



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
October 29, 1982

50-369/370 McGuire

MEMORANDUM FOR: Chief, Document Management Branch, TIDC
FROM: Director, Division of Rules and Records, ADM
SUBJECT: REVIEW OF UTILITY EMERGENCY PLAN DOCUMENTATION

The Division of Rules and Records has reviewed the attached document and has determined that it may now be made publicly available.

J. M. Felton, Director
Division of Rules and Records
Office of Administration

Attachment: As stated

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PDR ADOCK 05000369
F PDR

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

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

September 15, 1982

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

Re: McGuire Nuclear Station
Docket Nos. 50-369, 50-370

Dear Mr. Denton:

Enclosed for NRC Staff use and review are ten copies of the latest revision to the following McGuire Nuclear Station Emergency Plan Implementing Procedures:

- 1) AP/0/A/5500/27 - Care and Transportation of Contaminated Injured Individual(s) from Site to Offsite Medical Facility (Changes 0-1, dated August 27, 1982)
- 2) EP/0/A/5000/05 - Notification of Unusual Event (Changes 0-0, dated August 30, 1982)
- 3) EP/0/A/5000/06 - Alert (Changes 0-0, dated August 30, 1980)
- 4) EP/0/A/5000/07 - Site Area Emergency (Changes 0-0, dated August 30, 1982)
- 5) EP/0/A/5000/08 - General Emergency (Changes 0-0, dated August 30, 1982)
- 6) Station Directive 3.8.1 - Site Assembly and Evacuation (Revision 7, dated August 5, 1982)
- 7) Station Directive 3.8.2 - Technical Support Center and Augmenting Agencies; with enclosure nos. 1 (Revision 6, dated August 16, 1982), 4 (Revision 7, dated August 16, 1982)

Please delete privacy material in the form of personal telephone numbers prior to placing any material in the public document room, specifically:

- 2) Enclosure no. 4.4, pages 1 of 2, 2 of 2
- 3) Enclosure no. 4.4, pages 1 of 2, 2 of 2
- 4) Enclosure no. 4.4, pages 1 of 2, 2 of 2
- 5) Enclosure no. 4.4, pages 1 of 2, 2 of 2
- 7) Enclosure no. 4, pages 1 of 2, 2 of 2

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Mr. Harold R. Denton, Director
September 15, 1982
Page 2

By copy of this letter, three copies of each of the above documents are being provided to the NRC, Region II.

Very truly yours,

H.B.Tucker/ll

Hal B. Tucker

WHM/php
Enclosure

cc: (w/3 copies of enclosure)
Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

(w/o enclosure)
Mr. P. R. Bemis
NRC Resident Inspector
McGuire Nuclear Station

STATION DIRECTIVE 3, 8.1
APPROVAL *M.W.L.*
DATE ORIGINAL ISSUED 2/12/80
REVISION 7 DATE 8/5/92

DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
SITE ASSEMBLY AND EVACUATION

OBJECTIVE

To obtain accountability of station personnel in order to implement recovery resources and ensure personnel safety in the event of a potential or actual emergency condition onsite.

RESPONSIBILITY FOR IMPLEMENTATION

1. The Shift Supervisor/Emergency Coordinator shall determine whether or not a Site Assembly is warranted based upon the severity of the emergency condition in regards to personnel safety. Examples:

- A. Fire out of control
- B. High radiation levels in Auxiliary Building (unplanned)
- C. High airborne particulate or gas levels (radioactive, toxic or flammable) in Auxiliary Building.
- D. ECCS initiated due to primary system failure.
- E. Security breach/Bomb Threat

NOTE: If at any time in the course of this directive, the Emergency Coordinator deems a Site Evacuation is necessary, he should proceed directly to page 5, IMPLEMENTATION - SITE EVACUATION.

2. The Emergency Coordinator (or his designee) shall determine whether or not a subsequent evacuation is warranted after evaluating the situation in regards to personnel safety. Examples:

- A. Fire spreading out of control with potential for reducing containment integrity or damaging essential systems/components.
- B. Any unplanned increase in whole body exposure >2.0 mrem/hr encompassing a majority of the exclusion area.

8/21/92 L+8

- C. Any airborne contamination in excess of concentrations set forth in 10CFR20, Appendix B, Table II, within the exclusion area.
- D. Toxic or flammable gases within the exclusion area.
- E. Bomb Threat

The individual commencing the Site Evacuation shall determine which evacuation facility is to be utilized based upon implications of the emergency (radiological, chemical, fire, security, etc.) and meteorological conditions (wind direction, precipitation, etc.). See Enclosure 1, Evacuation Routes.

IMPLEMENTATION - SITE ASSEMBLY

- 1. The Shift Supervisor or his designee shall sound a twenty second blast of the Site Assembly alarm and make the following announcement on the plant page system:

"This is a Site Assembly. This is a Site Assembly. There is/are _____ in/at _____. All personnel and visitors what where report to their assembly points."

- 2. Repeat Step 1 in full.
- 3. At this time, all personnel shall report to their supervisors at their assembly points shown in Enclosure 1. (Assembly points are provided to assist supervision in accounting for their personnel).

- A. Superintendents and their clerks and the Station Manager's clerk shall assemble in their offices whether inside the protected area or not and will be allowed normal passage thru the Personnel Access Portal.
- B. Normal passage thru the Personnel Access Portal (PAP) shall not be restricted during a Site Assembly, however, the Emergency Coordinator may request the Security Shift Lieutenant to secure the PAP if the emergency condition warrants.
- C. After normal working hours, on weekends, or anytime the Administration offices are normally unoccupied, all personnel outside the protected area shall assemble in the canteen.

7. After normal hours, on weekends, or anytime the Administration offices are normally unoccupied, the senior person in each section shall be responsible for the personnel in his group and shall report to the Shift Supervisor when all personnel are accounted for.
8. When the condition warranting Site Assembly has been removed or stabilized to the point where it is no longer a personnel hazard and normal personnel traffic will not hinder any subsequent recovery actions as determined by the Emergency Coordinator, he shall secure from the Site Assembly via the station PA System.

IMPLEMENTATION - SITE EVACUATION

1. As per Step 3 of Responsibility for Implementation, determine the evacuation facility to be utilized. See Enclosure 1, Evacuation Routes.
2. The Shift Supervisor or his designee shall sound a twenty (20) second blast of the Site Evacuation alarm and make the following announcement on the plant page system:

"This is a Site Evacuation. This is a Site Evacuation. All unnecessary personnel proceed to _____.
Training Center/Cowans Ford Dam"
3. Repeat Step 2 in full.
4. Request the Mecklenburg County Police to assist in traffic control near and around McGuire Nuclear Station and to assist in the control of boating areas on Lake Norman within the exclusion area. (See Enclosure 3) (Station Security will work with the County Police in directing traffic to the evacuation facility designated.)
5. Continue to repeat Step 2 at 3 minute intervals until notification that the site is in fact evacuated.
6. At this time, all personnel shall evacuate to the designated evacuation facility by their designated route utilizing their individual private vehicles with the following exceptions.

NOTE: In the event that Site Evacuation is to the Training and Technology Center, Construction personnel shall proceed on foot, not to use vehicles. In the event the situation does not involve a release of radioactive materials or contamination of site area's, the Construction Project Manager, in coordination with the Station Manager may allow construction personnel to leave the site in their vehicles and proceed offsite/home.

- A. Control Room personnel shall stay on station, evacuate to the Standby Shutdown Facility, or to the evacuation facility as directed by the Shift Supervisor. In the event the Technical Support Center becomes uninhabitable, the Emergency Coordinator may direct that he and the Superintendents move into the Control Room protected area or evacuate to the designated evacuation facility.
- B. If there is radiological contamination of equipment and personnel, Health Physics Emergency Environmental survey teams shall be provided in accordance with the Station Health Physics Manual, Section 18.2 (Environmental Monitoring for Emergency Conditions). Emergency Personnel survey teams shall be provided in accordance with Station Health Physics Manual, Section 18.3 (Personnel Monitoring for Emergency Conditions).
7. Steam Production Superintendents, the Senior QA Engineer, and the Construction Project Manager shall account for their personnel at the evacuation facility and report to the Superintendent of Administration who will in turn inform the Shift Supervisor and the Emergency Coordinator of the evacuation status.
NOTE: Commencing thirty (30) minutes after initiation of a Site evacuation, the Superintendent of Administration shall begin personnel status reports to the Shift Supervisor and Emergency Coordinator. These status reports should be continued at fifteen (15) minute intervals until all personnel are evacuated and accounted for.
8. After normal working hours, on weekends, or anytime the Administration offices are normally unoccupied, the senior person in each section shall be responsible for the personnel in his group and shall report to the Shift Supervisor when all evacuated personnel are accounted for.

9. The Emergency Coordinator in coordination with the Recovery Manager at the Crisis Management Center will provide instructions to Steam Production and Construction supervision regarding the further disposition of evacuated personnel. In the event evacuated personnel must remain at the evacuation facilities for an extended period of time, the Recovery Manager shall provide for their care and disposition.
10. When the emergency condition requiring Site Evacuation no longer exists, the Emergency Coordinator shall secure from the Site Evacuation.

ENCLOSURES

1. Assembly Points
2. Evacuation Routes to Training and Technology Center Center and Cowan's Ford Dam
3. Site Evacuation Traffic Control Telephone List

STATION DIRECTIVE 3.8.1

ENCLOSURE 1

ASSEMBLY POINTS

GROUP	WITHIN PROTECTED AREA	OUTSIDE PROTECTED AREA	RESPONSIBLE SUPERVISION
A. Operations	Operation's Office	Operations Admin. Building Office	Shift Supervisor
NOTE: Control Room Operators remain on station.			
B. Admin Services			
1) Administrative Personnel and Training Services Personnel	PAP at Exit Corridor	Training Room	Superintendent of Administration
2) K-Mac	K-Mac Storage Area at PAP	Training Room	K-Mac Supervisor
3) Security	Security Office Assembly Room (CAS, SAS, and PAP Remain on Post)	Training Room	Sec. Shift Lieut.
4) Visitors	Escorted - with escort	Training Room	Sec. Shift Lieut.

NOTE: Visitors assigned unescorted access shall be assigned to a responsible group by security personnel during initial badging procedure.

STATI DIRECTIVE 3.8.1

ENCLOSURE 1 (CONTINUED)

ASSEMBLY POINTS

GROUP	WITHIN PROTECTED AREA	OUTSIDE PROTECTED AREA	RESPONSIBLE SUPERVISION
C. Tech Services			
1) Projects & Licensing, NRC Personnel Onsite	Performance Trailer	Superintendent's Office	P&L Engineer
2) Performance	Performance Trailer	Superintendent's Office	Performance Supv.
3) Chemistry	CT Lab	Superintendent's Office	Station Chemist
4) Health Physics	HP Lab	Auxiliary Count Room	Sta. Health Phy.
	NOTE 1: If radiation levels within the HP Lab are excessive, Health Physics shall report to HP trailer.		
	NOTE 2: If the emergency has radiological implications, Health Physics escorts shall take their visitor to the PAP.		
D. Maintenance			
1) Mechanical (SMS, SSD)	Assembly Room In Shop	Superintendent's Office	Maint. Engineer
2) I&E	I&E Shop	Superintendent's Office	I&E Engineer
3) Planning	Planners Office	Superintendent's Office	Planning Engineer
	NOTE: Any Transmission Department personnel assigned to the Station Maintenance Department shall assemble with the group/crew they are assigned to.		
E. QA	QA Office Above CT Lab	Senior QA Engineer's Office	Q. A. Engineer
F. Construction	Unit #1 Truck Corridor	Brass Shack	Construction Mgr.
G. Station Manager	Control Room	Manager's Office	Station Manager

STATION DIRECTIVE 3.8.1
ENCLOSURE 2
Evacuation Routes to Training and Technology Center
and Cowan's Ford Dam

TRAINING
AND
TECHNOLOGY
CENTER

LAKE NORMAN

COWAN'S
FORD
DAM

CATAWBA RIVER

MC GUIRE

Hwy - 73 EAST

Hwy - 73 WEST

STATION DIRECTIVE 3.8.1

ENCLOSURE 3

SITE EVACUATION TRAFFIC AND LAKE CONTROL TELEPHONE LIST

A. Mecklenburg County Police - 374-3333

McGUIRE NUCLEAR STATION

OUT OF STATION DOCUMENT TRANSMITTAL

Date: 8-24-82

To: _____

Document(s): EMERGENCY PLAN IMPLEMENTING PROCEDURES MANUAL Rev. _____

Station Directive 3.8.2 Rev. _____

Enclosure 1 (1 page) Rev. 6

Enclosure 4 (2 pages) Rev. 7

Rev. _____

Rev. _____

Rev. _____

Control No.: _____

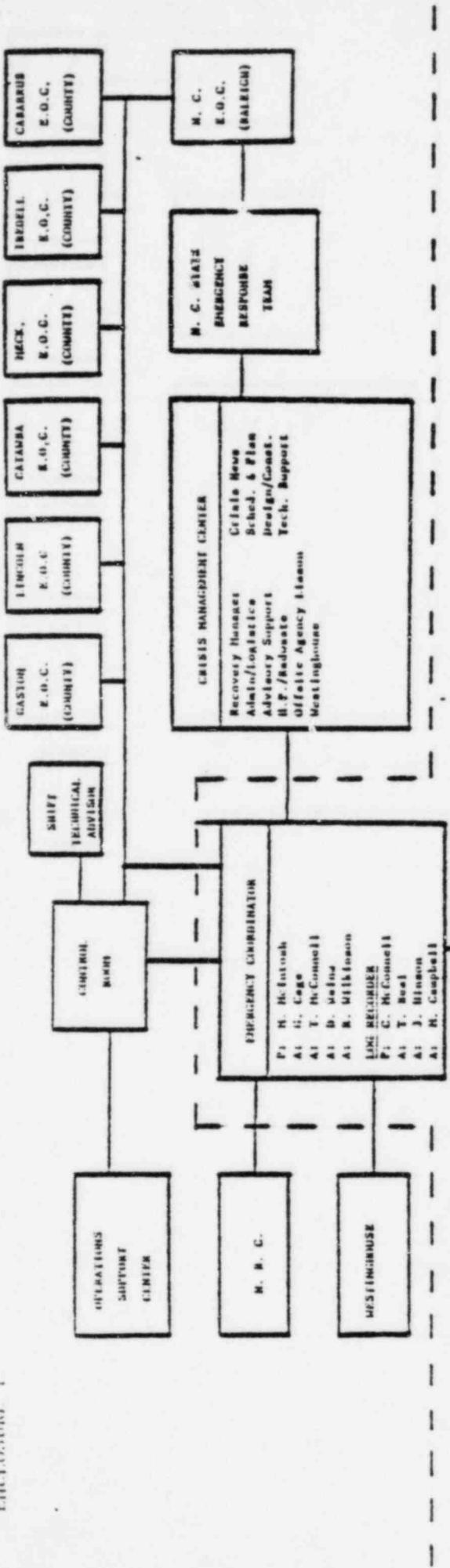
Please sign and return this transmittal to Master File within thirty (30) working days, indicating you have received the attached.

