Form 34731 (10-81)
(Formerly SPD-1002-1)

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: 9/10/82

(5) REVIEWED BY: [signature] DATE: 9-10-82

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

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: [signature] Date: 9-13-82

(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 Nuclear 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/0/B/1009/05, HP/0/B/1009/06, HP/0/B/1009/08, HP/0/B/1009/09 or HP/0/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, notified 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.

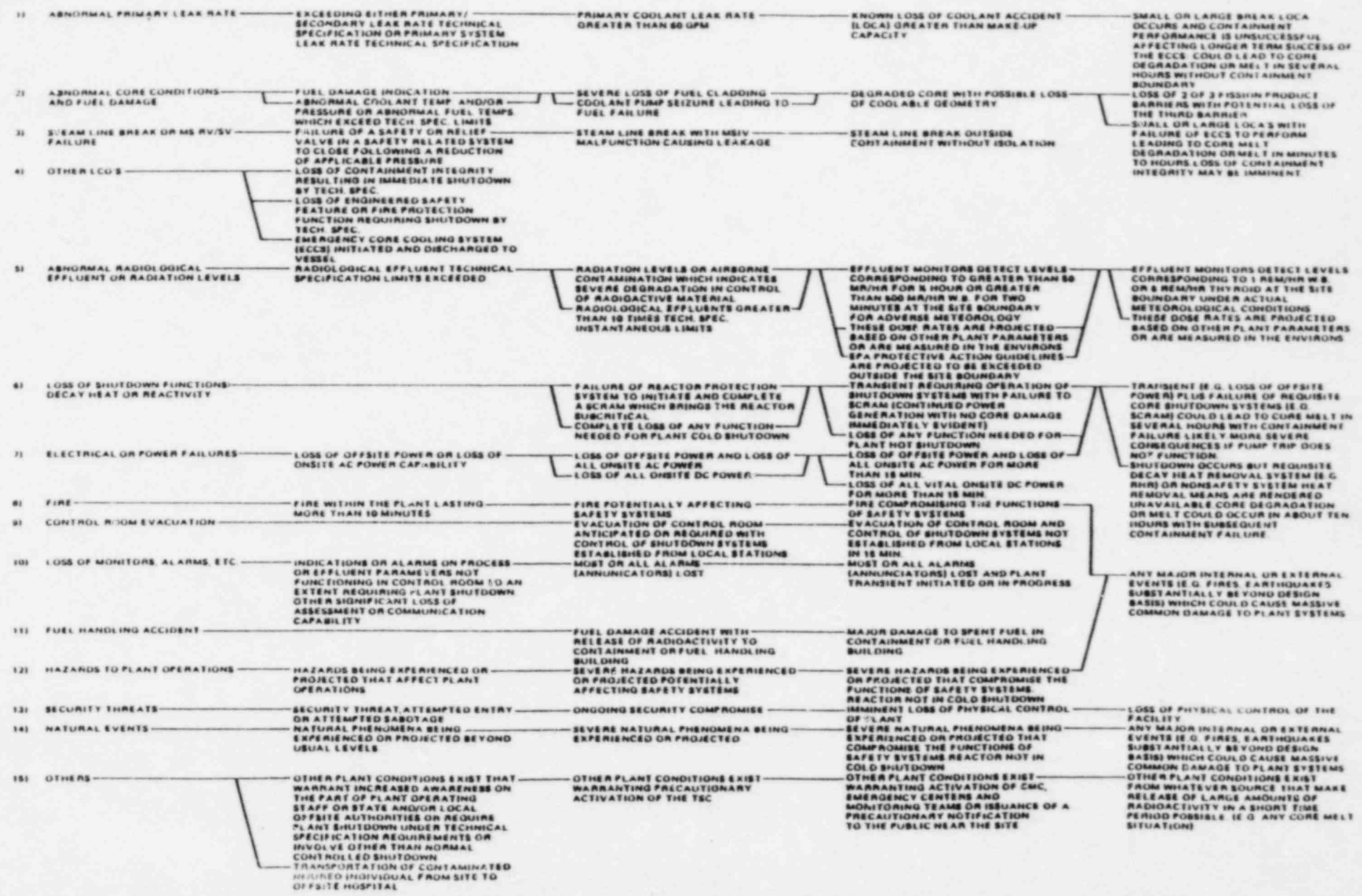
4.3 Notification Chart

4.4 Telephone Listing

4.5 Notification of Emergency Conditions.

4.6 Notification of Emergency Conditions (Nuclear Production Duty Engineer/Corporate Communication Department).

EMERGENCY CLASSIFICATION GUIDE FLOWCHART



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.	EMF49, 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. >1 µCi/gram Dose Equivalent I-131 or $\frac{>100}{E-}$ µCi/gram gross activity. NOTE: These calculations available from counting facility on request.	AP/1/A/5500/18
b.	Failed fuel monitor indicates increase greater than 0.1% equivalent fuel failures within 30 minutes.	b. Increase in I-131 concentration by 7µCi/ml over a 30 minute period, or, I-131 concentration is in the range of 70µCi/ml to 350 µCi/ml verified by increased EMF-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, following reduction of applicable pressure. (Primary System (NC) or Main Steam (SM).	Valid accoustical 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 sequencers 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 unisolable 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

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.10	Fire within the plant lasting more than 10 minutes.	Observation or fire detection alarm with confirming observation of a fire lasting more than 10 minutes.	Station Directive 2.11
4.2.11	Indications or alarms on process or effluent parameters not functional in Control Room to an extent requiring plant shutdown or other significant loss of assessment or communication capability (e.g., all meteorological instrumentation, or radio networks).	Loss of process or effluent radiation monitoring system or Loss of all meteorological instrumentation onsite or Loss of all radio/telephone communications capability offsite.	OP/O/A/6700/03, Tech Specs 3/4.3
4.2.12	Security threat or attempted entry or attempted sabotage.	As notified by Security Force.	Station Security Plan
4.2.13	Natural phenomenon being experienced or projected beyond usual levels.		
	a. Any earthquake felt in plant or detected on station seismic instrumentation.	(<.08gH, <.053gV), Annunciator Alarm, (AD-13)	
	b. 50-year flood or low water, hurricane surge, seiche (lake tidal wave)	As observed	
	c. Any tornado on site	As observed	
	d. Any hurricane	Winds >73 mph/from National Weather Service information.	AP/O/A/5500/29, AP/O/A/5500/30

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.14	Other hazards being experienced or projected.		
	a. Aircraft crash onsite or unusual aircraft activity over facility.	As observed	
