure J-2 which was redrawn to make the flowchart more user friendly. The same information from the old flowchart was retained, thus with the same input the same protective action recommendations from the new Figure J-2 will be obtained. There is no decrease in the effectiveness of the Emergency Plan with the new PAR flowchart.

#### **SECTION K - RADIOLOGICAL EXPOSURE CONTROL**

There are no Emergency Plan changes included in Revision 03-1 that affect radiological exposure control.

#### **SECTION L - MEDICAL AND PUBLIC HEALTH SUPPORT**

There are no Emergency Plan changes included in Revision 03-1 that affect medical and public health support.

#### **SECTION M - RECOVERY AND REENTRY PLANNING AND POST ACCIDENT OPERATIONS**

There are no Emergency Plan changes included in Revision 03-1 that affect recovery and reentry planning and post accident operations.

#### **SECTION N - EXERCISES AND DRILLS**

There are no Emergency Plan changes included in Revision 03-1 that affect exercises and drills.

#### **SECTION O - RADIOLOGICAL EMERGENCY RESPONSE TRAINING**

- Section O was revised to list the current location "CNS Training Addendum 7111.0" of the matrix(es) that describe what radiological emergency response training is required in order to be qualified to each ERO position.
- All other changes in section "O" are editorial.

#### **SECTION P - RESPONSIBILITY FOR THE PLANNING EFFORT**

- All the changes in section "P" are editorial.

- The deletion of HP/0/B/1009/016 and addition of SH/0/B/2005/003 were described and justified in section J.

#### **SECTION Q - APPENDICES**

- Appendices 1, 2 and 4 have no Emergency Plan changes included in Revision 03-1.
- Appendix 3:  
The Catawba siren replacement project began in May 2001 and completed in September 2003. This project involved replacement of our Federal Signal Thunderbolt and STH-10 models with Federal Signal 2001 sirens. A total of 77 sirens were replaced as a part of this project.

Additionally, one (1) siren was added in Mecklenburg County based on year 2000 census data, which identified an area of increased population requiring 70dB coverage. This increases the total number of sirens in Mecklenburg County to 15, with an overall system total of 89 sirens for the Catawba EPZ. All 89 sirens are now Federal Signal model 2001 sirens.

The Federal Signal 2001 sirens provide an increased radial coverage of over 1000 feet per siren. As a result, some sirens were relocated to maximize the benefit of the increased coverage and to help provide better coverage of previously isolated areas within and around the edge of the 10-mile EPZ. Shadowing, road widening projects, signal strength, safe access, and property owner interests were also factors considered for these relocations.

Also, since the previously submitted Alert and Notification System report, the Central Control Unit (CCU) and the PC interface portion of the radio/feedback control system were upgraded and fully tested as a result of year 2000 (Y2K) compliance efforts. The Remote Controllers (RC's) have also been updated with new ATI model 66286 RC, MDS 900 MHz MAS radios and enclosures as a part of this project. All 89 sirens now have these new RC's.

All of the replacement sirens and RC's were adequately tested as part of the installation process.

The siren addition, relocations, and other upgrades described above still fulfill the requirements of 44 CFR 350 and NUREG-0654/FEMA-REP-1. These changes do not alter or reduce the original physical system design previously approved by FEMA in a letter to the NRC dated 8-15-86.

Yearly PM's are conducted on the structural, electrical, and mechanical features of each siren, including the radio/feedback system. Each siren receives weekly low-growl and silent tests, as well as quarterly full-scale tests.

- Appendix 5 - the change made to this section involved updating agreement letters number 2, 7, 8, 9, 11, 12, 13, 14, and 15. The understanding and agreement did not change. This revision does not reduce the effectiveness of the Emergency Plan.

#### **10CFR50 Appendix E**

- (i)(ii)(iii) There are Emergency Plan changes included in Revision 03-1 that affect the Emergency Plan as described in Section 13.3 of the UFSAR.
- (iv) A. There are Emergency Plan changes included in Revision 03-1 that affect the organization for coping with radiological emergencies. (Refer to sections A & B)

## Attachment 2

- (iv) B. There are Emergency Plan changes included in Revision 03-1 that affect the assessment of radiological emergencies. (Refer to Section I)
- (iv) C. There are Emergency Plan changes included in Revision 03-1 that affect the Emergency Plan section D, "EAL Basis." (Refer to Section D)
- (iv) D. There are no Emergency Plan changes included in Revision 03-1 that affect notifications of federal, state and local agencies, and the public. (Refer to Sections E, F & G)
- (iv) E. There are Emergency Plan changes included in Revision 03-1 that affect the ERFs, equipment and communications. (Refer to Section H)
- (iv) F. There are no Emergency Plan changes included in Revision 03-1 that affect exercises and drills.
- (iv) G. There are Emergency Plan changes included in Revision 03-1 that affect responsibility for the planning effort. (Refer to Section P)
- (iv) H. There are no Emergency Plan changes included in revision 03-1 that affect re-entry and recovery.

**Catawba Nuclear Station  
Emergency Plan Revision 03-1  
Attachment 3  
Plan Update Instructions**

**Replace Revision 02-2 Cover Sheet with Revision 03-1 Cover Sheet**

**List of Effective Pages (LOEP)**

**Replace entire LOEP (5 pages)**

**Table of Contents**

**Replace entire TOC (5 pages)**

**List of Figures, Tables, Attachments**

**Replace pages 6 & 7**

**Introduction**

**Replace pages i-1 through i-5**

**Tab A - Assignment of Responsibility**

**Replace pages A-1 and A-4**

**Tab B - Onsite Emergency Organization**

**Replace pages B-2, B-5, B-8, B-10 and B-11**

**Tab C - Emergency Response Support & Resources**

**No Changes**

**Tab D - Emergency Classification System**

**Replace pages D-6, D-11, D-31, D-33, D-47, D-51 and D-62**

**Tab E - Notification Methods & Procedures**

**Replace pages E-2 and E-4**

**Tab F - Emergency Communications**

**Replace pages F-1, F-2, F-4 and F-5**

**Tab G - Public Education & Information**

**Replace entire section (G-1 through G-6) with new pages G-1 through G-3.**

**Discard 2002 Calendar.**

**Tab H - Emergency Facility & Equipment**

**Replace pages H-2, H-7 and H-8**

**Tab I - Accident Assessment**

**Replace entire section (I-1 through I-3)**

**Catawba Nuclear Station  
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Plan Update Instructions**

**Tab J - Protective Response**

Replace pages J-2 and J-7

**Tab K - Radiological Exposure Control**

No Changes

**Tab L - Medical & Public Health Support**

No Changes

**Tab M - Recovery & Re-entry Planning**

No Changes

**Tab N - Exercises & Drills**

No Changes

**Tab O - Radiological Emergency Response Training**

Replace pages O-1 and O-2

**Tab P - Development, periodic Review & Distribution of Emergency Plan**

Replace pages P-2, P-4 and P-5

**Tab Q - Appendices**

**Appendix 1 - Definitions**

No changes

**Appendix 2 - Meteorological Systems**

No changes

**Appendix 3 - Alert & Notification System**

Replace entire section (pages Q-3.1 through Q-3.5)

**Appendix 4 - Evacuation Times Estimates**

No changes

**Appendix 5 - Agreement Letters**

Replace page Q-5.1

Replace Agreement Letters #2

#7

#8

#9

#11

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#14

#15

Add new Agreement Letter #16

**Catawba Nuclear Station  
Emergency Plan Revision 03-1  
Attachment 4  
Plan Changes**



DUKE ENERGY CORPORATION

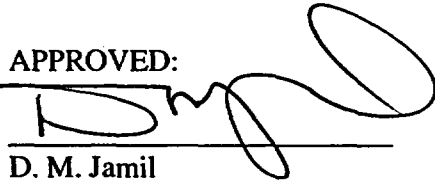
CATAWBA NUCLEAR STATION

EMERGENCY PLAN

REVISION 03-1

December, 2003

APPROVED:



D. M. Jamil  
Vice President  
Catawba Nuclear Station

1/15/04

Date Approved

Original Issue: August, 1980

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**DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
EMERGENCY PLAN**

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## **INTRODUCTION**

### **A. PURPOSE**

This Emergency Plan for the Catawba Nuclear Site is established for the protection of life and property in all emergency and accident situations. It particularly applies to those radiological situations (radiation, contamination and reactor accidents) where the health and safety of station personnel and the general public may be involved; but it also includes other general industrial emergency and accident conditions involving radioactive materials such as fire, vehicular accidents, natural disasters, medical injury or illness and industrial security.

The plan described herein will be implemented at Catawba by incorporating it into detailed station Emergency Procedures; as such, it will be coordinated with station operating, radiological control, and industrial security procedures.

### **B. SCOPE**

The Emergency Plan is a coordinated effort involving station personnel; station facilities and equipment; the emergency resources of Duke Power Company corporate organizations; emergency services of various local, state and federal agencies having appropriate jurisdiction or concern for public health and safety, particularly the radiological emergency and emergency plans of local county Preparedness Agencies; South Carolina Emergency Management Division of the S.C. Adjutant General's Office, the South Carolina Department of Health and Environmental Control, Bureau of Radiological Health; the North Carolina Department of Crime Control and Public Safety, and the North Carolina Department of Environment, Health and Natural Resources, Division of Radiation Protection.

The Emergency Plan organization and the emergency organizations that have responsibilities in the management of an emergency condition at the station are identified throughout the Plan. The Emergency Planning Zone concept is shown in NUREG-0654, Rev. 1, and is utilized in this plan.

The key elements of the Emergency Plan include:

- a. An essentially uniform means of reporting and handling any emergency or accident situation.
- b. A graded emergency classification system of increasing severity, based on specific criteria, Emergency Action Levels (EAL) and a method for relating EAL's to U.S. EPA Protective Action Guides (PAG).
- c. Interaction with the emergency plans of appropriate local, state and federal agencies concerned with public health and safety in the event of a reactor accident.

The Emergency Plan is compatible with facility design features, site, layout and site location, with respect to such considerations as access routes, surrounding population distributions and lake and land use.

Agreements have been made with local, state and federal authorities for coordination of activities in the event of an emergency. Local agencies provide fire protection, medical support, and ambulance rescue service upon request. In addition, the emergency plans of the Emergency Preparedness Agencies of the counties involved provides assistance and logistical support in the event that evacuation of portions of the Plume Exposure Emergency Planning Zone becomes necessary. The disaster plans of the Emergency Preparedness Agencies in York County where the station is located, and of the Emergency Management Agencies in the adjacent counties (Mecklenburg and Gaston) as they relate to the protection of the public who may be affected by an accident situation at Catawba, all include the following aspects:

- a. Notification of their own Emergency Preparedness Agency personnel and other emergency services involved in their Emergency Plans.
- b. Law enforcement and traffic control.
- c. Notification or warning of persons in affected areas.
- d. Evacuation as necessary to designated schools or other public buildings out of the affected area, where shelter, food, overnight accommodations, medical care, etc., would be made available.
- e. Assistance and cooperation with related agencies in other counties, Duke Power Company and other state and federal agencies.

Means have been developed for notification and coordination of emergency activities with persons and groups on site as well as within the Exclusion Area, including portions on Lake Wylie which might be affected by an accident, as well as water authorities of nearby cities and industries downstream.

Duke Power intends to meet all of the requirements for early warning of the public and will periodically evaluate the resources necessary to provide this capability.

Radiological emergency situations, if they occur at all, are expected for the most part, to be highly localized, and only station property and station personnel are subject to any potential major hazard.

Members of the public are also within the Exclusion Area at various times (highway traffic, station visitors, boating and recreation on Lake Wylie, etc.). In case of a major accidental release of radioactivity, the general public and property in the Emergency Planning Zone may also be affected. The plan includes provisions for the protection of all persons in the plume exposure pathway, as well as in the ingestion pathway, of the Emergency Planning Zone.

## C. PLANNING BASIS

The bases for this plan are the upgraded Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, NUREG-0654/FEMA-REP 1, Rev. 1, and 10CFR50. The overall objective of the Emergency Plan is to provide for early detection, warning and protective action response and recommendations for emergency conditions at Catawba that may affect the station proper and/or off-site areas. The range of emergency conditions is very large, starting with a zero point requiring no planning at all, up to planning for the worst possible accident scenario, regardless of its extremely low likelihood. Although the planning basis is independent of specific accident scenarios, a number of emergency conditions were considered in the development of this plan, including core melt release sequences.

The planning basis also considers time frames between initial accident recognition, response actions, and recommendation of appropriate protective actions in the event a potential for, or an actual release of radioactive materials is taking place. Knowledge of the potential for and the kinds of radioactive materials released, duration of the release and the time available to activate protective response on-site and off-site is important in determining what instructions/ recommendations are to be given. Location of the population affected and communication mechanisms to those authorities responsible for activating protective action is also an important part of the planning basis.

### Emergency Planning Zones

With regard to the area over which planning efforts should be carried out, "Emergency Planning Zones" (EPZs) about each nuclear facility are defined both for the short term "plume exposure pathway" and for the longer term "ingestion exposure pathways." EPZs are defined as the areas for which planning is needed to assure that prompt and effective actions can be taken to protect the public in the event of an accident. The state response organizations are principally responsible for the planning associated with the ingestion exposure pathway.

The emergency plans are related to two predominant exposure pathways. They are:

- a. Plume exposure pathway -- The principal exposure sources from this pathway are: (a) external exposure to gamma radiation from the plume and from deposited material; and (b) inhalation exposure from the passing radioactive plume. The duration of the release leading to potential exposure could range from one-half hour to days. For the plume exposure pathway, shelter and/or evacuation would likely be the principal immediate protective actions to be recommended for the general public.

The size (about 10 miles radius) of the plume exposure EPZ (refer to Figure i-1) was based primarily on the following considerations:



- a. projected doses from the traditional design basis accidents would not exceed Protective Action Guide levels outside the zone;
  - b. projected doses from most core melt sequences would not exceed Protective Action Guide levels outside the zone;
  - c. for the worst core melt sequences, immediate life threatening doses would generally not occur outside the zone;
  - d. detailed planning within 10 miles would provide a substantial base for expansion of response efforts in the event that this proved necessary.
- b. Ingestion exposure pathway -- The principal exposure from this pathway would be from ingestion of contaminated water or foods such as milk, fresh vegetables or aquatic foodstuffs.

The duration of potential exposure could range in length from hours to months. For the ingestion exposure pathway, the planning effort involves the identification of major exposure pathways from contaminated food and water and the associated control and interdiction points and methods. The ingestion pathway exposures in general would represent a longer term problem, although some early protective actions to minimize subsequent contamination of milk or other supplies should be initiated (e.g., remove cows from pasture and put them on stored feed).

The size of the ingestion exposure EPZ (about 50 miles in radius, which also includes the 10-mile radius plume exposure EPZ [Refer to Figure i-2]) was selected because:

- a. the downwind range within which contamination will generally not exceed the Protective Action Guides is limited to about 50 miles from a power plant because of wind shifts during the release and travel periods;
- b. there may be conversion of atmospheric iodine (i.e., iodine suspended in the atmosphere for long time periods) to chemical forms which do not readily enter the ingestion pathway;
- c. much of any particulate materials in a radioactive plume would have been deposited on the ground within about 50 miles from the facility; and
- d. the likelihood of exceeding ingestion pathway protective action guide levels at 50 miles is comparable to the likelihood of exceeding plume exposure pathway protective action guide levels at 10 miles.

The NRC has concluded that it would be unlikely that any protective actions for the plume exposure pathway would be required beyond the plume exposure EPZ. Also, the plume exposure EPZ is of sufficient size for actions within this zone to provide for substantial reduction in early severe health effects (injuries or deaths) in the event of a worst case core melt accident.

A. Assignment of Responsibility

Planning Objective

To assure that State, Local, Federal, private sector, Duke Power Corporate and Catawba Nuclear Station organizations that are part of the overall response organization within the Catawba Emergency Planning Zone are identified.

A.1.a Organization

The principal organizations that are part of the overall response organization within the Catawba Emergency Planning Zone are listed below:

Federal

NRC (Nuclear Regulatory Commission)  
FEMA (Federal Emergency Management Agency)  
DOE (Department of Energy)

NOTE: NRC, FEMA, and DOE will coordinate response of other Federal Agencies per the Federal Radiological Emergency Response Plan (FRERP).

South Carolina State

S.C. Emergency Management Division of the S.C. Adjutant General's Office (Note 1) |  
S.C. Department of Health and Environmental Control, Bureau of Radiological Health

North Carolina State

N.C. Department of Crime Control and Public Safety, Division of Emergency Management (Note 1)  
N.C. Department of Environment, Health and Natural Resources, Division of Radiation Protection

Local Government

The county governments and municipal governments (within the counties) to include the emergency service departments and other agencies interrelated to these local governments within the 10-mile EPZ (plume exposure pathway) of Catawba Nuclear Station are:

York  
Gaston  
Mecklenburg

The county governments (and municipal governments within the counties) to include the emergency service departments and other agencies interrelated to these local governments within a 50-mile EPZ (ingestion exposure pathway) of Catawba Nuclear Station are:

**A.1.e 24 Hour Emergency Response**

The Catawba Station emergency response organization beginning with the Control Room through the TSC is capable of responding to an emergency 24 hours per day, 7 days per week. Section E.2 describes the notification scheme within the station emergency response organization.