Received by: _____

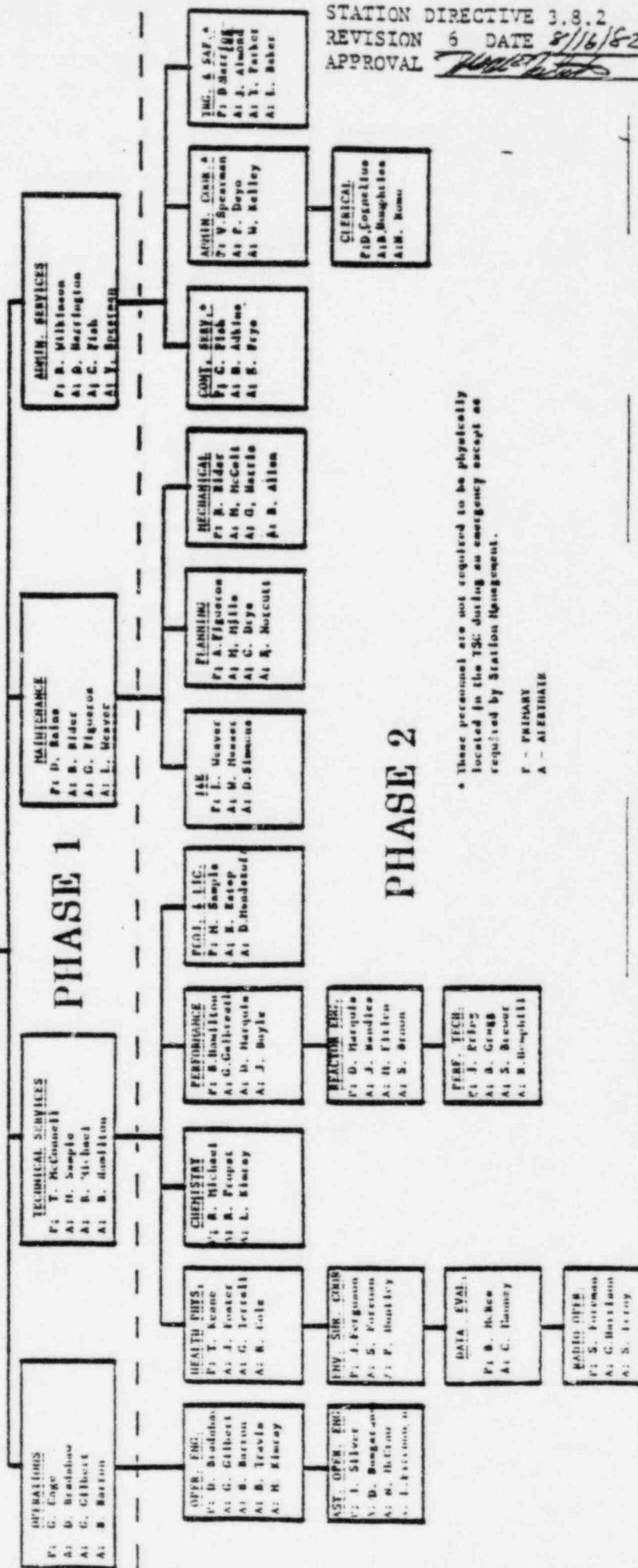
Date: _____

TECHNICAL SUPPORT CENTER and AUDITING AGENCIES

4



PHASE 1



STATION DIRECTIVE 3.8.2
REVISION 6 DATE 8/16/82
APPROVAL ____

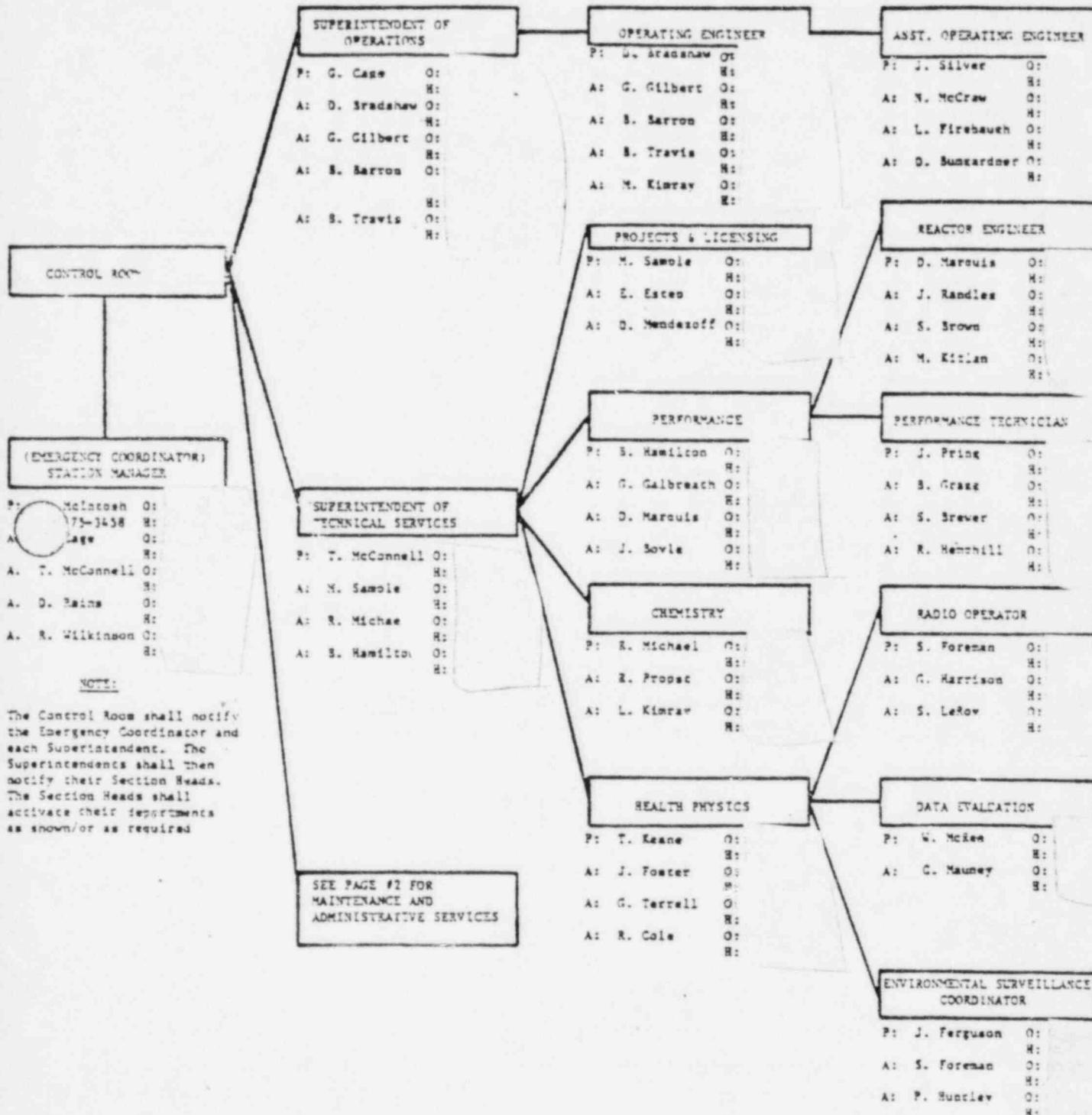
* These personnel are not required to be physically located in the TSC during an emergency except as required by Station Management.

PRIMARY
ARTERIAL

PHASE 2

ENCLOSURE 4

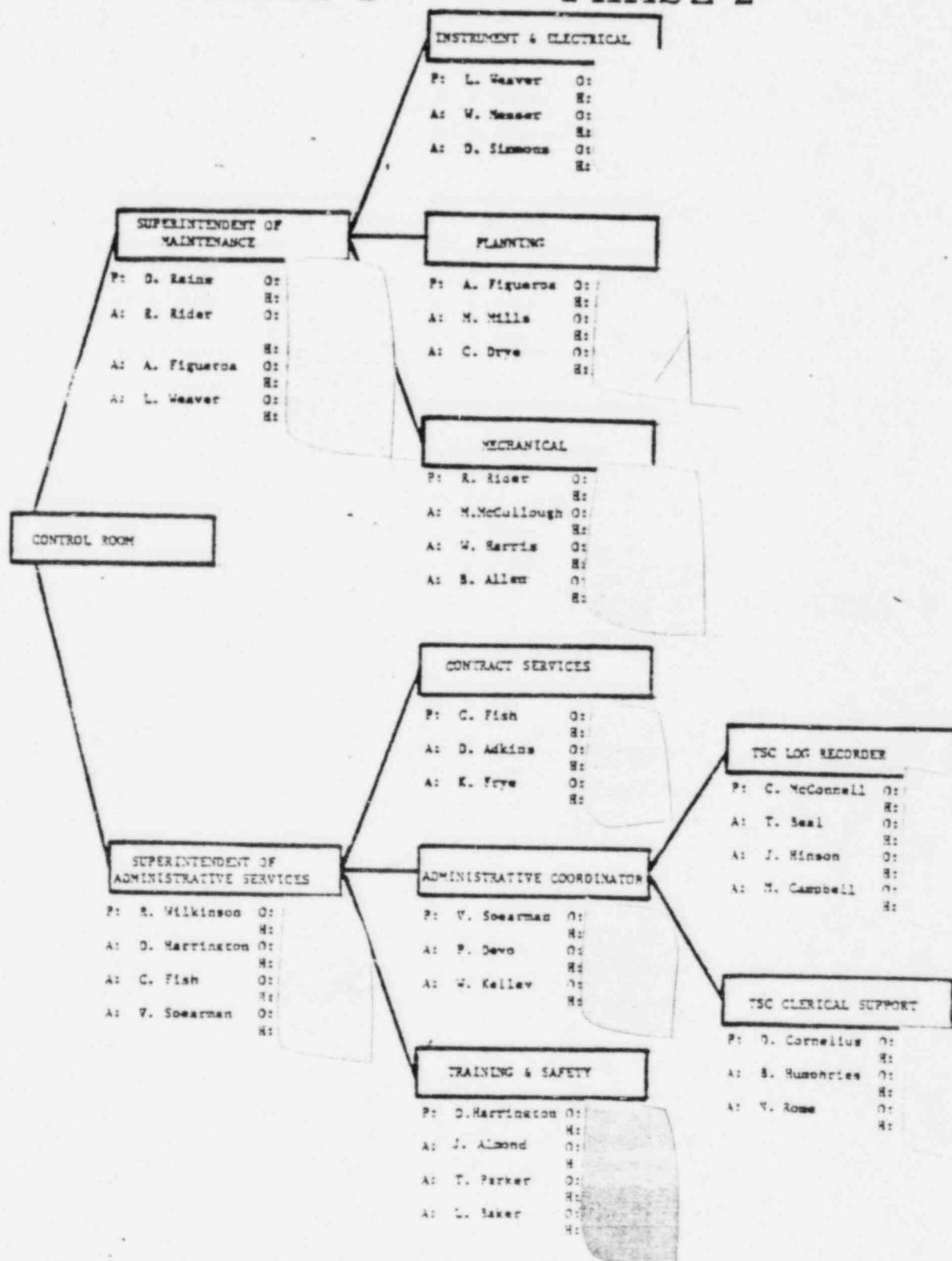
TECHNICAL SUPPORT CENTER
PHASE 1 PHASE 2



TECHNICAL SUPPORT CENTER

PHASE 1

PHASE 2



DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: AP/D/A/3300/27
Change(s) 0 to
1 Incorporated

(2) STATION: McGuire Nuclear Station

(3) PROCEDURE TITLE: Care and Transportation of Contaminated Injured
Individual(s) From Site to Offsite Medical Facility

(4) PREPARED BY: M.S. Glover DATE: 8/16/82

(5) REVIEWED BY: G.F. Turrell DATE: 8/17/82
Cross-Disciplinary Review By: T. Halligan M/R: GFT

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: Major M. L. Koenig Date: 7-17-82

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
MC GUIRE NUCLEAR STATION
CARE AND TRANSPORTATION OF CONTAMINATED INJURED
INDIVIDUAL(S) FROM SITE TO OFF-SITE MEDICAL FACILITY

1.0 Symptoms

- 1.1 Individual contaminated to levels >1000 dpm/100cm² Beta-Gamma (loose), or 5000 dpm/100cm² Beta-Gamma (fixed and loose total) or >50 dpm/100cm² Alpha and in need of offsite medical attention.

1.0 Immediate Actions

2.1 Automatic

N/A

2.2 Manual

- 2.2.1 Perform any life saving first aid if necessary.
2.2.2 Notify Shift Supervisor.
2.2.3 Notify Health Physics.

3.0 Subsequent Actions

- 3.1 The Shift Supervisor shall contact any outside services needed:
3.1.1 North Mecklenburg Ambulance Service (See Enclosure 4.3)
3.1.2 North Mecklenburg Rescue Squad (See Enclosure 4.3)
- 3.2 Health Physics shall accompany the contaminated injured individual(s) to the doctor or hospital.
- 3.2.1 Health Physics shall minimize the spread of contamination during transportation by covering the individual(s) with sheets or blankets and lining the stretcher with poly. This is not to interfere with life saving first aid.
- 3.2.2 Health Physics shall ensure that the Medical Decontamination Kit and an RM-14 with RP-210 probe, accompany contaminated injured individual(s) to the hospital. (Kit is stored in the Auxiliary Building First Aid Room.)
- 3.3 In case of contamination not involving severe injury, decontamination shall be performed in the first aid room in the Radiation Control Area of the station, prior to transportation to a medical facility. However, decontamination shall not interfere with or take precedence over medical or surgical care as determined by the Doctor in charge of first aid personnel.

- 3.3.1 Decontamination shall be performed by medical personnel with assistance from the Station Nurse or Fire Department Personnel.
 - 3.3.2 Enclosure 4.2, "Contaminated Victim Checklist" shall be completed for all contaminated injured persons. A copy of the completed checklist will be filed with appropriate Health Physics and Medical records.
 - 3.3.3 The requirements of Station Directive 2.10.1, Reporting "On-The-Job" Injuries, shall also be utilized when providing for occupational injury and/or illness at McGuire Nuclear Station.
- 3.4 Commence "Notification of Unusual Event" as per EP/0/A/5000/05.
- 3.5 Medical Assistance for Contaminated and Injured persons is provided by Charlotte Memorial Hospital.
- 3.5.1 The Shift Supervisor shall contact the Emergency Room at Charlotte Memorial Hospital, and shall provide them with information concerning the contaminated injured individual(s) i.e.: burns, fractures, head injuries, levels of contamination. He shall also inform the emergency room as to the mode of emergency transportation utilized. (See Enclosure 4.3).
 - 3.5.2 Charlotte Memorial Hospital may call back to the station for verification.
- 3.6 Back-up Medical Facility
- 3.6.1 In the event that Charlotte Memorial Hospital cannot provide complete assistance or in the event they may request additional expertise in the management of a radiation accident victim(s), the Shift Supervisor/Emergency Coordinator shall contact the Department of Energy, Radiation Emergency Assistance Center Training Site (REACTS), in Oak Ridge Tennessee for assistance. (See Enclosure 4.3).
- 3.7 Personnel taken to Charlotte Memorial Hospital will be delivered to the Emergency Room except in the case of extreme contamination in which case personnel will be delivered as directed by the hospital.
- NOTE: The Ambulance Service or Rescue Squad will maintain radio communications with the medical facility enroute.

3.8 Upon completion of transportation, McGuire Health Physics personnel will survey the ambulance/rescue vehicle(s), all involved personnel and equipment, and shall assist in any necessary decontamination of vehicles, personnel and equipment. McGuire Health Physics personnel will also assist the hospital in survey and decontamination of hospital equipment, spaces or personnel as may be requested by hospital Radiation Safety personnel.

4.0 Enclosures

- 4.1 Map to Charlotte Memorial Hospital
- 4.2 Contaminated Victim Checklist
- 4.3 Telephone List

CHARLOTTE-MAXWELL, NEWCASTLE 18
34-3333 or 911

KING'S DAIRY

331-2171

105 PTA

HORNBY AV

CHARLOTTE

CHARLOTTE ST.



MAP TO CHARLOTTE MEMORIAL HOSPITAL

**MEGUINE NUCLEAR STATION
CONTAMINATED VICTIM CHECKLIST**

WITNESS'S NAME _____

WORK GROUP _____

DATE _____ TIME _____

ART. 1 ALLEGRIES

LOCATION OF ACCIDENT

RADIATION LEVEL

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Continued from back cover

CONTAMINATION: YES NO

NAME: SS # DOB

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LIST OF HIGHLY CREDIT-ASSOCIATED

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US LEVELS ON PAGE 1 OF 1

TYPE OF CONFLAMMANT _____

Journal of Health Politics, Policy and Law, Vol. 28, No. 4, December 2003
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DECONTAMINATION PROCEDURES:

ANSWER

WORD UTILIZATION

SWABS, ETC.

SIXTY

STAVE (SAVE ZAIN)