	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	AP/O/A/5500/31
	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/O/A/5500/23, AP/O/A/5500/32, AP/O/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 offsite 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).	As determined by the Shift Supervisor/ Emergency Coordinator.	As directed by plant conditions.

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.16	Transportation of contaminated injured individual from site to offsite hospital.	As observed.	AP/0/A/5500/27
4.2.17	Rapid depressurization of secondary side.	As observed and actuation of 4.2.1 and 4.2.6 above.	AP/1/A/5500/06

NOTIFICATION CHART
NOTIFICATION OF UNUSUAL EVENT

INITIATING CONDITIONS (from ENCLOSURE 4.2)

TO BE NOTIFIED	4.2.1	4.2.2	4.2.3	4.2.4	4.2.5	4.2.6	4.2.7	4.2.8	4.2.9	4.2.10	4.2.11	4.2.12	4.2.13	4.2.14	4.2.15	4.2.16	4.2.17	INITIAL
Shift Supervisor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
OPS. Duty Engineer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Station Manager	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Supt. of Operations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Supt. of Tech. Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Project/Licen. Engineer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Nuclear Prod. Duty Eng.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Corporate Communications	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
N.C. State Warning Point	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Mecklenburg Warning Pt.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Catawba Co.Warning Pt.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Lincoln Co. Warning Pt.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Gaston Co. Warning Pt.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Iredell Co. Warning Pt.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Cabarrus Co. Warning Pt.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
NRC Via ENS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
NRC (Station Rep.)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Construction Proj. Mngr.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Station Health Physicist	NO	X	X	NO	X	X*	NO	X	NO	X*	X	NO	X*	X*	X*	X	NO	
Station Safety Supervisor	NO	NO	NO	NO	NO	NO	NO	NO	X	X	NO	NO	X	X	NO	X	NO	
Supt. of Maintenance	NO	NO	NO	NO	NO	X	X	NO	X	X	X	NO	X	X	X	NO	NO	
Supt. of Administration	NO	NO	NO	NO	NO	NO	NO	NO	NO	X	NO	X	NO	NO	NO	NO	NO	

* - Whenever radiological hazards may be involved

X - To be notified

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 Nuclear Production Duty Engineer - - System Speed -
P&T Pager

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 -
P&T Pager

4.4.17 Construction Project Manager: Construction
Home - System Speed
System Speed

4.4.18 Station Health Physicist
Home - System Speed -
P&T 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 -

MCGUIRE 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 ✓ ACKNOWLEDGEMENT

TELEPHONE RESPONSE:

"This is McGuire Nuclear Station. Please acknowledge when you are ready to copy Emergency Information."

