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United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
CHANGE TO EMERGENCY PLAN IMPLEMENTING PROCEDURES

Dear Sir or Madam:

In accordance with 10 CFR 50, Appendix E, Carolina Power & Light Company is transmitting one copy each of recently revised Harris Nuclear Plant Emergency Plan implementing procedures. The enclosure to this letter identifies the revised emergency plan implementing procedures and the effective date.

If you should have any questions regarding this submittal, please do not hesitate to contact me at (919) 362-3137.

Sincerely,

John R. Caves
Supervisor, Licensing/Regulatory Programs
Harris Nuclear Plant

MGW

Enclosures

- c: Mr. J. B. Brady (NRC Senior Resident Inspector, HNP)
Mr. L. A. Reyes (NRC Regional Administrator, Region II) two copies of procedure
Mr. R. Subbaratnam (NRC Project Manager, HNP)

Harris Nuclear Plant
5413 Shearon Harris Road
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A045

CHANGES TO EMERGENCY PLAN IMPLEMENTING PROCEDURES

<u>PROCEDURE NUMBER</u>	<u>TITLE</u>	<u>EFFECTIVE DATE</u>
PEP-250 Revision 10	Activation and Operation of the Joint Information Center	10/30/02
PEP-342 Revision 3	Core Damage Assessment	10/28/02



Information
Use

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
PLANT OPERATING MANUAL
VOLUME 2
PART 5

PROCEDURE TYPE: Plant Emergency Procedure
NUMBER: PEP-250
TITLE: Activation and Operation of the Joint Information Center

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1.0 PURPOSE

1. This procedure implements Sections 2.4 and 3.6 of the Emergency Plan PLP-201.
2. It specifies the actions taken by Emergency Response Organization (ERO) personnel who report to the Joint Information Center (JIC).

2.0 INITIATING CONDITIONS

1. An Alert or higher classification has been declared.
2. A decision has been made to activate the JIC.

3.0 PROCEDURE STEPS

NOTE: The steps in the checklists may be performed in any order, or more than once, as necessary.

1. Attachments 1-8 are to be used as guidance for the positions listed below.
2. Attachments 9-11 are to be used as guidance for facility set-up in PEB and the News Media Briefing Area at the Raleigh Convention and Conference Center.
3. Attachment 12 is to be used by staff, security and media.
4. If an action is not appropriate under existing conditions or was not necessary for the event enter N/A when completing documentation for submittal.

IF YOUR ERO POSITION IS:	POSITIONAL ATTACHMENTS:
COMPANY SPOKESPERSON	PEP-250, Attachment 1 PEP-110, Attachment 4 PEP-500, Attachment 6
JIC DIRECTOR	PEP-250, Attachment 2 PEP-250, Attachment 1 Sh. 4
TECHNICAL SPECIALIST	PEP-250, Attachment 3 PEP-110, Attachment 4
ADMINISTRATIVE COORDINATOR	PEP-250, Attachment 4
ADMINISTRATIVE ASSISTANT	PEP-250, Attachment 5 PEP-250, Attachment 12
MEDIA BADGING SPECIALIST	PEP-250, Attachment 6
PUBLIC INFORMATION COORDINATOR	PEP-250, Attachment 7
PUBLIC INFORMATION SPECIALIST	PEP-250, Attachment 8

4.0 GENERAL

1. The Administrative and Logistics Manager (ALM) in the Emergency Operations Facility (EOF) is responsible for arranging relief schedules for the JIC Staff.
2. If a subordinate position with an augmentation time requirement is not filled, the supervisory position may fulfill the responsibilities provided they are trained to perform the activities.
3. The Joint Information Center is an Emergency Response Facility for the Harris Plant. It is staffed by Progress Energy, the State of North Carolina, Chatham, Harnett, Lee and Wake Counties, NRC and FEMA.
4. The Company Spokesperson serves as the facilitator during news media briefings with Progress Energy, the State, Counties, NRC and FEMA.
5. Partial staffing of the JIC should be considered if personnel are present who can adequately perform the needed functions.
6. All functional capabilities need not be staffed for the JIC to be activated, if the Company Spokesperson determines that the missing functions are not presently required to adequately deal with the situation.
7. Logkeeping
 - a) Individual logs and facility logs are legal records of activities that occurred during an emergency. It is vital that they are as complete as possible.
 - b) Logs should include such information as:
 - 1) Times of major events and subsequent actions taken (such as, change in emergency classifications, fission product barrier status, discovery of an unplanned radiological release).
 - 2) Times and content of important communications with other members of the ERO that are related to major events (such as, decisions made during turnover or routine briefings and subsequent actions taken).
 - 3) Specific actions taken to mitigate equipment failures, contain chemical or radiological spills or fires, and so forth.
 - 4) Specific references to Emergency Radiation Work Permits, clearances, procedure deviations authorized, emergency radiation exposures authorized, and so forth.
 - 5) All records shall be made by black indelible means, such as ink or typing.
 - 6) Corrections shall be made by drawing a single line through and initialing and dating the incorrect entry.

4.0 GENERAL (continued)

c) Preparation of Activity Logs

- 1) Initiate the last sheet of the applicable checklists as follows:
 - DATE
 - PAGE OF: Enter "1" on the first page and sequential numbers on the following pages as they are used.
- 2) Enter chronologically those events that are pertinent to the particular individual or organizations:
 - TIME: Record the time (using the 24 hour clock) that a message or information was received or action was taken.
 - SUMMARY OF ACTIVITY PERFORMED: Briefly record the incident, message, or order received or transmitted. Indicate the time of the incident and actions taken.
- 3) Upon relief from the position or termination of the emergency, complete the log as follows:
 - PAGE OF: Enter the total number of pages used at the top of each page (that is, Page 1 of 12, Page 2 of 12, and so forth).
 - NAME AND SIGNATURE: Check the log for completeness, then in the Comments Section of the last page used in the log, print and sign your name.
- 4) The person relieving the position will initiate and maintain a new log and any previously prepared logs to allow for continuity of the position.
- 5) Upon termination of the emergency or exercise/drill, provide all completed logs to the Company Spokesperson who will then forward to the Emergency Preparedness unit.

5.0 REFERENCES

5.1 Emergency Plan References

1. Section 2.4, Assignment of Responsibilities
2. Section 3.6, Joint Information Center

5.2 Referenced Plant Emergency Procedures

1. PEP-110, Emergency Classification and PARs
2. PEP-500, Recovery

5.3 Other References

1. EPL-001, Emergency Phone List

6.0 DIAGRAMS/ATTACHMENTS

See Table of Contents

COMPANY SPOKESPERSON CHECKLIST

Position Function: Provide command and control of the public information emergency response.