NOT REQUIRED

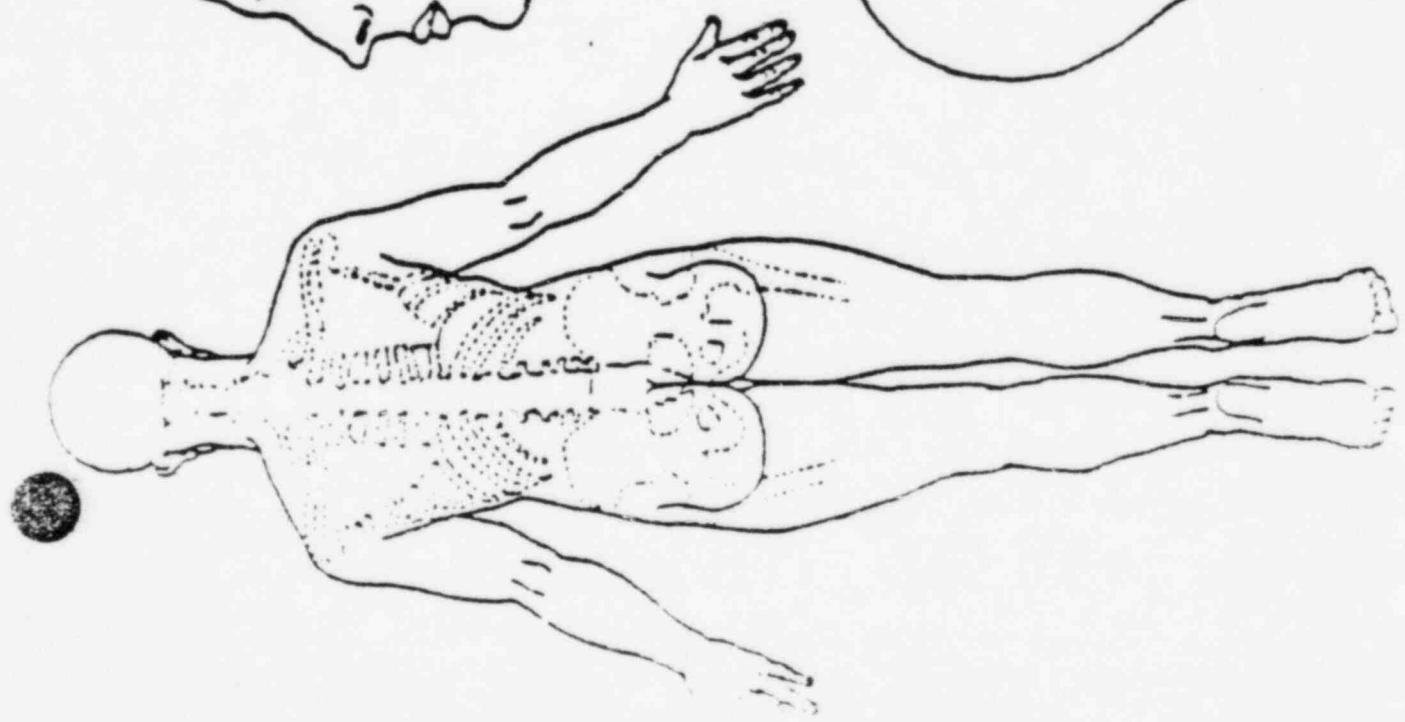
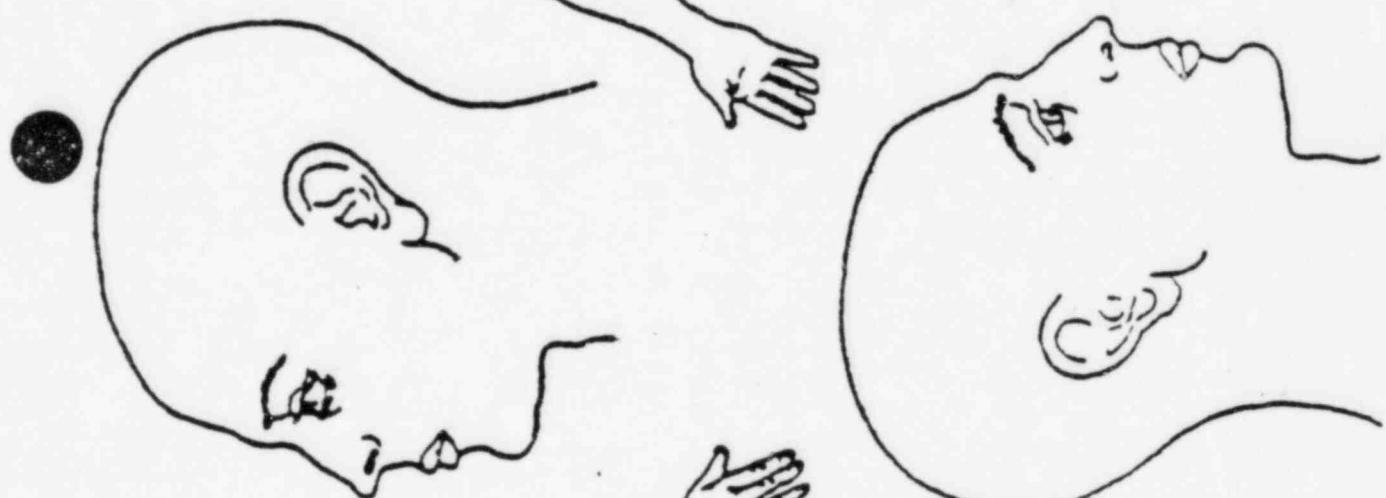
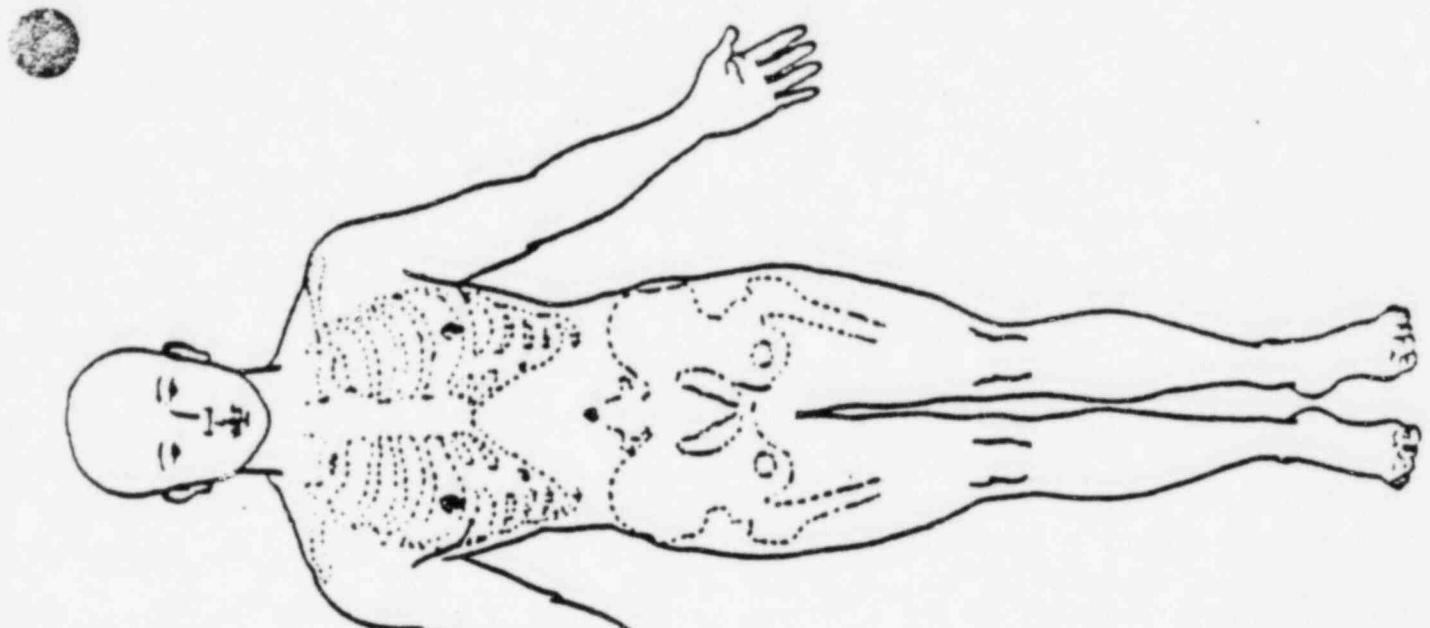
ADDITIONAL INFORMATION: (i.e., Instrument type and number utilized for survey, survey performed by:, TLD Badge Number of patient, etc.)

二

ALOCD PLEXSUL

PULSE

COMETS



TELEPHONE LIST

- 4.3.1 Health Physics - (Plant Phone)
- 4.3.2 Charlotte Memorial Hospital E.R. - .
- 4.3.4 Radiation Emergency Assistance Center Training Site REACTS
- 4.3.5 North Mecklenburg Ambulance Service -
- 4.3.6 North Mecklenburg Rescue Squad -

14701-1781
Formerly SPD 1002-1

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: EP-1A-1002-1
Change(s) _____ to
____ Incorporated

(2) STATION: McGuire Nuclear Station

(3) PROCEDURE TITLE: General Emergency

(4) PREPARED BY: M. S. Glover DATE: 8/18/82

(5) REVIEWED BY: D. Miller DATE: 8-25-82

Cross-Disciplinary Review By: N/R: T-24

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: D. Miller Date: 8-30-82

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
GENERAL EMERGENCY

1.0 Symptoms

- 1.1 Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

2.0 Immediate Action

2.1 Automatic

None

2.2 Manual

- 2.2.1 The Shift Supervisor shall be informed of all events initiating this procedure.

3.0 Subsequent Actions

Initial/M/A

- / 3.1 The Shift Supervisor shall assure that the appropriate emergency condition (Notification of Unusual Event, Alert, Site Area Emergency, or General Emergency) is declared by evaluating the actual plant condition with Enclosure 4.1, Emergency Classification Flowchart and Enclosure 4.2, List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/Document.
- / 3.2 The Shift Supervisor shall ensure that all actions required by the initiating Emergency Procedure will be performed and that all actions necessary for the protection of persons and property are being taken.

NOTE

If at any time in the course of events in this procedure, site evacuation or personnel assembly/accountability appears necessary, refer to Station Directive 3.8.1.

- 3.3 The Shift Supervisor shall assume the function of the Emergency Coordinator until the arrival of the Station Manager or his designee, at which time the Station Manager or his designee assumes the responsibility of the Emergency Coordinator.

- 3.4 The Emergency Coordinator shall assure prompt (within 15 minutes of declaring the emergency for State and Local authorities) notification of those personnel and Warning Points and shall activate those Emergency Centers indicated on Enclosure 4.3 for the appropriate Initiating Condition/Emergency Procedure listed in Enclosure 4.2.

NOTE 1

Activation of the Technical Support Center (TSC) and Operations Support Center (OSC) shall be in accordance with Station Directive 3.8.2. Activation of the Crisis Management Center (CMC) shall be in accordance with Enclosure 4.6.

NOTE 2

See Enclosure 4.4, Telephone Listing, for notification, telephone numbers/radio codes/pager codes.

NOTE 3

See Enclosure 4.5, Notification of Emergency Conditions to be provided to State/County Warning Points.

- 3.5 The Emergency Coordinator in direct contact with the Technical Support Center and the Crisis Management Center will assess and respond to the emergency by:

- 3.5.1 Dispatching the onsite and offsite monitoring teams with associated communications.
- 3.5.2 Provide meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.
- 3.5.3 Provide release and dose projections based on available plant condition information and foreseeable contingencies to offsite authorities.

NOTE

In the event a release or potential release of radioactive materials is a threat to plant personnel or members of the general public, the Emergency Coordinator shall request Health Physics personnel to evaluate the consequences utilizing the appropriate Health Physics procedure, HP/O/B/1009/05, HP/O/B/1009/06, HP/O/B/1009/08, HP/O/B/1009/09, or HP/O/B/1009/10.

3.6 The Emergency Coordinator shall provide protective action recommendations as necessary to the affected county warning point(s) and to the North Carolina Warning Point (Emergency Operations Centers if established) or to state Radiological Protection Section, Department of Human Resources (See Enclosure 4.4, Telephone Listing) as directed by the state in accordance with the North Carolina Radiological Emergency Response Plan. If evaluation indicates that a potential for an actual release of radioactive materials will result in a projected dose (REM) to the population of: (EPA Protective Action Guidelines)

3.6.1 Whole body <1, Thyroid <5, No protective action is required. Monitor environmental radiation levels to verify.

3.6.2 Whole body 1 to <5, Thyroid 5 to <25, recommend seeking shelter and wait for further instructions. Consider evacuation particularly for children and pregnant women. Monitor environmental radiation levels. Control access to affected areas.

3.6.3 Whole body 5 and above, Thyroid 25 and above, recommend mandatory evacuation of populations in the affected areas. Monitor environmental radiation levels and adjust area for Mandatory evacuation based on these levels. Control access to affected areas.

NOTE

See Enclosure 4.4 Telephone Listing for notification.

3.7 The Emergency Coordinator in coordination with the Recovery Manager, at the Crisis Management Center, will provide or make available:

3.7.1 A dedicated individual for plant status updates to offsite authorities and periodic press briefings.

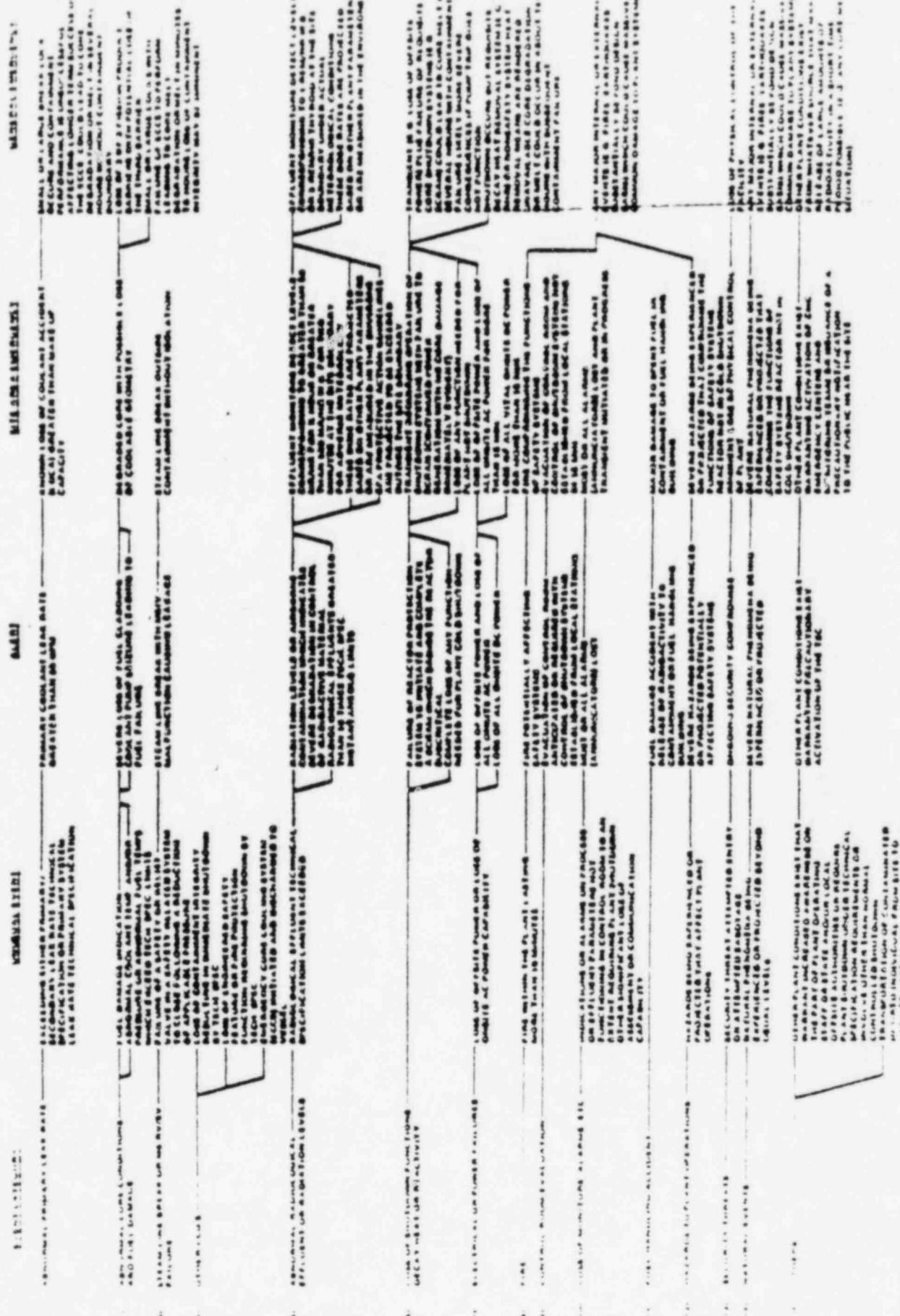
3.7.2 Senior technical and management staff onsite available for consultation with the NRC and State on a periodic basis.

- 3.8 The Emergency Coordinator in coordination with the Recovery Manager at the Crisis Management Center will assess the emergency condition and determine the need to remain in a General Emergency, reduce the emergency class, or close out the emergency.
- 3.9 The Recovery Manager at the Crisis Management Center will close out the emergency or recommend reduction of the Emergency class by briefing the offsite authorities at the Crisis Management Center or by phone if necessary, followed by written summary within 8 hours.

4.0 Enclosures

- 4.1 Emergency Classification Guide Flowchart
- 4.2 List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/Document.
- 4.3 Notification Chart.
- 4.4 Telephone listing.
- 4.5 Notification of Emergency Conditions.
- 4.6 Crisis Management Center Activation Format.

THE AGENCY CLASSIFICATION GUIDE & DOCUMENTARY



LIST OF INITIATING CONDITIONS, EMERGENCY ACTION LEVELS, AND
ASSOCIATED EMERGENCY PROCEDURE/DOCUMENT

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
1. Effluent monitors detect levels corresponding to 1 rem/hr Whole Body or 5 rem/hr Thyroid at the site boundary under <u>actual meteorological conditions</u> .	As observed by control room personnel.	HP/0/B/1009/05
NOTE 1: These dose rates are projected base on plant parameters (e.g., radiation levels in containment with leak rate appropriate for existing containment pressure with some confirmation from effluent monitors) or are measured in the environs.		
NOTE 2: Consider evacuation only within about 2 miles of the site boundary unless these levels are exceeded by a factor of 10 or projected to continue for 10 hours or EPA Protective Action Guideline exposure levels are predicted to be exceeded at longer distances.		
Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier, (e.g., loss of primary coolant boundary, cladding failure, and high potential for loss of containment integrity).	1. Loss of coolant accident as identified in Site Area Emergency 4.2.1, and incomplete containment isolation. 2. Loss of coolant accident as identified in Site Area Emergency 4.2.1, and Containment Monitor alarms (EMPSIA and/or B) greater than 10 R/hr and containment pressure greater than 14.8 psig for at least 2 minutes.	HP/0/B/1009/05, AP/1/A/5500/05

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document	
4.2.3	Loss of physical control of the facility.	Physical attack of the facility has resulted in occupation of the control room and auxiliary shutdown facility.	Station Security Plan.
	NOTE: Consider 2 mile precautionary evacuation.	As determined by the Shift Supervisor/Emergency Coordinator and verified by EAL's defined in Implementing Procedures utilized up to this point.	As dictated by plant conditions.
4.2.4	Other plant conditions exist, from whatever source, that in the judgement of the shift supervisor, the Operations Duty Engineer, the Superintendent of Operations, or the Plant Manager make release of large amounts of radioactivity in a short time period possible (e.g., any core melt situation).		
	a. For core melt sequences where significant releases are not yet taking place and large amounts of fission products are not yet in the containment atmosphere, consider 2 mile precautionary evacuation. Consider 5 mile downwind evacuation (45° to 90° sector) if large amounts of fission products (greater than Gap activity) are in the containment atmosphere. Recommend sheltering in other parts of the plume exposure Emergency Planning Zone under this circumstance.		

Initiating Conditions

Emergency Action Level (EAL)

Emergency Procedure/Document

b. For core melt sequences where significant releases from containment are not yet taking place and containment failure leading to a direct atmospheric release is likely in the sequence but not imminent and large amounts of fission products in addition to noble gases are in the containment atmosphere, consider precautionary evacuation to 5 miles and 10 mile downwind evacuation (45° and 90° sector).

c. For core melt sequences where large amounts of fission products other than noble gases are in the containment atmosphere and containment failure is judged imminent, recommend shelter for those areas where evacuation cannot be completed before transport of activity to that location.