Mecklenburg	____
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, 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/M^3 (whole body)

   _____R/hr/Ci/M^3 (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:
   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) _____ Communicator
(Name) (Title)

_____ Mecklenburg
(Date) (Time) (Warning Point)

(2) _____ Communicator
(Name) (Title)

_____ Gaston
(Date) (Time) (Warning Point)

(3) _____ Communicator
(Name) (Title)

_____ Iredell
(Date) (Time) (Warning Point)

(4) _____ Communicator
(Name) (Title)

_____ Catawba
(Date) (Time) (Warning Point)

(5) _____ Communicator
(Name) (Title)

_____ Lincoln
(Date) (Time) (Warning Point)

(6) _____ Communicator
(Name) (Title)

_____ Cabarrus
(Date) (Time) (Warning Point)

(7) _____ Communicator
(Name) (Title)

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

NOTIFICATION OF EMERGENCY CONDITIONS

(Nuclear 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 with 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. Nuclear Production/Corporate Communication person notified was:
Nuclear Production _____.
Corporate Communication _____.
11. I repeat, this is/is not a drill.

Form 34731 (10-81)
(Formerly SPD-1002-1)

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

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

(2) STATION: McGuire Nuclear Station

(3) PROCEDURE TITLE: Alert

(4) PREPARED BY: M. S. Glover DATE: 9/10/82

(5) REVIEWED BY: [signature] DATE: 9-10-82

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

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: [signature] Date: 9-13-82

(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 acutal 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.

4.0 Enclosures

4.1 Emergency Classification Guide Flowchart

4.2 List of Initiating Conditions, Emergency Action Levels, and Associated Emergency Procedure/Document.

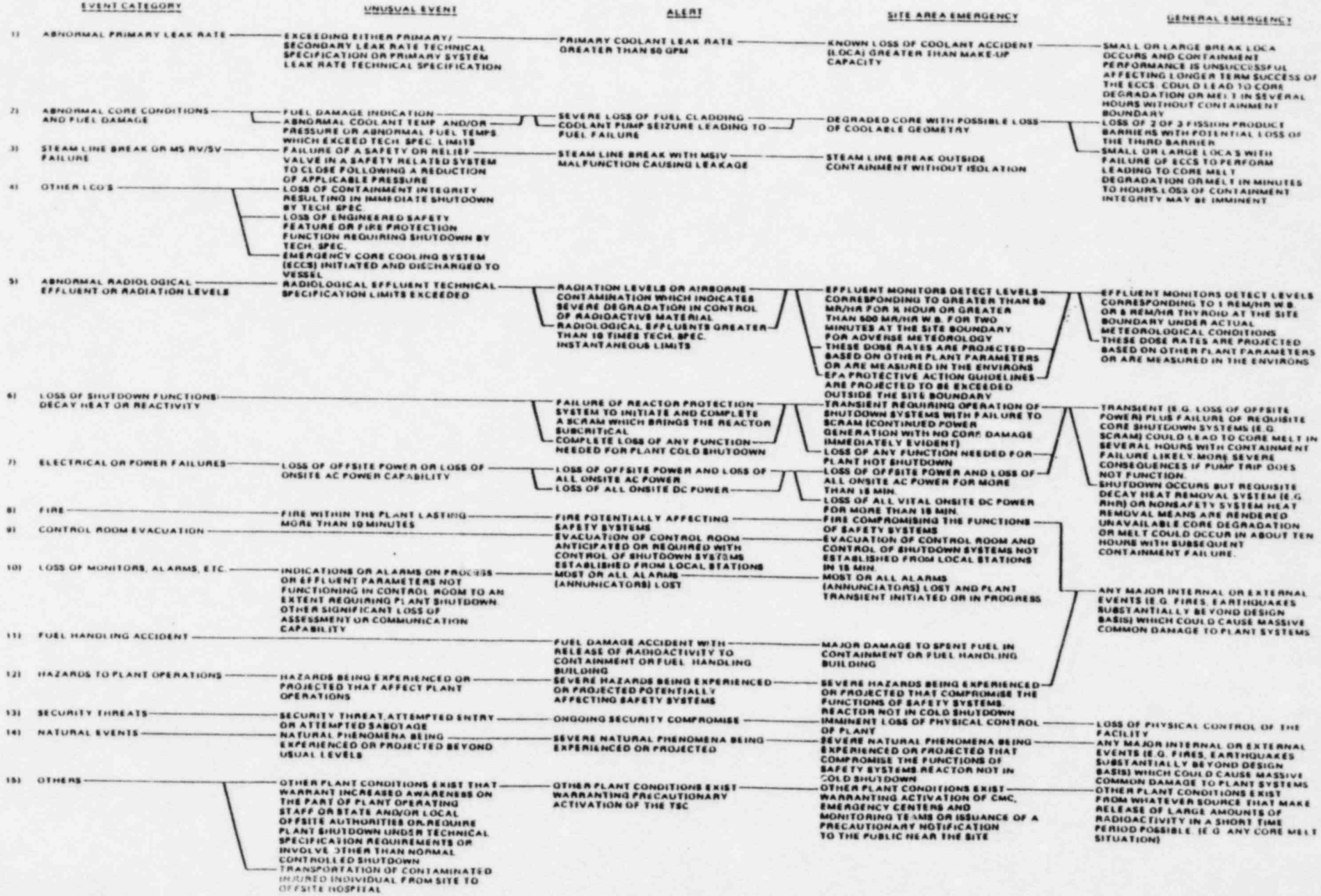
4.3 Notification Chart.