**A.2.a Responsibility For and Functions of State and Local Government Emergency Response Organization**

(See State and County Plans)

**A.2.b Legal Basis For Authority**

(See State and County Plans)

**A.3 Agreement Letters For Emergency Response Support from Off-site Agencies**

Section Q, Appendix 5 contains letters of agreement with the following organizations:

Piedmont Medical Center  
Carolinas Medical Center  
York County Emergency Management  
Bethel Volunteer Fire Department  
Clover Rescue Squad  
Charlotte-Mecklenburg Emergency Management Office  
Gaston County Emergency Management  
Center for Emergency Medicine (Rock Hill, SC)  
North Carolina  
South Carolina  
REACTS  
DOE - Savannah River  
INPO - Fixed Nuclear Facility Voluntary Assistance Agreement  
Dosimetry Laboratory Backup Location  
JIC - Joint Information Center  
Memorandum of Understanding between CNS EP, Work Control, Site Services, and  
Information Technology on Use of OSC/OCC Area

These Letters of Agreement shall be updated as necessary and at least once every three (3) years.

**A.4 Individual Responsible for Continuity of Resources**

The emergency response organization is capable of continuous (24 hour/day) operation for an extended period of time. The EOF Director is the individual responsible for assuring continuity of resources within the emergency response organization.

#### B.4 Functional Responsibilities of the Emergency Coordinator

The functional responsibilities of the Emergency Coordinator are described in paragraph B.2. Protective Action recommendations to state and local authorities is initially vested with the Operations Shift Manager/ Emergency Coordinator. As the Emergency Operations Facility (EOF) becomes operational, the EOF Director is the person who is responsible for making protective action recommendations.

#### B.5 Minimum Staffing Requirements

The positions, title and major tasks to be performed by the persons assigned to the functional areas of emergency activity at the station are described in Emergency Plan Implementing Procedures. These assignments shall cover the emergency functions in Figure B-1. The minimum on-shift staffing is as indicated in Figure B-1. The capability to augment on-shift resources after declaration of an emergency is also indicated in Figure B-1. The functional tasks to be performed by persons assigned to the areas of emergency activity are as designated in Emergency Plan Implementing Procedures.

#### B.6 Site Functional Area Interfaces

Figures B-4 and B-5 describe and specify the interfaces between and among the functional areas of emergency activity, licensee headquarters support, local services support, and state/local government response organizations. Figure B-4 is for use prior to activation of the EOF. Figure B-5 is for use after the EOF is established.

#### B.7 Augmented Support of Site Emergency Organization

Upon declaration of an Alert, Site Area Emergency or General Emergency, the EOF organization will be alerted and personnel will report to the EOF as soon as possible. The EOF organization is described in Emergency Plan Implementing Procedures. The Public Affairs organization is described in the implementing procedure for JIC activation. Refer to Section G for the Public Affairs function. Figure B-3 shows the minimum staff required to declare the EOF operational. The EOF will be staffed using 75 minutes as a goal for the minimum staff to be in place and operational.

In addition to the minimum staff shown in Figure B-3, other personnel are expected to report to the EOF to augment the minimum staff. This augmentation would occur gradually and would range from a few minutes to a few hours depending on the proximity of the personnel to the EOF.

The organization identified in this section is capable of continuous (24 hours) operations for a protracted period. The individual responsible for assuring continuity of resources is the EOF Director. Each group's operational plan is specified in the Emergency Plan or Emergency Plan Implementing Procedures.

#### B.8 Contractor, Private, and Government Organizations

The Institute of Nuclear Power Operations (INPO) serves as a clearinghouse for industry wide support during an emergency. When notified of an emergency situation at a nuclear plant, INPO will provide emergency response as requested.

**B.9.b      Early Warning or Evacuation of the Populace**

1.      York County Emergency Management (Rock Hill, SC)
2.      Gaston County Emergency Management (Gastonia, NC)
3.      Charlotte-Mecklenburg Emergency Management Office (Charlotte, NC)
4.      South Carolina Emergency Management Division (Columbia, SC)
5.      North Carolina Department of Crime Control and Public Safety (Raleigh, NC)

**B.9.c      Radiological Emergency Monitoring Assistance**

1.      US/DOE Radiological Assistance Team, Savannah River Operations Office (Aiken, SC)
2.      South Carolina Department of Health and Environmental Control, Bureau of Radiological Health, (Columbia, SC)
3.      North Carolina Department of Environment, Health and Natural Resources, Division of Radiation Protection (Raleigh, NC)
4.      Civil Air Patrol, North Carolina Wing (Charlotte, NC)

**B.9.d      Hospitals, Medical Support**

1.      Piedmont Medical Center (Rock Hill, SC)
2.      Carolinas Medical Center (Charlotte, NC)
3.      Carolinas Emergency Medicine Specialists, P.A. (Rock Hill, SC)
4.      REACTS Facility, DOE (Oak Ridge, TN)

**B.9.e      Ambulance Service**

1.      Piedmont Medical Center (Rock Hill, SC)
2.      Clover Rescue Squad (Clover, SC)

**B.9.f      Fire-Fighting**

1.      Bethel Volunteer Fire Department (Clover, SC)

**B.9.g      Public Health and Safety, Evaluation of the Radiological Situation.**

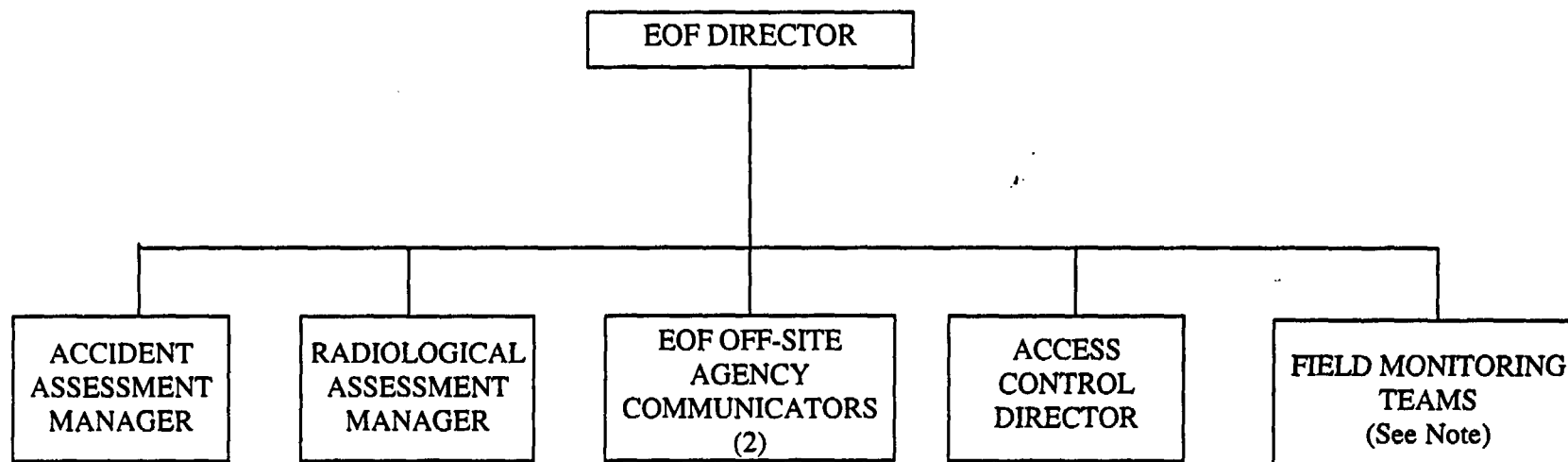
1.      York County Health Department (Rock Hill, SC)
2.      South Carolina Department of Health and Environmental Control, Bureau of Radiological Health (Columbia, SC)
3.      North Carolina Department of Environment, Health and Natural Resources, Division of Radiation Protection (Raleigh, NC)

**FIGURE B-1**  
**CATAWBA NUCLEAR STATION**  
**MINIMUM STAFFING REQUIREMENTS FOR EMERGENCIES**  
**PAGE 2 of 2**

The 75 minute clock begins at the time of the initial Emergency Classification. The TSC/OSC are required to be activated within the same time. The EOF must be operational within 75 minutes of the Emergency Declaration. All facilities are required to be activated at an Alert or Higher Classification.

- \*** For each unaffected nuclear unit in operation, at least one Unit Supervisor, one Control Room Operator, and one Non-Licensed Operator should be maintained. The Unit Supervisor may be shared between units if all functions are covered.
- \*\*** Provided by shift personnel assigned other responsibilities
  - Operations personnel from unaffected units serve as a communicator to the off-site agencies and the NRC.
  - Shift Work Manager serving as the STA performs core thermal-hydraulic evaluations.
- \*\*\*** The TSC Reactor Engineer and the Accident Assessment Manager in the EOF will provide additional support in the area of core thermal hydraulics within 75 minutes.
- \*\*\*\*** Augmentation in these areas is provided by local support. the local support agencies respond in accordance with existing letters of agreement. Response is expected to occur similar to any other industrial facility.
- \*\*\*\*\*** The Field Monitoring Teams respond to and are dispatched from the OSC. The EOF assumes control of the Field Monitoring Teams when EOF Field Monitoring Coordinator is ready.

## CATAWBA NUCLEAR STATION EOF ORGANIZATION - MINIMUM STAFFING REQUIREMENTS

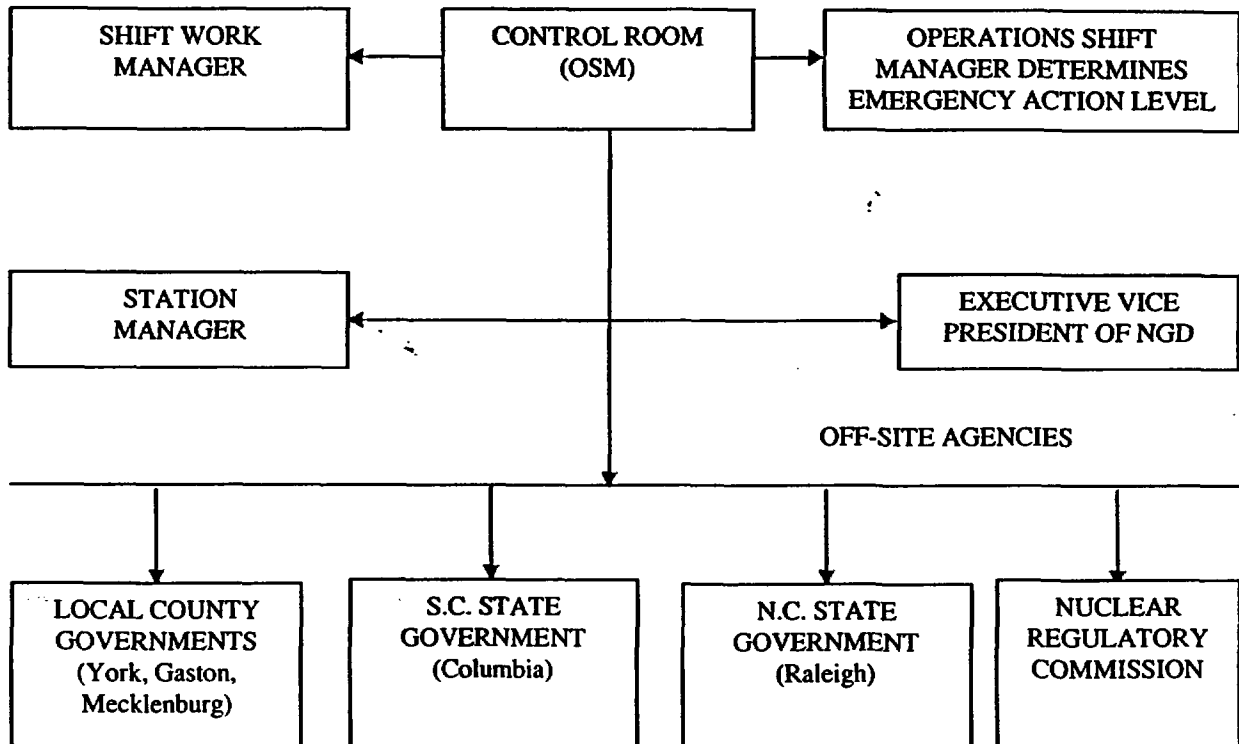


**NOTE:** The Field Monitoring Teams respond to and are dispatched from the OSC. The EOF assumes control of the Field Monitoring Teams when the EOF FMC is ready.



**FIGURE B-4**

**DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
INTER-RELATIONSHIPS OF RESPONSE ORGANIZATIONS  
UNUSUAL EVENT\***



\* DOES NOT REQUIRE ACTIVATION OF ANY EMERGENCY RESPONSE ORGANIZATION

#### **4.1.C.4 Steam Generator (SG) Secondary Side Release With Primary To Secondary Leakage**

Secondary side releases to environment include those from the condenser air ejector, SG Power Operated Relief Valves (PORVs), atmospheric dump valves, faulted steam lines, and main steam safety valves. Steam releases, in combination with primary to secondary leakage, constitute a bypass of the containment and, therefore, a loss of the containment barrier.

The appropriate classification can be determined in combination with the SG Tube Rupture EAL under the Reactor Coolant System (NCS) barrier.

There is no "Potential Loss" EAL associated with this item.

#### **4.1.C.5 Significant Radioactive Inventory in Containment**

These values indicate significant fuel damage well in excess of the EALs associated with both loss of Fuel Clad and loss of NCS Barriers. NUREG-1228, *Source Estimations During Incident Response to Severe Nuclear Power Plant Accidents*, indicates that such conditions do not exist when the amount of clad damage is less than 20%. This amount of activity in containment, if released, could have such severe consequences that it is prudent to treat this as a potential loss of containment.

By treating the radioactive inventory in containment as a potential loss, a General Emergency will be declared when the conditions of the fuel clad and NCS barriers are included in the evaluation. This will allow the appropriate protective actions to be recommended.

There is no "Loss" EAL associated with this item.

NOTE: If EMF-53A and EMF-53B are unavailable, readings can be calculated from procedure HP/0/B/1009/006, "Alternative Method for Determining Dose Rates within the Reactor Building."

#### **4.1.C.6 Emergency Coordinator/EOF Director Judgment**

This EAL addresses any other factors that are to be used by the Emergency Coordinator/EOF Director in determining whether the containment barrier is lost or potentially lost. In addition, the inability to monitor the barrier should also be incorporated in this EAL as a factor in Emergency Coordinator/EOF Director judgment that the barrier may be considered lost or potentially lost.

**ENCLOSURE 4.2**  
**SYSTEM MALFUNCTION**

**UNUSUAL EVENT**

**4.2.U.1 Inability to Reach Required Shutdown Within Technical Specification Limits.**

**OPERATING MODE APPLICABILITY:** Mode 1 (Power Operation)  
Mode 2 (Startup)  
Mode 3 (Hot Standby)  
Mode 4 (Hot Shutdown)

**EMERGENCY ACTION LEVEL:**

**4.2.U.1-1** Plant is not brought to required operating mode within Technical Specifications LCO Action Statement Time.

**BASIS:**

Limiting Conditions of Operation (LCOs) require the plant to be brought to a required shutdown mode when the Technical Specification required configuration cannot be restored. Depending on the circumstances, this may or may not be an emergency or precursor to a more severe condition. In any case, the initiation of plant shutdown required by the site Technical Specifications requires a four hour report under 10 CFR 50.72 (b) Non-emergency events. The plant is within its safety envelope when being shut down within the allowable action statement time in the Technical Specifications. An immediate Notification of an Unusual Event is required when the plant is not brought to the required operating mode within the allowable action statement time in the Technical Specifications. **Declaration of an Unusual Event is based on the time at which the LCO-specified action statement time period elapses under the site Technical Specifications and is not related to how long a condition may have existed.** Other required Technical Specification shutdowns that involve precursors to more serious events are addressed by other System Malfunction, Hazards, or Fission Product Barrier Degradation ICs.

**REFERENCE:** NUMARC/NESP-007, REV. 2, 01/92, SU2

**ENCLOSURE 4.4**  
**LOSS OF SHUTDOWN FUNCTIONS**

**ALERT**

- 4.4.A.1 Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Trip Was Successful.**

**OPERATING MODE APPLICABILITY:**    **Mode 1 (Power Operation)**  
   **Mode 2 (Startup)**  
   **Mode 3 (Hot Standby)**

**EMERGENCY ACTION LEVEL:**

- 4.4.A.1-1 The following conditions exist:**

- a.    Valid reactor<sup>2</sup> trip signal received or required and automatic reactor trip was not successful.

**AND**

- b.    Manual reactor trip from the control room is successful and reactor power is less than 5% and decreasing.

**BASIS:**

This condition indicates failure of the automatic protection system to trip the reactor. This condition is more than a potential degradation of a safety system in that a front line automatic protection system did not function in response to a plant transient and thus the plant safety has been compromised, and design limits of the fuel may have been exceeded. An Alert is indicated because conditions exist that lead to potential loss of fuel clad or NCS. Reactor protection system setpoint being exceeded (rather than limiting safety system setpoint being exceeded) is specified here because failure of the automatic protection system is the issue. A manual trip is any set of actions by the reactor operator(s) at the reactor control console which causes control rods to be RAPIDLY inserted into the core and brings the reactor subcritical. Operator action to drive rods does NOT constitute a reactor trip, i.e. does not meet the rapid insertion criterion.

A failure of the protective signal to trip the turbine that initiates a reactor trip does not constitute an ATWS event if the reactor continues to operate.

Failure of manual trip would escalate the event to a Site Area Emergency.

**REFERENCE: NUMARC/NESP-007, REV. 2, 01/92, SA2**

## **LOSS OF SHUTDOWN FUNCTIONS**

### **SITE AREA EMERGENCY**

**4.4.S.1 Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Trip WAS NOT Successful.**

**OPERATING MODE APPLICABILITY: Mode 1 (Power Operation)**

### **EMERGENCY ACTION LEVEL:**

**4.4.S.1-1 The following conditions exist:**

- a. Valid reactor trip signal received or required and automatic reactor trip was not successful.