Initiating Conditions

Emergency Action Level (EAL)

Emergency Procedure/Document

d. As release information becomes available adjust these actions in accordance with dose projections, time available to evacuate and estimated evacuation times given current conditions.

e. Example Sequences:

- | | |
|--|--|
| 1. Small and large LOCA's with failure of ECCS to perform leading to severe core degradation or melt. Ultimate failure of containment likely for melt sequences. (Several hours likely to be available to complete protective actions unless containment is not isolated). | Safety injection signal plus reactor trip and; |
| | 1. Safety injection and RHR pumps not running. |
| | 2. Flow indications for safety injection read "0". |
| | 3. High containment sump level. |

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
2. Transient initiated by loss of feedwater and condensate systems (principal heat removal system) followed by failure of emergency feedwater system for extended period. (Core melting is possible in several hours with ultimate failure of containment likely if the core melts).	Reactor trip on Lo Lo Steam Generator level and wide range generator levels toward offscale low on all steam generators and emergency feedwater flow indicators indicate "0" flow or emergency feedwater pumps not running and cannot be restored within 30 minutes or >3% reactor power and loss of both main feedwater pumps, manually trip reactor.	AP/1/A/5500/06, EP/1/A/5000/04
3. Transient requiring operation of shutdown systems with failure to scram. Core damage is likely. Additional failure of the core cooling and makeup system would lead to core melt.	Reactor remains critical after all attempts to trip the reactor are complete and flow indicators on safety injection and RHR show "0" flow after initiation (NVP5440, NDP5190, 5191, 5180, 5181, NIP5120, 5450) or safety injection and RHR pumps not running with safety injection initiated.	AP/0/A/5500/34

Initiating Conditions

Emergency Action Level (EAL)

Emergency Procedure/Document

4.	Failure of offsite and onsite power along with total loss of emergency feedwater makeup capability for several hours. Would lead to eventual core melt and likely failure of containment.	Undervoltage alarms on 7KV buses and blackout load sequencers actuated and auxiliary feedwater pump(s) fail to start.	AP/1/A/5500/07
5.	Small LOCA and initially successful ECCS. Subsequent failure of containment heat removal system over several hours could lead to core melt and likely failure of containment.	Pressurizer low pressure reactor trip and pressurizer low pressure safety injection signal and RHR flow indicators show "0" flow after shift to RHR is attempted and for greater than 2 hours (MDP5190, 5191, 5180, 5181) and Reactor Coolant (RC) T° is rising. and containment air handling system fails to function.	EP/1/A/5000/02, AP/1/A/5500/05

NOTE: For melt sequences or for failure of containment isolation systems, the likely failure mode is melt through with release of gases.

Any major internal or external events (e.g., fires, earthquakes substantially beyond design levels) which could cause massive common damage to plant systems.

As determined by the Shift Supervisor/
Emergency Coordinator.

As dictated by plant conditions.

NOTIFICATION/ACTIVATION
GENERAL EMERGENCY

Notify/Activate the following personnel/or Emergency Centers for all Initiating Conditions listed in Enclosure 4.2. (See Enclosure 4.4 for Telephone Listing)

<u>NOTIFY/ACTIVATE</u>	<u>NOTIFICATION COMPLETE-INITIAL</u>
Shift Supervisor	
Operations Duty Engineer	
Station Manager	
Superintendent of Operations	
Superintendent of Technical Services	
Projects and Licensing Engineer	
Station Health Physicist	
North Carolina State Warning Point	
Mecklenburg County Warning Point	
Lincoln County Warning Point	
Catawba County Warning Point	
Iredell County Warning Point	
Gaston County Warning Point	
Cabarrus County Warning Point	
South Carolina State Warning Point	
N.R.C. via ENS (Red Phone)	
N.R.C. Station Representative	
Superintendent of Maintenance	
Superintendent of Administration	
Construction Project Manager	
Activate T.S.C. (Station Directive 3.8.2)	
Activate O.S.C. (Station Directive 3.8.2)	
Activate C.M.C. (Enclosure 4.4, Enclosure 4.6)	

TELEPHONE LISTING

4.4.1	Operations Duty Engineer (PA System) F&T Pager	
4.4.2	Station Manager Home -	- System Speed -
	Home -	- System Speed
4.4.3	Superintendent of Operations - Home -	- System Speed
4.4.4	Superintendent of Technical Services - Home -	- System Speed
4.4.5	Projects and Licensing Engineer - Home -	- System Speed
4.4.6	Station Health Physicist Home -	- System Speed -
	F&T Pager	
4.4.7	NC State Warning Point, Raleigh -	- System Speed -
4.4.8	Mecklenburg County Warning Point -	Primary: Ring Down Phone Back-up: - System Speed Back-up: Emergency Radio, Code:
4.4.9	Lincoln County Warning Point -	Primary: Ring Down Phone Back-up: - System Speed Back-up: Emergency Radio, Code:
4.4.10	Catawba County Warning Point -	Primary: Ring Down Phone Back-up: - System Speed Back-up: Emergency Radio, Code:
4.4.11	Iredell County Warning Point -	Primary: Ring Down Phone Back-up: - System Speed Back-up: Emergency Radio, Code:
4.4.12	Gaston County Warning Point -	Primary: Ring Down Phone Back-up: - System Speed Back-up: Emergency Radio, Code:
4.4.13	Cabarrus County Warning Point -	Primary: Ring Down Phone Back-up: - System Speed Back-up: Emergency Radio, Code:

NOTE

Radio Code will activate
all county radio units.

TELEPHONE LIST

- 4.4.14 SC State Warning Point -
- 4.4.15 N.R.C. Operation Center, Emergency Notification System (ENS Phone)
- 4.4.16 N.R.C. Station Representative
Office -
Home -
Wife work
P&T Pager . System Speed -
- System Speed
- 4.4.17 Construction Project Manager Construction , Ext.
Home : - System Speed
- System Speed - or
- 4.4.18 Superintendent of Maintenance - System Speed -
Home -
- 4.4.19 Superintendent of Administration - System Speed
Home -
- 4.4.20 CRISIS MANAGEMENT CENTER ACTIVATION
- Hal B. Tucker Office:
or Home: - System Speed
- J. Ed. Smith Office: Extension .
or Home: - System Speed
- J. W. Hampton Office: Extension .
or Home: - System Speed
- R. W. Bostian Office:
or Home: - System Speed -
- Steam Production Duty Man - System Speed -
- 4.4.21 Radiation Protection Section, Department of Human Resources-
System Speed -

MCCUIRE NUCLEAR STATION
NOTIFICATION OF EMERGENCY CONDITIONS

- 4.5.1 Include as a minimum, the following information to the North Carolina State Warning Point, the six County Warning Points, (Mecklenburg, Catawba, Iredell, Lincoln, Gaston, and Cabarrus) and the South Carolina Warning Point.

NOTE 1: See Enclosure 4.4, Telephone Listing

NOTE 2: A. Complete Part I of this format as a minimal first notification of a reportable incident.

B. Complete Part I and II of this format to provide minimal followup information.

PART I: Initial Emergency Message Information

"This is _____,

(Name)

(Title)

Mecklenburg

Gaston

Iredell

Lincoln

Cabarrus

Catawba

at McGuire Nuclear Station. I am notifying you of an incident at McGuire, Unit # _____. Please acknowledge when you are ready to copy emergency information."

1. This is McGuire Nuclear Station.

2. My name is _____.

3. This message (Number ____)

____ a. Reports a real emergency.

____ b. Is an exercise message.

4. My telephone number is _____.

5. Message Authentication: _____.

6. The class of emergency is:

____ a. Notification of an Unusual Event

____ b. Alert

____ c. Site Area Emergency

____ d. General Emergency

7. The Classification of Emergency was declared at: _____ on

(A.M. P.M.)

(Date)

8. The initiating event causing the Emergency Classification is:

9. The Emergency Condition (Select one of the below options):

- a. Does not involve the release of radioactive materials from the plant.
- b. Involves the POTENTIAL for a release of but NO release is occurring.
- c. Involves a release of radioactive material.

10. We recommend the following protective action: (select one of the below options)

- a. No protective action is recommended at this time.
- b. People living in zones _____ remain indoors with doors and windows closed.
- c. People in zones _____ EVACUATE their homes and businesses.
- d. Pregnant women and children in zones _____ remain indoors with the doors and windows closed.
- e. Pregnant women and children in zones _____ evacuate to the nearest shelter/reception center.
- f. Other recommendations: _____

11. There will be:

- a. A followup message
- b. No further communications

12. I repeat, this message:

- a. Reports an actual emergency.
- b. Is an exercise message.

13. Relay this information to the persons indicated in your alert procedures for an incident at McGuire Nuclear Station.

NOTE: Record the Name, Title, Date, Time, and Warning Point at end of Part II.

PART II: Followup Emergency Message Information

1. The type of actual or projected release is:

- a. Airborne
- b. Waterborne
- c. Surface spill
- d. Other

2. The source and description of the release is: _____

3. a. Release began/will begin at _____ a.m./p.m.; time since
reactor trip is _____ hours.

 b. The estimated duration of the release is _____ hours.

4. Dose projection base data:

Radiological release: _____ curies, or _____ curies/sec.

Wind speed: _____ mph

Wind direction: From _____ °

Stability class: _____ (A,B,C,D,E,F, or G)

- Release height: _____ ft.

Dose conversion factor: _____ R/hr/Ci/M³ (whole body)

_____ R/hr/Ci/M³ (Child Thyroid)

Precipitation _____

Temperature at the sites: _____ °F

5. Dose projections:

"Dose Commitment"

Distance	Whole Body Rem/hour	(Child Thyroid) Rem/hour of inhalation
Site boundary		
2 miles		
5 miles		
10 miles		

Projected Integrated Dose In Rem

Distance	Whole Body	Child Thyroid
Site Boundary		
2 miles		
5 miles		
10 miles		

6. Field measurement of dose rate or contamination (if available):

7. Emergency actions underway at the facility include: _____

8. Onsite support needed from offsite organizations: _____

9. Plant status:

- a. Reactor is: not tripped/tripped
- b. Plant is at: power/hot shutdown/cold shutdown/cooling down
- c. Prognosis is: stable/improving/degrading/unknown.

10. I repeat, this message:

- a. Reports an actual emergency.
- b. Is an exercise message.

11. Do you have any questions?

END OF FOLLOW-UP MESSAGE

NOTE: Record the name, title, date, time, and warning point notified.

(1)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Macklenburg</u> (Date) _____ (Time) _____ (Warning Point) _____
(2)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Gaston</u> (Date) _____ (Time) _____ (Warning Point) _____
(3)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Iredell</u> (Date) _____ (Time) _____ (Warning Point) _____
(4)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Catawba</u> (Date) _____ (Time) _____ (Warning Point) _____
(5)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Lincoln</u> (Date) _____ (Time) _____ (Warning Point) _____
(6)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Cabarrus</u> (Date) _____ (Time) _____ (Warning Point) _____
(7)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>North Carolina</u> (Date) _____ (Time) _____ (Warning Point) _____
(8)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>South Carolina</u> (Date) _____ (Time) _____ (Warning Point) _____

CRISIS MANAGEMENT CENTER ACTIVATION FORMAT

1. This is _____ at McGuire Nuclear Station. This is/is not a drill. Open your Crisis Management Plan to Figure E-2 for the following message. Do you have that Figure?
2. My name is _____. I am the _____ (title) at McGuire Nuclear Station and am notifying you of an incident at McGuire Nuclear Station, Unit No. _____.
3. The incident occurred at _____ (Hours) on ____/____/____ (Date).
4. The class of emergency is: _____.
5. The initiating condition causing the emergency is as follows: _____

6. Release of radioactivity: _____ is taking place _____ is not taking place.
7. Wind direction (blowing from) _____ degrees.
8. Corrective measures being taken at present are as follows:

9. It is recommended that you activate the Crisis Management Center in accordance with the Crisis Management Plan.
10. Do you have any questions?
11. I repeat, this is/is not a drill.
12. Record name of person notified, title, and time notified.

(Name)

(Title)

(Time)

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: EP/O/A/5000/07
Change(s) 0 to
0 Incorporated

(2) STATION: McGuire Nuclear Station

(3) PROCEDURE TITLE: Site Area Emergency

(4) PREPARED BY: M.S. Glenn DATE: 8/18/82

(5) REVIEWED BY: J.D. Gilbert DATE: 8-25-82

Cross-Disciplinary Review By: _____ N/R: ditto

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: Burkage Date: 8-30-82

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
MCCUIRE NUCLEAR STATION
SITE AREA EMERGENCY

1.0 Symtoms

- 1.1 Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

2.0 Immediate Action

2.1 Automatic

None

2.2 Manual

- 2.2.1 The Shift Supervisor shall be informed of all events initiating this procedure.

3.0 Subsequent Actions

Initial/N/A

- / 3.1 The Shift Supervisor shall assure that the appropriate emergency condition (Notification of Unusual Event, Alert, Site Area Emergency, or General Emergency) is declared by evaluating the actual plant condition with Enclosure 4.1, Emergency Classification Flowchart and Enclosure 4.2, List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/Document.

- / 3.2 The Shift Supervisor shall ensure that all actions required by the initiating Emergency Procedure will be performed and that all actions necessary for the protection of persons and property are being taken.

NOTE

If at any time in the course of events in this procedure, site evacuation or personnel assembly/accountability appears necessary, refer to Station Directive 3.8.1.

- / 3.3 The Shift Supervisor shall assume the function of the Emergency Coordinator until the arrival of the Station Manager or his designee at which time the Station Manager or his designee assumes the responsibility of the Emergency Coordinator.

- 3.4 The Emergency Coordinator shall assure prompt (within 15 minutes of declaring the emergency for State and Local authorities) notification of those personnel and Warning Points and shall activate those Emergency Centers indicated on Enclosure 4.3 for the appropriate Initiating Condition/Emergency Procedure listed in Enclosure 4.2.

NOTE 1

Activation of the Technical Support Center (TSC), Operations Support Center (OSC), shall be in accordance with Station Directive 3.8.2. Activation of the Crisis Management Center (CMC) shall be in accordance with Enclosure 4.6.

NOTE 2

See Enclosure 4.4, Telephone Listing, for notification, telephone numbers/radio codes/pager codes.

NOTE 3

See Enclosure 4.5, Notification of Emergency Conditions to be provided to State/County Warning Points.

- 3.5 The Emergency Coordinator in direct contact with the Technical Support Center and the Crisis Management Center will assess and respond to the emergency by:
- 3.5.1 Dispatching the Onsite and Offsite Monitoring teams with associated communications.
 - 3.5.2 Providing meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.
 - 3.5.3 Providing release and dose projections based on available plant condition information and foreseeable contingencies to offsite authorities.

NOTE

In the event a release or potential release of radioactive materials is a threat to plant personnel or members of the general public, the Emergency Coordinator shall request Health Physics personnel to evaluate the consequences utilizing the appropriate Health Physics procedure, HP/O/B/1009/05, HP/O/B/1009/06, HP/O/B/1009/08, HP/O/B/1009/09, HP/O/B/1009/10.

3.6 The Emergency Coordinator shall provide protective action recommendations as necessary to the affected county warning point(s) and to the North Carolina Warning Point (Emergency Operations Centers if established) or the Radiological Protection Section, Department of Human Resources (see Enclosure 4.4, Telephone Listing) as directed by the state in accordance with the North Carolina Radiological Emergency response plan. If evaluation indicates that a potential for or an actual release of radioactive materials will result in a projected dose (REM) to the population of: (EPA Protective Action Guidelines).

3.6.1 Whole body <1, thyroid <5, NO protective action is required. Monitor environmental radiation levels to verify.

3.6.2 Whole body 1 to <5, thyroid 5 to <25, recommend seeking shelter and wait for further instructions, consider evacuation particularly for children and pregnant women. Monitor environmental radiation levels and adjust areas for mandatory evacuation based on these levels. Control access to affected areas.

3.6.3 Whole body 5 and above, thyroid 25 and above, recommend mandatory evacuation of populations in the affected areas. Monitor environmental radiation levels and adjust areas for mandatory evacuation based on these levels. Control access to affected areas.

NOTE

See Enclosure 4.4, Telephone Listing for notification.

3.7 The Emergency Coordinator in coordination with the Recovery Manager, at the Crisis Management Center, will provide or make available:

3.7.1 A dedicated individual for plant status updates to offsite authorities and periodic press briefings.

3.7.2 Senior technical and management staff onsite available for consultation with the NRC and State on a periodic basis.

- 3.8 The Emergency Coordinator in coordination with Recovery Manager at the Crisis Management Center, will assess the emergency condition and determine the need to remain in a Site Area Emergency, escalate to a more severe class, reduce the emergency class, or close out the emergency.
- 3.9 The Recovery Manager at the Crisis Management Center will close out or recommend reduction of the emergency class, by briefing offsite authorities at the Crisis Management Center or by phone if necessary, followed by written summary within 8 hours.

4.0 Enclosures

- 4.1 Emergency Classification Guide Flowchart
- 4.2 List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/Document.
- 4.3 Notification Chart.
- 4.4 Telephone Listing.
- 4.5 Notification of Emergency Conditions.
- 4.6 Crisis Management Center Activation Format.