4.4 Telephone Listing.

4.5 Notification of Emergency Conditions.

4.6 Crisis Management Center Activation Format.

EMERGENCY CLASSIFICATION GUIDE FLOWCHART



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 µCi/cc equivalent of I-131)	
		b. Failed fuel monitor (EMF-48) or lab analysis indicates increase greater than 1% fuel failures within 30 minutes or 5% total fuel failure.	Tech Specs 3/4.6.7
4.2.2	Rapid gross failure of one Steam Generator tube with loss of off-site power.	Pressurizer low pressure alarm and reactor trip and, pressurizer low level alarm and, pressurizer low pressure safety injection signal and, undervoltage alarm on 7KV buses. EMF 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:	EP/1/A/5000/04
		a. as above in 4.2.2 for pressurizer and EMF indicators.	
		b. Steam generator level increasing in one or more generator(s) and falling in the others/due to reactor trip.	

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.4	Steam line break with significant primary to secondary leak rate.	Greater than 10gpm, rapidly decreasing reactor coolant Tavg, pressurizer pressure and level and, 1. Steam line differential pressure safety injection signal and increased containment building pressure/ if break is in containment. 2. High steam flow and Lo Lo Tavg or Low steam pressure safety injection signal for rupture downstream of MSIV's.	EP/1/A/5000/04, EP/1/A/5000/03
4.2.5	Primary coolant leak rate greater than 50 gpm.	Leak >50gpm as indicated by calculation or other indication. (i.e., sump levels)	EP/1/A/5000/02, AP/1/A/5500/10
4.2.6	High radiation levels or high airborne contamination which indicates a severe degradation in the control of radioactive materials.	Increase by a factor of 1,000 in radiation monitor reading within the station.	HP/0/B/1009/05
4.2.7	Loss of offsite power and loss of all onsite AC power for up to 15 minutes. (See Site Area Emergency EP/0/A/5000/07, for extended loss).	Undervoltage alarm on 7KV buses, and blackout load sequencers actuated.	AP/1/A/5500/07
4.2.8	Loss of all onsite DC power.	DC bus undervoltage alarms on all buses.	Tech Specs 3/4.8.2.3, Tech Specs 3/4.8.2.4
4.2.9	Coolant pump seizure leading to fuel failure.	Reactor coolant pump auto trip alarm, and reactor trip on low coolant flow, and failed fuel monitor alarm EMF43.	AP/1/A/5500/04, AP/1/A/5500/08, OP/0/A/6150/14, AP/1/A/5500/05