**AND**

- b. Manual reactor trip from the control room was not successful in reducing reactor power to less than 5% and decreasing.

### **BASIS:**

A failure of the protective signal to trip the turbine that initiates a reactor trip does not constitute an ATWS event if the reactor continues to operate.

Automatic and manual trip are not considered successful if action away from the reactor control console is required to trip the reactor. This EAL is equivalent to the Subcriticality CSF-RED.

Under these conditions, the reactor is producing more heat than the maximum decay heat load for which the safety systems are designed. A Site Area Emergency is indicated because conditions exist that lead to imminent loss or potential loss of both fuel clad and NCS. Although this IC may be viewed as redundant to the Fission Product Barrier Degradation IC, its inclusion is necessary to better assure timely recognition and emergency response. Escalation of this event to a General Emergency would be via Fission Product Barrier Degradation or Emergency Coordinator/EOF Director Judgment ICs.

**REFERENCE: NUMARC/NESP-007, REV. 2, 01/92, SS2**

**ENCLOSURE 4.6**  
**FIRE/EXPLOSION AND SECURITY EVENTS**

**UNUSUAL EVENT**

**4.6.U.1 Fire Within Protected Area Boundary Not Extinguished Within 15 Minutes of Detection or Explosion Within the Protected Area Boundary.**

**OPERATING MODE APPLICABILITY: All**

**EMERGENCY ACTION LEVEL:**

**4.6.U.1-1 Fire in any of the following areas not extinguished within 15 minutes of control room notification or verification of a control room fire alarm.**

- Reactor Building
- Auxiliary Building
- Diesel Generator Rooms
- Control Room
- RN Pumphouse
- Standby Shutdown Facility (SSF)
- Central Alarm Station (CAS)
- Secondary Alarm Station (SAS)
- Doghouses
- Refueling Water Storage Tank (FWST)
- Turbine Building
- Service Building
- Monitor Tank Building

**4.6.U.1-2 Report by plant personnel of an unanticipated explosion within protected area boundary resulting in visible damage to permanent structure or equipment.**

**BASIS:**

**EAL 1:** The purpose of this EAL is to address the magnitude and extent of fires that may be potentially significant precursors to damage to safety systems. Fire is combustion characterized by heat and light. Sources of smoke such as slipping drive belts, electrical breaker flashes or overheated electrical equipment do not constitute fires. Observation of flames is preferred but is NOT required if large quantities of smoke and heat are observed. This excludes such items as fires within administration buildings outside the protected area. Waste-basket fires, and other small fires of no safety consequence should easily be extinguished within 15 minutes of detection. This IC applies to buildings and areas contiguous to plant vital areas or other significant buildings or areas. Verification of the alarm in this context means those actions taken in the control room to determine that the control room alarm is not spurious.

**BASIS:**

With regard to explosions, only those explosions of sufficient force to damage permanent structures or equipment required for safe operation within the identified plant area should be considered. As used here, an explosion is a rapid, violent, unconfined combustion, or a catastrophic failure of pressurized equipment (including a steamline break or feedwater line break), that potentially imparts significant energy to near-by structures and materials. Fire is combustion characterized by heat and light. Sources of smoke such as slipping drive belts, electrical breaker flashes or overheated electrical equipment do not constitute fires. Observation of flames is preferred but is NOT required if large quantities of smoke and heat are observed. The inclusion of a "report of visible damage" should not be interpreted as mandating a lengthy damage assessment prior to classification.

The key to classifying fires/explosions as an Alert is the damage as a result of the incident. The fact that safety-related equipment required for safe shutdown of the unit has been affected or damaged as a result of the fire/explosion is the driving force for declaring the Alert. **It is important to note that this EAL addresses a fire/explosion and not just the degradation of a safety system. The reference to damage of the systems is used to identify the magnitude of the fire/explosion and to discriminate against minor fires/explosions.**

Escalation to a higher emergency class, if appropriate, will be based on System Malfunction, Fission Product Barrier Degradation, Abnormal Rad Levels/Radiological Effluent, or Emergency Coordinator/EOF Director Judgment ICs.

*REFERENCE: NUMARC/NESP-007, REV. 2, 01/92, HA2*

**BASIS:**

**EAL 1:** Based on the UFSAR design basis. Seismic events of this magnitude ( $> OBE$ ) can cause damage to safety functions.

**EAL 2:** Based on the available instrumentation (90 mph maximum range) and the FSAR design basis, which is 95 mph. Wind loads of this magnitude (74 mph hurricane force winds) are approaching speeds that could cause damage to safety functions.

**EAL 3:** This EAL is intended to address the threat to safety related structures or equipment from uncontrollable and possibly catastrophic events. This list of areas includes areas containing safety-related equipment, their controls, and their power supplies. This EAL is, therefore, consistent with the definition of an ALERT in that if events have damaged areas containing safety-related equipment the potential exists for substantial degradation of the level of safety of the plant.

**REFERENCE:** NUMARC/NESP-007, REV. 2, 01/92, HAI



Notification format and message authentication technique to off-site authorities shall be in accordance with applicable Catawba Nuclear Station Emergency Response Procedures.

The Operations Shift Manager shall augment on-shift resources to assess and respond to the emergency situation as needed to ensure the protection of persons and property.

The Operations Shift Manager will assess the emergency condition and determine the need to remain in a Notification of Unusual Event, escalate to a more severe class or close out the emergency.

The Emergency Planning Manager or designee will close out the Emergency with verbal summary to off-site authorities, notified above, followed by an LER or written summary within 30 days.

The actions required for this emergency class are performed by station personnel. Outside organizations (NRC, state and local officials) are notified of the event for information. Unless deemed necessary by the Emergency Coordinator, the Emergency Response Organization is not activated for this emergency class.

If an Unusual Event occurs, a station representative calls the NRC, the State, appropriate local officials, Public Affairs, and others as applicable. The Public Affairs representative notifies media representatives and public officials per established public information procedures.

#### **E.2.b Alert**

The Operations Shift Manager on duty is to be notified immediately of all initiating conditions indicative of an "Alert" classification in process or that have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. (See Section D for examples of initiating conditions in this classification.)

**NOTE:** This Emergency Classification is further defined in Catawba Nuclear Station Emergency Response Procedure, RP/0/A/5000/001, Classification of Emergency.

The Operations Shift Manager shall ensure that all actions required by any initiating Emergency Procedure have been performed and that all actions necessary for the protection of persons and property are being taken.

**NOTE:** The Operations Shift Manager assumes the function of the Emergency Coordinator until the arrival of the Station Manager or designee at which time the Station Manager or designee assumes the responsibility of the Emergency Coordinator.

The Operations Shift Manager shall assure notification and activation of the Emergency Response Organization for any initiating condition in this classification listed in Section D.

**E.2.c. Site Area Emergency**

The Operations Shift Manager on duty is to be notified immediately of all initiating conditions indicative of a "Site Area Emergency" in process or which have occurred which involve actual or likely major failures of plant functions needed for protection of the public. (See Section D for examples of initiating conditions in this classification.)

**NOTE:** This Emergency Classification is further defined in Catawba Nuclear Station Emergency Response Procedure RP/0/A/5000/001, Classification of Emergency.

The Operations Shift Manager shall ensure that all actions required by the initiating Emergency Procedure have been performed and that all actions necessary for the protection of persons and property are being taken.

**NOTE:** The Operations Shift Manager assumes the function of the Emergency Coordinator until the arrival of the Station Manager or designee at which time the Station Manager or designee assumes the responsibility of the Emergency Coordinator.

The Operations Shift Manager shall assure notification and activation of the Emergency Response Organization for any initiating condition in this classification listed in Section D.

The Emergency Coordinator shall assure prompt notification of Federal, State and Local off-site authorities:

1. North Carolina Warning Point (Raleigh, NC)
2. South Carolina Warning Point (Columbia, SC)
3. York County Warning Point (Rock Hill, SC)
4. Gaston County Warning Point (Gastonia, NC)
5. Mecklenburg County Warning Point (Charlotte, NC)
6. NRC Operations Center (Rockville, MD)

Notification format and message authentication technique to off-site authorities shall be in accordance with applicable Catawba Nuclear Station Emergency Response Procedures.

The Emergency Coordinator shall augment on-site resources by notification and activation of the Emergency Response Organization in accordance with RP/0/A/5000/004, Site Area Emergency.

The Emergency Response Organization personnel will be notified by pagers using an Alpha-Numeric message upon the initial emergency declaration. Redundant notification is provided by the on-site paging system and/or an automated telephone system which will allow timely alerting of Emergency Response Organization personnel.

The Emergency Coordinator may order the evacuation of non-essential station personnel to an Evacuation-Relocation Site if the emergency situation warrants.

**F. Emergency Communications**

**F.1.a. 24 Hour Notification Capability**

In the event of an emergency at Catawba Nuclear Station, 24 hour per day notification to and activation of the state/county emergency response network is established. All state/county warning points are manned 24 hours per day. This communications link consists of the following:

- (1) Selective signaling telephone system to the county and state warning points/EOCs and EOF.
- (2) Private telephone capability to the county and state warning points/EOCs.
- (3) Dedicated radio networks to the county and state warning points/EOCs.

These links are available from Catawba Control Room, as shown in Figure F-1, the Technical Support Center as shown in Figure F-2 and the EOF as shown in Figures F-3 and F-4. Backup communication links can be established using the station's Local Law Enforcement Radio to York Co. to S.C. Emergency Management Division and by the Duke Power P&T Frequency to Corporate Headquarters if required.

**F.1.b. Communications With State/Local Governments**

There are three means of contacting states/counties in the 10 mile EPZ.

The Selective Signaling System is the primary means of communication. The Selective Signaling is on the Duke Network system tied to short lines leased from the local telephone company. This circuit allows intercommunication among the EOF, TSC, control room, counties, and states. Standard telephone lines serve as a backup means of communication.

A radio system can be used for communication among off-site monitoring teams, counties, the control room, TSC and EOF. Communications by radio with the states near-site headquarters (i.e., SERT) can be achieved either by using the Duke Network (using portable radios) or by using the states' Radio Network.

Three telephone lines to N.C. and S.C. are dedicated for specific tasks.

- EOF Director to the state director at the SERT
- Off-Site Agency Communicator to state emergency management via selective signaling system.
- State Public Information Officer (PIO) at the Joint Information Center to the State PIO at the N.C. State Emergency Response Team (SERT)

**F.1.c. Communications With Federal Organizations**

The Catawba Control Room, TSC and EOF each have NRC Emergency Notification System (ENS) and the TSC and EOF each have Health Physics (HPN) capability through the Emergency Telephone System (ETS). Commercial telephone company lines provide a backup to ENS.

The Radiological Assessment Manager in the EOF has the capability to contact DOE-Savannah River for assistance through the use of standard telephone circuits.

**F.1.d. Communications Between Station, EOF, Local EOC's and Monitoring Teams**

Provision for communications between the Catawba Control Room or TSC and the EOF, county and state EOC's is provided by the selective signaling telephone capability. The emergency radio link described above is the backup as well as standard telephone lines. A separate radio system provides for communications between the Control Room, TSC and/or EOF to the radiological monitoring teams in the field.

**F.1.e. Activation of Emergency Personnel**

Notification, alerting and activation of emergency response personnel in the TSC, OSC, and EOF is described in Section E.2.

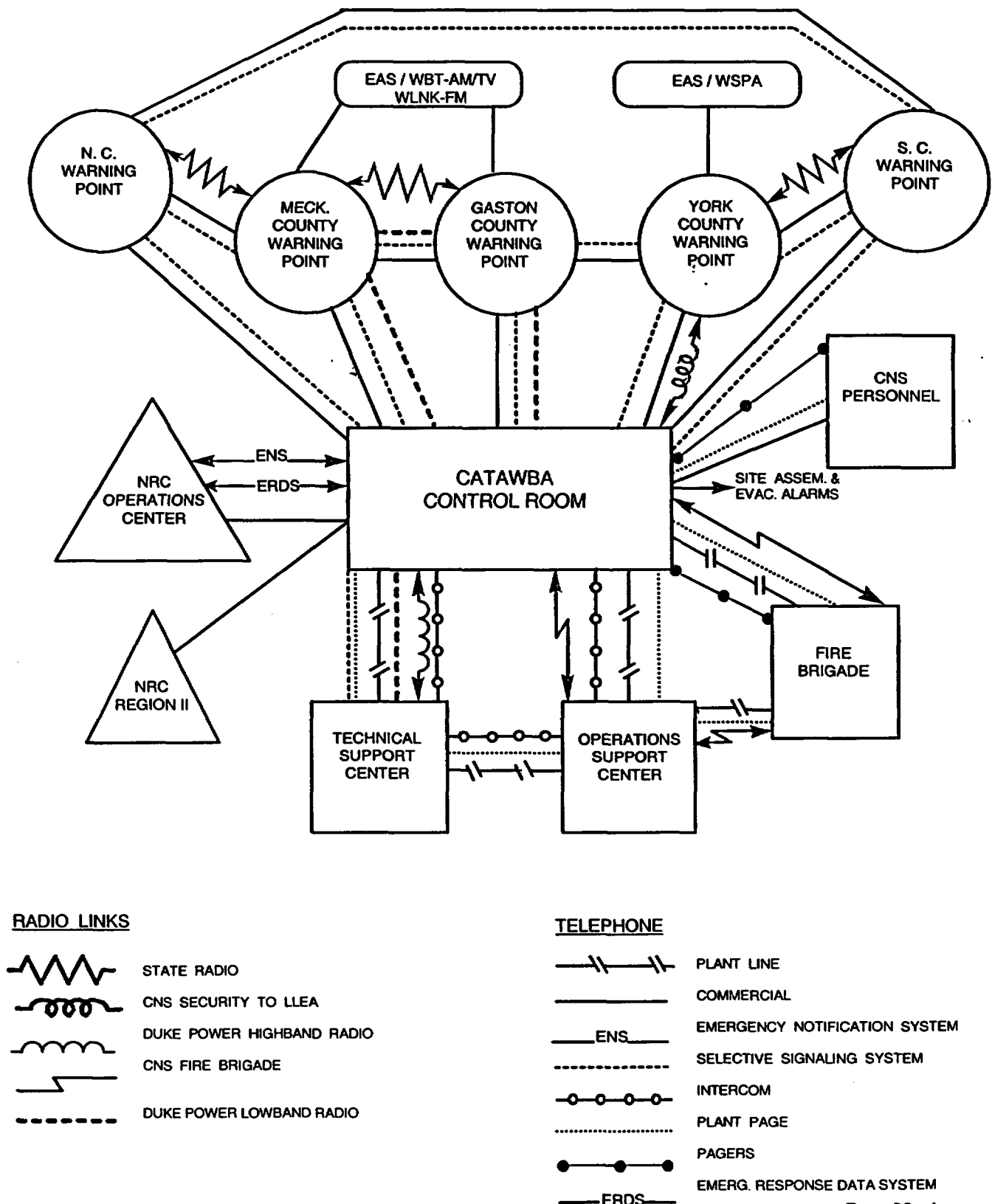
**F.1.f. Communications Between NRC, EOF and Monitoring Teams**

Communications between Catawba Control Room/TSC/EOF to the NRC Operations Center is via the Emergency Telephone System (ETS) phone or private telephone. Communications from the Catawba Control Room/TSC/EOF to the regional office is via the normal private capability. Communications between the TSC/EOF and off-site monitoring teams is via the radio system described in F.1.d.

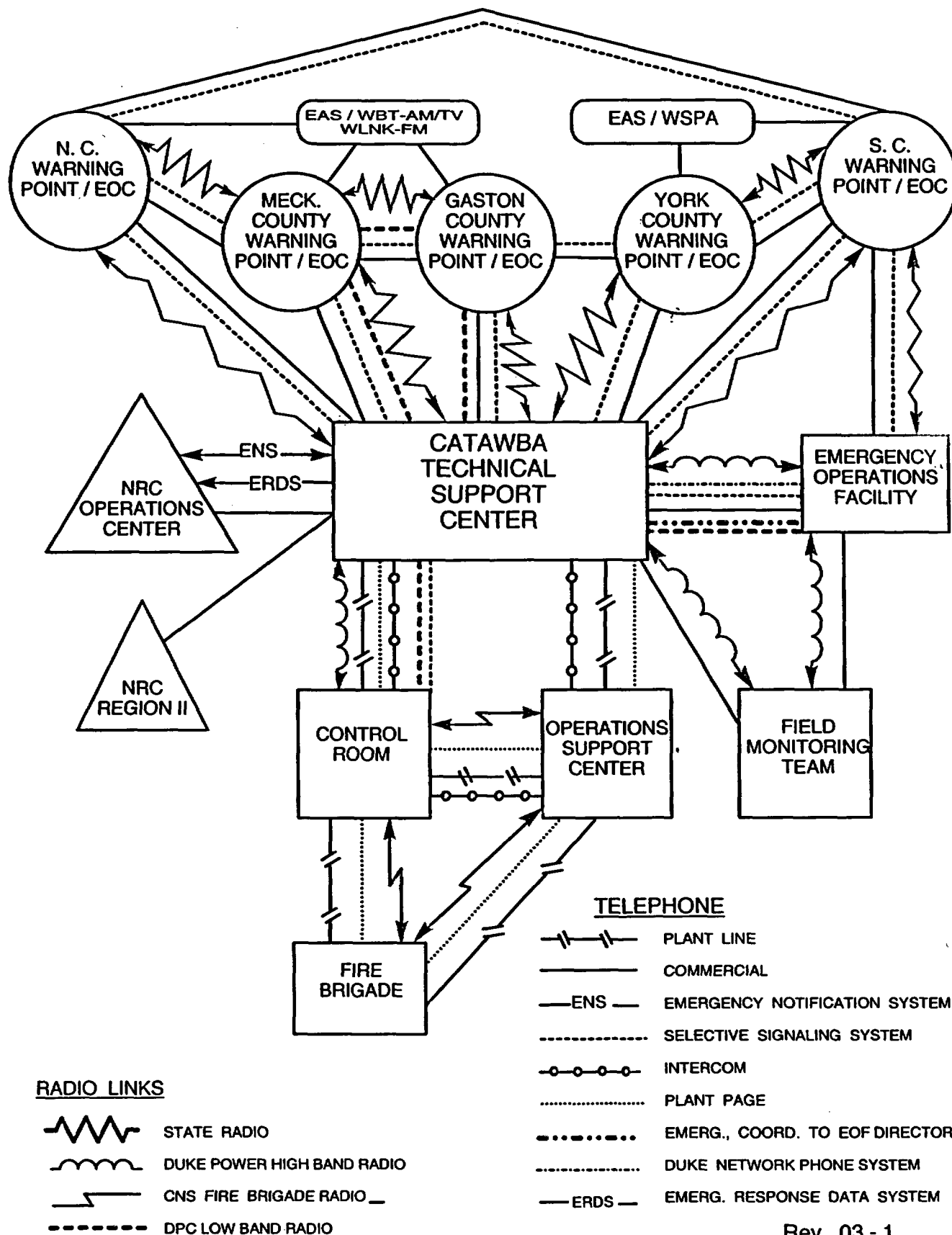
**F.1.g ERDS Data Transfer**

ERDS is activated within 1 hour of the declaration of an Alert or higher emergency classification per the respective response procedure.