THE AGM INCY CLASSIFICATION GUIDE #1 (OCEANIA)

LIST OF INITIATING CONDITIONS, EMERGENCY ACTION LEVELS, AND
ASSOCIATED EMERGENCY PROCEDURE/DOCUMENT

Initiating Condition	Emergency Action Level (EAL)	Emergency Procedure/Document	
4.1.1	Known loss of coolant accident greater than makeup pump capacity.	Pressurizer low pressure reactor trip and pressurizer low pressure safety injection signal and high containment building pressure. (INSP5040, 5050, 5060, 5070) and high containment building sump level. (INIP5260, 5270) and high containment humidity. (INSP5400, 5410) and EMP 38, 39, and 40 alarm.	EP/1/A/5000/02
4.1.2	Degraded core with possible loss of coolable geometry indicators should include instrumentation to detect inadequate core cooling, coolant activity and/or containment radioactivity levels).	Valid readings on incore thermocouples above 700°F and ΔT rapidly increasing or no ΔT across core.	EP/1/A/5500/03
4.1.3	Rapid failure of steam generator tubes with loss of offsite power (e.g., several hundred kpa primary to secondary leak rate).	Kapid failure of steam generator tubes with loss of offsite power (e.g., several hundred kpa primary to secondary leak rate).	EP/1/A/5000/04, AP/1/A/5500/07
		Pressurizer low pressure alarm and reactor trip, and pressurizer low level alarm, and EMP 32, 33, and 34 alarm, and undervoltage alarms on 7KV buses, and steam generator water level rapidly increasing in one or more steam generators falling in the others, and pressurizer level rapidly decreasing. (INCP5151, 5160, 5172) and possible lifting of steam generator PRV's and/or safety valves.	

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.4 Steam line break with greater than 50gpm primary to secondary leakage and indication of fuel damage.	Rapidly decreasing reactor coolant Tavg, pressurizer pressure and level. Steam line differential pressure safety injection signal, and High containment building pressure, if steamline break is in containment (INSP5040, 5050, 5060, 5070) and EHP 51A and/or B alarm, or high steam flow and LO LO Tavg or low steam pressure safety injection signal, and EHP 48 alarm.	EP/1/A/5000/03
4.2.5 Loss of offsite power and loss of onsite AC power for more than 15 minutes.	Undervoltage alarms on 7KV buses.	AP/1/A/5500/07
4.2.6 Loss of all vital onsite DC power for more than 15 minutes.	Blackout load sequencers actuated, DC bus undervoltage all buses and indications as in 4.2.5 above.	Tech Specs 3/8.2.3, 3/8.2.4
4.2.7 Complete loss of any function needed for plant hot shutdown.	Inability to establish charging pump injection, and Inability to establish emergency feedwater flow, or Inability to establish service water flow, and Inability to establish component cooling water flow.	OP/1/A/6100/04, AP/1/A/5500/17
4.2.8 Transient requiring operation of shutdown systems with failure to scram (continued power generation but no core damage immediately evident).	Reactor remains critical after all attempts to trip reactor have been completed.	EP/1/A/5000/01, AP/C/A/5500/34
4.2.9 Major damage to spent fuel in containment or fuel handling building (e.g., large object foreign fuel or water level below fuel level).	Observation of major damage to one or more spent fuel assemblies, or spent fuel pool water below fuel level, or EMF16, 17, 38, 39, 40, or 42 alarm.	AP/1/A/5500/25

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.10 Fire compromising the function of safety systems.	Observation of a major fire that defeats redundant safety system or function.	Tech Specs 3/6.5, Station Directive 2.11 Series
4.2.11 Most or all alarms (annunciators) lost and plant transient initiated or in progress.	As determined by the Shift Supervisor/ Emergency Coordinator.	OP/0/A/6350/01A
4.2.12 Effluent monitors detect levels corresponding to greater than 50 mr/hr for 1/2 hour or greater than 500 mr/hr W.B. for two minutes (or five times these levels to the thyroid) at the site boundary <u>for adverse meteorology</u> (See Note 2).	For EMF35 Low Range, offscale; High Range 8×10^3 cpm. (See Note 1) For EMF36 Low Range 3×10^5 cpm High Range 7×10^5 cpm (See Note 1) For EMF37 Change of 143 cpm/minute for 30 minutes or a change of 1430 cpm/minute for 2 minutes (See Note 1).	HP/0/B/1009/05, HP/0/B/1004/09

NOTE 1: These values are worst case calculations and may not reflect more favorable weather conditions.

NOTE 2: These dose rates are projected based on other plant parameters (e.g., radiation level in containment with leak rate appropriate for existing containment pressure) or are measured in the environs. (EPA Protective Action Guidelines are projected to be exceeded outside the site boundary).

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.13 Imminent loss of physical control of plant.	Physical attack on the plant involving imminent occupancy of control room and auxiliary shutdown panels.	Station Security Plan
4.2.14 Severe natural phenomena being experienced or projected with plant not in cold shutdown.		AP/D/A/5500/29, AP/D/A/5500/30
4.2.14.1		
Earthquake greater than SSE (Safe Shutdown Earthquake) levels.	(>.15gH, >.1gV) as determined by monitoring seismic instrumentation and recording devices. (SMF-1)	
4.2.14.2		
Flood, low water, hurricane surge, seiche greater than design levels (lake tidal waves) or failure of protection of vital equipment at lower levels.	As determined by Shift Supervisor/Emergency Coordinator.	
4.2.14.3		
Sustained winds or tornadoes in excess of design levels.	(>95mph) as observed or documented by the National Weather Service Information.	
4.2.15 Other hazards being experienced or projected with plant not in cold shutdown.		AP/D/A/5500/32, AP/D/A/5500/31

Irritating Conditions

Emergency Action Level (EAL)

Emergency Procedure/Document

4.2.15.1

Aircraft crash affecting vital structures by impact or fire.

Aircraft crash causing damage or fire to: Containment Building, Control Room, Auxiliary Building, Fuel Building, or Intake Structure.

4.2.15.2

Severe damage to safe shutdown equipment from missiles or explosion.

Loss of functions needed for hot shutdown as in 4.2.7.

4.2.15.3

Entry of uncontrolled flammable gases into vital areas. Entry of uncontrolled toxic gases into vital areas where lack of access to the area constitutes a safety problem.

Entry of uncontrolled or toxic or flammable gases into: Control Room, Cable Spreading Room, Containment Building, Switchgear Room, Safe Shutdown Panels or Diesel Rooms.

4.2.16

Other plant conditions exist that in the judgement of the Shift Supervisor, the Operations Duty Engineer, the Superintendent of Operations, or the Plant Manager warrant activation of emergency centers and monitoring teams and a precautionary public notification to the public near the site.

As determined by Shift Supervisor/Emergency Coordinator.

As dictated by Plant Conditions.

Initial Conditions

Emergency Action Level (EAL)

Emergency Procedure / [Redacted]

Evaluation of control room and control of shutdown systems not established from local stations in 15 minutes.

As determined by Shift Supervisor /

OP/0/A/b350/02, AP/1/A/5/line 1

NOTIFICATION/ACTIVATION
GENERAL EMERGENCY

Notify/Activate the following personnel/or Emergency Centers for all Initiating Conditions listed in Enclosure 4.2. (See Enclosure 4.4 for Telephone Listing)

NOTIFY/ACTIVATE

NOTIFICATION COMPLETE-INITIAL

Shift Supervisor

Operations Duty Engineer

Station Manager

Superintendent of Operations

Superintendent of Technical Services

Projects and Licensing Engineer

Station Health Physicist

North Carolina State Warning Point

Mecklenburg County Warning Point

Lincoln County Warning Point

Catawba County Warning Point

Iredell County Warning Point

Gaston County Warning Point

Cabarrus County Warning Point

South Carolina State Warning Point

N.R.C. via ENS (Red Phone)

N.R.C. Station Representative

Superintendent of Maintenance

Superintendent of Administration

Construction Project Manager

Activate T.S.C. (Station Directive 3.8.2)

Activate O.S.C. (Station Directive 3.8.2)

Activate C.M.C. (Enclosure 4.4, Enclosure 4.6)

TELEPHONE LISTING

..... Operations Duty Engineer (PA System)
PAI Pager -

4.4.1 Station Manager
Home - - System Speed -
Home - - System Speed -

4.4.2 Superintendent of Operations -
Home - - System Speed

4.4.4 Superintendent of Technical Services -
Home - - System Speed

4.4.5 Projects and Licensing Engineer
Home - System Speed

4.4.6 Station Health Physicist -
Home - - System Speed -
PAI Pager

4.4.7 NC State Warning Point, Raleigh - - System Speed

4.4.8 Mecklenburg County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: -

4.4.9 Lincoln County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: -

4.4.10 Catawba County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: -

4.4.11 Iredell County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: -

4.4.12 Gaston County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: -

4.4.13 Cabarrus County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: -

NOTE

Radio Code 30 will activate
all county radio units.

TELEPHONE LIST

- 4.4.14 SC State Warning Point -
- 4.4.15 N.R.C. Operation Center, Emergency Notification System (ENS Phone)
- 4.4.16 N.R.C. Station Representative
Office -
Home -
Wife work -
P&V Pager - System Speed -
- System Speed
- 4.4.17 Construction Project Manager Construction , Ext.
Home : - System Speed
- System Speed -
- 4.4.18 Superintendent of Maintenance -
Home - - System Speed -
- 4.4.19 Superintendent of Administration -
Home - - System Speed -
- 4.4.20 CRISIS MANAGEMENT CENTER ACTIVATION
- Hal B. Tucker Office:
or Home: - System Speed -
- J. Ed Smith Office:
or Home: Extension - System Speed
- J. W. Hampton Office:
or Home: Extension - System Speed -
- E. W. Bostian Office:
or Home: System Speed -
- Steam Production Duty Man - System Speed -
- 4.4.21 Radiation Protection Section, Department of Human Resources -
- System Speed -

McGREGOR NUCLEAR STATION
NOTIFICATION OF EMERGENCY CONDITIONS

4.5.1 Include as a minimum, the following information to the North Carolina State Warning Point, the six County Warning Points, (Mecklenburg, Catawba, Iredell, Lincoln, Gaston, and Cabarrus) and the South Carolina Warning Point.

NOTE 1: See Enclosure 4.4, Telephone Listing

- NOTE 2: A. Complete Part I of this format as a minimal first notification of a reportable incident.
B. Complete Part I and II of this format to provide minimal followup information.

PART I: Initial Emergency Message Information

"This is _____.

(Name)

(Title)

ACKNOWLEDGEMENT

Mecklenburg

Gaston

Iredell

Lincoln

Cabarrus

Catawba

at McGuire Nuclear Station. I am notifying you of an incident at McGuire. Unit # _____. Please acknowledge when you are ready to copy emergency information."

1. This is McGuire Nuclear Station.
2. My name is _____.
3. This message (Number ___)
 - a. Reports a real emergency.
 - b. Is an exercise message.
4. My telephone number is _____.
5. Message Authentication _____.
6. The class of emergency is:
 - a. Notification of an Unusual Event
 - b. Alert
 - c. Site Area Emergency
 - d. General Emergency
7. The Classification of Emergency was declared at: _____ on _____.

(A.M. P.M.)

(Date)

8. The initiating event causing the Emergency Classification is:

9. The Emergency Condition (Select one of the below options):
 a. Does not involve the release of radioactive materials from the plant.
 b. Involves the POTENTIAL for a release of but NO release is occurring.
 c. Involves a release of radioactive material.
10. We recommend the following protective action: (select one of the below options)
 a. No protective action is recommended at this time.
 b. People living in zones _____ remain indoors with doors and windows closed.
 c. People in zones _____ EVACUATE their homes and businesses.
 d. Pregnant women and children in zones _____ remain indoors with the doors and windows closed.
 e. Pregnant women and children in zones _____ evacuate to the nearest shelter/reception center.
 f. Other recommendations: _____

11. There will be:
 a. A followup message
 b. No further communications
12. I repeat, this message:
 a. Reports an actual emergency.
 b. Is an exercise message.
13. Relay this information to the person indicated in your alert procedures for an incident at McGuire Nuclear Station.
- NOTE: Record the Name, Title, Date, Time, and Warning Point at end of Part II.

PART III: Followup Emergency Message Information

1. The type of actual or projected release is:

- a. Airborne
- b. Waterborne
- c. Surface spill
- d. Other

2. The source and description of the release is: _____

3. a. Release began/will begin at _____ a.m./p.m.; time since
reactor trip is _____ hours.

b. The estimated duration of the release is _____ hours.

4. Dose projection base data:

Radiological release: _____ curies, or _____ curies/sec.

Wind speed: _____ mph

Wind direction: From _____ °

Stability class: _____ (A,B,C,D,E,F, or G)

Release height: _____ Ft.

Dose conversion factor: _____ R/hr/Ci/M³ (whole body)

_____ R/hr/Ci/M³ (Child Thyroid)

Precipitation _____

Temperature at the site: _____ °F

5. Dose projections:

Dose Commitment

Distance	Whole Body Rem/hour	(Child Thyroid) Rem/hour of inhalation
Site boundary		
2 miles		
5 miles		
10 miles		

Projected Integrated Dose In Rem

Distance	Whole Body	Child Thyroid
Site Boundary		
2 miles		
5 miles		
10 miles		

6. Field measurement of dose rate or contamination (if available):

7. Emergency actions underway at the facility include: _____
8. Onsite support needed from offsite organizations: _____
9. Plant status:
- Reactor is: not tripped/tripped
 - Plant is at: power/hot shutdown/cold shutdown/cooling down
 - Prognosis is: stable/improving/degrading/unknown.
10. I repeat, this message:
- Reports an actual emergency.
 - Is an exercise message.
11. Do you have any questions?

END OF FOLLOW-UP MESSAGE

NOTE: Record the name, title, date, time, and warning point notified.

(1)	<u>Communicator</u> (Name) _____ (Title) _____
	Macklenburg (Date) _____ (Time) _____ (Warning Point) _____
(2)	<u>Communicator</u> (Name) _____ (Title) _____
	Gaston (Date) _____ (Time) _____ (Warning Point) _____
(3)	<u>Communicator</u> (Name) _____ (Title) _____
	Iredell (Date) _____ (Time) _____ (Warning Point) _____
(4)	<u>Communicator</u> (Name) _____ (Title) _____
	Catawba (Date) _____ (Time) _____ (Warning Point) _____
(5)	<u>Communicator</u> (Name) _____ (Title) _____
	Lincoln (Date) _____ (Time) _____ (Warning Point) _____
(6)	<u>Communicator</u> (Name) _____ (Title) _____
	Cabarrus (Date) _____ (Time) _____ (Warning Point) _____
(7)	<u>Communicator</u> (Name) _____ (Title) _____
	North Carolina (Date) _____ (Time) _____ (Warning Point) _____
(8)	<u>Communicator</u> (Name) _____ (Title) _____
	South Carolina (Date) _____ (Time) _____ (Warning Point) _____

CRISIS MANAGEMENT CENTER ACTIVATION FORMAT

1. This is _____ at McGuire Nuclear Station. This is/is not a drill. Open your Crisis Management Plan to Figure E-2 for the following message. Do you have that Figure?
2. My name is _____. I am the _____ (title) at McGuire Nuclear Station and am notifying you of an incident at McGuire Nuclear Station, Unit No. _____.
3. The incident occurred at _____ (Hours) on ____/____/____ (Date).
4. The class of emergency is: _____.
5. The initiating condition causing the emergency is as follows:

6. Release of radioactivity: _____ is taking place _____ is not taking place.
7. Wind direction (blowing from) _____ degrees.
8. Corrective measures being taken at present are as follows:

9. It is recommended that you activate the Crisis Management Center in accordance with the Crisis Management Plan.
10. Do you have any questions?
11. I repeat, this is/is not a drill.
12. Record name of person notified, title, and time notified.

(Name)

(Title)

(Time)

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: EP/0/A/5000/06
Change(s) 0 to
0 Incorporated

(2) STATION: McGuint Nuclear Station

(3) PROCEDURE TITLE: Alert

(4) PREPARED BY: MS. Glenn DATE: 8/18/82

(5) REVIEWED BY: DD Hiller DATE: 8-25-82

Cross-Disciplinary Review By: _____ M/R: 27/24

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: George W. Lutz Date: 8-30-82

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
ALERT

1.0 Symptoms

- 1.1 Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

2.0 Immediate Action

2.1 Automatic

None

2.2 Manual

- 2.2.1 The Shift Supervisor shall be informed of all events initiating this procedure.

3.0 Subsequent Actions

Initial / N/A

- / 3.1 The Shift Supervisor shall assure that the appropriate emergency condition (Notification of Unusual Event, Alert, Site Area Emergency, or General Emergency) is declared by evaluating the actual plant condition with Enclosure 4.1, Emergency Classification Flowchart and Enclosure 4.2, List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/ Document.

- / 3.2 The Shift Supervisor shall ensure that all actions required by the initiating Emergency Procedure will be performed and that all actions necessary for the protection of persons and property are being taken.

NOTE

If at any time in the course of events in this procedure, site evacuation or personnel assembly/accountability appears necessary, refer to Station Directive 3.8.1.

- / 3.3 The Shift Supervisor shall assume the function of the Emergency Coordinator until the arrival of the Station Manager or his designee, at which time the Station Manager or his designee assumes the responsibility of the Emergency Coordinator.

- 3.4 The Emergency Coordinator shall assure prompt (within 15 minutes of declaring the emergency for State and Local authorities) notification of those personnel, and Warning Points and shall activate those Emergency Centers indicated on Enclosure 4.3 for the appropriate Initiating Condition/Emergency Procedure listed in Enclosure 4.2.