Responsibility/Activity

1. Assume the position of Company Spokesperson. ☒
- a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge.
 - b) Assist with facility set-up as needed.
 - c) Perform proper relief of the currently staffed position.
 - d) Announce that the position is filled to personnel who are present.
2. Maintain a log of activities (Attachment 1, Sheet 7 of 7). ☐
3. Activate the facility. ☐
- a) Obtain a briefing from the EOF using the Event Information Worksheet (PEP-110, Attachment 4).
- NOTE:** Formal authorization must be provided when filling an ERO position with an individual not listed on the active ERO roster (EPL-001).
- b) Ensure an adequate staff is present. Minimum staffing includes:
 - Company Spokesperson
 - Technical Specialist
 - JIC Director
 - c) Ensure adequate plant status information is available to the Technical Specialist.
 - d) Brief State, County and Progress Energy JIC personnel using Intrafacility Briefing Guideline (Attachment 1, Sheet 5 of 7).
 - e) Ensure the JIC Director and Technical Specialist have received a plant status briefing prior to JIC activation.
 - f) Notify the EOF and JIC personnel of facility activation.
4. Maintain awareness of offsite agency command and control. ☐
5. Maintain awareness of recent industry events that may become media/public interest items (i.e., use of the International Nuclear Incident Scale). ☐

COMPANY SPOKESPERSON CHECKLIST

Responsibility/Activity

✓

6. Coordinate the release of information with Public Information Officers from State and other government agencies. ☐
- a) Schedule and conduct pre-news media briefing conferences with participating Public Information Officers.
 - b) Complete a Spokesperson Briefing Attendance Form (Attachment 1, Sheet 4 of 7) and provide copies to the Media Badging Specialist for distribution.
 - c) Establish the format for news media briefings with other agency Public Information Officers using the following as a guide:
 - 1) Start on time; set expectations for briefing (when, how, why).
 - 2) Introduce agency spokesperson.
 - 3) Instruct the media of the news briefing format (for example: each agency will make a brief statement with questions at the end); one at a time, state name & affiliation; one question at a time; use microphone.
 - 4) Use visuals and handouts.
 - 5) Treat cameras as reporters.
 - 6) Close briefing with telephone number for media and public to call for information and next news media briefing time.

7. Ensure news releases are issued no later than 45 minutes after an event classification change, radiological release or other significant event that has been provided to the State and counties via the Emergency Notification Form. ☐
- a) Ensure that the JIC Director prepares non-technical news releases.
 - b) Ensure that adequate information is being received from the EOF for news media briefings.
 - c) Ensure that Progress Energy news releases are prepared, approved and issued in a timely manner.

NOTE: If technical expertise is required for the Pre-News and/or News Media Briefing conferences inform the Technical Specialist position of his/her participation.

8. Conduct periodic briefings with the news media (within 60 minutes of the Site Area Emergency, General Emergency, radiological release or other significant event) (Attachment 1, Sheet 6 of 7). ☐
- a) Schedule and facilitate the news media briefings.

COMPANY SPOKESPERSON CHECKLIST

- | <u>Responsibility/Activity</u> | <u>✓</u> |
|--|--------------------------|
| 9. Ensure adequate personnel and material resources are available for the public information response. | <input type="checkbox"/> |
| 10. Conduct Recovery Operations when appropriate (PEP-500, Attachment 6). | <input type="checkbox"/> |
| 11. Conduct periodic facility briefings and status updates with the Progress Energy public information staff (Attachment 1, Sheet 5 of 7). | <input type="checkbox"/> |
| 12. Request any materials or supplies from the Administrative Coordinator. | <input type="checkbox"/> |
| 13. Termination of the emergency. | <input type="checkbox"/> |
| a) Collect all JIC generated logs and records and provide them to Emergency Preparedness. | |
| b) Replenish content of your position notebook. | |
| c) Restore facility to stand-by readiness. | |
| d) Inventory facility equipment as applicable. | |

COMPANY SPOKESPERSON CHECKLIST

Date: _____

Time: _____

SPOKESPERSON BRIEFING ATTENDANCE FORM

Agency	Spokesperson's Name

COMPANY SPOKESPERSON CHECKLIST

INTRAFACILITY BRIEFING GUIDELINE

RECAP CURRENT CONDITIONS

- Introductions
- All personnel signed in, badged
- Set facility briefing expectations; brief summary of area, use of three-way communication
- Facility issues; noise level, safety, access control
- Use checklists and logs; update Status Boards

DATE: _____

TIME: _____

ERO POSITIONAL SUMMARY

TECHNICAL SPECIALIST	
<ol style="list-style-type: none"> 1. Classification level 2. Current plant status 3. Mitigating activities and priorities 	NOTES:
ADMIN. COORDINATOR	
<ol style="list-style-type: none"> 1. Facility staffing 2. Security briefing 3. Special needs 	NOTES:
JIC DIRECTOR	
<ol style="list-style-type: none"> 1. Contacts made (CCD, HNP, EOF News Coordinator) 2. Press releases issued (#'s) 	NOTES:
PUBLIC INFORMATION COORDINATOR	
<ol style="list-style-type: none"> 1. Public Information staffing 2. Rumors, reoccurring questions 3. Telephone numbers for PI staff 	NOTES:
STATE/COUNTIES/NRC/FEMA REPS.	
<ol style="list-style-type: none"> 1. Staffing 2. Issues 	NOTES:

SET EXPECTATIONS

- Anticipate media/public reactions
- Critical JIC activities
- Recent industry events that may become public/media interest items
- Areas of focus

CONCLUDE BRIEFING

- Announce next JIC briefing time
- Announce "END OF BRIEF" and ensure all have understood

COMPANY SPOKESPERSON CHECKLIST

NEWS MEDIA BRIEFING GUIDELINE

PRIOR TO NEWS MEDIA BRIEFING (IN COMMAND ROOM):

DATE: _____

TIME: _____

- Schedule/conduct pre-news media brief conf with participating PIOs
- Establish format/briefing expectations with participating PIOs; start on time
- Materials needed:
 - Multiple copies of Spokesperson Briefing Attendance Form from JIC Director; give to Media Badging Specialist to issue
 - PEP-110, Attachment 4 for reference (as applicable)
 - News releases since last news media briefing
 - Media Handbook and additional visual aids (as applicable)
 - Available cell phone or equivalent for Public Information Coordinator
 - Turn Command Room over to JIC Director prior to leaving Command Room

SET EXPECTATIONS

- Introductions
- Set expectations for news media briefing
 - Each agency will brief; questions and answers at the end
 - Step to the microphone; state name and affiliation
 - One question at a time
- Maintain command and control

TECHNICAL SPECIALIST	
1. Classification level 2. Current plant status in non-technical terms 3. Activities and priorities	NOTES:
STATE PIOs	
1. Offsite actions taken 2. Telephone number for PI staff	NOTES:
COUNTY PIOs	
1. Offsite actions taken 2. Telephone number for PI staff	NOTES:
NRC PIOs	
1. Staffing 2. Issues	NOTES:
FEMA PIOs	
1. Staffing 2. Issues	NOTES:
OTHER REPRESENTATIVES	
1. Staffing 2. Issues	NOTES:

QUESTIONS & ANSWERS

- Maintain Command and Control

CONCLUDE BRIEFING

- Announce next news media briefing time
- Recap PI telephone number

Upon relief or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

JIC DIRECTOR CHECKLIST

Position Function: Develop news releases and disseminate information.

Responsibility/Activity

- | | |
|--|--------------------------|
| | ✓ |
| 1. Notify the Administrative Coordinator and instruct him or her to set up the JIC. | <input type="checkbox"/> |
| 2. Assume the position of JIC Director. | <input type="checkbox"/> |
| a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge. | |
| b) Perform proper relief of the currently staffed position. | |
| c) Announce that the position is filled to personnel who are present. | |
| 3. Maintain a log of activities (Attachment 2, Sheet 3 of 3). | <input type="checkbox"/> |
| 4. Activate the facility. | <input type="checkbox"/> |
| a) Set up the computer and printer and verify operation. | |
| b) Assist with facility set-up as needed. | |
| c) Receive a briefing on plant status. | |
| d) Obtain copies, if any, and verify distribution of news releases issued from the EOF prior to JIC activation. | |
| e) Ensure that the HNP Visitors Center and HNP switchboard (through HNP Security) are informed of JIC activation and the media/public inquiry telephone number. | |
| 5. Maintain awareness of offsite agency command and control. | <input type="checkbox"/> |
| <u>NOTE:</u> If the Technical Specialist position will be a part of the Pre-News and/or News Media Briefing conferences receive a turnover of activities. | |
| 6. Assume command and control in Company Spokesperson's absence during news media briefings. | <input type="checkbox"/> |
| 7. Develop news releases. | <input type="checkbox"/> |
| a) Receive draft news releases from the EOF. Review with Company Spokesperson to determine if content meets public understanding. | |
| b) Provide news releases to the Company Spokesperson for approval. | |
| c) Coordinate with the EOF News Coordinator to ensure issue times and sequential numbers are provided on news releases. | |
| d) Prepare non-technical news releases (EOF approval not required). | |