**FIGURE F-1  
CATAWBA NUCLEAR STATION  
CONTROL ROOM EMERGENCY COMMUNICATIONS  
PRIOR TO TSC ACTIVATION**



**FIGURE F-2  
EMERGENCY COMMUNICATIONS AFTER TSC ACTIVATION  
AND DURING EOF ACTIVATION**



**G. Public Information and Education**

Information will be made available to the public on a yearly basis concerning notification of a nuclear plant emergency and the response that will be required from the public sector.

**G.1 Public Education and Information Program (See Figure G-1)**

**&**

- G.2** On an annual basis, the licensee will update and distribute to residents within the plume exposure pathway emergency-planning zone, emergency-planning information concerning Catawba Nuclear Station. It will provide educational information on radiation, emergency planning contacts, protective actions, primary emergency alert system radio station, evacuation routes, pick-up points for school children (SC), shelters (SC) or reception centers (NC), and information for residents with special needs. Local telephone numbers to call with questions will also be listed.

Public information for the transient population includes lake-access signs and emergency planning information. Transient locations will be identified by the Emergency Planning Manager/designee, the site public affairs staff, and state and county emergency management officials. These locations may include but are not limited to motels, hotels, marinas, and lake access (signs).

The list of transient locations will be reviewed quarterly and updated as needed. Locations will be contacted periodically to ensure adequate copies of materials are available.

**G.3.a Public Affairs - Location and Contacts**

Public information during a drill or emergency at Catawba Nuclear Station, will be coordinated and disseminated through the on-site media center located on Concord Road, York, S.C. or the Joint Information Center (JIC) (see Figure H-7) located in the Energy Center at 526 South Church Street, Charlotte, N. C. During the initial stages of an emergency situation, response to media questions relative to plant status will be provided at the on-site media center. The Charlotte media center (see Figure H-6), also located in the Energy Center, will be activated as needed. The news release will indicate the location of the primary media center. The news manager and public spokesperson are the primary contacts for the news media.

If the Emergency Operations Facility (EOF) is not activated, the normal Duke Energy news release process is followed. If the EOF is activated, then the Public Affairs JIC Activation Procedure (PA1), the Standard Procedure for Public Affairs Response to the Emergency Operations Facility (SR/0/B/2000/001), and the Communications and Community Relations EnergyQuest Emergency Response Plan (RP/0/B/5000/028) are implemented for gathering and disseminating information.

### **G.3.b Public Affairs – Media Centers**

In a nuclear plant emergency, the licensee relies on the news media to provide prompt, accurate information to local residents and the public. To provide ready access to current information on plant status, a media center is promptly established. An on-site media center will provide space for a limited number of media. A larger media center, located in the Energy Center at 526 South Church Street, Charlotte, NC (near the EOF) can be activated as needed to support additional media.

### **G.4.a Public Spokesperson**

A public spokesperson will provide plant status and company information during scheduled news conferences and media briefings at a designated media center. Designated public spokespersons are the chief nuclear officer and his direct reports, and their designees.

### **G.4.b Spokesperson Information Exchange**

State, county and licensee spokespersons/public information officers are co-located in the Joint Information Center (JIC) to promote a timely exchange and coordination of emergency information

### **G.4.c Rumor Control**

A licensee liaison will work with state, county, and federal public information officers in the JIC to acknowledge rumors and determine the origin. A coordinated response will be made to deal with rumors or correct misinformation.

Customer inquiries are handled by our Customer Contact Centers. Employees are updated via the company intranet/portal. Elected officials and regulatory agencies are updated through our public affairs and governmental affairs departments. Industry groups would assist in disseminating information to other industry groups.

### **G.5 News Media Training Sessions**

The licensee will annually provide the news media with information about emergency planning, radiation, and points of contact for release of public information in an emergency.



## **FIGURE G-1**

### **DUKE POWER COMPANY CATAWBA NUCLEAR STATION**

#### **PUBLIC EMERGENCY NOTIFICATION BROCHURE**

The Catawba Nuclear Station Public Emergency Notification Brochure is mailed to residents inside the ten-mile EPZ. Additional brochures may be obtained by contacting CNS Public Affairs.

Emergency information for Catawba may also be obtained at:  
<http://www.dukepower.com>

- Community
- Safety
- Nuclear Emergency Preparedness
- Catawba

H.1.c Operations Support Center. (Figure H-2) The Operations Support Center (OSC) is that place designated for Operations and Radiation Protection, Chemistry, Maintenance, IAE, and others as necessary, to report to in an emergency condition. This center will be used to brief and prepare station personnel for work assignments in support of the emergency condition. The OSC is located in the Service Building on the 609 elevation with the OCC. The OSC has adequate capacity and supplies including provisions for respiratory protection, protective clothing, portable lighting, portable radiation monitoring equipment and communications equipment. This is a permanent facility.

H.2 Emergency Operations Facility (EOF)

The Emergency Operations Facility (EOF) is utilized for direction and control of all emergency and recovery activities with emphasis on the coordination of off-site activities such as communications with local, state and federal agencies, and coordination of corporate and other outside support. Anticipated occupants are the EOF organization and appropriate state and federal agency representatives.

The EOF has redundant two-way communications with the Technical Support Center and appropriate off-site support agencies. (See Section F)

The EOF is located in the Charlotte General Office in Power Building Room 1237. The EOF layout and location are shown on Figures H-3 through H-5.

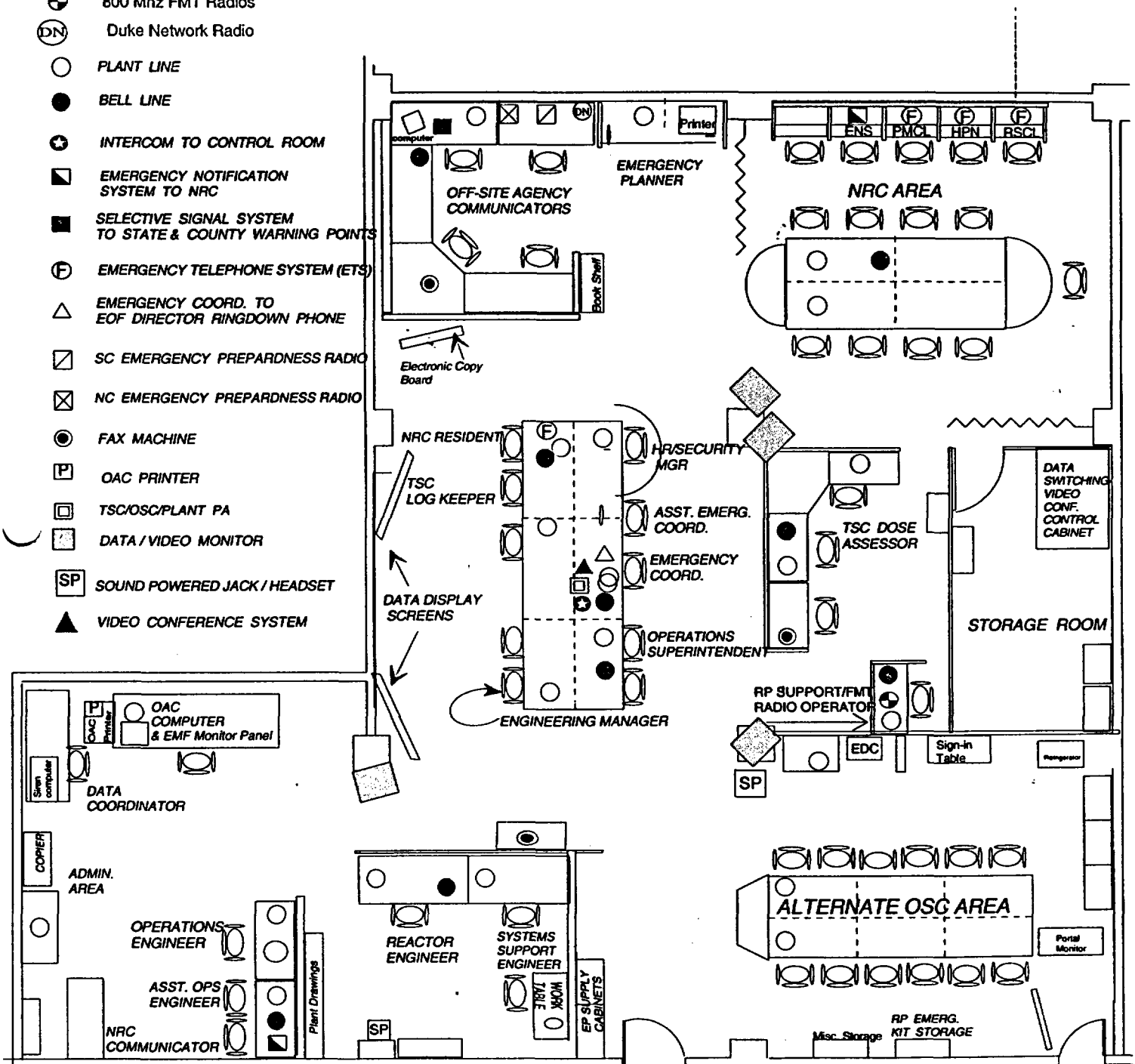
H.3 State and Local Government Emergency Operations Centers

See County and State Plans.

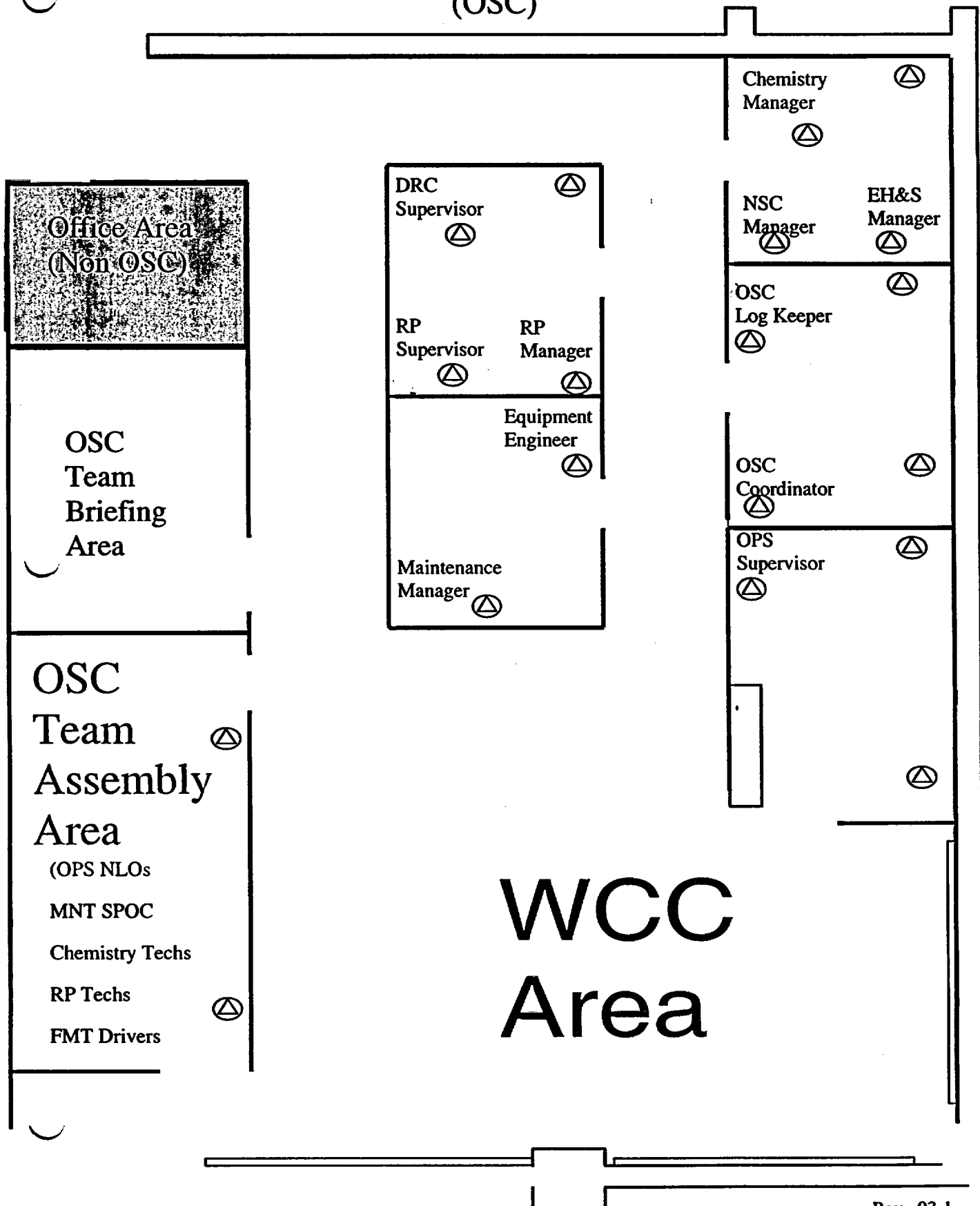
# CATAWBA NUCLEAR SITE FIGURE H-1 TECHNICAL SUPPORT CENTER (TSC)

## TYPES OF COMMUNICATION

- ⊕ 800 Mhz FMT Radios
- DN Duke Network Radio
- PLANT LINE
- BELL LINE
- ★ INTERCOM TO CONTROL ROOM
- ◼ EMERGENCY NOTIFICATION SYSTEM TO NRC
- ◼ SELECTIVE SIGNAL SYSTEM TO STATE & COUNTY WARNING POINTS
- Ⓢ EMERGENCY TELEPHONE SYSTEM (ETS)
- △ EMERGENCY COORD. TO EOF DIRECTOR RINGDOWN PHONE
- ◻ SC EMERGENCY PREPAREDNESS RADIO
- ◻ NC EMERGENCY PREPAREDNESS RADIO
- FAX MACHINE
- P OAC PRINTER
- TSC/OSC/PLANT PA
- ◻ DATA / VIDEO MONITOR
- SP SOUND POWERED JACK / HEADSET
- ▲ VIDEO CONFERENCE SYSTEM



CATAWBA NUCLEAR SITE  
FIGURE H-2  
OPERATIONS SUPPORT CENTER  
(OSC)



## I. ACCIDENT ASSESSMENT

To assure the adequacy of methods, systems and equipment for assessing and monitoring actual or potential off-site consequences of a radiological emergency condition.

### I.1 Emergency Action Level Procedures

Emergency Action Level procedures have been established in accordance with NUREG 0654, Appendix 1, and NUMARC/NESP-007 (Rev. 2) that was approved by the NRC in Revision 3 of Regulatory Guide 1.101. See Bases Document in Section D.

Emergency Response Procedure, RP/0/A/5000/001, Classification of Emergency, will identify the system parameter and effluent parameter values which can be used to determine the emergency condition.

### I.2 On-site Capability and Resources to Provide Initial Values and Continuing Assessment

#### I.2.a. Post Accident Sampling

Changes have been made to reflect the NRC approved License Amendment Request received from the NRC via letter dated 9/11/01. The NRC issued Amendments No. 193 (Facility Operating License NPF-35) and No. 185 (Facility Operating License NPF-52). The amendments delete TS section 5.5.4, "Post Accident Sampling," for Catawba Nuclear Station, Units 1 and 2, and thereby eliminate the requirements to have and maintain the post-accident sampling systems (PASS - Palss/Pacs).

Chemistry Guideline 3.4.12 describes current post accident contingency plans for obtaining NC and ND/Containment Sump samples. It indicates that procedures OP/1(2)/A/6200/011 have been revised to take required samples during accident conditions utilizing the NM Automation Sample Panel. The samples are cooled by the normal NM sample HXs cooled by YN, thus eliminating the need for the PALS Sample Cooler.

The following procedures are in place to assess core damage and take containment atmosphere samples under accident condition. Emergency Planning Implementing Procedure RP/0/A/5000/015 is used to assess core damage using EMF 53 response. HP/0/B/1001/018 was revised to allow for use of EMF 38, 39 and 40 containment atmosphere sampling capability under emergency conditions.