NOTE 1

Activation of the Technical Support Center (TSC), and Operations Support Center (OSC) shall be in accordance with Station Directive 3.8.2. Activation of the Crisis Management Center (CMC) shall be in accordance with Enclosure 4.6.

NOTE 2

See Enclosure 4.4, Telephone Listing, for notification, telephone numbers/radio codes/pager codes.

NOTE 3

See Enclosure 4.5, Notification of Emergency Conditions, for information to be provided to State/County Warning Points.

- 3.5 The Emergency Coordinator in direct contact with the Technical Support Center and the Crisis Management Center will assess and respond to the emergency by:

- 3.5.1 Dispatching onsite monitoring teams with associated communications equipment.
- 3.5.2 Providing periodic plant status updates to offsite authorities (at least every 15 minutes).
- 3.5.3 Providing periodic meteorological assessments to offsite authorities and, if any releases are occurring, dose estimates for actual releases.

NOTE

In the event a release or potential release of radioactive materials is a threat to plant personnel or members of the general public, the Emergency Coordinator shall request Health Physics personnel to evaluate the consequences utilizing the appropriate Health Physics procedure. HP/O/B/1009/05, HP/O/B/1009/06, HP/O/B/1009/08, HP/O/B/1009/09, or HP/O/B/1009/10.

- 3.6 The Emergency Coordinator shall provide protective action recommendations as necessary to the affected county warning point(s) and to the North Carolina warning point (Emergency Operations Centers if established) or to the state Radiological Protection Section, Department of Human Resources (See Enclosure 4.4, Telephone Listing) as directed by the state in accordance with the North Carolina Radiological Emergency response plan. If evaluation indicates that a potential for or an actual release of radioactive materials will result in a projected dose (REM) to the population of: (EPA Protective Action Guidelines).
- 3.6.1 Whole body <1, thyroid <5, NO protective action is required. Monitor environmental radiation levels to verify.
- 3.6.2 Whole body 1 to <5, thyroid 5 to <25, recommend seeking shelter and wait for further instructions. Consider evacuation particularly for children and pregnant women. Monitor environmental radiation levels. Control access to affected areas.
- 3.6.3 Whole body 5 and above, thyroid 25 and above, recommend mandatory evacuation of populations in the affected areas. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access to affected areas.

NOTE

See Enclosure 4.4 for Telephone Listing for notification.

- 3.7 The Emergency Coordinator in coordination with the Recovery Manager at the Crisis Management Center, will assess the emergency condition and determine the need to remain in an Alert Status, escalate to a more severe class, reduce the emergency class or close out the emergency.
- 3.8 The Station Manager or his designee will close out the Emergency with a verbal summary to County and State authorities notified in Step 3.4, followed by a written summary within 8 hours.

Enclosures

- 1- Emergency Classification Guide Flowchart.
- 2- List of Initiating Conditions, Emergency Action Levels, and associated Emergency Procedure/Document.
- 3- Notification Chart.
- 4- Telephone Listing.
- 5- Notification of Emergency Conditions.
- 6- Crisis Management Center Activation Format.

Lungevity Clinical Group | Lungevity

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- Bereich unterhalb der 1000 m LSN. In
der Cuckoo und Dornbuschzone
liegt ein Bereich mit einem Wasserspiegel von
ca. 900 m ü. NN. Dieser Bereich ist
als FELSICHE TIEFLAND- BODEN ZONE
bezeichnet. Die Böden sind hier
durchaus recht trocken und haben
eine sehr geringe Wasserdurchlässigkeit.
Hieraus resultiert eine hohe
Schwundneigung.

THE JOURNAL OF CLIMATE AND APPLIED CLIMATE SCIENCE

Die Ergebnisse der Untersuchungen sind in Tabelle 1 zusammengefaßt. Die Ergebnisse der Untersuchungen zeigen, daß die Verteilung der Schadstoffe im Boden und in den Pflanzen nicht gleichmäßig ist. Die Konzentrationen der Schadstoffe sind in den oberen Schichten des Bodens am höchsten. Die Konzentrationen der Schadstoffe in den unteren Schichten des Bodens sind niedriger. Die Konzentrationen der Schadstoffe in den Pflanzen sind ebenfalls nicht gleichmäßig verteilt. Die Konzentrationen der Schadstoffe in den oberen Blättern sind höher als in den unteren Blättern. Die Konzentrationen der Schadstoffe in den unteren Blättern sind niedriger. Die Konzentrationen der Schadstoffe in den Stängeln sind niedriger als in den Blättern. Die Konzentrationen der Schadstoffe in den Wurzeln sind niedriger als in den Stängeln.

the first time in the history of our country, we have had a
country-wide strike of miners. The miners of the United States
have shown that they are a powerful factor in the national life.
The miners of the United States have shown that they are a
powerful factor in the national life.

LIST OF INITIATING CONDITIONS, EMERGENCY ACTION LEVELS, AND
ASSOCIATED EMERGENCY PROCEDURE/DOCUMENT

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.1 Severe loss of fuel cladding:	a. Very high coolant activity sample (e.g., 300 pCi/cc equivalent of I-131) b. Failed fuel monitor (RUG-48) or lab analysis indicates increase greater than 1% fuel failures within 30 minutes or 31 total fuel failures.	Tech Specs 3/4.6.7
4.2.2 Rapid gross failure of one Steam Generator tube with loss of off-site power.	Pressuriser low pressure alarm and reactor trip and, pressuriser low level alarm and, pressuriser low pressure safety injection signal and, undervoltage alarm on 7KV buses. GEP 32, 33, and 34 Alarm(s).	EP/1/A/5000/04, AP/1/A/5500/07
4.2.3 Rapid failure of Steam Generator tubes.	Several hundred GPM primary to secondary leak rate indicated by: a. as above in 4.2.2 for pressuriser and RMP indicators. b. Steam generator level increasing in one or more generator(s) and falling in the others/due to reactor trip.	EP/1/A/5000/04

Emergency Procedure, Document

Emergency Action Level (EAL)

Initiating Conditions

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure, Document
4.2.4	Steam line break with significant primary to secondary leak rate.	Greater than 10 gpm, rapidly decreasing reactor coolant level, pressurizer pressure and level drop. AP/1/A/5000/04, AP/1/A/5000/03
4.2.5	Primary coolant leak rate greater than 30 gpm.	1. Steam line differential pressure safety injection signal and increased containment building pressure/ if break is in containment. 2. High steam flow and low Tong or low steam pressure safety injection signal for reactor downstream of MIV's. AP/1/A/5000/02, AP/1/A/5000/10
4.2.6	High radiation levels or high airborne contamination which indicates a severe degradation in the control of radioactive materials.	Loss of offsite power and loss of all onsite AC power for up to 15 minutes. (See Site Area Emergency AP/0/A/5000/01, for extended loss). AP/0/B/1009/03
4.2.7	Loss of all onsite DC power.	Undervoltage alarm on HV busses, and blackout load sequencers actuated. AP/1/A/5000/07
4.2.8	Contain pump seizure leading to fuel failure.	DC bus undervoltage alarm on all buses. Tech Spec 3/4.8.2.3. Tech Spec 3/4.8.2.4
4.2.9		Reactor coolant pump auto trip alarm, and reactor trip on low coolant flow, and failed fuel monitor alarm DIF48. AP/1/A/5000/04, AP/1/A/5000/08, OP/0/A/6150/14, AP/1/A/55(W)/05

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.10 Complete loss of functions needed for plant cold shutdown.	EHR not functional and inability to sustain natural or forced circulation.	AP/1/A/5500/17, OP/1/A/6100/04
4.2.11 Failure of the reactor protection system to initiate and complete a scram which brings the reactor subcritical.	Reactor remains critical after all attempts to trip reactor have been completed.	AP/0/A/5500/34
4.2.12 Fuel damage accident with release of radioactivity to containment or fuel handling building.	Observation of damage to spent fuel assembly, <u>and</u> 1. EHF-16 and 17 alarm. 2. EHF-38, 39, 40, or 42 alarm.	AP/1/A/3500/25
4.2.13 Fire potentially affecting safety systems.	Observation of a fire that could affect safety systems.	Station Directive 2.11 Series, Tech Specs 3/4.5
4.2.14 Most or all alarms (annunciators) lost.	As observed.	OP/0/A/6350/01A
4.2.15 Radiological effluents greater than 30 times Tech Specs Instantaneous limits (an instantaneous rate which, if continued over 2 hours, would result in about 1mR at the site boundary under average meteorological conditions or whenever effluent monitors or radiological monitoring detect these levels).	For EHF35 - Low Range offscale High Range 1×10^6 cpm For EHF36 - Low Range 2×10^6 cpm High Range 5×10^6 cpm	HP/0/B/1009/05
4.2.16 Ongoing security compromise. As reported by Security force.		Station Security Plan

Initiating Conditions Emergency Action Level (EAL) Emergency Procedure / Document

4.2.17	Severe natural phenomena being experienced or projected.	AP/0/A/5500/30, AP/0/A/5500/29
a.	Earthquake greater than operational Baseline Earthquake Levels	AP/0/A/5500/31, AP/0/A/5500/28, Annular Alert (AD-1),
b.	Flood, low water, hurricane surge, seiche near design levels. (Lake tidal wave)	As observed.
c.	Any tornado striking facility.	As observed.
d.	Hurricane winds near design baseline level, other hazards being experienced or projected.	As observed (95 mph) from National Weather Service Information.
e.	Aircraft crash on facility.	As observed.
f.	Hazard impacts from whatever source on facility.	As observed.
g.	Large explosion damage to facility affecting plant operation.	As observed.
h.	Entry into facility involving evolution of toxic or flammable gases.	As observed.
i.	Turbine failure causing casing penetration.	Turbine trip and observation of turbine malfunction or failure.

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.19 Other plant conditions exist that in the judgment of the Shift Supervisor, the Operations Duty Engineer, the Superintendent of Operations, or the Plant Manager warrant precautionary activation of the Technical Support Center and near site Crisis Management Center.	As determined by Shift Supervisor/ Emergency Coordinator.	As dictated by Plant Conditions.
4.2.20 Evacuation of control room anticipated or required with control of shutdown systems established from local station.	As determined by Shift Supervisor/ Emergency Coordinator.	AP/1/A/5500/17, OP/1/A/6100/04

NOTIFICATION/ACTIVATION
ALERT

Notify/Activate the following personnel/or Emergency Centers for all Initiating Conditions listed in Enclosure 4.1. (See Enclosure 4.4 for Telephone Listing)

NOTIFY/ACTIVATE

NOTIFICATION COMPLETE-INITIAL

Shift Supervisor

Operations Duty Engineer

Station Manager

Superintendent of Operations

Superintendent of Technical Services

Projects and Licensing Engineer

Station Health Physicist

North Carolina State Warning Point

Hickory County Warning Point

Lincoln County Warning Point

Catawba County Warning Point

Iredell County Warning Point

Mecklenburg County Warning Point

K.R.C. via EBS (Bad Phone)

K.R.C. Station Representative

Construction Project Manager

Superintendent of Maintenance

Superintendent of Administration

Activates T.S.C. (Station Directive 3.8.2)

Activates O.S.C. (Station Directive 3.8.2)

Activates C.W.C. (Enclosure 4.4, Enclosure 4.6)

TELEPHONE LISTING

- 4.4.1 Operations Duty Engineer (PA System)
P&T Pager -
- 4.4.2 Station Manager
Home - - System Speed -
Home - - System Speed -
- 4.4.3 Superintendent of Operations -
Home - - System Speed
- 4.4.4 Superintendent of Technical Services -
Home - - System Speed
- 4.4.5 Projects and Licensing Engineer -
Home - - System Speed
- 4.4.6 Station Health Physicist -
Home - - System Speed -
P&T Pager
- 4.4.7 NC State Warning Point, Raleigh - - System Speed -
- 4.4.8 Mecklenburg County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.9 Lincoln County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.10 Catawba County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.11 Iredell County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.12 Gaston County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.13 Cabarrus County Warning Point - Primary: Ring Down Phone
Back-up: - - System Speed
Back-up: Emergency Radio, Code: _

NOTE

Radio Code will activate
all county radio units.

TELEPHONE LIST

4.4.14 S.R.C. Operation Center, Emergency Notification System (EMIS Phone)

4.4.15 S.R.C. Station Representative

Office -

Home -

Work work

FAX Pager

- System Speed -

- System Speed

4.4.16 Construction Project Manager Construction

Ext.

Home :

- System Speed -

- System Speed

4.4.17 Superintendent of Maintenance

Home -

- System Speed -

4.4.18 Superintendent of Administration

Home -

- System Speed -

4.4.19 CRISIS MANAGEMENT CENTER ACTIVATION

Hal B. Tucker
or

Office:
Home:

- System Speed -

J. Ed Smith
or

Office:
Home:

Extension
- System Speed

J. W. Thompson
or

Office:
Home:

Extension
- System Speed

R. W. Roettke
or

Office:
Home:

- System Speed -

Steam Production Duty Man -

System Speed -

4.4.20 Radiation Protection Section, Department of Human Resources-

- System Speed -

MCRAE NUCLEAR STATION
NOTIFICATION OF EMERGENCY CONDITIONS

a.5.1 Include as a minimum, the following information to the North Carolina State Warning Point, and to the six County Warning Points, (Mecklenburg, Catawba, Iredell, Lincoln, Gaston, and Cabarrus).

NOTE 1: See Enclosure 4.4, Telephone Listing

- NOTE 2: A. Complete Part I of this format as a minimal first notification of a reportable incident.
B. Complete Part I and II of this format to provide minimal followup information.

PART I: Initial Emergency Message Information

ACKNOWLEDGMENT

"This is _____, _____.

(Name) (Title) Mecklenburg _____

at McGuire Nuclear Station. I am notifying you of an incident at McGuire, Unit # _____. Please acknowledge when you are ready to copy emergency information."

1. This is McGuire Nuclear Station. Mecklenburg _____
2. My name is _____ Gaston _____

3. This message (Number ____)
_____ a. Reports a real emergency.
_____ b. Is an exercise message.

4. My telephone number is _____.

5. Message Authentication: _____.

6. The class of emergency is:

- _____ a. Notification of an Unusual Event
_____ b. Alert
_____ c. Site Area Emergency
_____ d. General Emergency

7. The Classification of Emergency was declared at: _____ on
(A.M./P.M.)

(Date)

9. The initiating event causing the Emergency Classification is:

9. The Emergency Condition (Select one of the below options):

- a. Does not involve the release of radioactive materials from the plant.
- b. Involves the POTENTIAL for a release of but NO release is occurring.
- c. Involves a release of radioactive material.

10. We recommend the following protective action: (select one of the below options)

- a. No protective action is recommended at this time.
- b. People living in zones _____ remain indoors with doors and windows closed.
- c. People in zones _____ EVACUATE their homes and businesses.
- d. Pregnant women and children in zones _____ remain indoors with the doors and windows closed.
- e. Pregnant women and children in zones _____ evacuate to the nearest shelter/reception center.
- f. Other recommendations: _____

11. There will be:

- a. A followup message
- b. No further communications

12. I repeat, this message:

- a. Reports an actual emergency.
- b. Is an exercise message.

13. Relay this information to the persons indicated in your alert procedures for an incident at McGuire Nuclear Station.

NOTE: Record the Name, Title, Date, Time, and Warning Point at end of Part II.

PART II: Followup Emergency Message Information

1. The type of actual or projected release is:

- a. Airborne
- b. Waterborne
- c. Surface spill
- d. Other

2. The source and description of the release is: _____

3. a. Release began/will begin at _____ a.m./p.m.; time since
reactor trip is _____ hours.

b. The estimated duration of the release is _____ hours.

4. Dose projection base data:

Radiological release: _____ curies, or _____ curies/sec.

Wind speed: _____ mph

Wind direction: From _____

Stability class: _____ (A,B,C,D,E,F, or G)

Release height: _____ ft.

Dose conversion factor: _____ R/hr/Ci/M³ (whole body)

_____ R/hr/Ci/M³ (Child Thyroid)

Precipitation: _____

Temperature at the site: _____ °F

5. Dose projections:

Dose Commitment

Distance	Whole Body Rem/hour	(Child Thyroid) Rem/hour of inhalation
Site boundary		
2 miles		
5 miles		
10 miles		

Projected Integrated Dose in Rem

Distance	Whole Body	Child Thyroid
Site Boundary		
2 miles		
5 miles		
10 miles		

3. Field measurement of dose rate or contamination (if available):

7. Emergency actions underway at the facility include: _____
8. Onsite support needed from offsite organizations: _____
9. Plant status:
a. Reactor is: not tripped/tripped
b. Plant is at: 1 power/hot shutdown/cold shutdown/cooling down
c. prognosis is: stable/improving/degrading/unknown.
10. I repeat, this message:
 a. Reports an actual emergency.
 b. Is an exercise message.
11. Do you have any questions?

END OF FOLLOW-UP MESSAGE

NOTE: Record the name, title, date, time, and warning point notified.

(1)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Macklenburg</u> (Date) _____ (Time) _____ (Warning Point) _____
(2)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Gaston</u> (Date) _____ (Time) _____ (Warning Point) _____
(3)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Iredell</u> (Date) _____ (Time) _____ (Warning Point) _____
(4)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Catawba</u> (Date) _____ (Time) _____ (Warning Point) _____
(5)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Lincoln</u> (Date) _____ (Time) _____ (Warning Point) _____
(6)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>Cabarrus</u> (Date) _____ (Time) _____ (Warning Point) _____
(7)	<u>Communicator</u> (Name) _____ (Title) _____
	<u>North Carolina</u> (Date) _____ (Time) _____ (Warning Point) _____

CRISIS MANAGEMENT CENTER ACTIVATION FORMAT

This is _____ at McGuire Nuclear Station. This is/is not a drill. Open your Crisis Management Plan to Figure E-2 for the following message. Do you have that Figure?