JIC DIRECTOR CHECKLIST

Responsibility/Activity



8. Distribute news releases. ☐
- a) Record the time prior to news release issue.
 - b) Provide Progress Energy news releases to offsite agency personnel prior to issue, if possible.
 - c) Use the Agency Stamp to document review of Progress Energy news releases.
 - d) Provide approved news releases to the Administrative Coordinator for issuance.
9. Coordinate the flow of information from the JIC to Corporate Communications and the State and County Public Information Officers. ☐
- a) Provide Corporate Communications the news release to post to the Progress Energy website.
 - b) Interface with offsite agency representatives to ensure they are receiving the necessary information.
10. Assist the Company Spokesperson in preparing the Spokesperson Briefing Attendance Form for each agency/Public Information Officer representative at the news media briefing (Attachment 1, Sheet 4 of 7). ☐
11. Request any materials or supplies from the Administrative Coordinator. ☐
12. Termination of the emergency. ☐
- a) Provide all logs and records to the Company Spokesperson.
 - b) Replenish content of your position notebook.
 - c) Restore facility to stand-up readiness.
 - d) Inventory facility equipment as applicable.

Upon relief or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

TECHNICAL SPECIALIST CHECKLIST

Position Function: Obtain and developing technical emergency information.

Responsibility/Activity

✓

1. Assume the position of Technical Specialist. ☐
 - a) Sign in on the ERO sign-in board, JIC Sign-In Log, and obtain position badge.
 - b) Assist with facility set-up as needed.
 - c) Perform proper relief of the currently staffed position.
 - d) Announce that the position is filled to personnel who are present.
 2. Maintain a log of activities (Attachment 3, Sheet 3 of 3). ☐
 3. Receive a plant status briefing prior to JIC activation (PEP-110, Attachment 4). ☐
 4. Obtain technical emergency information from the EOF Emergency Communicator-Corporate Communications/JIC for Progress Energy news briefings using the Event Information Worksheet (PEP-110, Attachment 4) as a guide. ☐
 - a) Maintain regular telephone contact with the EOF Emergency Communicator-Corporate Communications/JIC. When not available turn activity over to the JIC Director or designee.
 - b) Inform the Company Spokesperson of EOF briefings.
 - c) Monitor EOF briefings.
 - d) Provide JIC information during EOF briefings, if requested.
- NOTE:** Based on the needs of the Company Spokesperson the Technical Specialist may or may not be a part of the Pre-News and/or News Media Briefing Conferences.
5. Provide technical information during the conduct of periodic briefings with the news media at an appropriate level of understanding. ☐
 - a) Participate in pre-news media briefing conferences to coordinate the information released during news media briefings.

TECHNICAL SPECIALIST CHECKLIST

Responsibility/Activity

✓

- b) Defer non-technical questions and concerns regarding Progress Energy to the Company Spokesperson.
 - c) Defer questions and concerns regarding offsite activities and positions to the appropriate offsite agency representative.
 - d) Ensure previously unanswered questions/issues are adequately addressed during subsequent news media briefings.
6. Interpret information from the EOF into non-technical language for news media and JIC facility briefings. ☐
- a) Ensure the EOF is aware of news media briefing times.
 - b) Assist in the development of responses to unanswered questions from the news media briefings.
 - c) Provide feedback to the EOF after news media briefings as necessary.
7. Provide information to the Public Information Coordinator as necessary to maintain the Public Information Specialist's status board current. ☐
8. Maintain the Fission Product Barrier and EAL portions of the status board. ☐
- a) Locate the status boards in clear view in the JIC command room.
 - b) Maintain a white board with pertinent information, if needed.
9. Inform the Company Spokesperson of rumors or other inaccuracies. ☐
- a) Assist in the development of messages to correct rumors and inaccuracies.
 - b) Ensure the EOF is informed of rumors or other inaccuracies.
10. Request any materials or supplies from the Administrative Coordinator. ☐
11. Termination of the emergency. ☐
- a) Provide all logs and records to the Company Spokesperson.
 - b) Replenish content of your position notebook.
 - c) Restore facility to stand-by readiness.
 - d) Inventory facility equipment as applicable.

TECHNICAL SPECIALIST CHECKLIST

ADMINISTRATIVE COORDINATOR CHECKLIST

Position Function: Coordinate and supervise the activities of the JIC administrative support and security personnel.

Responsibility/Activity

✓

1. Coordinate facility access and support. ☐

a) Contact Raleigh Convention and Conference Center personnel. a)

- 1) Request access to the News Media Briefing Area (Room F) and the JIC equipment storage area across from Room F.
- 2) Request that a Raleigh City Police Officer provide security at the entrance to the News Media Briefing Area, Room F.
- 3) Request furniture and sound equipment be set up in the News Media Briefing Area per Attachment 11.
- 4) Contact the TeleCommunications Help Desk to request personnel to pull phone cables in the News Media Briefing Area, Room F.

b) Contact Progress Energy Building (PEB) Corporate Facilities personnel.

- 1) Request access to rooms 1112A&B and 1113A and the JIC equipment storage area.
- 2) Request that PEB Corporate Facilities or Security personnel provide a security guard at the entrance to PEB 1112A.
- 3) Request furniture be set up in PEB 1112A&B and 1113A JIC Command Room per Attachment 10.

2. Assume the position of Administrative Coordinator. ☐

- a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge.
- b) Perform proper relief of the currently staffed position.
- c) Announce that the position is filled to personnel who are present.

3. Maintain a log of activities (Attachment 4, Sheet 4 of 4). ☐

ADMINISTRATIVE COORDINATOR CHECKLIST

Responsibility/Activity

✓

- | | | |
|-----|--|--------------------------|
| 4. | Ensure the facility and its equipment are properly set up and functional per Attachment 9. | <input type="checkbox"/> |
| a) | Using ERFIS time from the EOF, synchronize clocks in the JIC Command Room and the News Media Briefing Area. | |
| b) | Tune televisions to major and local networks and CNN. | |
| c) | Tune radio/cassette recorders to stations that should participate in the Emergency Alert System (EAS) messages (refer to the Harris Plant Safety Information brochure or calendar for station listings). | |
| 5. | Direct security efforts for the Joint Information Center. | <input type="checkbox"/> |
| a) | Request Security lock out other areas in Progress Energy Building. | |
| b) | Instruct Security to limit access to the JIC Command Room (1112A) to only Progress Energy, State, County, NRC, FEMA, INPO and ANI personnel. | |
| c) | Instruct Security to contact you in the JIC Command Room if an individual desiring access does not have proper identification. | |
| d) | Instruct Security to sign in relief personnel and direct them to the Administrative Coordinator upon arrival. | |
| 6. | Supervise the activities of the Administrative Assistants. | <input type="checkbox"/> |
| 7. | Provide draft news releases to the JIC Director received via the Administrative Assistant's fax machine (if applicable). | <input type="checkbox"/> |
| 8. | Log and provide approved news releases to the Admin. Assistants for issue. | <input type="checkbox"/> |
| 9. | Log and provide Emergency Notification Forms, news releases, EAS messages and other information to the Administrative Assistants for issue. | <input type="checkbox"/> |
| 10. | Notify the Media Badging Specialist of JIC activation time, news media briefing times and changes in the emergency classification level. | <input type="checkbox"/> |

ADMINISTRATIVE COORDINATOR CHECKLIST

Responsibility/Activity

✓

- | | | |
|-----|--|--------------------------|
| 11. | Update and maintain the News Release/News Media Briefing and Facility Activation portions of the status boards. | <input type="checkbox"/> |
| 12. | Coordinate shift relief and turnover schedule activities for the JIC Public Information staff with the Administrative and Logistics Manager. | <input type="checkbox"/> |
| 13. | Schedule times and locations for meals for JIC personnel. | <input type="checkbox"/> |
| 14. | Termination of the emergency. | <input type="checkbox"/> |
| | a) Provide all logs and records to the Company Spokesperson. | |
| | b) Replenish content of your position notebook. | |
| | c) Restore facility to stand-by readiness. | |
| | d) Inventory facility equipment as applicable. | |

ADMINISTRATIVE ASSISTANT CHECKLIST

Position Function: Provide administrative services and supplies to JIC personnel.