Also as a result of NRC License Amendments 193/185, OP/0/B/6200/021, "PALSS Operation for Accident Sampling," has been deleted from the Emergency Plan as an Emergency Plan Implementing Procedure. Procedures OP/1(2)/A/6200/011 are not EPIPs or a part of the Emergency Plan. They are listed in this section for reference purposes only. Also, Emergency Plan Implementing Procedures HP/1/B/1009/017, "Unit 1 Nuclear Post-Accident Containment Air Sampling System Operating Procedure," and HP/2/B/1009/017, "Unit 2 Nuclear Post-Accident Containment Air Sampling System Operating Procedure," have been deleted. HP/0/B/1001/018, "RP Compliance Sampling," is not an EPIP or a part of the Emergency Plan. It is listed in this section for reference purposes only. (PIPs C-01-00384, C-01-04478)

**I.2.b. Radiation and Effluent Monitors**

Radiological monitoring capabilities include process and effluent monitoring systems (UFSAR 11.5); area monitoring system (UFSAR 12.3.4); plus station portable monitoring instruments, laboratory counters and analyzers (UFSAR 12.5.2), including emergency high-range instruments with a range up to 1000 R/hr and air samplers.

In addition, there are two (2) high range containment monitors, one (1) high range unit vent monitor, and four (4) steam line monitors per unit.

**I.2.c In-plant Iodine Instrumentation**

Silver Zeolite radioiodine or equivalent sampling cartridges are used for sampling air when the presence of noble gases is suspected. Radiation Protection personnel are knowledgeable in the appropriate station procedures required and are trained in the equipment required to determine airborne iodine concentrations in the plant under all conditions. Procedures to determine airborne iodine concentrations will cover analyses to be done if counting room capabilities are not available.

**I.3.a/ Method For Determining Release Source Term**

**I.3.b**

Procedures HP/0/B/1009/004, HP/0/B/1009/006, HP/0/B/1009/007, HP/0/B/1009/014, SH/0/B/2005/001 and HP/0/B/1009/026 are used on-shift, in the TSC and/or EOF for the calculation of potential off-site doses based on a Design Basis Accident, release of primary coolant, or release of GAP activity situation scaled to actual containment monitor readings. Provisions for use of actual source terms exist in the procedures.

The magnitude of the release is based on actual effluent monitoring readings, plant system parameters (containment pressure), area meteorology and the duration of the release.

**I.4 Effluent Monitor Readings Vs On-site/Off-site Exposure**

The procedures referenced in I.3.a/I.3.b establish the relationship between effluent monitor readings and on-site/off-site exposures and contamination for various meteorological conditions.

**I.5 Meteorological Information Availability**

Meteorological information will be available to the Emergency Operations Facility, the Technical Support Center, the Control Room through use of the Station Operator Aid Computer (OAC) and by direct telephone communication. Meteorological information will be available to the NRC through the Emergency Response Data System (ERDS), the FTS Health Physics Network (HPN) phone or by direct telephone communications with the individual responsible for making off-site dose assessments either at the Technical Support Center or the Emergency Operations Facility.

Meteorological information will also be given to both the county Emergency Operations Centers, the State of South Carolina and the State of North Carolina during initial and follow-up information via the message format in Figure E-1.

**I.6 Release Rates/Projected Dose For Off-scale Instrumentation**

If instrumentation used for dose assessment are off-scale or inoperable, dose rates within the Reactor Building will be determined using procedure HP/0/B/1009/006, Alternative Method for Determining Dose Rate within the Reactor Building.

**I.7/ Field Monitoring Within E.P.Z.**

**I.8**

Field monitoring within the Catawba Emergency Planning Zone will be performed in accordance with HP/0/B/1009/004 Environmental Monitoring for Emergency Conditions Within the 10-Mile Radius of CNS.

Four off-site field monitoring teams are comprised from station personnel and are under the direction of the Field Monitoring Coordinator. Procedure HP/0/B/1009/004 describes how to obtain the vehicles to be used, routes to be used, sampling and monitoring equipment to be used, locations of TLD's and directions for taking KI tablets.

In addition, one on-site (out of plant) survey team is available from the Operations Support Center.

An emergency radio system is available for the field monitoring teams to use to relay information to the Control Room/TSC/EOF. The states will be able to monitor the results of the field monitoring teams.

**I.9 Detect and Measure Radioiodine Concentration in the EPZ**

Appropriate instrumentation to measure radioactivity in counts per minute (cpm) and determine dose rate in mrem/hr shall be used for detection and measurement of radioiodine concentration. The air sample will be taken with a Portable Air Sampler equipped with a Silver Zeolite or equivalent cartridge and particulate filter. Air sampling results will be obtained through the use of a portable single channel Analyzer and appropriate gamma sensitive detector.

Interference from the presence of noble gas and background radiation shall not decrease the minimum detectable activity of  $1E-7 \text{ } \mu\text{Ci/cc}$  (microcuries per cubic centimeter) under field conditions.

These samples taken by the off-site monitoring teams will be evaluated further by one of the available laboratory facilities described in Section C.3. A multi-channel analyzer will be used to perform this evaluation.

**I.10 Relationship Between Contamination Levels and Integrated Dose/Dose Rates**

Provisions for assessing contamination levels, water, and air to dose rates for key isotopes is found in procedure HP/0/B/1009/024.

**I.11 Plume Tracking**

The states of North Carolina and South Carolina have arrangements to locate and track an airborne plume of radioactive materials. Duke Power Company will have monitoring teams in the field, fixed TLD sites and the capability for obtaining airborne monitoring to assist in plume tracking.

## **J.5 Personnel Accountability**

Within thirty minutes of a Site Assembly, all persons within the Protected Area of Catawba Nuclear Station can be accounted for and any person(s) determined to be missing, will be identified by name. RP/0/A/5000/010 provides for the accounting of personnel (on site) continuously thereafter.

## **J.6 Protective Measures - Breathing Apparatus, Protective Clothing, KI**

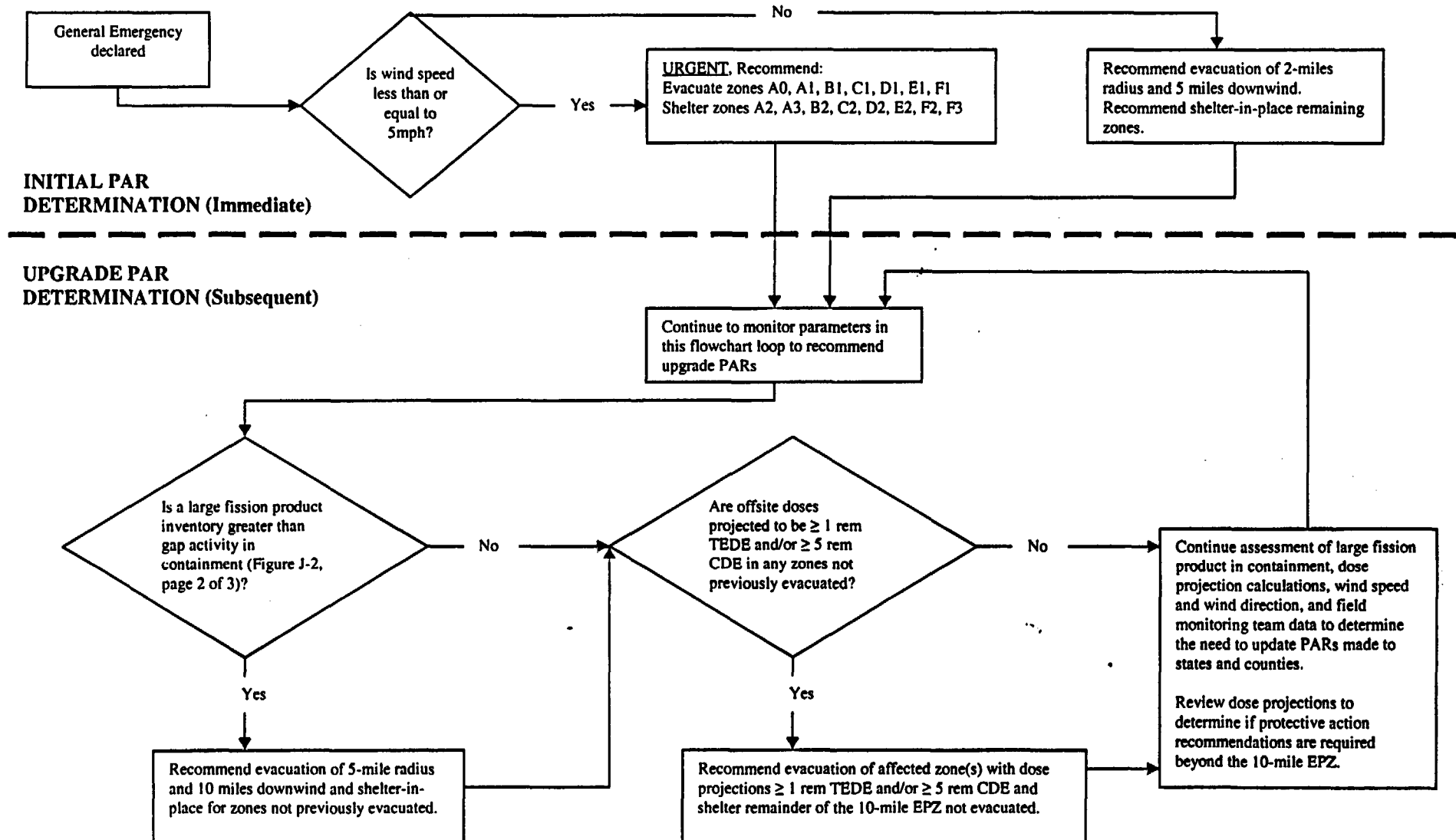
Protective equipment and supplies will be distributed (as needed) to personnel remaining or arriving on site during the emergency to minimize the effects of radiological exposures or contamination. Protective measures to be utilized are as follows:

- Protective measures will be utilized to minimize the ingestion and/or inhalation of radionuclides and to maintain internal exposure below the limits specified in 10CFR20, Appendix B.
- Engineering (ventilation) controls are utilized in the TSC and Control Room to control concentrations of radioactive material in air. Otherwise, when not practical to apply process or other engineering controls to limit intakes of radioactive material in air, one or more of the following protective measures will be utilized:
  - Control of access
  - Limitation of exposure times
  - Use of individual respiratory protection equipment. Specific positions within the TSC and OSC are required to be respirator qualified. These positions are:

TSC	Operation Superintendent, Operations Engineer, Assistant Operations Engineer, Engineering Manager, Systems Support Engineer and Reactor Engineer
OSC	All positions except the OSC Log/Status Keeper
- Self-contained breathing apparatus will be used in areas that are deficient in oxygen or when fighting fires. Respiratory protective equipment will be issued by Radiation Protection or Safety and Health Services. SCBA's are available with other fire fighting equipment for use by the station fire brigade.
- Individual Thyroid Protection - Protective measures will be utilized to minimize the ingestion and/or inhalation of radioactive iodine. However, if an unplanned incident involves the accidental or potential ingestion or inhalation of radioactive iodine, Potassium Iodide Tablets (KI) are available for distribution by SH/0/B/2005/003 (Distribution of Potassium Iodide Tablets in the Event of a Radioiodine Release).
- Use of Protective Clothing - Protective clothing will be issued when contamination levels exceed 1000 dpm/100 cm<sup>2</sup> beta-gamma and 20 dpm/100 cm<sup>2</sup> alpha of smearable contamination. Protective clothing items are located in the Change Rooms inside the Radiation Control Area, available for emergency use. Special fire-fighting protective clothing and equipment is available in designated station supply storage areas for use by fire brigade personnel.



DUKE POWER COMPANY  
CATAWBA NUCLEAR SITE  
FIGURE J-2, PAGE 1 OF 3  
CATAWBA OFF-SITE PROTECTIVE ACTIONS



## **O. RADIOLOGICAL EMERGENCY RESPONSE TRAINING**

### **O.1 Off-site Support Agency Training**

- O.1.a. Emergency response training is provided to those Off-site Support Agencies that may be called upon to provide assistance in the event of an emergency at Catawba Nuclear Station. Off-site Support Agencies receive training and retraining per EP Group Manual Guideline 5.4.1. Training objectives and lesson plans are maintained in the site training files. This training is given by site/corporate personnel and documented on Duke Power Company forms per CNS Training Addendum 7111.0.**
- O.1.b. A separate training session is offered annually to state and local government emergency planning officials responsible for emergency plans within the plume exposure EPZ.**

### **O.2 Emergency Organization Training**

- O.2.a. The training program for members of the Emergency Organization is outlined in EP Group Manual Guideline 5.4.1. Training objectives and lesson plans are maintained in the site training files. Prior to inclusion in the Emergency Organization, all individuals must satisfy training requirements for his/her position as outlined in EP Group Manual Guideline 5.4.1 and CNS Training Addendum 7111.0.**

Individuals will be offered an initial training session for his/her position in the Emergency Organization as identified in EP Group Manual Guideline 5.4.1 and CNS Training Addendum 7111.0. Continuing training will be conducted as identified in EP Group Manual Guideline 5.4.1 and CNS Training Addendum 7111.0. One makeup session will be offered for both initial and continuing training.

- O.2.b. Members of the Catawba Security Organization receive training as specified in the Duke Power Company Nuclear Security and Contingency Plan.**
- O.2.c. Fire Brigade personnel are trained per Nuclear System Directive 112 and CNS Training Addendum 7111.0.**
- O.2.d. A practice drill session may be held to allow the individuals to perform their assigned functions (See PT/O/B/4600/006 Emergency Drills). The drill instructor may make on the spot corrections and/or demonstration of the proper performance.**

### **O.3 First Aid Training**

First Responder training is given to Medical Emergency Response Team (MERT) members per CNS Training Addendum 7111.0.

### **O.4 Training For Radiological Emergency Response Personnel**

Training requirements for the following groups are described in EP Group Manual Guideline 5.4.1 and CNS Training Addendum 7111.0. Training objectives and lesson plans are maintained in site training files.

- a. Directors and Coordinators of Response Organizations**

- b. Personnel Responsible for Radiological Assessment
- c. Radiological Monitoring Teams
- d. Police, Security and Fire Fighting Personnel
- e. Repair and Recovery Teams
- f. First Aid and Rescue Personnel
- g. Site Services Support Personnel
- h. Medical Support Personnel
- i. All Emergency Response Organization Personnel
- j. Personnel Responsible for Transmission of Emergency Information and Instructions
- k. Personnel Responsible for Data Coordination

**O.5 Retraining of Radiological Emergency Response Personnel**

Initial and retraining requirements for each Emergency Response Organization position are defined in EP Group Manual Guideline 5.4.1 and CNS Training Addendum 7111.0.

**P.6 Supporting Plans**

Figure P-1 gives a detailed listing of supporting plans to the Catawba Nuclear Station Emergency Plan.

**P.7 Implementing Procedures**

Written procedures will be established, implemented, and maintained covering the activities associated with emergency plan implementation. Each procedure, and changes thereto, shall be reviewed and approved by the responsible implementing manager (line manager or the manager responsible for Emergency Planning oversight) prior to implementation and shall be reviewed periodically as set forth in administrative procedures.

Catawba Emergency Plan Implementing Procedures are listed in Figure P-2 with a reference to the section of Emergency Plan implemented by each procedure. Catawba Emergency Plan Implementing Procedures and approved changes shall be forwarded to individuals and organizations listed in Catawba Nuclear Site Document Control Distribution Code CADM-12.

**P.8 Table of Contents**

The Catawba Nuclear Station Emergency Plan contains a specific table of contents. The Catawba Nuclear Station Emergency Plan has been written to facilitate cross-reference to the applicable sections of NUREG-0654 Rev. 1.

**P.9 Audit of Emergency Plan**

At least every 24 months based on 10CFR50.54(t), the Nuclear Safety Review Board Chairman will arrange an independent review of Duke Power Company's Emergency Preparedness Program. The review will be conducted by the Company's Nuclear Assessment and Issues Division and will include the following plans, procedures, training programs, drills/exercises, equipment, and state/local plan interfaces:

1. Catawba Nuclear Station Emergency Plan and Implementing Procedures
2. State/Local Support Agency Training Program
3. Site Training Program
4. Public and Media Training/Awareness
5. Equipment - Communications, Monitoring, Meteorological, Public Alerting
6. State/Local Plan Interface

The review findings will be submitted to the appropriate corporate and nuclear site management. Appropriate portions of the review findings will be reported to the involved federal, state, and local organizations. The corporate or nuclear site management, as appropriate, will evaluate the findings affecting their area of responsibility and ensure effective corrective actions are taken. The result of the review, along with recommendations for improvements, will be documented and retained for a period of five years.

**P.10 Telephone Number Updates**

Telephone numbers listed in the Catawba Nuclear Station Emergency Plan Implementing Procedures will be updated quarterly in accordance with PT/0/B/4600/05B, Quarterly Communications Verification.

DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
FIGURE P-2  
EMERGENCY PLAN IMPLEMENTING PROCEDURES

<u>Procedure #</u>	<u>Title</u>	<u>Emergency Plan Section Implemented</u>
RP/0/A/5000/001	Classification of Emergency	Section D, E, I.1
RP/0/A/5000/002	Notification of Unusual Event	Section D, E
RP/0/A/5000/003	Alert	Section D, E
RP/0/A/5000/004	Site Area Emergency	Section D, E
RP/0/A/5000/005	General Emergency	Section D, E, J, K
RP/0/A/5000/006	Deleted	
RP/0/A/5000/006A	Notifications to States and Counties from the Control Room	Section E, J.7
RP/0/A/5000/006B	Notifications to States and Counties from the Technical Support Center	Section E, J.7
RP/0/A/5000/007	Natural Disaster and Earthquake	Section D, H, H.6.a
RP/0/A/5000/008	Deleted	
RP/0/B/5000/008	Spill Response	Section D
RP/0/A/5000/009	Collision/Explosion	Section D
RP/0/A/5000/010	Conducting a Site Assembly or Preparing the Site for an Evacuation	Section E, J, K
RP/0/A/5000/11	Deleted	
RP/0/B/5000/12	Deleted	
RP/0/B/5000/013	NRC Notification Requirements	Section E
RP/0/B/5000/14	Deleted	
RP/0/B/5000/015	Core Damage Assessment	Section D
RP/0/B/5000/16	Deleted	
RP/0/B/5000/17	Deleted	
RP/0/A/5000/018	Emergency Worker Dose Extension	Section K.2
RP/0/B/5000/19	Deleted	
RP/0/A/5000/020	Technical Support Center (TSC) Activation Procedure	Section B, H
RP/0/A/5000/021	Deleted	
RP/0/B/5000/022	Evacuation Coordinator Procedure	Section B, E
RP/0/B/5000/23	Deleted	
RP/0/A/5000/024	OSC Activation Procedure	Section B, H
RP/0/B/5000/025	Recovery and Reentry Procedure	Section M
RP/0/B/5000/026	Site Response to Security Events	Section D
RP/0/B/5000/028	Communications and Community Relations EnergyQuest Emergency Response Plan	Section G
HP/0/B/1000/006	Emergency Equipment Functional Check and Inventory	Section H.10, H.11, K.5
HP/0/B/1009/001	Radiation Protection Recovery Plan	Section M
HP/0/B/1009/003	Radiation Protection Response Following A Primary to Secondary Leak	Section D, E, I

DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
FIGURE P-2  
EMERGENCY PLAN IMPLEMENTING PROCEDURES  
Page 2 of 2

<u>Procedure #</u>	<u>Title</u>	<u>Emergency Plan Section Implemented</u>
HP/O/B/1009/004	Environmental Monitoring for Emergency Conditions within the Ten-Mile Radius of CNS	Section D, I, H.6.b
HP/O/B/1009/005	Personnel/Vehicle Monitoring for Emergency Conditions	Section D, J
HP/O/B/1009/006	Alternative Method for Determining Dose Rate within the Reactor Building	Section D, I
HP/O/B/1009/007	Implant Particulate and Iodine Monitoring Under Accident Conditions	Section D, I
HP/O/B/1009/008	Contamination Control of Injured Individuals	Section D, K.5, L.1, L.4
HP/O/B/1009/009	Guidelines for Accident and Emergency Response	Section E, I
HP/O/B/1009/12	Deleted	
HP/O/B/1009/014	Radiation Protection Actions following an Uncontrolled Release of Liquid Radioactive Material	Section D, I
HP/O/B/1009/016	Deleted	
HP/O/B/1009/017	Deleted	
HP/(1/2)/B/1009/017	Deleted	
HP/O/B/1009/019	Emergency Radio System Operations, Maintenance and Communications	Section F.1.d
HP/O/B/1009/024	Implementing Procedure for Estimating Food Chain Doses Under Post-Accident Conditions	Section I.9
HP/O/B/1009/025	Deleted	
HP/O/B/1009/026	On-Shift Off-Site Dose Projections	Section D, I
SH/O/B/2005/001	Emergency Response Off-Site Dose Projections	Section D, I
SH/O/B/2005/002	Protocol for the Field Monitoring Coordinator During Emergency Conditions	Section I
SH/O/B/2005/003	Distribution of Potassium Iodide Tablets in the Event of a Radioiodine Release	Section J.6
OP/O/A/6200/021	Deleted	
SR/O/B/2000/001	Standard Procedure for Public Affairs Response to the Emergency Operations Facility	Section G
SR/O/B/2000/002	Standard Procedure for EOF Services	Section B, E
SR/O/B/2000/003	Activation of the Emergency Operations Facility	Section B, H
SR/O/B/2000/004	Notifications to States and Counties from the Emergency Operations Facility	Section E, J.7

## APPENDIX 3

### DUKE POWER COMPANY CATAWBA NUCLEAR STATION ALERT AND NOTIFICATION SYSTEM DESCRIPTION

#### GENERAL DESCRIPTION

The Alert and Notification System for Catawba Nuclear Station consists of an acoustic alerting signal and notification of the public by commercial broadcast (EAS). The system is designed to meet the acceptance criteria of Section B of Appendix 3, NUREG-0654, FEMA-REP-1, Rev. 1.

An engineering study of the Catawba Nuclear Station alerting system was prepared by Duke Power Company and was submitted February, 1983. This is an annotated version of that study.

The Emergency plans of Duke Power Company, the States of North Carolina and South Carolina, and the counties of Mecklenburg, Gaston, and York include the organizations and individuals, by title, who will be responsible for decision-making as regards the alert and notification system. The county locations from which the sirens would be activated and, potentially, the request for an EAS message would come are manned 24 hours per day. Each organization's plan describes provisions for use of public communications media or other emergency instructions to members of the public. The plans of both states include a description of the information that would be communicated to the public under given circumstances.

#### A. Concept of Operations

A system of 89 fixed sirens is installed and operational in the 10 mile EPZ area around Catawba Nuclear Station. A backup means of alerting and notification is described in the State and County Plans. This backup method includes area-wide emergency service vehicles traversing the area and giving both an alerting signal and notification message.

Each county will control the activation of the sirens within its boundaries.

#### B. Criteria for Acceptance

The alert and notification system for the Catawba Nuclear Station provides an alerting signal and an informational or instructional message to the population (via the EAS) on an area-wide basis throughout the 10 mile EPZ within 15 minutes from the time the cognizant off-site agencies have determined the need for such alerting exists. The emergency plans of each state include evidence of EAS preparation for emergency situations and the means for activating the system.

## APPENDIX 3

### C. Physical Implementation

1. The activation of this alert and notification system requires procedures and relationships between both Duke Power Company and the off-site agencies that support Duke and Catawba Nuclear Station.

When an incident is determined to have reached the level requiring public protective actions, Duke contacts the cognizant off-site agency via the "selective signaling" phone system and provides its recommendations. This system is available for use 24 hours per day and links the Control Room, TSC, EOF, SERT headquarters, the county warning points/EOCs, and the county EOCs.

2. The alert and notification system has multipurpose use built into it. The sirens are capable of producing a three minute steady signal for the nuclear plant emergency or a three minute wailing signal for natural disasters or nuclear attack. Procedures exist at the counties to allow activation of either signal.

The expected performance of the sirens used in this system is described in Figure 3-1. These sirens complement existing alerting systems. The ambient background sound level in the Catawba area is taken to be 50 db for areas of "less than 2000 persons/per square mile" and 60 db for areas above this density. On this basis, the siren coverages are designed to provide a signal 10db above the average daytime ambient background.

Furthermore, the sirens have been located to assure that the maximum sound levels received by any member of the public should be lower than 126 db.

The basis for our selection of the 60 db(c) and 70 db(c) criteria is documented as follows:

Location of heavy industry - There is limited "heavy industry" in the Catawba 10 mile EPZ as described in Chapter 2 of the Catawba Nuclear Station UFSAR.

Attenuation factors with distance - 10 db loss per distance doubled (See Figure 3-1)

Siren output db(c) at 100 ft. vs. assumed range and acoustic frequency spectra -  
2001AC:  $127 \pm 1.0$ db at 100 feet

Assumed ranges per Figure 3-1, 10 db loss column

Frequency Spectra:

2001AC: top frequency 705Hz



### APPENDIX 3

Map showing siren location - See Figure 3-2

Mounting height of sirens - 50 feet (approximate)

Special weather condition considerations (such as expected heavy snow) - None

The siren system will produce a 3 minute steady signal and is capable of repetition.

<u>Test or Maintenance</u>	<u>Period</u>
Silent Test	Every two weeks
Growl Test	Quarterly and when Preventive Maintenance is performed
Note: Full-cycle test may substitute for a growl test	
Full-Cycle Test	Annually
Preventive Maintenance	At least annually

FIGURE 3-1

SIREN RANGE IN FEET

FIGURED AT 12 and 10 dB LOSS PER DISTANCE DOUBLED

Minimum Level Coverage in dB	2001 AC 126dB(C) Siren	
	12	10
85	1125	1830
80	1500	2600
75	2000	3680
73	2260	4210
70	2700	5200
68	3000	6000
65	3600	7400
60	4800	10400

DUKE POWER COMPANY  
CATAWBA NUCLEAR STATION  
FIGURE 3-2  
SIREN LOCATIONS

EMERGENCY PLANNING ZONE (EPZ)  
FOR THE CATAWBA NUCLEAR STATION

Q-3.5

**APPENDIX 5**  
**AGREEMENT LETTERS**

The following agreement letters support the Catawba Nuclear Station Emergency Plan and are attached:

1. Piedmont Medical Center
2. Carolinas Medical Center
3. Bethel Volunteer Fire Department
4. York County Emergency Management, South Carolina
5. Charlotte-Mecklenburg Emergency Management Office, North Carolina
6. Gaston County Emergency Management Office, North Carolina
7. Memorandum of Understanding Between the North Carolina Department of Crime Control and Public Safety and Duke Power Company
8. Memorandum of Understanding Between the South Carolina Department of Health and Environmental Control and Duke Power Company
9. Center for Emergency Medicine
10. Clover Rescue Squad
11. REACTS
12. DOE - Savannah River
13. INPO
14. Dosimetry Laboratory Backup Location
15. Joint Information Center
16. Memorandum of Understanding between CNS EP, Work Control, Operations, Site Services and Information Technology on Use of OSC/OCC Area.

These letters of Agreement are updated as necessary and at least every three (3) years to ensure adequate awareness on the part of all concerned of the existence and commitment to provide agreed services or assistance.

GARY R. PETERSON  
Vice President  
Catawba Nuclear Station

Duke Power  
CN01VP / 4800 Concord Rd.  
York, SC 29745

803 831 4251

803 831 3221 fax

grpeters@duke-energy.com

January 7, 2003

*Suzanne*  
Ms. ~~Susan~~ Freeman, President  
Carolinas Medical Center  
P. O. Box 32861  
Charlotte, NC 28232-2861

Subject: Catawba Nuclear Site  
Emergency Support Agreement Confirmation  
File No.: CN-750.25

The purpose of this letter is to confirm our previous agreement for your support of the Catawba Nuclear Station Emergency Plan. Carolinas Medical Center is listed in our Emergency Plan as a secondary emergency medical facility for the Catawba Nuclear Site.

The following terms and conditions are agreed upon by and between the parties, Duke Power Company (hereinafter referred to as "Duke") and Carolinas Medical Center (hereinafter referred to as "Hospital").

1. The Hospital shall provide emergency treatment and hospital care to persons who may be injured, overexposed, or contaminated as a result of a radiological emergency situation or accident, in those situations where this treatment and care cannot be provided by Piedmont Medical Center, the primary medical facility. These person may or may not be Duke employees, may or may not have injuries directly related to radioactive materials, and may or may not suffer from radioactive contamination or radiation.
2. The number of such persons requiring medical attention shall be small, and the Hospital shall not be expected to treat more than five (5) such persons with radiation contamination at any one time.
3. Duke shall make every reasonable effort to decontaminate such persons at the Catawba Nuclear Site or at Piedmont Medical Center prior to transporting them to the Hospital, and Duke shall be responsible for obtaining transportation for such persons to the Hospital.
4. If an overexposed or contaminated person is transported to the Hospital, Duke Radiation Protection personnel, and if appropriate Piedmont Medical Center personnel, shall accompany the person to the Hospital.

Revision 03-1  
December, 2003

## **AGREEMENT LETTER NO. 2**

### **Emergency Support Agreement Confirmation**

#### **Page Two**

5. Duke, and if appropriate Piedmont Medical Center, shall communicate relevant information to the Hospital as soon as possible, but not later than the arrival at the Hospital of such persons. This information shall include, but may not be limited to, the apparent extent of injury, the level and degree of the person's contamination and exposure, as well as guidance and assistance regarding contamination evaluation, precautions, and control.
6. Duke shall make its Radiation Protection personnel available to the Hospital for guidance, consultation, and assistance regarding radiation contamination, evaluation, precautions, and control regarding nuclear accidents which may occur at Duke or other locations where nuclear materials are present.
7. In the event Hospital equipment and facilities are contaminated due to the treatment of Duke employees, their agents, or others injured by the actions of Duke employees or agents, Duke shall make available its entire resources to the Hospital to control contamination and decontaminate Hospital equipment and facilities and to the extent necessary to ensure the continued accessibility of the Hospital to the general public. Should treatment of Duke employees or agents contaminate certain areas of the Hospital preventing the general public's access to these areas for more than twenty-four (24) hours, Duke shall reimburse the Hospital for lost patient revenues in these areas.
8. Duke shall, at Hospital's request, provide training in radiation protection and care of contaminated or irradiated persons to Hospital selected employees. New selected employees should receive this training within three (3) months of their initial employment and such training or refresher training should be available to all Hospital selected employees at least once annually. This training shall be conducted at a mutually agreeable location and at the convenience of the Hospital.
9. Should the Hospital or the appropriate physicians determine that a Duke employee or agent requires transfer to another health care facility, Duke shall arrange for such a transfer at Duke's expense with assistance from the Hospital.
10. Duke shall dispose of all contaminated clothing or other waste materials belonging to persons overexposed or contaminated. Duke shall also dispose of all contaminated patient valuables belonging to its employees or agents.
11. Duke will, at Hospital's request, review the Hospital Radioactive Contamination Emergency Plan and provide the Hospital with assistance and guidance regarding its content.

AGREEMENT LETTER NO. 2

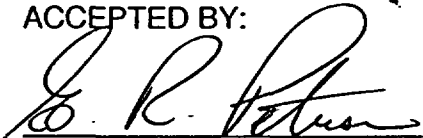
Emergency Support Agreement Confirmation  
Page Three

12. Duke shall be responsible for informing the Hospital in writing as to any recommendation or requirement of any federal, state, or local regulatory body that the Hospital must or should comply with in order to provide the services contemplated hereunder. Should Hospital compliance with such recommendations or requirements necessitate the expenditure of Hospital funds, Duke will be responsible where appropriate for underwriting, in part or in full, that cost.

This Letter of Agreement shall continue to remain in effect unless terminated by either party upon ninety (90) days' advance written notice.

Please sign below if these terms are acceptable.

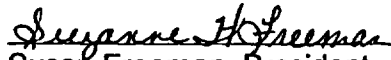
ACCEPTED BY:



G. R. Peterson, Vice President  
Catawba Nuclear Station

1-7-2003

Date

  
Suzanne ~~Suzanne~~ Susan Freeman, President  
Carolinas Medical Center

1-14-03

Date

# **AGREEMENT LETTER NO. 7**

## **MEMORANDUM OF UNDERSTANDING**

**between the**

**State of North Carolina, Department of Crime Control and Public Safety,  
Division of Emergency Management**

**and the**

**Duke Energy Corporation**

### **1. SUBJECT**

**Planning and Exercising for and response to an emergency at the McGuire or Catawba Nuclear Sites.**

### **II. PURPOSE**

**The State of North Carolina, Department of Crime Control and Public Safety, Division of Emergency Management (EM) and Duke Energy Corporation will enter into a Memorandum of Understanding (MOU) for planning and exercising for and response to an emergency at the McGuire or Catawba Nuclear Sites that may affect the health, safety and property of the citizens of North Carolina.**

### **III. PARTIES**

**The parties to this Memorandum of Understanding (MOU) are: State of North Carolina, North Carolina Department of Crime Control & Public Safety, Division of Emergency Management and Duke Energy Corporation.**

### **IV. BACKGROUND**

**Duke Energy Corporation operates two nuclear power plants that are required by the Nuclear Regulatory Commission to have detailed off-site emergency plans for response to events or emergencies which may affect the citizens of North Carolina. In the case of an incident at McGuire or Catawba Nuclear Sites, the successful implementation of these plans will require a coordinated effort of local and state governments and Duke Energy Corporation. Pursuant to N.C.G.S. §166A-5, the Secretary of the Department of Crime Control and Public Safety (Secretary) has the power, as delegated by the Governor, to activate the State and local plans applicable to the Emergency Planning Zones for Catawba or McGuire Nuclear Sites and is empowered to authorize and direct the deployment and use of any personnel and forces to which the plan(s) apply, and the use or distribution of any supplies, equipment, materials and facilities available pursuant to Article 1 of Chapter 166A of the North Carolina General Statutes or any other provision of law. Pursuant to N.C.G.S. §143B-476(c), in the event that the Governor, in the exercise of his constitutional and statutory responsibilities, shall deem it necessary to utilize the services of more than one subunit of State government to provide protection to the people from natural or man-made disasters or**



## AGREEMENT LETTER NO. 7

emergencies, the Secretary, under the direction of the Governor, shall serve as the chief coordinating officer for the State between the respective subunits so utilized.

### V. AUTHORITY

The parties enter into this MOU under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §5121 et seq.; the Federal Civil Defense Act, 50 U.S.C. App. §2251 et seq.; the Atomic Energy Act of 1954, 42 U.S.C. §2011 et seq.; the Energy Reorganization Act of 1974, 42 U.S.C. §5801; the Freedom of Information Reform Act of 1986, 5 U.S.C. §552; 10 CFR Part 50; 44 CFR Parts 350, 351, 352, 353, and 354; Article 11 of the Executive Organization Act, Chapter 143B of the North Carolina General Statutes; and the N.C. Emergency Management Act, Chapter 166A of the North Carolina General Statutes.