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.10	Complete loss of functions needed for plant cold shutdown.	RHR 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, and 1. EMF-16 and 17 alarm. 2. EMF-38, 39, 40, or 42 alarm.	AP/1/A/5500/25
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 10 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 EMF35 - Low Range offscale High Range 1×10^4 cpm For EMF36 - Low Range 2×10^6 cpm High Range 5×10^2 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 Basis Earthquake Levels	>0.08gH, >.053gV, Annunciator Alarm, (AD-13).	
	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 basis level.	As observed (95 mph)/from National Weather Service information.	
4.2.18	Other hazards being experienced or projected.		AP/0/A/5500/32, AP/0/A/5500/31 AP/1/A/5500/23
	a. Aircraft crash on facility.	As observed.	
	b. Missile impacts from whatever source on facility.	As observed.	
	c. Know explosion damage to facility affecting plant operation.	As observed.	
	d. Entry into facility environs of toxic or flammable gases.	As observed.	
	e. 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 judgement 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 4.2. (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	
N.R.C. via ENS (Red Phone)	
N.R.C. Station Representative	
Construction Project Manager	
Superintendent of Maintenance	
Superintendent of Administration	
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)
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 N.R.C. Operation Center, Emergency Notification System (ENS Phone)

4.4.15 N.R.C. Station Representative
Office -
Home - System Speed -
Wife work - System Speed -
P&T Pager

4.4.16 Construction Project Manager Construction
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 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 -

Nuclear Production Duty Engineer - System Speed
P&T Pager

4.4.20 Radiation Protection Section, Department of Human Resources-
- System Speed -

MCGUIRE 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

TELEPHONE RESPONSE:

"This is McGuire Nuclear Station. Please acknowledge when you are ready to copy Emergency Information."

	✓ ACKNOWLEDGEMENT
Mecklenburg	____
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, 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/M^3 (whole body)

   _____R/hr/Ci/M^3 (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:
   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) _____ Communicator
(Name) (Title)

_____ Mecklenburg
(Date) (Time) (Warning Point)

(2) _____ Communicator
(Name) (Title)

_____ Gaston
(Date) (Time) (Warning Point)

(3) _____ Communicator
(Name) (Title)

_____ Iredell
(Date) (Time) (Warning Point)

(4) _____ Communicator
(Name) (Title)

_____ Catawba
(Date) (Time) (Warning Point)

(5) _____ Communicator
(Name) (Title)

_____ Lincoln
(Date) (Time) (Warning Point)

(6) _____ Communicator
(Name) (Title)

_____ Cabarrus
(Date) (Time) (Warning Point)

(7) _____ Communicator
(Name) (Title)

_____ North 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)

Form 34731 (10-81)
(Formerly SPD-1002-1)

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: EP/0/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. Glover DATE: 9/10/82

(5) REVIEWED BY: [signature] DATE: 9-10-82

Cross-Disciplinary Review By: _____ N/R: [signature]

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: [signature] Date: 9-13-82

(8) MISCELLANEOUS:

Reviewed/Approved By: _____ Date: _____

Reviewed/Approved By: _____ Date: _____

DUKE POWER COMPANY
MCGUIRE NUCLEAR STATION
SITE AREA EMERGENCY

1.0 Symptoms

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 area 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 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 consulation 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 of 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.