Responsibility/Activity

✓
☐

1. Assume the position of Administrative Assistant.
 - a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge.
 - b) Ensure personnel in the JIC Command Room have signed in on the ERO sign-in board, JIC Sign-In Log (Attachment 12) and obtained position badge.
 - c) Assist with facility set-up as needed.
 - d) Perform proper relief of the currently staffed position.
 - e) Announce that the position is filled to personnel who are present.
2. Complete the News Release Distribution Log (Attachment 5, Sheet 3 of 3) for each news release, EAS message, Emergency Notification Form and other documents distributed.
 - a) Call EOF Admin Team to verify and document the receipt of and distribute any news releases that have been made prior to JIC activation.
3. Ensure the fax and copiers are in place and operating.
 - a) Program fax and copiers for correct time and date (use reference manual).
 - b) Provide information received on the fax to the Administrative Coordinator and distribute as instructed.
4. Distribute copies of ALL approved news releases.
 - a) Deliver and/or fax adequate copies of each news release to the Media Badging Specialist.
 - b) Post copies of approved news releases in the JIC Command Room.
5. Distribute clerical supplies in the JIC as necessary.

ADMINISTRATIVE ASSISTANT CHECKLIST

Responsibility/Activity

- 6. Request any materials or supplies from the Administrative Coordinator.
- 7. Termination of emergency.
 - a) Provide all logs and records to the Company Spokesperson.
 - b) Replenish content of your position notebook.
 - c) Restore facility to stand-by readiness.
 - d) Inventory facility equipment as applicable.



NEWS RELEASE DISTRIBUTION LOG

Date: _____

COMPLETE THIS ATTACHMENT FOR EACH ITEM DISTRIBUTED

REQUIRED DISTRIBUTION	DOCUMENT TYPE (Place INITIALS and indicate TIME documents are distributed)									
EOF FAX TO:	PROGRESS ENERGY NEWS RELEASE No. _____		STATE NEWS RELEASE No. _____		OTHER NEWS RELEASE Agency _____ No. _____		EAS MESSAGE No. _____		EMERGENCY NOTIFICATION FORM No. _____	
NRC Region			NA		NA		NA		NA	
NRC Washington			NA		NA		NA		NA	
EOF HAND DELIVER TO:										
ERM			NA		NA		NA		NA	
Emerg. Comm. To JIC			NA		NA		NA		NA	
NRC										
JIC HAND DELIVER TO:										
	Initials	Time	Initials	Time	Initials	Time	Initials	Time	Initials	Time
Progress Energy JIC Staff										(1)
State Admin. Staff (2)			NA		NA		NA		NA	
Media Badging Specialist	25 copies		25 copies		25 copies		NA		NA	
Counties			NA		NA		NA		NA	
NRC										
FEMA			NA		NA		NA		NA	
Media (3)			NA		NA		NA		NA	
Industry Personnel (3)			NA		NA		NA		NA	

- (1) Company Spokesperson, JIC Director, Technical Specialist, Public Information Coordinator, Administrative Coordinator receive the Emergency Notification Forms (ENFs). The Public Information Specialists **DO NOT** receive the ENFs.
- (2) Coordinate distribution in the JIC with State clerical personnel to avoid duplication.
- (3) Identified by the JIC Director (request assistance from Corporate Communications for these distributions if necessary).

MEDIA BADGING SPECIALIST CHECKLIST

Position Function: Control access to the media briefing area and distribute information.

Responsibility/Activity

✓

1. Assume the position of Media Badging Specialist. ☐
 - a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge.
 - b) Perform proper relief of the currently staffed position.
 - c) Announce that the position is filled to personnel who are present.
2. Maintain a log of activities (Attachment 6, Sheet 3 of 3). ☐
 - a) Log all non-JIC personnel entering the News Media Briefing Area using the JIC Sign-In Log (Attachment 12).
3. Set up materials and facilities. ☐
 - a) Set up the News Media Briefing Area and Media Badging table using Attachments 9 and 11.
 - b) Assist with facility set-up as needed.
 - c) Place one copy of each brochure/information (other than news release) at each spokesperson's seat on stage.
 - d) Obtain the Spokesperson Briefing Attendance Form from the Company Spokesperson and distribute as follows:
 - 1) Place one copy on the podium.
 - 2) Place a copy at the spokesperson's seat on stage.
 - 3) Make copies available for media and other representatives attending the briefing.
4. Issue a numbered badge to news media personnel entering the facility and instruct them to maintain the badge visible. ☐

MEDIA BADGING SPECIALIST CHECKLIST

Responsibility/Activity

✓

5. Provide instructions to security. ☐
- a) Instruct the Raleigh Police Officer to limit access to the News Media Briefing Area to Progress Energy, State, County, NRC, FEMA, INPO, ANI and badged media personnel.
 - b) Instruct the Raleigh Police Officer to direct unbadged media personnel desiring access into the News Media Briefing Area to proceed to the Media Badging table.
 - c) Instruct the Raleigh Police Officer that the Spokesperson wearing a position badge from the JIC Command Room is allowed access into the News Media Briefing Area without providing additional identification.
6. Provide information packages to the media upon request. ☐
7. Distribute and post copies of Progress Energy news releases. ☐
8. Inform the news media of briefing times. ☐
9. Post emergency classifications in the News Media Briefing Area, provided briefings are not in progress. ☐
10. Request any materials or supplies from the Administrative Coordinator. ☐
11. Leave Security in charge of the Media Badging table if it becomes necessary to leave the area. ☐
12. Termination of the emergency. ☐
- a) Provide all logs and records to the Company Spokesperson.
 - b) Replenish content of your position notebook.
 - c) Restore facility to stand-by readiness.
 - d) Inventory facility equipment as applicable.

Upon relief or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

PUBLIC INFORMATION COORDINATOR CHECKLIST

Position Function: Ensure information approved for release is coordinated with State rumor control and public information personnel to prevent conflicting reports.

Responsibility/Activity

✓

1. Assume the position of Public Information Coordinator. ☐
- a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge.
 - b) Assist with facility set-up as needed.
 - c) Perform proper relief of the currently staffed position.
 - 1) Obtain a briefing of current conditions and activities.
 - 2) Conduct a team briefing prior to shift turnover.
 - d) Announce that the position is filled to personnel who are present.
2. Maintain a log of activities (Attachment 7, Sheet 3 of 3). ☐
3. Supervise the activities of the JIC Public Information Specialists. ☐
 - a) Ensure the JIC Public Information Specialists' work areas are equipped with the necessary equipment and materials.
 - b) Following JIC facility briefings, brief the Public Information Specialists as appropriate.
4. Manage rumor control activities. ☐
 - a) Obtain responses to telephone inquiries.
 - b) Provide information on rumors, inaccuracies and recurring questions to the Technical Specialist.
 - c) Periodically coordinate with the State Lead Rumor Control individual.
 - d) Provide names and numbers of callers requesting extensive technical information to the Company Spokesperson for resolution.
 - e) Refer non-English speaking callers to the Customer Service Center for assistance.