### VI. DUTIES & RESPONSIBILITIES OF THE DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY, DIVISION OF EMERGENCY MANAGEMENT.

The State of North Carolina, Department of Crime Control and Public Safety, Division of Emergency Management agrees to:

- A. Pursuant to N.C.G.S. §166A-5(3)a., coordinate the activities of all agencies for emergency management within the State, including planning of emergency management programs and participating in exercises for response to an emergency at the McGuire or Catawba nuclear sites.
- B. Pursuant to N.C.G.S. §166A-5(3)b., prepare and maintain State plans for man-made or natural disasters at the McGuire or Catawba Nuclear Sites;
- C. Pursuant to N.C.G.S. §166A-5(3)c., promulgate standards and requirements for local plans and programs and provide technical assistance to local governments for response to an emergency at the McGuire or Catawba nuclear site. Pursuant to N.C.G.S. §166A-7(d), in carrying out the provisions of Article 1 of the North Carolina Emergency Management Act, Chapter 166A of the North Carolina General Statutes, each political subdivision is authorized to direct and coordinate the development of emergency management plans and programs in accordance with the policies and standards set by the State of North Carolina for response to an emergency at the McGuire or Catawba Nuclear Sites.
- D. Periodically hold exercises of the State and local plans in accordance with federal requirements for response to an emergency at the McGuire or Catawba Nuclear Site;
- E. Maintain a twenty-four (24) hour alert, notification, and response capability; and
- F. Pursuant to N.C.G.S. §143B-476(c), in the event that the Governor, in the exercise of his constitutional and statutory responsibilities, shall deem it necessary to utilize the services of more than one subunit of State government to provide protection to the people from natural or man-made disasters or emergencies, the Secretary, under the direction of the Governor, shall serve as the chief coordinating officer for the State

## **AGREEMENT LETTER NO. 7**

between the respective subunits so utilized. Pursuant to N.C.G.S. §143B-476(d), whenever the Secretary exercises the authority provided in N.C.G.S. §143B-476(c), he shall utilize and allocate all available State resources as are reasonably necessary to cope with the emergency or disaster, including directing of personnel and functions of State agencies or units thereof for the purpose of performing or facilitating the initial response to the disaster or emergency. Following the initial response, the Secretary, in consultation with the heads of the State agencies which have or appear to have the responsibility for dealing with the emergency or disaster, shall designate one or more lead agencies to be responsible for subsequent phases of the response to the emergency or disaster. Pending an opportunity to consult with the heads of such agencies, the Secretary may make interim lead agency designations.

### **VII. DUTIES AND RESPONSIBILITIES OF THE DUKE ENERGY CORPORATION.**

Duke Energy Corporation agrees to:

- A. Promptly advise the State of North Carolina, Department of Crime Control and Public Safety, Division of Emergency Management and local governments of any declared emergencies as required pursuant to 10 C.F.R. Part 50;
- B. Cooperate with the State of North Carolina, Department of Crime Control and Public Safety, Division of Emergency Management in the development, exercise and implementation of emergency plans to protect the health and safety of the public in the event of a nuclear emergency;
- C. Permit the State of North Carolina, Department of Crime Control and Public Safety, Division of Emergency Management to periodically review environmental radioactive monitoring programs; and
- D. Make radiological monitoring equipment and personnel available as resources allow to assist the Department of Environment and Natural Resources in its radiation assessment and monitoring responsibilities.

### **VIII. MODIFICATION OF THE AGREEMENT**

Modification of this MOU must be in writing and approved by both parties.

### **IX. TERMINATION**

This MOU shall be in effect for three years from the date of execution of the MOU by both parties. This MOU may be terminated upon submission of a sixty-day (60) advance written notice of termination.

### **X. COMMUNICATIONS**

To provide consistent and effective communication between Duke Energy Corporation and the Department of Crime Control and Public Safety, Division of Emergency Management, each party

AGREEMENT LETTER NO. 7

shall appoint a Principal Representative to serve as its central point of contact responsible for coordinating and implementing this MOU. The Department of Crime Control and Public Safety, Division of Emergency Management contacts shall be Dr. Kenneth B. Taylor, Director and Mr. Steve Payne, Fixed Nuclear Facility Program Manager or their successors. Duke Energy Corporation contacts shall be Ms. Tina Kuhr, Duke Power, Nuclear Emergency Planning Consultant and Mr. Kevin Murray, Emergency Planning Manager, McGuire Nuclear Site and Mr. Tom Beadle, Emergency Planning Manager, Catawba Nuclear Site or their successors.

XI. EXECUTION

This MOU will become effective upon execution of the MOU by both parties. The date of execution shall be the date of the last signature.

EXECUTED THIS THE 4<sup>th</sup> DAY OF December, 2003.

FOR THE DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY AND  
THE DIVISION OF EMERGENCY MANAGEMENT

WITNESS:  
[Signature]

BY: [Signature: Kenneth B. Taylor]  
DR. KENNETH B. TAYLOR, DIRECTOR  
DIVISION OF EMERGENCY MANAGEMENT  
DATE 11/17/2003

WITNESS:  
[Signature: Bruce W. Simon]

BY: [Signature: Bryan E. Beatty]  
BRYAN E. BEATTY, SECRETARY  
DEPARTMENT OF CRIME CONTROL & PUBLIC SAFETY  
DATE 11/20/03

APPROVED AS TO PROCEDURES:

BY: [Signature: Fred Tucker]  
FRED TUCKER, CONTROLLER  
DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY  
DATE 11/21/03

FOR THE DUKE ENERGY CORPORATION

WITNESS:  
[Signature: Ernestine M. Kuhr]

BY: [Signature: Michael S. Tuckman]  
MICHAEL S. TUCKMAN  
EXECUTIVE VICE PRESIDENT  
NUCLEAR GENERATION  
DUKE ENERGY CORPORATION  
DATE 12/4/03

APPROVED AS TO FORM SUBJECT TO EXECUTION BY BRYAN E. BEATTY, SECRETARY, OF THE DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY.

**AGREEMENT LETTER NO. 7**

ROY A. COOPER, III  
ATTORNEY GENERAL OF NORTH CAROLINA

BY: Cheryl A. Fung  
ASSISTANT ATTORNEY GENERAL  
DATE 11/20/03

## **AGREEMENT LETTER NO. 8**

### **MEMORANDUM OF UNDERSTANDING BETWEEN THE SOUTH CAROLINA EMERGENCY MANAGEMENT DIVISION THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL AND DUKE ENERGY CORPORATION**

#### **I. PURPOSE**

This Memorandum of Understanding establishes an agreement between the South Carolina Emergency Management Division, the South Carolina Department of Health and Environmental Control, and Duke Energy Corporation pertaining to the Oconee and Catawba Nuclear Sites (ONS & CNS). It establishes the overall responsibilities relating to emergency preparedness planning, training, coordination, notification, hazard assessment and technical support in the event of a radiological incident at Oconee or Catawba Nuclear Sites that might affect the health, safety and property of the citizens of South Carolina and/or give cause for public concern.

#### **II. AUTHORITY**

- A. Act 223, 1967 - South Carolina Atomic Energy and Radiation Control Act as amended.
- B. South Carolina Act Number 199, dated July 30, 1979.

#### **III. AGREEMENT**

In accordance with Act 223, 1967; Act 199, 1979; and this Memorandum, the three agencies/organizations listed above agree with the following:

- A. Emergency Management Division (EMD) will:
  - 1. Prepare and maintain State Operational Radiological Emergency Response (RER) Plans.
  - 2. Coordinate with DHEC, Duke Energy Corporation, and local government in the development of RER Plans.
  - 3. Prepare and maintain site specific plans for ONS and CNS.
  - 4. Assist local governments in preparing and maintaining local RER Plans.
  - 5. Establish and direct State Emergency Operations Center (SEOC)

## **AGREEMENT LETTER NO. 8**

when directed by the Governor.

6. Coordinate off-site support from state, federal, and other support agencies.
7. Recommend and direct protective actions to include evacuation as well as recovery/re-entry operations in coordination with DHEC.
8. Provide for a 24-hour notification capability with DHEC, other state RER support agencies, affected counties, Duke Energy Corporation, and the State of North Carolina and insure notification is made as appropriate.
9. Participate with DHEC, Duke Energy Corporation, and local government, in the development of exercise scenarios.
10. Conduct RER drills and exercises for Duke Energy Corporation as specified in 10CFR50, Appendix E and FEMA regulations.
11. Maintain close liaison with Duke Energy Corporation to assure that State and Duke Energy Corporation RER procedures are compatible.
12. Coordinate public meetings for an emergency preparedness exercise when required.
13. Coordinate and conduct off-site evaluation critiques for each ONS or CNS exercise.
14. Prepare off-site after-action reports for each ONS or CNS exercise.
15. Secure and maintain appropriate letters of agreement.
16. Coordinate all information on the status of emergency operations and radiological hazards through the Joint Information Center, if established, or the Governor's Public Information Office, for release to the public.
17. Coordinate with DHEC and Duke Energy Corporation for the RER training of state and local government personnel.

**B. Department of Health and Environmental Control (DHEC) will:**

1. Provide for 24-hour accident response capability with Duke Energy Corporation and EMD and insure notification is made.

## **AGREEMENT LETTER NO. 8**

2. Prepare and maintain State Technical Radiological Emergency Response Plan.
3. Participate with EMD, Duke Energy Corporation and local government in the development of RER Plans.
4. Maintain a radiological hazard assessment capability and provide radiological technical support, coordination and guidance for the state and local governments.
5. Conduct and/or coordinate off-site radiological surveillance and monitoring with the Duke Energy Corporation off-site monitoring group.
6. Make recommendations to EMD for protective actions as well as recovery and re-entry guidelines.
7. Provide representatives at the SEOC, and Emergency Operations Facility.
8. Obtain and coordinate radiological assistance resources from the federal government, other states, and the nuclear industry as required.
9. Provide RER training to state agencies and local governments
10. Participate in annual training programs given by Duke Energy Corporation.
11. Participate with EMD and Duke Energy Corporation in the development of exercise scenarios.
12. Participate in ONS and CNS federally evaluated exercises and drills, and other exercises and drills as resources allow.
13. Secure and maintain appropriate letters of agreement.
14. Coordinate all information on the status of emergency operations and radiological hazards through the Joint Information Center, if established, or the Governor's Public Information Office, for release to the public.
15. Maintain close liaison with Duke Energy Corporation to assure that state and Duke Energy Corporation RER procedures are

## **AGREEMENT LETTER NO. 8**

compatible.

**C. Duke Energy Corporation will:**

1. Prepare and maintain on-site radiological emergency response plans in accordance with Nuclear Regulatory Commission Regulations.
2. Maintain the ability for 24-hour communications with the South Carolina State Warning Point, SEOC, and with local governments in the 10-Mile EPZ during an emergency.
3. Notify the South Carolina State Warning Point and affected counties of an emergency, consistent with approved emergency procedures.
4. Recommend protective actions directly to affected counties when SEOC is not operational.
5. Conduct off-site radiological assessment/monitoring in coordination with DHEC.
6. Provide Joint Information Center facilities and communications.
7. Be prepared to assist DHEC at other fixed nuclear facility accidents upon availability.
8. Provide liaison to the SEOC.
9. Provide RER training for site personnel.
10. Assist with technical response training for off-site response personnel as necessary.
11. Secure and update letters of agreement with local government emergency services that will provide on-site assistance.
12. Provide annual training/information briefing of local news media.
13. Participate with DHEC, EMD, and local government in the development of exercise scenarios.
14. Conduct required ONS and CNS exercises and drills.
15. Prepare and update public information materials to be distributed



AGREEMENT LETTER NO. 8

throughout the 10-Mile EPZ on an annual basis.

16. Maintain close liaison with the state and local governments to assure procedures are compatible.

IV. IMPLEMENTATION

This agreement will commence with the signing of this Memorandum of Understanding by the South Carolina Emergency Management Division, the South Carolina Department of Health and Environmental Control, and Duke Energy Corporation and supersedes all previous agreements, relating to Radiological Incident responsibilities, among the aforementioned agencies/organizations.

It shall be automatically renewed at least every 3 years. It may be amended by mutual consent or terminated by either party upon giving at least thirty (30) days written notice to the other parties.

12/19/03  
Date

R. Osborne  
DIRECTOR, SOUTH CAROLINA  
EMERGENCY MANAGEMENT DIVISION

12/12/03  
Date

R. Lemi Han  
DEPUTY COMMISSIONER  
ENVIRONMENTAL QUALITY CONTROL  
DEPARTMENT OF HEALTH &  
ENVIRONMENTAL CONTROL

11/25/03  
Date

M. S. Tuckman  
DUKE ENERGY CORPORATION  
EXECUTIVE VICE-PRESIDENT,  
NUCLEAR GENERATION

(c:\data\doc\MOU SC.doc rev. 11-25-03)



**AGREEMENT LETTER NO. 9**

**D.M. JAMIL**  
**Vice President**

**Duke Power**  
**Catawba Nuclear Station**  
**4800 Concord Rd. / CN01VP**  
**York, SC 29745-9635**

**803 831 4251**  
**803 831 3221 fax**

November 3, 2003

**April Panchyshyn, RN**  
**Emergency Room Director**  
**Center for Emergency Medicine**  
**222 South Herlong**  
**Rock Hill, SC 29732**

**Subject: Catawba Nuclear Station**  
**Emergency Support Agreement Confirmation**  
**File No.: CN-750.25**

**Dear Ms. Panchyshyn:**

This letter confirms a previous agreement between Catawba Nuclear Station (CNS) and the Sterling Health Care Group whose physicians agreed to act in support of the station's Emergency Plan. With the change in emergency room management at Piedmont Medical Center, we ask the Center for Emergency Medicine to honor this agreement. It is our policy to confirm such agreements every three years.

The following terms are agreed upon by both parties, CNS and the Center for Emergency Medicine:

1. The Center for Emergency Medicine shall provide emergency medical treatment and, if necessary, hospital care to individuals who may be injured and contaminated as a result of an accident at CNS.
2. The Center for Emergency Medicine shall participate in sufficient practice drills and an annual emergency exercise to ensure emergency preparedness and shall be available to respond to questions from the Nuclear Regulatory Commission and/or the Federal Emergency Management Agency.
3. The Center for Emergency Medicine shall have the responsibility for directing the emergency response actions of Piedmont Medical Center (PMC) Emergency Department (ED) personnel and shall coordinate the annual training of PMC ED personnel.

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**December, 2003**

AGREEMENT LETTER NO. 9


April Panchyshyn, RN  
Page Two

4. A Center for Emergency Medicine physician shall attend, at CNS expense, training at the Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge, Tennessee. The physician shall then instruct the remaining physicians of the Center for Emergency Medicine using information from the REAC/TS Course.
5. The Center for Emergency Medicine physicians should attend training sessions given by CNS to ensure emergency preparedness.

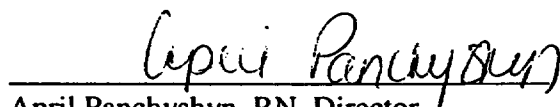
This letter of agreement shall remain in effect continuously and may not be terminated by either party without 90 days advance written notice.

Please sign below if these terms are available.

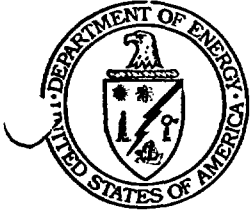
ACCEPTED BY:

  
\_\_\_\_\_  
D. M. Jamil, Vice President  
Catawba Nuclear Station

11/3/03  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
April Panchyshyn, RN, Director  
Center for Emergency Medicine

11/10/03  
\_\_\_\_\_  
Date



**Department of Energy**

Oak Ridge Operations Office  
P.O. Box 2001  
Oak Ridge, Tennessee 37831—

December 16, 2003

Mr. Michael S. Tuckman  
Executive Vice President  
Nuclear Generation, EC07H  
Duke Power Company  
P. O. Box 1006  
Charlotte, North Carolina 28201-1006

Dear Mr. Tuckman:

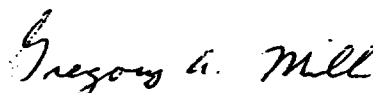
**LETTER OF AGREEMENT - RADIATION EMERGENCY ASSISTANCE  
CENTER/TRAINING SITE (REAC/TS) SUPPORT**

Please reference an e-mail message of December 10, 2003, from Tina Kuhr, requesting that the Department of Energy (DOE) REAC/TS facilities and team continue to be available to provide back-up capability and assistance to the Duke Power Company in the event of a radiological emergency at Oconee, McGuire, or Catawba Nuclear Stations. This response constitutes our agreement to provide this service upon your request.

We wish to remind you that our REAC/TS facilities in the Oak Ridge Institute for Science and Education (ORISE) are government-controlled and operated by the Oak Ridge Associated Universities (ORAU) under contract with DOE. Therefore, REAC/TS is prohibited from competing with commercial firms, which can provide radiological emergency services. Only if the magnitude or uniqueness of a radiological emergency exceeds your in-house and commercially available capabilities would REAC/TS be authorized to provide back-up services.

Since these facilities are government-controlled, no fee or retainer is required to assure the availability of back-up services by REAC/TS. However, if you utilize the services of REAC/TS, we should expect to recover those costs, which could reasonably be related to handling such an incident, including all charges billed to DOE or ORISE by hospitals and physicians. Information concerning the REAC/TS facilities, staff, services available, and procedures for seeking REAC/TS assistance can be obtained by direct contact with the REAC/TS Director, Dr. Robert C. Ricks, ORISE, Post Office Box 117, Oak Ridge, Tennessee 37831, or phone at (865) 576-3131.