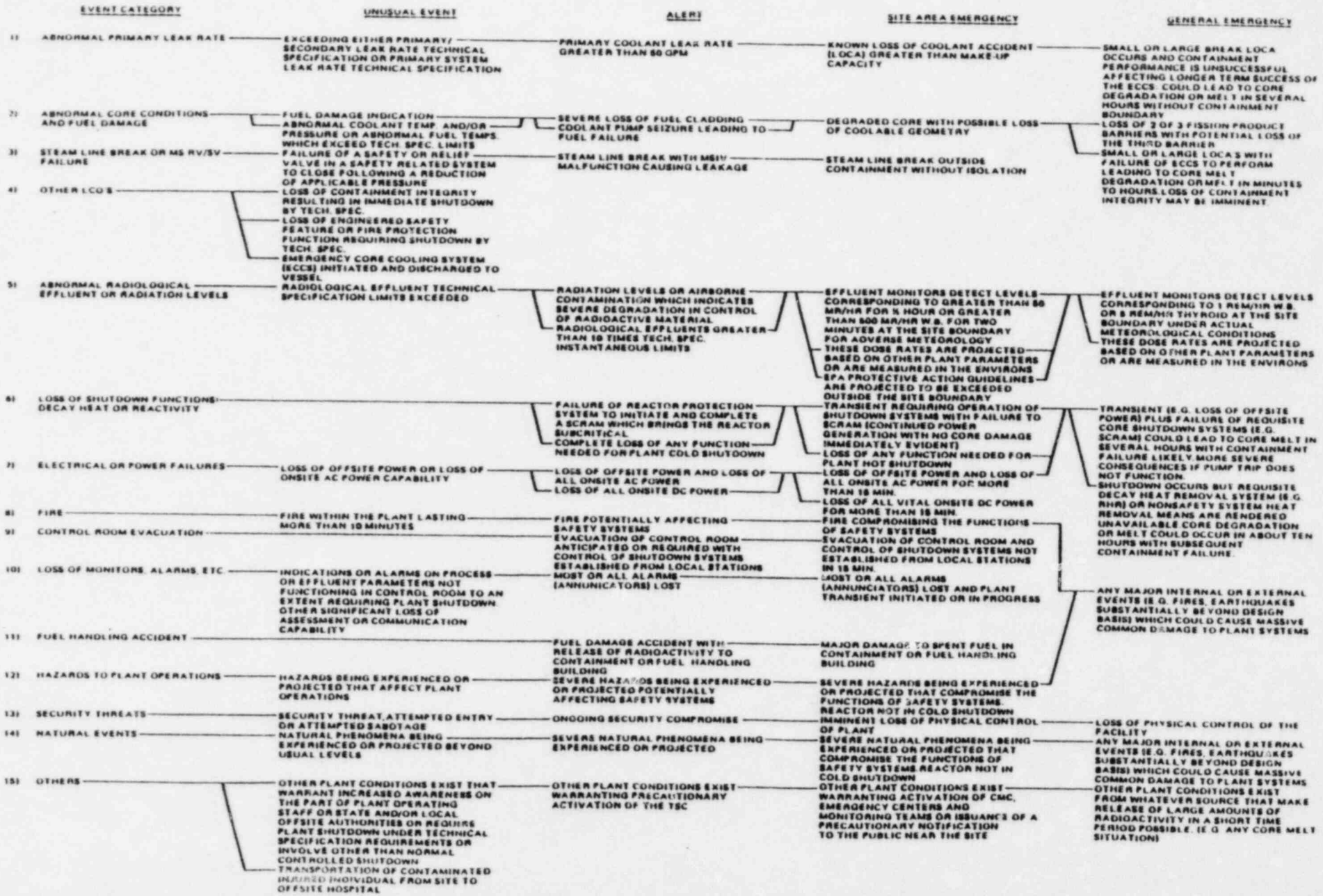
4.3 Notification Chart.

4.4 Telephone Listing.

4.5 Notification of Emergency Conditions.

4.6 Crisis Management Center Activation Format.

EMERGENCY CLASSIFICATION GUIDE FLOWCHART



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

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.1	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 EMF 38, 39, and 40 alarm.	EP/1/A/5000/02
4.2.2	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.	AP/1/A/5500/05
4.2.3	Rapid failure of steam generator tubes with loss of offsite power (e.g., several hundred gpm primary to secondary leak rate).	Pressurizer low pressure alarm and reactor trip, and pressurizer low level alarm, and EMF 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.	EP/1/A/5000/04, AP/1/A/5500/07

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 EMF 51A and/or B alarm, or high steam flow and Lo Lo Tavg or low steam pressure safety injection signal, and EMF 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/0/A/5500/34
4.2.9	Major damage to spent fuel in containment or fuel handling building (e.g., large object damages fuel or water loss 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 3/4.5, 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 for adverse meteorology (See Note 2).	For EMF35 Low Range, offscale High Range 8 x 10^3 cpm. (See Note 1) For EMF36 Low Range 3 x 10^5 cpm High Range 7 x 10^1 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). 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).	HP/0/B/1009/05, HP/0/B/1009/09

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/0/A/5500/29, AP/0/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. (SMP-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/0/A/5500/32, AP/0/A/5500/31

Initiating 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.

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.17	Evacuation of control room and control of shut-down systems not established from local stations in 15 minutes.	As determined by Shift Supervisor/	OP/0/A/6350/02, AP/1/A/5500/17

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

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 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 - ystem Speed -
Wife work - System Speed
P&T Pager

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: Extension
or Home: - System Speed

J. W. Hampton Office: Extension
or Home: - System Speed

R. W. Bostian Office:
or Home: System Speed -

Nuclear Production Duty Engineer - - System Speed
P&T Pager

4.4.21 Radiation Protection Section, Department of Human Resources-
- System Speed -

MCGUIRE 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 ✓ACKNOWLEDGEMENT

TELEPHONE RESPONSE:

"This is McGuire Nuclear Station. Please acknowledge when you are ready to copy Emergency Information."