PUBLIC INFORMATION COORDINATOR CHECKLIST

Responsibility/Activity

- 5. Monitor news media briefings; take an available cell phone or establish communications with the Administrative Coordinator upon arrival.
- 6. Maintain posted information for the Public Information Specialists.
- 7. Request any materials or supplies from the Administrative Coordinator.
- 8. Termination of the emergency.
 - a) Provide all logs and records to the Company Spokesperson.
 - b) Replenish content of your position notebook.
 - c) Restore facility to stand-by readiness.
 - d) Inventory facility equipment as applicable.

✓

☐☐☐☐

Upon relief or termination of the emergency, ensure that the log is completed by checking the log for completeness, then printing and signing your name in the comments section.

PUBLIC INFORMATION SPECIALIST CHECKLIST

Position Function: Staff telephone lines to respond to calls from the media and public.

Responsibility/Activity



1. Assume the position of Public Information Specialist. ☐
 - a) Sign in on the ERO sign-in board, JIC Sign-In Log and obtain position badge.
 - b) Assist with facility set-up as needed.
 - c) Perform proper relief of the currently staffed position.
 - d) Announce that the position is filled to personnel who are present.
2. Properly answer telephones. ☐
 - a) Maintain a log of calls received from the media and public (Attachment 8, Sheet 3 of 3).
 - b) Provide only information from approved sources to respond to inquiries.
 - 1) Safety information calendar/brochure or other HNP brochures.
 - 2) Event board.
 - 3) Other JIC status boards.
 - 4) News releases.
 - 5) Formal facility briefings.
 - 6) Public Information Coordinator briefings.
 - c) Request call backs for inquiries that can not be immediately answered.
 - d) Provide contact names, numbers and inquiry information to the Public Information Coordinator for unknown answers to technical questions.
 - e) Refer off-site questions to the State media/public inquiry telephone number.

PUBLIC INFORMATION SPECIALIST CHECKLIST

Responsibility/Activity



3. DOs and DON'Ts

- a) Don't speculate.
- b) Don't elaborate.
- c) Don't discuss protective action recommendations.
- d) Don't use acronyms.
- e) Do provide only the information requested.
- f) Do keep answers brief and simple. Someone else is attempting to call in.
- g) Do be friendly, patient, firm.
- h) Do provide responses in non-technical terms.

4. Update the Public Information Coordinator on rumors, inaccuracies and recurring questions.



5. Request any materials or supplies from the Public Information Coordinator.



6. Termination of the emergency.



- a) Provide all logs and records to the Company Spokesperson.
- b) Replenish content of your position notebook.
- c) Restore facility to stand-by readiness.
- d) Inventory facility equipment as applicable.

PUBLIC INFORMATION SPECIALIST CHECKLIST

PUBLIC/MEDIA INFORMATION LOG

Date: _____ Public Information Specialist: _____

Time:	Caller's Name:	Affiliation/Location:	Phone #:
Brief Description of Question:			
Brief Answer Provided:			
Time:	Caller's Name:	Affiliation/Location:	Phone #:
Brief Description of Question:			
Brief Answer Provided:			
Time:	Caller's Name:	Affiliation/Location:	Phone #:
Brief Description of Question:			
Brief Answer Provided			

JIC FACILITY SET-UP GUIDELINES

JIC Command Room Set-Up

1. Set-up the JIC Command Room (1112A, 1112B, and 1113A) and the News Media Briefing Area (Raleigh Convention and Conference Center, Room F) per the illustrations in Attachments 10 and 11.
 - a) Obtain **2 copy machines** from the JIC equipment storage area and place them in **1112A and 1113A** per the illustrations in **Attachment 10**.
 - b) Obtain a **fax machine** from the JIC equipment storage area and place it at the **Progress Energy Administrative Assistants' work station** in **1112A** per the illustration in **Attachment 10**.
 - c) Obtain the **JIC Director's computer and printer** from the JIC equipment storage area and place it at the **JIC Director's work station** in **1112B** per the illustration in **Attachment 10**.
 - d) Obtain **radio/cassette recorders** from the JIC equipment storage area and place in position per illustration in **Attachment 10**. **Tune to radio stations that should participate in the Emergency Alert System (EAS) messages (refer to the Harris Plant Safety Information brochure or calendar for station listings).**
 - e) Tune **ceiling-mounted televisions** in the JIC Command Room to **local networks and CNN**.
 - f) Obtain **supplies** (bins, form holders, status boards, sign-in boards, easels, procedures, etc.) for the JIC Command Room from the JIC equipment storage area.
 - 1) Each bin for the JIC Command Room is labeled with the corresponding table letter per the illustration in **Attachment 10**.
 - 2) Remove and set-up the telephone sets, cables, line cords, position table nameplates, and other materials for each of the JIC positions.
 - 3) Faxes and modems do not have telephone sets. These items have a telephone line cord labeled with their corresponding telephone number and jack location number.
2. Connect **telephones to the cords and wall jacks**.
 - a) The silver wall plates, located in various locations throughout the room, are labeled to correspond with the letter on the storage bin and on the table per the illustrations in Attachment 10.
 - b) To connect the telephone, lift the silver wall plate and pull the telephone cable from the wall.
 - c) Telephone extension cables stored in the bins are keyed to match the silver wall plate label. Connect the extension cables to the wall cables and secure the connection with the Velcro strip from the bin.