My name is _____. I am the _____ (title) at McGuire Nuclear Station and am notifying you of an incident at McGuire Nuclear Station, Unit No. ____.

The incident occurred at _____ (Hours) on ____/____/____ (Date).

The class of emergency is: _____.

The initiating condition causing the emergency is as follows: _____

Release of radioactivity: _____ is taking place _____ is not taking place.

Wind direction (blowing from) _____ degrees.

Corrective measures being taken at present are as follows: _____

It is recommended that you activate the Crisis Management Center in accordance with the Crisis Management Plan.

1. Do you have any questions?
2. I repeat, this is/is not a drill.
3. Record name of person notified, title, and time notified.

(Name)

(Title)

(Time)

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: EP/0/A/5000/05
Change(s) 0 to
0 Incorporated

(2) STATION: McGuire Nuclear Station

(3) PROCEDURE TITLE: Notification of Unusual Event

(4) PREPARED BY: M. S. Glover DATE: 8/18/82

(5) REVIEWED BY: A.D. Gilbert DATE: 8-25-82

Cross-Disciplinary Review By: _____ N/R: JDG

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: George W. Page Date: 8-30-82

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
NOTIFICATION OF UNUSUAL EVENT

1.0 Symptoms

- 1.1 This condition exists whenever unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant.

2.0 Immediate Actions

2.1 Automatic

None

2.2 Manual

- 2.2.1 The Shift Supervisor shall be informed of all events initiating this procedure.

3.0 Subsequent Action

Initial/N/A

- / 3.1 The Shift Supervisor shall assure that the appropriate emergency condition (Notification of Unusual Event, Alert, Site Area Emergency, or General Emergency) is declared by evaluating the actual plant condition with Enclosure 4.1, Emergency Classification Flowchart and Enclosure 4.2, List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/ Document.
- / 3.2 The Shift Supervisor shall assure that all actions required by the initiating Emergency Procedure will be performed and that all actions necessary for the protection of persons and property are being taken.

NOTE

If at any time in the course of events in this procedure, site evacuation or personnel assembly/accountability appears necessary, refer to Station Directive 3.8.1.

- / 3.3 The Shift Supervisor shall assume the function of the Emergency Coordinator until the arrival of the Station Manager or his designee at which time the Station Manager or his designee assumes the responsibility of the Emergency Coordinator.

- 3.4 The Emergency Coordinator shall assure prompt (within about 15 minutes of declaring the emergency) notification of those personnel/Warning Points indicated on Enclosure 4.3 for the appropriate Initiating Condition/Emergency Procedure listed in Enclosure 4.2.

NOTE 1.

See Enclosure 4.4, Telephone Listing, for notification, telephone numbers/radio codes/pager codes.

NOTE 2.

See Enclosure 4.5, Notification of Emergency Conditions, for information to be provided to State/County Warning Points.

NOTE 3.

See Enclosure 4.6, Notification of Emergency Conditions for information to be provided to Steam Production Duty Engineer/Corporate Communications Department.

- 3.5 In the event a release or potential release of radioactive materials is a threat to plant personnel or members of the general public the Emergency Coordinator shall request Health Physics personnel to evaluate the consequences utilizing the appropriate Health Physics procedure, HP/O/B/1009/05, HP/O/B/1009/06, HP/O/B/1009/08, HP/O/B/1009/09 or HP/O/B/1009/10.

- 3.6 The Emergency Coordinator shall provide protective action recommendations as necessary to the affected county warning point(s) and to the North Carolina warning point (Emergency Operations Centers if established) or the State Radiological Protection Section, Department of Human Resources (see Enclosure 4.4 Telephone Listing) as directed by the state in accordance with the North Carolina Radiological Emergency Response Plan. If actual release of radioactive materials will result in a projected dose (REM) to the population of: (EPA Protective Action Guidelines):
- 3.6.1 Whole body <1, thyroid <5, NO protective action is required. Monitor environmental radiation levels to verify.

- 3.6.2 Whole body 1 to <5, thyroid 5 to <25, recommend seeking shelter and wait for further instructions. Consider evacuation particularly for children and pregnant women. Monitor environmental radiation levels. Control access to affected areas.
- 3.6.3 Whole body 5 and above, thyroid 25 and above, recommend mandatory evacuation of populations in the affected areas. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access to affected areas.

NOTE

See Enclosure 4.4, Telephone Listing for notification.

- 3.7 The Emergency Coordinator shall augment on shift resources to assess and respond to the emergency situation as needed to ensure the protection of persons and property.
- 3.8 The Emergency Coordinator 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.
- 3.9 The Projects and Licensing Engineer or his designee will close out the Emergency with verbal summary to county and State authorities, specified in Step 3.4, followed by written summary within 24 hours.

4.0 Enclosures

- 4.1 Emergency Classification Guide Flowchart
- 4.2 List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/Document.
- 4.3 Notification Chart
- 4.4 Telephone Listing
- 4.5 Notification of Emergency Conditions.
- 4.6 Notification of Emergency Conditions (Steam Production Duty Engineer/Corporate Communication Department).

FORMality CLASSIFICATION GUIDE F10NCHART

ITEM	ITEM NUMBER	ITEM DESCRIPTION	ITEM NUMBER	ITEM DESCRIPTION	ITEM NUMBER	ITEM DESCRIPTION
1.	1.1	1.1.1	1.1.1.1	1.1.1.1.1	1.1.1.1.1.1	1.1.1.1.1.1.1
2.	2.1	2.1.1	2.1.1.1	2.1.1.1.1	2.1.1.1.1.1	2.1.1.1.1.1.1
3.	3.1	3.1.1	3.1.1.1	3.1.1.1.1	3.1.1.1.1.1	3.1.1.1.1.1.1
4.	4.1	4.1.1	4.1.1.1	4.1.1.1.1	4.1.1.1.1.1	4.1.1.1.1.1.1
5.	5.1	5.1.1	5.1.1.1	5.1.1.1.1	5.1.1.1.1.1	5.1.1.1.1.1.1
6.	6.1	6.1.1	6.1.1.1	6.1.1.1.1	6.1.1.1.1.1	6.1.1.1.1.1.1
7.	7.1	7.1.1	7.1.1.1	7.1.1.1.1	7.1.1.1.1.1	7.1.1.1.1.1.1
8.	8.1	8.1.1	8.1.1.1	8.1.1.1.1	8.1.1.1.1.1	8.1.1.1.1.1.1
9.	9.1	9.1.1	9.1.1.1	9.1.1.1.1	9.1.1.1.1.1	9.1.1.1.1.1.1
10.	10.1	10.1.1	10.1.1.1	10.1.1.1.1	10.1.1.1.1.1	10.1.1.1.1.1.1
11.	11.1	11.1.1	11.1.1.1	11.1.1.1.1	11.1.1.1.1.1	11.1.1.1.1.1.1
12.	12.1	12.1.1	12.1.1.1	12.1.1.1.1	12.1.1.1.1.1	12.1.1.1.1.1.1
13.	13.1	13.1.1	13.1.1.1	13.1.1.1.1	13.1.1.1.1.1	13.1.1.1.1.1.1
14.	14.1	14.1.1	14.1.1.1	14.1.1.1.1	14.1.1.1.1.1	14.1.1.1.1.1.1
15.	15.1	15.1.1	15.1.1.1	15.1.1.1.1	15.1.1.1.1.1	15.1.1.1.1.1.1
16.	16.1	16.1.1	16.1.1.1	16.1.1.1.1	16.1.1.1.1.1	16.1.1.1.1.1.1
17.	17.1	17.1.1	17.1.1.1	17.1.1.1.1	17.1.1.1.1.1	17.1.1.1.1.1.1
18.	18.1	18.1.1	18.1.1.1	18.1.1.1.1	18.1.1.1.1.1	18.1.1.1.1.1.1
19.	19.1	19.1.1	19.1.1.1	19.1.1.1.1	19.1.1.1.1.1	19.1.1.1.1.1.1
20.	20.1	20.1.1	20.1.1.1	20.1.1.1.1	20.1.1.1.1.1	20.1.1.1.1.1.1
21.	21.1	21.1.1	21.1.1.1	21.1.1.1.1	21.1.1.1.1.1	21.1.1.1.1.1.1
22.	22.1	22.1.1	22.1.1.1	22.1.1.1.1	22.1.1.1.1.1	22.1.1.1.1.1.1
23.	23.1	23.1.1	23.1.1.1	23.1.1.1.1	23.1.1.1.1.1	23.1.1.1.1.1.1
24.	24.1	24.1.1	24.1.1.1	24.1.1.1.1	24.1.1.1.1.1	24.1.1.1.1.1.1
25.	25.1	25.1.1	25.1.1.1	25.1.1.1.1	25.1.1.1.1.1	25.1.1.1.1.1.1
26.	26.1	26.1.1	26.1.1.1	26.1.1.1.1	26.1.1.1.1.1	26.1.1.1.1.1.1
27.	27.1	27.1.1	27.1.1.1	27.1.1.1.1	27.1.1.1.1.1	27.1.1.1.1.1.1
28.	28.1	28.1.1	28.1.1.1	28.1.1.1.1	28.1.1.1.1.1	28.1.1.1.1.1.1
29.	29.1	29.1.1	29.1.1.1	29.1.1.1.1	29.1.1.1.1.1	29.1.1.1.1.1.1
30.	30.1	30.1.1	30.1.1.1	30.1.1.1.1	30.1.1.1.1.1	30.1.1.1.1.1.1
31.	31.1	31.1.1	31.1.1.1	31.1.1.1.1	31.1.1.1.1.1	31.1.1.1.1.1.1
32.	32.1	32.1.1	32.1.1.1	32.1.1.1.1	32.1.1.1.1.1	32.1.1.1.1.1.1
33.	33.1	33.1.1	33.1.1.1	33.1.1.1.1	33.1.1.1.1.1	33.1.1.1.1.1.1
34.	34.1	34.1.1	34.1.1.1	34.1.1.1.1	34.1.1.1.1.1	34.1.1.1.1.1.1
35.	35.1	35.1.1	35.1.1.1	35.1.1.1.1	35.1.1.1.1.1	35.1.1.1.1.1.1
36.	36.1	36.1.1	36.1.1.1	36.1.1.1.1	36.1.1.1.1.1	36.1.1.1.1.1.1
37.	37.1	37.1.1	37.1.1.1	37.1.1.1.1	37.1.1.1.1.1	37.1.1.1.1.1.1
38.	38.1	38.1.1	38.1.1.1	38.1.1.1.1	38.1.1.1.1.1	38.1.1.1.1.1.1
39.	39.1	39.1.1	39.1.1.1	39.1.1.1.1	39.1.1.1.1.1	39.1.1.1.1.1.1
40.	40.1	40.1.1	40.1.1.1	40.1.1.1.1	40.1.1.1.1.1	40.1.1.1.1.1.1
41.	41.1	41.1.1	41.1.1.1	41.1.1.1.1	41.1.1.1.1.1	41.1.1.1.1.1.1
42.	42.1	42.1.1	42.1.1.1	42.1.1.1.1	42.1.1.1.1.1	42.1.1.1.1.1.1
43.	43.1	43.1.1	43.1.1.1	43.1.1.1.1	43.1.1.1.1.1	43.1.1.1.1.1.1
44.	44.1	44.1.1	44.1.1.1	44.1.1.1.1	44.1.1.1.1.1	44.1.1.1.1.1.1
45.	45.1	45.1.1	45.1.1.1	45.1.1.1.1	45.1.1.1.1.1	45.1.1.1.1.1.1
46.	46.1	46.1.1	46.1.1.1	46.1.1.1.1	46.1.1.1.1.1	46.1.1.1.1.1.1
47.	47.1	47.1.1	47.1.1.1	47.1.1.1.1	47.1.1.1.1.1	47.1.1.1.1.1.1
48.	48.1	48.1.1	48.1.1.1	48.1.1.1.1	48.1.1.1.1.1	48.1.1.1.1.1.1
49.	49.1	49.1.1	49.1.1.1	49.1.1.1.1	49.1.1.1.1.1	49.1.1.1.1.1.1
50.	50.1	50.1.1	50.1.1.1	50.1.1.1.1	50.1.1.1.1.1	50.1.1.1.1.1.1
51.	51.1	51.1.1	51.1.1.1	51.1.1.1.1	51.1.1.1.1.1	51.1.1.1.1.1.1
52.	52.1	52.1.1	52.1.1.1	52.1.1.1.1	52.1.1.1.1.1	52.1.1.1.1.1.1
53.	53.1	53.1.1	53.1.1.1	53.1.1.1.1	53.1.1.1.1.1	53.1.1.1.1.1.1
54.	54.1	54.1.1	54.1.1.1	54.1.1.1.1	54.1.1.1.1.1	54.1.1.1.1.1.1
55.	55.1	55.1.1	55.1.1.1	55.1.1.1.1	55.1.1.1.1.1	55.1.1.1.1.1.1
56.	56.1	56.1.1	56.1.1.1	56.1.1.1.1	56.1.1.1.1.1	56.1.1.1.1.1.1
57.	57.1	57.1.1	57.1.1.1	57.1.1.1.1	57.1.1.1.1.1	57.1.1.1.1.1.1
58.	58.1	58.1.1	58.1.1.1	58.1.1.1.1	58.1.1.1.1.1	58.1.1.1.1.1.1
59.	59.1	59.1.1	59.1.1.1	59.1.1.1.1	59.1.1.1.1.1	59.1.1.1.1.1.1
60.	60.1	60.1.1	60.1.1.1	60.1.1.1.1	60.1.1.1.1.1	60.1.1.1.1.1.1
61.	61.1	61.1.1	61.1.1.1	61.1.1.1.1	61.1.1.1.1.1	61.1.1.1.1.1.1
62.	62.1	62.1.1	62.1.1.1	62.1.1.1.1	62.1.1.1.1.1	62.1.1.1.1.1.1
63.	63.1	63.1.1	63.1.1.1	63.1.1.1.1	63.1.1.1.1.1	63.1.1.1.1.1.1
64.	64.1	64.1.1	64.1.1.1	64.1.1.1.1	64.1.1.1.1.1	64.1.1.1.1.1.1
65.	65.1	65.1.1	65.1.1.1	65.1.1.1.1	65.1.1.1.1.1	65.1.1.1.1.1.1
66.	66.1	66.1.1	66.1.1.1	66.1.1.1.1	66.1.1.1.1.1	66.1.1.1.1.1.1
67.	67.1	67.1.1	67.1.1.1	67.1.1.1.1	67.1.1.1.1.1	67.1.1.1.1.1.1
68.	68.1	68.1.1	68.1.1.1	68.1.1.1.1	68.1.1.1.1.1	68.1.1.1.1.1.1
69.	69.1	69.1.1	69.1.1.1	69.1.1.1.1	69.1.1.1.1.1	69.1.1.1.1.1.1
70.	70.1	70.1.1	70.1.1.1	70.1.1.1.1	70.1.1.1.1.1	70.1.1.1.1.1.1
71.	71.1	71.1.1	71.1.1.1	71.1.1.1.1	71.1.1.1.1.1	71.1.1.1.1.1.1
72.	72.1	72.1.1	72.1.1.1	72.1.1.1.1	72.1.1.1.1.1	72.1.1.1.1.1.1
73.	73.1	73.1.1	73.1.1.1	73.1.1.1.1	73.1.1.1.1.1	73.1.1.1.1.1.1
74.	74.1	74.1.1	74.1.1.1	74.1.1.1.1	74.1.1.1.1.1	74.1.1.1.1.1.1
75.	75.1	75.1.1	75.1.1.1	75.1.1.1.1	75.1.1.1.1.1	75.1.1.1.1.1.1
76.	76.1	76.1.1	76.1.1.1	76.1.1.1.1	76.1.1.1.1.1	76.1.1.1.1.1.1
77.	77.1	77.1.1	77.1.1.1	77.1.1.1.1	77.1.1.1.1.1	77.1.1.1.1.1.1
78.	78.1	78.1.1	78.1.1.1	78.1.1.1.1	78.1.1.1.1.1	78.1.1.1.1.1.1
79.	79.1	79.1.1	79.1.1.1	79.1.1.1.1	79.1.1.1.1.1	79.1.1.1.1.1.1
80.	80.1	80.1.1	80.1.1.1	80.1.1.1.1	80.1.1.1.1.1	80.1.1.1.1.1.1
81.	81.1	81.1.1	81.1.1.1	81.1.1.1.1	81.1.1.1.1.1	81.1.1.1.1.1.1
82.	82.1	82.1.1	82.1.1.1	82.1.1.1.1	82.1.1.1.1.1	82.1.1.1.1.1.1
83.	83.1	83.1.1	83.1.1.1	83.1.1.1.1	83.1.1.1.1.1	83.1.1.1.1.1.1
84.	84.1	84.1.1	84.1.1.1	84.1.1.1.1	84.1.1.1.1.1	84.1.1.1.1.1.1
85.	85.1	85.1.1	85.1.1.1	85.1.1.1.1	85.1.1.1.1.1	85.1.1.1.1.1.1
86.	86.1	86.1.1	86.1.1.1	86.1.1.1.1	86.1.1.1.1.1	86.1.1.1.1.1.1
87.	87.1	87.1.1	87.1.1.1	87.1.1.1.1	87.1.1.1.1.1	87.1.1.1.1.1.1
88.	88.1	88.1.1	88.1.1.1	88.1.1.1.1	88.1.1.1.1.1	88.1.1.1.1.1.1
89.	89.1	89.1.1	89.1.1.1	89.1.1.1.1	89.1.1.1.1.1	89.1.1.1.1.1.1
90.	90.1	90.1.1	90.1.1.1	90.1.1.1.1	90.1.1.1.1.1	90.1.1.1.1.1.1
91.	91.1	91.1.1	91.1.1.1	91.1.1.1.1	91.1.1.1.1.1	91.1.1.1.1.1.1
92.	92.1	92.1.1	92.1.1.1	92.1.1.1.1	92.1.1.1.1.1	92.1.1.1.1.1.1
93.	93.1	93.1.1	93.1.1.1	93.1.1.1.1	93.1.1.1.1.1	93.1.1.1.1.1.1
94.	94.1	94.1.1	94.1.1.1	94.1.1.1.1	94.1.1.1.1.1	94.1.1.1.1.1.1
95.	95.1	95.1.1	95.1.1.1	95.1.1.1.1	95.1.1.1.1.1	95.1.1.1.1.1.1
96.	96.1	96.1.1	96.1.1.1	96.1.1.1.1	96.1.1.1.1.1	96.1.1.1.1.1.1
97.	97.1	97.1.1	97.1.1.1	97.1.1.1.1	97.1.1.1.1.1	97.1.1.1.1.1.1
98.	98.1	98.1.1	98.1.1.1	98.1.1.1.1	98.1.1.1.1.1	98.1.1.1.1.1.1
99.	99.1	99.1.1	99.1.1.1	99.1.1.1.1	99.1.1.1.1.1	99.1.1.1.1.1.1
100.	100.1	100.1.1	100.1.1.1	100.1.1.1.1	100.1.1.1.1.1	100.1.1.1.1.1.1
101.	101.1	101.1.1	101.1.1.1	101.1.1.1.1	101.1.1.1.1.1	101.1.1.1.1.1.1
102.	102.1	102.1.1	102.1.1.1	102.1.1.1.1	102.1.1.1.1.1	102.1.1.1.1.1.1
103.	103.1	103.1.1	103.1.1.1	103.1.1.1.1	103.1.1.1.1.1	103.1.1.1.1.1.1
104.	104.1	104.1.1	104.1.1.1	104.1.1.1.1	104.1.1.1.1.1	104.1.1.1.1.1.1
105.	105.1	105.1.1	105.1.1.1	105.1.1.1.1	105.1.1.1.1.1	105.1.1.1.1.1.1
106.	106.1	106.1.1	106.1.1.1	106.1.1.1.1	106.1.1.1.1.1	106.1.1.1.1.1.1
107.	107.1	107.1.1	107.1.1.1	107.1.1.1.1	107.1.1.1.1.1	107.1.1.1.1.1.1
108.	108.1	108.1.1	108.1.1.1	108.1.1.1.1	108.1.1.1.1.1	108.1.1.1.1.1.1
109.	109.1	109.1.1	109.1.1.1	109.1.1.1.1	109.1.1.1.1.1	109.1.1.1.1.1.1
110.	110.1	110.1.1	110.1.1.1	110.1.1.1.1	110.1.1.1.1.1	110.1.1.1.1.1.1
111.	111.1	111.1.1	111.1.1.1	111.1.1.1.1	111.1.1.1.1.1	111.1.1.1.1.1.1
112.	112.1	112.1.1	112.1.1.1	112.1.1.1.1	112.1.1.1.1.1	112.1.1.1.1.1.1
113.	113.1	113.1.1	113.1.1.1	113.1.1.1.1	113.1.1.1.1.1	113.1.1.1.1.1.1
114.	114.1	114.1.1	114.1.1.1	114.1.1.1.1</td		