Sincerely,

  
Gregory A. Mills  
Contracting Officer's  
Representative (Alternate)

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December, 2003

**AGREEMENT LETTER NO. 11**

Mr. Tuckman

-2-

December 16, 2003

cc:

R. C. Ricks, MS 39, ORISE

R. M. Kennard, MS 48, ORISE



**AGREEMENT LETTER NO. 12**

**Department of Energy**  
Savannah River Operations Office  
P.O. Box A  
Aiken, South Carolina 29802

**NOV 25 2002**

Mr. Michael S. Tuckman  
Executive Vice President  
Nuclear Generation, EC07H  
Duke Power  
P. O. Box 1006  
Charlotte, NC 28201-1006

Dear Mr. Tuckman:

Subject: Department of Energy (DOE) Letter of Agreement for Emergency Support

Assurance is hereby given that DOE will respond to requests for radiological assistance from licensees and Federal and State agencies involved in or cognizant of an incident believed to involve source, by-product, or other special nuclear material as defined by the Atomic Energy Act of 1954, as amended, or other ionizing radiation sources. Assistance as indicated above would be made available to the Duke Power with respect to incidents occurring at its Catawba, McGuire, and Oconee Nuclear Stations upon request and in consonance with response activities conducted by State, local, and private industry emergency response personnel.

Unless DOE or a DOE contractor is responsible for the activity, ionizing radiation source, or radioactive material involved in the incident, DOE radiological assistance will be limited to advice or monitoring and assessment actions essential for the control of the immediate hazards to health and safety. DOE radiological assistance will be terminated when it is no longer needed or the necessary assistance is available from State, local, or commercial services. Therefore, responsibility for post-accident recovery, including further actions for the protection of individuals and the public health and safety, should be assumed by the appropriate government agency or private authority as soon as emergency conditions are stabilized.

Requests for DOE radiological assistance may be directed to the Savannah River Site Operations Center at the 24-hour emergency assistance telephone number (803) 725-3333. Questions regarding the DOE Radiological Assistance Program may be directed to me at (803) 952-6613.

Sincerely,

A handwritten signature in black ink, appearing to read "Christina T. Edwards".

Christina T. Edwards  
Regional Response Coordinator  
DOE Region 3

VG-02-005

cc:  
Tina Kuhr, Duke Power  
Director, CMD, DOE-SR

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December, 2003

AGREEMENT LETTER NO. 13



*Institute of  
Nuclear Power  
Operations*

Suite 100  
700 Galleria Parkway, SE  
Atlanta, GA 30339-5957  
770-644-8000  
FAX 770-644-8549

September 24, 2003

Dear Ladies and Gentlemen:

This letter certifies that the plant emergency assistance agreement between INPO and its member utilities remains in effect. In the event of an emergency at your utility, INPO will assist you in acquiring the help of other organizations in the industry, as described in Section 1 of the *Emergency Resources Manual*, INPO 86-032. If requested, INPO will provide the following assistance:

- Facilitate technical information flow from the affected utility to the nuclear industry.
- Locate replacement equipment and personnel with technical expertise.
- Obtain technical information and industry experience regarding plant component and systems.
- Provide an INPO liaison to facilitate interface.

This agreement will remain in effect until terminated in writing. Should you have questions, please call me at (770) 644-8304 or e-mail [mossdj@inpo.org](mailto:mossdj@inpo.org).

Sincerely,

A handwritten signature in black ink, appearing to read 'David J. Moss', is written over a horizontal line.

David J. Moss  
Manager  
Radiological Protection

DJM/jls

August 26, 2003

Ms. Betty Ann Torres  
Laboratory Accreditation Program NIST  
Mail Stop 2140  
100 Bureau Drive  
Gaithersburg, MD 20899-2140

Re: NVLAP Lab Code: 100505-0  
Notification of One TLD Reader Location Change

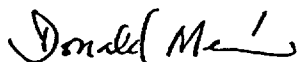
Dear Ms. Torres:

One of our three TLD readers was physically moved to the Environmental Center of Duke Power Company. The address of the Environmental Center is "MNS Island Building 7405, MG03A2, 13339 Hagers Ferry Road, Huntersville, NC 28115" which is about 25 miles away from the Duke Power Company Dosimetry Laboratory. The calibration of this TLD reader has been completed. All of the functions and usage remain the same. It is ready to be put back in service.

The purpose of the location change is to be able to use this remote TLD reader as a backup for the Dosimetry Laboratory in case of a catastrophic event.

Please call me at (704) 382-7547 if you have any questions about this TLD reader location change.

Sincerely,



Donald N. Mei  
Technical Manager  
Radiation Dosimetry and Records  
Nuclear Generation





**CATAWBA NUCLEAR STATION  
JOINT INFORMATION CENTER  
MEMORANDUM OF UNDERSTANDING**

**Purpose**

This document was developed to establish an agreement regarding, and provide a reference to, the operating procedures governing the Joint Information Center (JIC). It provides guidance on the activation, staffing, operation, and deactivation of the facility.

Basic operating procedures for the JIC follow. Detailed position descriptions and scope of responsibilities are provided in each agency's or entity's operating procedures.

While this Memorandum of Understanding (MOU) provides guidance with respect to response to a radiological emergency at the Catawba Nuclear Station, the guidance is equally appropriate for any emergency condition requiring the coordination of information among the various parties.

**The Joint Information Center**

In a radiological emergency, a number of affected agencies and entities must coordinate the response effort. Each party has separate responsibilities that, together, create a unified, coordinated and comprehensive emergency response.

The need to provide our public with accurate, timely and clear information is crucial in emergency conditions. The JIC receives and processes information for distribution to the media and the public. The Media Center is utilized to hold live press conferences. The media monitoring area is staffed with personnel to record and review media releases on radio and TV to determine reporting accuracy.

- **Location**

The JIC supporting Catawba Nuclear Station is located in Duke Energy's Energy Center, 526 South Church Street, Charlotte, N.C. The JIC is located on the first floor, room 0172. Other facilities, which complement the JIC, include the Media Center (Duke Energy's Energy Center, O. J. Miller Auditorium, first floor) and a comprehensive media monitoring area located in Duke Energy's Power Building, 422 South Church Street, Charlotte, N.C. (seventh floor).

- **Access**

A security checkpoint will be established at the JIC and the Media Center. A security checkpoint will also be established at the station's Visitor Center, if needed. North Carolina and South Carolina state emergency response team badges, county emergency management IDs and Duke Energy/Duke Power IDs are required for prompt clearance to enter the JIC and the Media Center. Media representatives will be registered at the Media Center and given identification badges.

- **Facilities**

Duke Energy is responsible for maintaining the JIC in a state of readiness.

In the event of telephone problems, back-up radio communication through the state (N.C. and S.C.) radio and/or satellite radio/phone system will be provided.

Administrative support staff is available in the JIC to process documents for participating agencies who do not have administrative support.

Additional equipment and information charts are the responsibility of the participating agencies/entities. This may include state maps, fax machines, special computer equipment or cellular telephones. Duke Energy should be informed of any equipment that will be used in the JIC that requires special assistance for set-up or operation.

**Staffing**

All parties supporting the response to a radiological emergency may have representation in the JIC. These groups include, but are not limited to:

- Duke Energy/Duke Power emergency response members
- State of North Carolina
- State of South Carolina
- Gaston County
- Mecklenburg County
- York County
- US Nuclear Regulatory Commission
- Federal Emergency Management Agency

The JIC has accommodations for representatives from each agency/entity.

**Scope of Responsibility and Comment**

Each participating agency/entity has unique responsibilities and accountability. Duke Power's scope of responsibility and public comment are limited to plant activity; state and county responsibility and comments are limited to the emergency response they undertake to protect the people and places within their jurisdiction. Individuals representing one party should not comment on the emergency response activities undertaken by another participating agency or entity unless expressed permission has been given for such comment. Duke Power, for example, will not comment on public protective actions; state and county representatives will not comment on plant activities/operation.

**Initial Activation of the JIC**

In the event of an Unusual Event or higher emergency classification at the Catawba Nuclear Station, Duke Power shall notify affected county, state and federal officials. The JIC shall be activated at an Alert or higher classification. The JIC may also be activated in the event of heavy media attention or public interest.

Prior to activation of the JIC, public information regarding the emergency response will be released separately from Duke Power and emergency management agencies of the states and counties. Duke Power, the states and counties will share their news releases via email or facsimile transmission.

- **Declaration of Activation**

At such time as the states, counties and utility concur that adequate equipment and staffing are in place, the Duke Power Public Information Manager will declare the JIC activated. Lead public information officers (PIOs) will be responsible for notifying their respective emergency operation centers (EOCs) that the JIC has been activated.

**Sources of Information in the JIC**

The primary information interfaces in the JIC remain between the lead PIOs and their counterparts in the states, counties and Duke Power's Emergency Operations Facility (EOF). For example, the primary interface between the lead PIO for South Carolina is with his/her staff at the state EOC; Duke Power's lead for gathering information is the Regional Communications Coordinator who interfaces with Duke Power counterparts in the EOF, Visitor Center, and Customer Service Center; the county PIOs remain in contact with their counterparts at the county EOCs.

Only confirmed information received through the established information interfaces should be shared within the JIC or with the public. All parties will update the others on key activities or changes in the emergency response once information has been confirmed.

Courtesy "advance" notice will be given to the lead PIOs/Duke Power prior to major announcements regarding changes in the emergency response and copies of news releases will be shared with all lead PIOs/Duke Power prior to release. Once the courtesy notifications have been completed, an announcement of the changes should be made to others in the JIC via the public address system.

"Emergency Notification Form" transmittals, which are the official updates from the emergency facilities to the states and counties, will be collected and maintained in the JIC by the Administration and Logistics Manager. Unless requested, these transmittals will not be distributed to lead PIOs. This will minimize confusion with information coming from state and county EOCs.

- **Interfaces/Functions**

To facilitate communications within the JIC, the lead PIO for the state of North Carolina, the lead PIO for the state of South Carolina, the lead county PIOs, Duke Power Public Information Manager, the lead NRC PIO and the lead FEMA PIO will be located in close proximity to one another.

Duke Power and state and county staff shall share information with one another to provide public rumor control as needed. Duke Power will respond to plant technical issues and questions about public response will be directed to state and county PIOs.

Monitoring of the Emergency Alert System (EAS) and major radio and television broadcasts will take place in the media monitoring area in the Power Building. Equipment is available in the JIC for review of live media briefings and/or recorded newscasts.

Duke Power will be responsible for maintaining a status log of updated information from all lead PIOs and for posting and recording all news releases. If additional status boards are needed, the agency/entity that needs the status board should obtain it. Duke Power's Administration and Logistics Manager will be responsible for ensuring distribution of all news information to Duke Power personnel. The state administrative staff will be responsible for distribution of news information to both state and county staff and PIOs.

### **Media Briefings**

Timing for media briefings will be coordinated by Duke Power and state lead PIOs. Once the timing has been determined, the Duke Power Public Spokesperson, the Duke Power News Manager, and the state and county lead PIOs will meet briefly in the conference room adjacent to the JIC to review the information to be released. This group will then proceed to the Media Center to conduct the briefing. The Duke Power News Manager will serve as the briefing moderator. In the event that the plant status changes during a media briefing, the Duke Power News Manager will interrupt the briefing to announce that a change in plant status has occurred. The media briefing will reconvene after Duke Power, state and county PIOs receive additional information.

### **Deactivation of the JIC**

Operation of the JIC will continue until the Duke Power Public Information Manager, and state and county lead PIOs determine there is no longer a need for coordinated release of information. Upon concurrence, the Duke Power Public Information Manager will announce deactivation of the JIC. Lead PIOs will be responsible for notifying their EOCs that the JIC has been deactivated.



Control and Update

This document has been agreed to by all of the undersigned. To maintain the usefulness of the document as controlled guidance on JIC operations, all proposed changes will require review and signed written concurrence of the undersigned. Once the parties reach agreement as to changes, an updated signed copy of this memorandum of understanding will be issued.

Murie C. Adams  
Duke Energy Corporation

Bene M. Hoffman  
State of North Carolina

R. D. Kerne  
State of South Carolina

[Signature]  
Gaston County

[Signature]  
Mecklenburg County

[Signature]  
York County

Effective Date: August 12, 2003

## **AGREEMENT LETTER NO. 16**

**August 26, 2003**

**Subject: Memorandum of Understanding between CNS Emergency Planning, Work Control, Operations, Site Services, and Information Technology on the use of the OSC/OCC area for routine and emergency situations**

The Operations Support Center (OSC) is a required Emergency Response Facility (ERF) that is currently located on elevation 574 of the service building. This is a dedicated facility that must be in a state of readiness at all times.

The Outage Control Center (OCC) is an office-type area located next to the Site's Work Control Center (WCC) in the service building on elevation 609. The purpose of the OCC is to provide a common, central location for key outage management personnel during the execution phase of the outage. It may also be used by the Unit Threat Team when activation of a team is required. These have been typically the only times the OCC area is utilized.

At the request of Station Management, the OSC will be relocated to the OCC designated area of the WCC. This is an excellent facility for multiple-use by Work Control and Emergency Planning for the respective functions. This will provide real cost savings for the site in the elimination of redundant equipment, computers and other related resources.

The office space, adjacent rooms, and phone connections more than meet requirements for use as both an OCC and OSC. The location is ideal since it is located near the Work Control Center and in relative close proximity to the OPS kitchen and Control Room. This will allow ERO members to quickly assemble and immediately begin coordinating the OSC effort.

Emergency Planning, Work Control, and Operations agree that this area will be a multiple use facility for the following functions:

**Operations Support Center (OSC) - An Emergency Response Facility that must be in a state of readiness at all times for compliance with the Station's Emergency Plan. It will also be utilized during scheduled ERO drills, exercises, and training which are scheduled during non-outage times.**

**Outage Control Center (OCC) - An Outage Support Facility utilized during outages to facilitate the execution of the outage. This area is typically utilized as the Outage Control Center during refueling and/or forced outages only.**

**Unit Threat Team - Utilized by designated individuals to respond to issues that may impact a Unit's operation.**

**Revision 03-1  
December, 2003**

## **AGREEMENT LETTER NO. 16**

The following stipulations set forth in this agreement describe availability and resource requirements needed to assure compliance with specified Emergency Planning requirements and commitments, as well as the business needs of the site in regards to Outage management.

1. Emergency Planning, Work Control and Operations understand that a nuclear plant emergency always has first priority, and therefore this area will be utilized as the OSC in an emergency situation. If an actual Emergency is declared during an Outage that requires staffing of the OSC, necessary actions **MUST** be taken by the Outage Control Center staff to allow for the required staffing of this emergency response facility. All other uses of this area will yield to the emergency situation.
2. Emergency Planning will not schedule any ERO drills and/or exercises during scheduled Refueling Outages. In the event of an unscheduled or necessary outage change that will impact a scheduled ERO drill and/or exercise, Emergency Planning will make the necessary adjustments to the drill schedule to accommodate the emerging business need. This will also apply to forced outages.
3. The OSC is a required response facility and any Emergency Planning designated computers, equipment, and/or supplies are for emergency use and must be available at all times. Specific facility drawings, procedures, and phone directories are required to be maintained current for the OSC. Due to these maintenance requirements, all phones lines, computers, OSC position signs, tables, emergency supplies and related facility equipment will remain in place and not altered without first contacting Emergency Planning. Outage Control Center personnel will not use any "Emergency Only" supplies/equipment which will be stored in a designated "Emergency Only" supply cabinet.
4. Emergency Planning will have access to the OSC/OCC area to conduct required facility testing and maintenance. Due to periodic test requirements for the OSC, Emergency Planning will be required to access the area to perform the monthly and quarterly periodic tests. These are required tests that must be performed within a specified time frame. These are typically performed at the first week of the month/quarter. If a periodic test is required to be performed during an Outage, Emergency Planning will schedule the PT as to not impact negatively on the Outage Control Center operation but with the understanding that the PT must be completed within the required time frame. Emergency Planning will normally conduct up to 8 ERO drills/exercises each calendar year which include SAMG drills. None of these drills will be scheduled during designated Outage periods. The area may also be used to conduct facility specific and related ERO training each year.
5. It will be the responsibility of the party using the OSC/OCC to clean up and restore the facility to the condition it was in prior to use. Equipment, notebooks, etc. should be stored appropriately. The area will be restored to a state of readiness to comply with emergency readiness requirements.


AGREEMENT LETTER NO. 16

The priority for use of the OCC/OSC is:

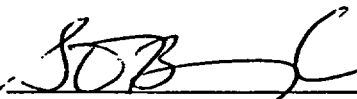
1. An actual nuclear plant emergency - The OSC has priority.
2. Any scheduled or unscheduled Outage – The OCC has priority
3. All nuclear drills/exercises - The OSC has priority

  
E.T. Beadle  
CNS Emergency Planning Manager

9/30/03  
Date

  
R. L. Sweigart  
CNS Safety Assurance Manager


9/25/03  
Date

  
R. S. Beagles  
CNS Work Control

8/28/03  
Date

  
R. A. Lindsay  
CNS Work Control Manager

8/28/03  
Date

  
K.W. Phillips  
CNS Operations

9/25/03  
Date

  
S.W. Brown  
CNS Operations Manager

9/14/03  
Date

  
T. S. Martin  
CNS Site Services


9/25/03  
Date

  
D. M. Huffstetler  
CNS Site Services Manager

9/9/03  
Date

  
P. A. Vahaun  
CNS Information Technology

8/26/03  
Date

  
M. L. Wright  
CNS Information Technology Manager

9/9/03  
Date

cc: R. M. Glover  
D. M. Jamil  
T. M. Daniels

G.L. Mitchell  
B. R. Smith

T. K. Pasour  
EP File (OSC)