Mecklenburg	___
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, 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/M^3 (whole body)

   _____R/hr/Ci/M^3 (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:
   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) _____ Communicator
(Name) (Title)

_____ Mecklenburg
(Date) (Time) (Warning Point)

(2) _____ Communicator
(Name) (Title)

_____ Gaston
(Date) (Time) (Warning Point)

(3) _____ Communicator
(Name) (Title)

_____ Iredell
(Date) (Time) (Warning Point)

(4) _____ Communicator
(Name) (Title)

_____ Catawba
(Date) (Time) (Warning Point)

(5) _____ Communicator
(Name) (Title)

_____ Lincoln
(Date) (Time) (Warning Point)

(6) _____ Communicator
(Name) (Title)

_____ Cabarrus
(Date) (Time) (Warning Point)

(7) _____ Communicator
(Name) (Title)

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

(8) _____ Communicator
(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)

Form 34731 (10-81)
(Formerly SPD-1002-1)

DUKE POWER COMPANY
PROCEDURE PREPARATION
PROCESS RECORD

(1) ID No: EP/0/A/5000/08
Change(s) 0 to
0 Incorporated

(2) STATION: McGuire Nuclear Station

(3) PROCEDURE TITLE: General Emergency

(4) PREPARED BY: M. S. Glover DATE: 9/10/82

(5) REVIEWED BY: [signature] DATE: 9-10-82

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

(6) TEMPORARY APPROVAL (IF NECESSARY):

By: _____ (SRO) Date: _____

By: _____ Date: _____

(7) APPROVED BY: [signature] Date: 9-13-82

(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/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 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/0/B/1009/05, HP/0/B/1009/06, HP/0/B/1009/08, HP/0/B/1009/09, or HP/0/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.

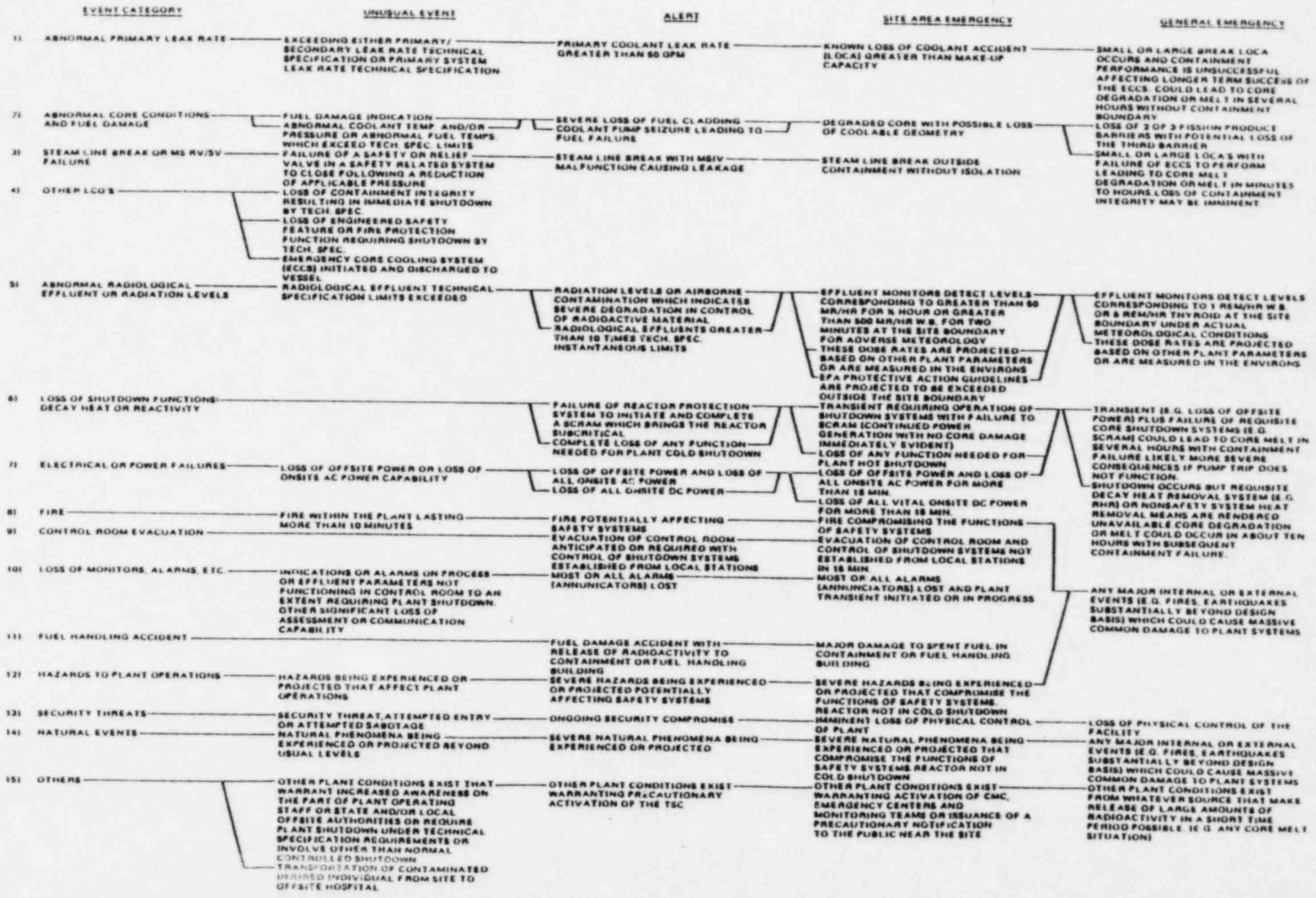
4.3 Notification Chart.