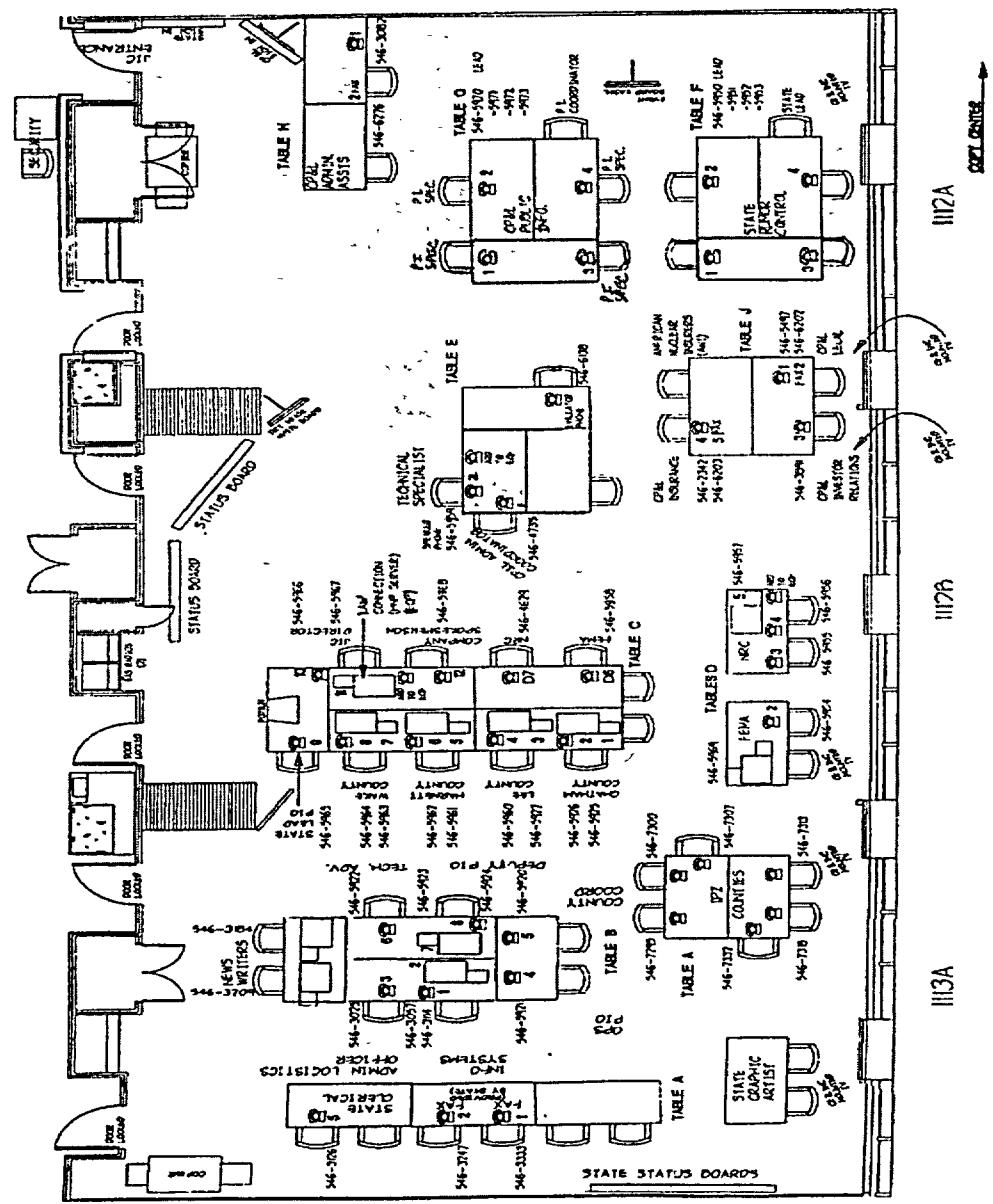
JIC FACILITY SET-UP GUIDELINES

- d) Each telephone is labeled with a table letter, jack number and extension number. Connect the telephones from the storage bin to the appropriate jack on the extension cable.
As an example: The telephone set for Table D jack #1 will be labeled D1. Jack locations are numbered sequentially starting at #1 on the left of the extension cable.
 - e) The connector jacks on the service end of the extension cables are also labeled with the extension number which corresponds to the telephone call number. Ensure that the extension number on the telephone matches that of the connector jack.
3. **Test equipment to verify operability** and report any equipment or set-up problems to the Administrative Coordinator.

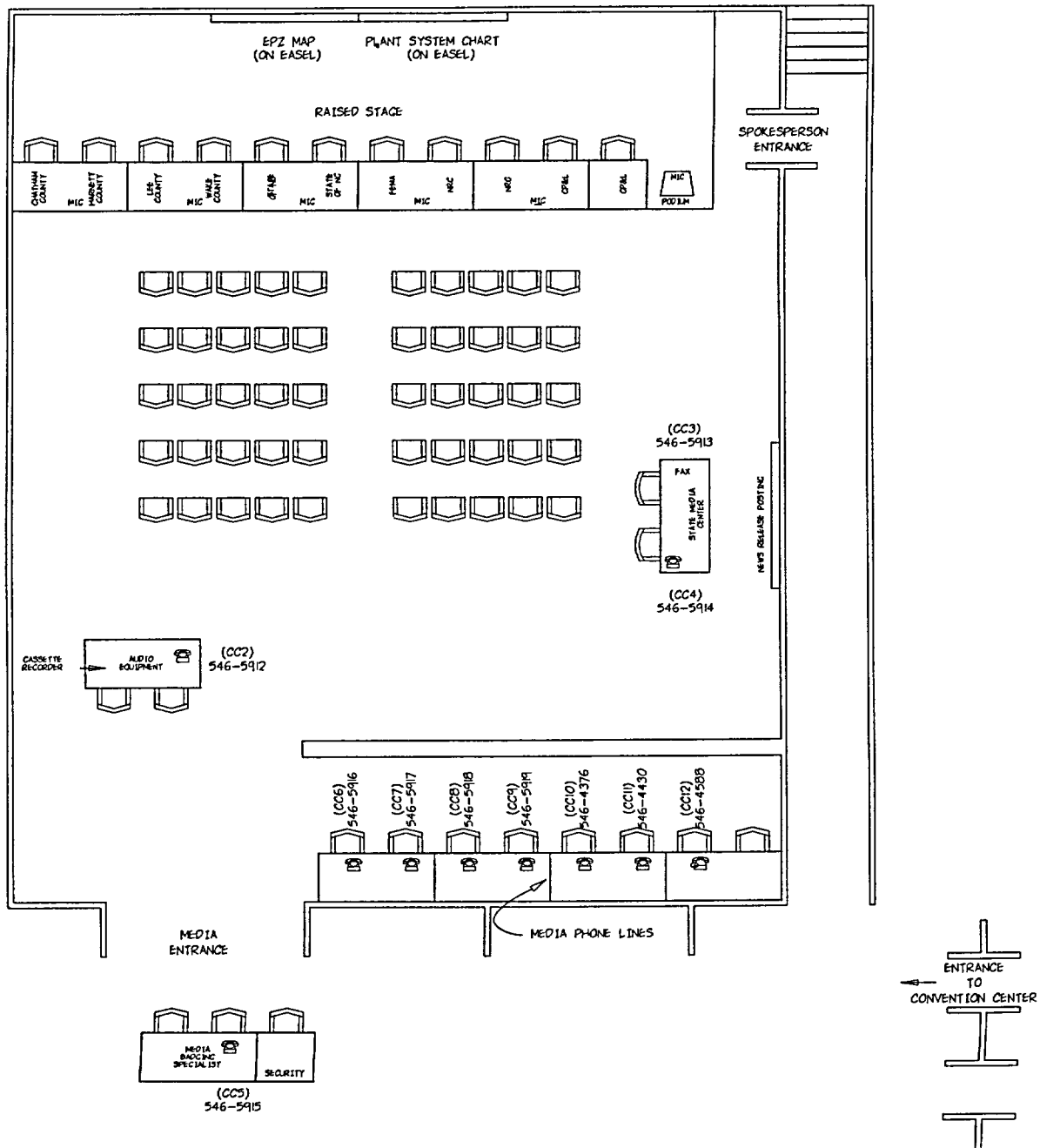
News Media Briefing Area Set-Up

1. Obtain the necessary **bins, telephone sets, line cords, and other materials** from the storage room across from Raleigh Convention and Conference Center, Room F. Materials include:
- a) Media badges.
 - b) Media Sign-In Logs.
 - c) ERO log forms.
 - d) Brochures (safety information, plant, lake, Q&A, student).
 - e) Media handbooks.
 - f) Video clips.
 - g) Easels (place 2 easels centered on the back of the stage).
 - h) Plant diagrams and illustrations (place the System Chart and the EPZ Map on the easels per the illustrations in Attachment 11. Stack the others against the wall at the rear of the EPZ Map).
 - i) Agency table nameplates for the stage tables.
 - j) "Media Phones" nameplate to be placed at the media telephone table.
 - k) "Media Must be Badged Here" nameplate to be placed at the Media Badging Specialist's table.
2. **Telephone line cords and telephone sets** are labeled as CC2 through CC12 in addition to the extension numbers.
- a) Connect the telephone sets directly to the line cords per the illustrations in **Attachment 11**.
 - b) Connect the **fax machine** to the CC3 at the State Media Center table (the fax machine does not have an additional telephone set).
3. **Test equipment to verify operability** and report any equipment or set-up problems to the Administrative Coordinator.