LIST OF INITIATING CONDITIONS, EMERGENCY ACTION LEVELS, AND
ASSOCIATED EMERGENCY PROCEDURE/DOCUMENT

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.1 Emergency Core Cooling Initiated (SI) and discharge to vessel has occurred.	Safety Injection signal verification by redundant indication and indication of discharge to vessel.	EP/1/A/5000/01, EP/1/A/5000/02, EP/1/A/5000/03, EP/1/A/5000/04, AP/1/A/5500/35
4.2.2 Radiological effluent Technical Specification limits exceeded.	EW49, 50, 35, 36, 37 Alarm indicating Technical Specification Limits exceeded.	Tech Specs 3/4.11, Environmental Tech Specs, HP/0/B/1009/09, HP/0/B/1009/10, HP/0/B/1009/05
4.2.3 Fuel Damage Indication: a. High coolant activity sample exceeding Tech. Specs.	a. $\geq 1 \mu\text{Ci}/\text{gram}$ Dose Equivalent I-131 or $\geq 100 \mu\text{Ci}/\text{gram}$ gross activity. NOTE: These calculations available from counting facility on request.	AP/1/A/5500/18
4.2.4 Failed fuel monitor indicates increase greater than 0.01 percent fuel failures within 30 minutes.	b. Increase in I-131 concentration by $7\mu\text{Ci}/\text{ml}$ over a 30 minute period, or, I-131 concentration is in the range of $70\mu\text{Ci}/\text{ml}$ to $350\mu\text{Ci}/\text{ml}$ verified by increased EW-48 readings and laboratory analysis.	
4.2.4 Abnormal coolant temperature and/or pressure or abnormal fuel temperature outside of Technical Specification limits.	Figure 2.1-1 Tech Specs exceeded and Core Subcooling Monitor less than acceptable. (Below Curve) Verified as necessary by redundant instrumentation. (e.g., narrow and wide range pressure/temperature subcooling monitors)	AP/1/A/5500/05

Initiating Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.5 Exceeding either primary/secondary leak rate requiring shutdown by Tech. Specs. or primary leak rate requiring shutdown by Tech. Specs.	>1GPM total P/S leakage >500 GPD from any S/G >10GPM Identified Primary Leakage Verified by EMF readings, level control, make-up rate, and/or chemical/radiological analysis.	EP/1/A/5000/02, EP/1/A/5000/04, AP/1/A/5500/10
4.2.6 Failure of a safety or relief valve in a safety related system to close, allowing reduction of applicable pressure. (Primary System (PS) or Main Steam (SM)).	Valid acoustical monitor indication of valve failure.	EP/1/A/5000/02, AP/1/A/5500/11, EP/1/A/5000/03
4.2.7 Loss of offsite power or loss of onsite AC power capability.	Undervoltage alarms on 7KV buses or blackout load sequences actuated.	AP/1/A/5500/07
4.2.8 Loss of containment integrity requiring shutdown by Tech Specs (3/4.6.1).	Any automatic containment isolation valve found to be open and inoperable and uninsolable or both air lock doors on a lock inoperable, or penetration(s) fail leak test per Tech Specs when containment integrity required.	AP/1/A/5500/24
4.2.9 Loss of engineered safety feature or fire protection system function requiring shutdown by Tech Specs (e.g., malfunction, personnel error, or procedural inadequacy).	ESF actuation system found inoperable or Fire Suppression Water System found inoperable per Tech Specs.	AP/1/A/5500/19, AP/1/A/5500/21, AP/1/A/5500/20, Tech Specs 3/4.5, 3/4.7.10, 3/4.7.11

Limiting Conditions

Emergency Action Level (EAL)

Incentive Procedure / Document

			Station Security Plan
4.2.10	Fire within the plant lasting more than 10 minutes.	Indications or alarms on process or effluent para- meters not functional in Control Room to an extent requiring plant shutdown or other significant loss of assessment or communica- tion capability (e.g., all meteorological instruments, radio, or radio networks).	As notified by Security Force.
4.2.11		Security threat or attempted entry or attempted sabotage.	As notified by Security Force.
4.2.12		Natural phenomenon being experienced or projected beyond usual levels.	As observed
4.2.13		a. Any earthquake felt in plant or detected on station seismic in- strumentation. b. 50-year flood or low water, hurricane surge, seiches (lake tidal wave)	(.008gH, <.05gV), Announcer Alarm, (AD-13) As observed
		c. Any tornado on site	As observed
		d. Any hurricane	Winds >73 mph from National Weather Service information.

Initiating Conditions

Emergency Action Level (EAL) Emergency Procedure/Document

- | | | | |
|--------|--|---|--|
| 4.2.14 | other hazards being experienced or projected. | As observed | As directed by plant conditions. |
| a. | Aircraft crash onsite or unusual aircraft activity over facility. | As observed | As determined by the Shift Supervisor / Emergency Coordinator. |
| b. | Train derailment on site. | As observed | |
| c. | Near site or onsite explosion. | As observed | |
| d. | Near site or onsite toxic or flammable gas release. | As observed | |
| e. | Turbine rotating component failure causing rapid plant shutdown (loss of Condenser Heat Sink). | Turbine trip and observation of a turbine malfunction or failure. | AP/0/A/5500/23, AP/0/A/5500/32,
AP/0/A/5500/02 |
| 4.2.15 | other plant conditions exist that in the judgement of the Shift Supervisor, the Operations Duty Engineer, the Superintendent of Operations, or the Station Manager warrant increased awareness on the part of State and/or local officials authorities or require plant shutdown under Tech Specs requirements or involve other than normal controlled shutdown (e.g., cooldown rate exceeding Tech Specs limits, pipe cracking found during operation). | | |

EP/0/A/5980/05
Enclosure 4.7
Page 2 of 2

Initial Conditions	Emergency Action Level (EAL)	Emergency Procedure/Document
4.7.16	Transportation of contaminated injured individual from site to offsite hospital.	AP/0/A/5980/21
4.7.17	Rapid depressurisation of secondary side.	As observed and activation of 4.7.1 and 4.8.6 above. AP/1/A/5980/04

REVIEWS OF BOOKS

INITIATIVES DIVERSIFICATION (11.000 10.000 9.000)

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TELEPHONE LISTING

- 4.4.1 Operations Duty Engineer (PA System)
P&T Pager -
- 4.4.2 Station Manager
Home - - System Speed
Home - - System Speed -
- 4.4.3 Superintendent of Operations -
Home - - System Speed -
- 4.4.4 Superintendent of Technical Services -
Home - - System Speed -
- 4.4.5 Projects & Licensing Engineer -
Home - - System Speed -
- 4.4.6 Steam Production Duty Engineer - - System Speed -
- System Speed -
- 4.4.7 Duke Power Corporate Communications Staff - - System Speed -
(24 hour Answering Service, ask for Mary Cartwright,
Ira Kaplan or Mary Boyd)
- 4.4.8 NC State Warning Point, Raleigh - - System Speed -
- 4.4.9 Mecklenburg County Warning Point - Primary: Ring Down Phone
Back-up: - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.10 Lincoln County Warning Point - Primary: Ring Down Phone
Back-up: - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.11 Catawba County Warning Point - Primary: Ring Down Phone
Back-up: - System Speed -
Back-up: Emergency Radio, Code: _
- 4.4.12 Iredell County Warning Point - Primary: Ring Down Phone
Back-up: - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.13 Gaston County Warning Point - Primary: Ring Down Phone
Back-up: - System Speed
Back-up: Emergency Radio, Code: _
- 4.4.14 Cabarrus County Warning Point - Primary: Ring Down Phone
Back-up: - System Speed
Back-up: Emergency Radio, Code: _

NOTE

Radio Code will activate
all county radio units.

4.4.15 N.R.C. Operation Center, Emergency Notification System (ENS phone)

4.4.16 N.R.C. Senior Station Representative

Office -

Home -

System Speed -

Wife work

- System Speed

PAT Pager

4.4.17 Construction Project Manager: Construction . Ext.
Home - System Speed or

- System Speed

4.4.18 Station Health Physician

Home

System Speed -

PAT Pager

4.4.19 Station Safety Supervisor

Home -

System Speed -

4.4.20 Superintendent of Maintenance -

Home -

System Speed -

4.4.21 Superintendent of Administration -

Home -

- System speed -

4.4.22 Radiation Protection Section Department of Human Resources

- System Speed -

MEASURE NUCLEAR STATION
NOTIFICATION OF EMERGENCY CONDITIONS

4.5.1 Include as a minimum, the following information to the North Carolina State Warning Points, and to the six County Warning Points (Mecklenburg, Catawba, Iredell, Lincoln, Gaston, and Cabarrus).

NOTE 1: See Enclosure 4.4, Telephone Listing

- NOTE 2: A. Complete Part I of this format as a minimal first notification of a reportable incident.
B. Complete Part I and II of this format to provide minimal followup information.

PART I: Initial Emergency Message Information

ACKNOWLEDGEMENT

"This is _____."

(Name)

(Title)

Mecklenburg

at McGuire Nuclear Station. I am notifying you of an incident at McGuire, Unit # _____. Please acknowledge when you are ready to copy emergency information."

Gaston

Iredell

Lincoln

Cabarrus

Catawba

1. This is McGuire Nuclear Station.

2. My name is _____.

3. This message (Number ____)

____ a. Reports a real emergency.

____ b. Is an exercise message.

4. My telephone number is _____.

5. Message Authentication: _____.

6. The class of emergency is:

____ a. Notification of an Unusual Event

____ b. Alert

____ c. Site Area Emergency

____ d. General Emergency

7. The Classification of Emergency was declared at: _____ on

(A.M./P.M.)

_____.

(Date)

8. The initiating event causing the Emergency Classification is:

9. The Emergency Condition (Select one of the below options):

- a. Does not involve the release of radioactive materials from the plant.
- b. Involves the POTENTIAL for a release of but NO release is occurring.
- c. Involves a release of radioactive material.

10. We recommend the following protective action: (select one of the below options)

- a. No protective action is recommended at this time.
- b. People living in zones _____ remain indoors with doors and windows closed.
- c. People in zones _____ EVACUATE their homes and businesses.
- d. Pregnant women and children in zones _____ remain indoors with the doors and windows closed.
- e. Pregnant women and children in zones _____ evacuate to the nearest shelter/reception center.
- f. Other recommendations: _____

11. There will be:

- a. A followup message
- b. No further communications

12. I repeat, this message:

- a. Reports an actual emergency.
- b. Is an exercise message.

13. Relay this information to the persons indicated in your alert procedures for an incident at McGuire Nuclear Station.

NOTE: Record the Name, Title, Date, Time, and Warning Point at end of Part II.

PART II: Followup Emergency Message Information

1. The type of actual or projected release is:

- a. Airborne
- b. Waterborne
- c. Surface spill
- d. Other

2. The source and description of the release is: _____

3. a. Release began/will begin at _____ a.m./p.m.; time since
reactor trip is _____ hours.

b. The estimated duration of the release is _____ hours.

4. Dose projection base data:

Radiological release: _____ curies, or _____ curies/sec.

Wind speed: _____ mph

Wind direction: From _____

Stability class: _____ (A,B,C,D,E,F, or G)

Release height: _____ ft.

Dose conversion factor: _____ R/hr/Ci/M³ (whole body)

_____ R/hr/Ci/M³ (Child Thyroid)

Precipitation _____

Temperature at the site: _____ °F

5. Dose projections:

Dose Commitment

Distance	Whole Body	(Child Thyroid)
	Rem/hour	Rem/hour of inhalation
Site boundary		
2 miles		
5 miles		
10 miles		

Projected Integrated Dose In Rem

Distance	Whole Body	Child Thyroid
Site Boundary		
2 miles		
5 miles		
10 miles		

6. Field measurement of dose rate or contamination (if available):

7. Emergency actions underway at the facility include: _____
8. Onsite support needed from offsite organizations: _____
9. Plant status:
- Reactor is: not tripped/tripped
 - Plant is at: power/hot shutdown/cold shutdown/cooling down
 - Prognosis is: stable/improving/degrading/unknown.
10. I repeat, this message:
- Reports an actual emergency.
 - Is an exercise message.
11. Do you have any questions?

END OF FOLLOW-UP MESSAGE

NOTE: Record the name, title, date, time, and warning point notified.

(1) _____ Communicator
(Name) (Title)

(Date) (Time) Macklenburg
(Warning Point)

(2) _____ Communicator
(Name) (Title)

(Date) (Time) Gaston
(Warning Point)

(3) _____ Communicator
(Name) (Title)

(Date) (Time) Iredell
(Warning Point)

(4) _____ Communicator
(Name) (Title)

(Date) (Time) Catawba
(Warning Point)

(5) _____ Communicator
(Name) (Title)

(Date) (Time) Lincoln
(Warning Point)

(6) _____ Communicator
(Name) (Title)

(Date) (Time) Cabarrus
(Warning Point)

(7) _____ Communicator
(Name) (Title)

(Date) (Time) North Carolina
(Warning Point)

NOTIFICATION OF EMERGENCY CONDITIONS

(Steam Production Duty Engineer/Corporate Communications Department)

1. "This is _____, _____ at
(Name) (Title)
McGuire Nuclear Station. This is/is not a drill. Open your Crisis Management Plan to Figure E-4 for the following message. Do you have that figure?
2. My name is _____. I am the _____
(title) at McGuire Nuclear Station and am notifying you of a Notification of Unusual Event condition associated w/ Unit no. ____.
3. The incident occurred at _____(hours) on ____/____/____ (date).
4. The initiating condition for this Notification of Unusual Event is as follows:

5. Corrective measures being taken at present are as follows:

6. There have/have not been any injuries to plant personnel.
7. Other information on the incident is as follows:

8. I can be reached at _____ (telephone number) for follow-up information.
9. Do you have any questions?
10. Steam Production/Corporate Communication person notified was:
Steam Production _____
Corporate Communication _____
11. I repeat, this is/is not a drill.