4.4 Telephone listing.

4.5 Notification of Emergency Conditions.

4.6 Crisis Management Center Activation Format.

EMERGENCY CLASSIFICATION GUIDE FLOWCHART



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

Initiating Conditions		Emergency Action Level (EAL)	Emergency Procedure/Document
4.2.1	Effluent monitors detect levels corresponding to 1 rem/hr Whole Body or 5 rem/hr Thyroid at the site boundary under actual meteorological conditions. 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.	As observed by control room personnel.	HP/0/B/1009/05
4.2.2	Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier, (e.g., loss of primary coolant boundary, clad-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 (EMF51A and/or B) greater than 10^4 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. NOTE: Consider 2 mile precautionary evacuation.	Phyaical attack of the facility has resulted in occupation of the control room and auxiliary shutdown facility.	Station Security Plan.
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^{o} to 90^{o} 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.	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.

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^{o} and 90^{o} 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 (principle 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. NOTE: For melt sequences or for failure of containment isolation systems, the likely failure mode is melt through with release of gases.	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 (NDP5190, 5191, 5180, 5181) and Reactor Coolant (NC) T^{O} is rising, and containment air handling system fails to function.	EP/1/A/5000/02, AP/1/A/5500/05
4.2.5	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)

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

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 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 · System Speed ·
P&T Pager

4.4.17 Construction Project Manager Construction
Home - System Speed or
· 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: Extension
or Home: - System Speed -

J. W. Hampton Office: Extension
or Home: - System Speed ·

R. W. Bostian Office:
or Home: - System Speed -

Nuclear Production Duty Engineer - System Speed -
P&T Pager

4.4.21 Radiation Protection Section, Department of Human Resources-
System Speed

MCGUIRE 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 ✓ ACKNOWLEDGEMENT

TELEPHONE RESPONSE:

"This is McGuire Nuclear Station. Please acknowledge when you are ready to copy Emergency Information."

Mecklenburg	____
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, 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/M^3 (whole body)

   _____R/hr/Ci/M^3 (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:
   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) _____ Communicator
(Name) (Title)

_____ Mecklenburg
(Date) (Time) (Warning Point)

(2) _____ Communicator
(Name) (Title)

_____ Gaston
(Date) (Time) (Warning Point)

(3) _____ Communicator
(Name) (Title)

_____ Iredell
(Date) (Time) (Warning Point)

(4) _____ Communicator
(Name) (Title)

_____ Catawba
(Date) (Time) (Warning Point)

(5) _____ Communicator
(Name) (Title)

_____ Lincoln
(Date) (Time) (Warning Point)

(6) _____ Communicator
(Name) (Title)

_____ Cabarrus
(Date) (Time) (Warning Point)

(7) _____ Communicator
(Name) (Title)

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

(8) _____ Communicator
(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)