JIC COMMAND ROOM PROGRESS ENERGY BLDG. (PEB), 11TH FLOOR



NEWS MEDIA BRIEFING AREA RALEIGH CONVENTION AND CONFERENCE CENTER (RCCC), ROOM F



[illegible]

Page 40 of 41

Revision Summary of PEP-250, Rev. 10

Changed "CP&L" to "Progress Energy" in various sections of the procedure.
Changed "Rev. 9" to "Rev. 10"

Page 1	Added "CP&L" logo.
Page 2	Removed "CP&L" from Attachment 10 description.
Page 8, after section 7.c.	Added, <u>NOTE:</u> If technical expertise is required for the Pre-News and/or News Media Briefing conferences inform the Technical Specialist position of his/her participation.
Page 12	Changed "Bag phone for Public Information Coordinator" to "Available cell phone or equivalent for Public Information Coordinator"
Page 14, after section 5	Added, <u>NOTE:</u> If the Technical Specialist position will be a part of the Pre-News and/or News Media Briefing Conferences receive a turnover of activities.
Page 17, after section 4.d.	Added, <u>NOTE:</u> Based on the needs of the Company Spokesperson the Technical Specialist may or may not be a part of the Pre-News and/or News Media Briefing Conferences.
Page 31, section 5	Changed, "Monitor news media briefings; take bag phone; give phone number to Administrative Coordinator" to "Monitor news media briefings; take an available cell phone or establish communications with the Administrative Coordinator upon arrival."
Page 38	Removed "CP&L" from the attachment title.



R
REFERENCE
USE

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT
PLANT OPERATING MANUAL
VOLUME 2
PART 5

PROCEDURE TYPE: Plant Emergency Procedure
NUMBER: PEP-342
TITLE: Core Damage Assessment

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1.0 PURPOSE

The purpose of this procedure is to provide guidance for performing core damage assessments during an emergency at the HNP. The HNP DAMAGE program is designed to be used in conjunction with this procedure.

2.0 INITIATING CONDITIONS

1. An emergency has been declared.
2. Whenever there are indications of core damage or when events require the estimation of the type and amount of core damage.

3.0 PROCEDURE

3.1 Determine Appropriate and Available Assessment Methods

1. The magnitude and type of event, transport mechanism and time after shutdown will be influencing factors on the method(s) utilized to determine the extent of core damage. Damage estimates can be developed using one or more methods as they become available or applicable.
2. Choose the assessment method(s) most appropriate for the existing conditions. Methods available for assisting in the determination of the extent of core damage include the following:
 - a. Isotopic Liquid Concentration Analysis - (Section 3.4)
 - b. Isotopic Gaseous Concentration Analysis - (Section 3.5)
 - c. Containment Radiation Analysis - (Section 3.6)
 - d. Containment Hydrogen Analysis - (Section 3.7)
 - e. Nuclide Ratio and Presence of Abnormal Isotopes Analyses - (Section 3.8)
 - f. Core Exit Temperatures and Core Uncovery Time Analyses - (Section 3.9)

3.2 Start Up the Core Damage Application

1. Start the computer.
2. Start DAMAGE program – A shortcut Icon labeled DAMAGE v1.1 should be located on the desktop. If not, locate the program CoreDamage.mdb on the Y Drive at Y:\Access Databases\Shared\CoreDamage.
3. If the computer does not operate or the DAMAGE program will not run, use another computer (application disks are located in the TSC AAT Cabinet).

3.3 Summary Screen

1. The summary screen shows the application version and offers the user options to direct program flow. Results of any completed assessment methods are provided to assist in determining an overall best estimate of the amount of core damage.

Assessment Methods	% Clad	% Melt
RCS Liquid		
RCS Gaseous		
Cont Rad Monitors		
Containment Hydrogen		
Nuclide Analysis	Ratios	
	Abnormal Isotopes	
Other Parameters	Core Temps	
	Core Uncovery Time	

2. Select the assessment method appropriate for the available conditions and information. Available methods are as follows:
 - a. RCS Liquid
 - b. RCS Gaseous
 - c. Cont Rad Monitors
 - d. Containment Hydrogen
 - e. Nuclide Analysis
 - f. Other Parameters
3. Select 'Print' for a summary report of the items listed on the main screen.

NOTE: Selecting 'Quit' will clear all tables and fields of entered data before closing the application. Subsequent start-up will begin a new session.

4. Select 'Quit' to close the program and quit Microsoft Access.

3.4 Isotopic Liquid Concentration Analysis

The RCS sample analysis estimation compares a corrected liquid fission product concentration to plant specific expected core damage curves. RCS liquid samples are required to be completed within 3 hours of the time the decision to obtain the sample has been made. It is not typically useful to attempt to determine an amount of core damage using this method until the plant has been stabilized.

The screenshot shows the 'RCS Liquid Sample Analysis' software window. It is divided into several sections:

- Sample Type/Location:** Contains radio buttons for ^{131}I (Short Lived), ^{137}Cs (Long Lived), and sample locations: Reactor Coolant System, Containment Sump, and Both Reactor Coolant and Sump.
- Power History:** A table with columns for '# of Days in Period' and 'Avg Power (%)'. The first row shows 365 days and 99.8% power.
- Sample Information:** Includes input fields for 'Activity (uCi/ml)' (8.40E+01), 'Time After S/D (hr)' (4.50E+00), and a checkbox for 'Systems are in Equilibrium' (set to No).
- Damage Estimates:** A table with columns for 'Clad' and 'Melt' under 'Highest', 'Best', and 'Lowest' estimates. Values include 27.2, 116, 101 for Clad and 0, 30, 101 for Melt.
- Buttons:** 'Calculate', 'Volumes', 'Graphs', and 'Done' are located on the right side.

1. Enter the required values.

a. Sample Type/Location

- (1) Sample type will be determined by the information available from Chemistry. Typically the long lived isotope is masked for several days following reactor shutdown.
- (2) Liquid samples may be from the Reactor Coolant System, Containment Sump or both.

b. Sample Information

- (1) Activity for the sample.
- (2) Time after shutdown (time in hours from reactor shutdown to when the sample is drawn from the system).
- (3) System equilibrium status. Compensates for activity located throughout both systems whenever only one sampled location has been obtained.

3.4 Isotopic Liquid Concentration Analysis (continued)

c. Power History

- (1) Input the most recent period first (record #1).
- (2) For short-lived isotopes, the total duration of the operational periods should extend at least 30 days (~six half-lives).

Variations in steady state power should be limited to $\pm 10\%$ within each of the operational periods.

- (3) For long-lived isotopes, the total duration of the operational periods should extend throughout the cycle.

Variations in steady state power should be limited to $\pm 20\%$ within each of the operational periods.

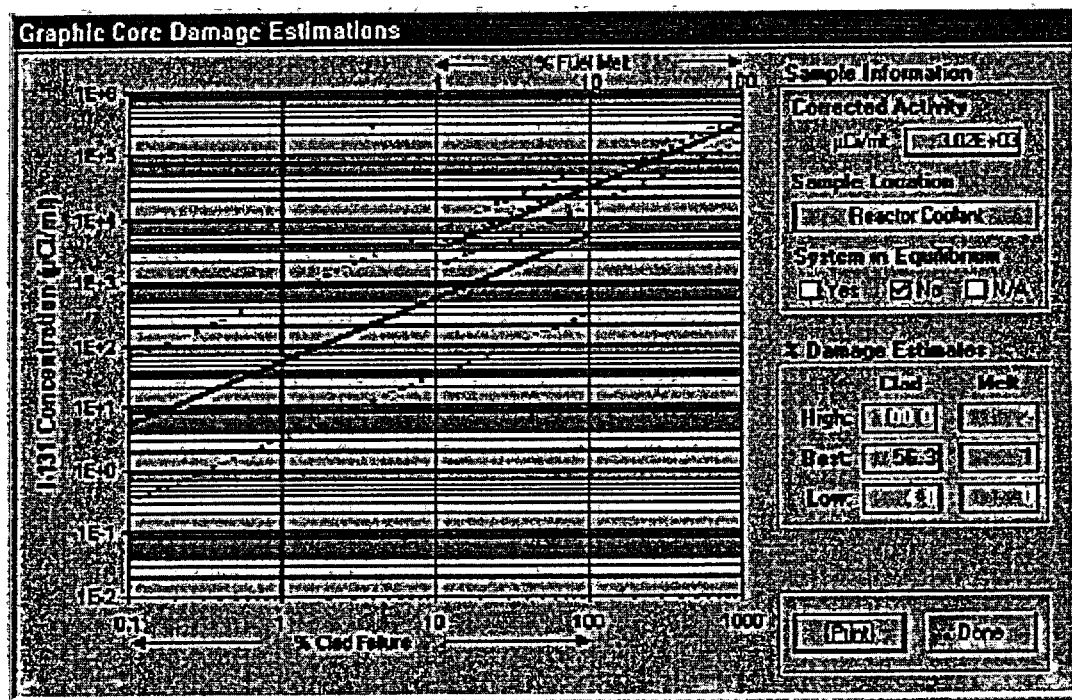
2. Select 'Calculate' to determine damage values when all required information has been entered.
3. Select 'Volumes' to check or change the system volumes used by the application.

System Volumes	
Reactor Coolant (ml)	2.54E+08
Containment Atmosphere (cc)	6.43E+10
Containment Sump (WR inches)	0
Containment Sump (ml)	0.00E+00
<input type="button" value="Reset"/> <input type="button" value="Done"/>	

- a. Reactor Coolant - default volume assumes the vessel and pressurizer are full.
- b. Containment Sump - The minimum containment sump level (WR) is 128". Below this value the water has not entered the recirc sump and an RHR sample would not be appropriate. 0" is used until the level reaches 128" for containment sump damage estimations.
- c. Select 'Reset' to restore the default volumes.
- d. Once desired entries are made select 'Done' to return to the RCS window.

3.4 Isotopic Liquid Concentration Analysis (continued)

4. Select 'Graphs' to provide an illustration of the sample results versus the damage estimate lines for the selected isotope.



- a. Key data is displayed in user disabled fields.
- b. Select 'Print' to print a report for this method.
- c. Select 'Done' and return to previous window.

3.5 Isotopic Gaseous Concentration Analysis

The RCS sample analysis estimation compares a corrected gaseous fission product concentration to plant specific expected core damage curves. RCS gaseous samples are required to be completed within 3 hours of the time the decision to obtain the sample has been made. It is not typically useful to attempt to determine an amount of core damage using this method until the plant has been stabilized.

The screenshot shows the 'RCS Gaseous Sample Analysis' window. It is divided into several sections:

- Sample Type:** Two radio buttons are present: ☒ Xc-133 (Short Lived) and ☐ Kr-85 (Long Lived).
- Sample Information:** A list of input fields with values:
 - Activity (uB/cc): 3.71E+00
 - Time After S/D (hr): 4.50E+00
 - System Press (psig): 1.20E+02
 - System Temp (°F): 3.10E+02
 - Sample Press (psig): 2.00E+00
 - Sample Temp (°F): 7.50E+01
- Power History:** A table with two columns: '# of Days in Period' and 'Avg Power (%)'. The first row shows '365' and '99.8'. Below the table are navigation buttons: 'Records', 'First', 'Previous', 'Next', 'Last', and 'Reset'.
- Damage Estimates:** A section with a table for 'Clad' and 'Melt' damage. The table has rows for 'Highest', 'Best', and 'Lowest' estimates. To the right of the table are buttons: 'Calculate', 'Volumes', 'Graphs', and 'Done'.

1. Enter the required values.
 - a. Sample Type - Sample type will be determined by the information available from Chemistry. Typically the long lived isotope is masked for several days following reactor shutdown.
 - b. Sample Information
 - (1) Activity for the sample.
 - (2) Time after shutdown (time in hours from reactor shutdown to when the sample is drawn from the system).
 - (3) System Pressure and Temperature - Obtained from ERFIS archives if not recorded when sample is drawn.
 - (4) Sample Pressure and Temperature - Obtained from Chemistry when sample is drawn.

3.5 Isotopic Gaseous Concentration Analysis (continued)

c. Power History

- (1) Input the most recent period first (record #1).
- (2) For short-lived isotopes, the total duration of the operational periods should extend at least 30 days (~six half-lives).

Variations in steady state power should be limited to $\pm 10\%$ within each operational of the periods.

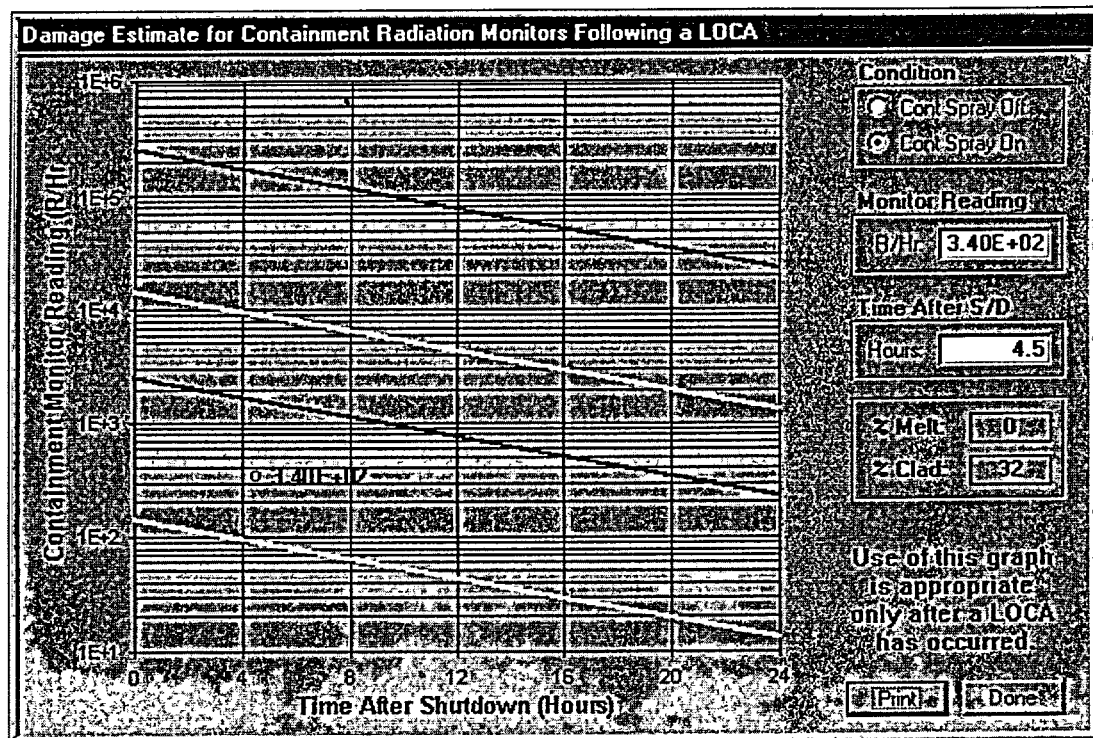
- (3) For long-lived isotopes, the total duration of the operational periods should extend throughout the cycle.

Variations in steady state power should be limited to $\pm 20\%$ within each of the operational periods.

2. Select 'Calculate' to determine damage values when all required information has been entered.
3. See section 3.4 for explanation of 'Volumes' and 'Graphs' buttons.

3.6 Containment Radiation Analysis

Containment radiation monitor analysis estimation compares the monitor reading with an expected reading for a given core damage scenario. The application takes in account containment spray status and time after shutdown.

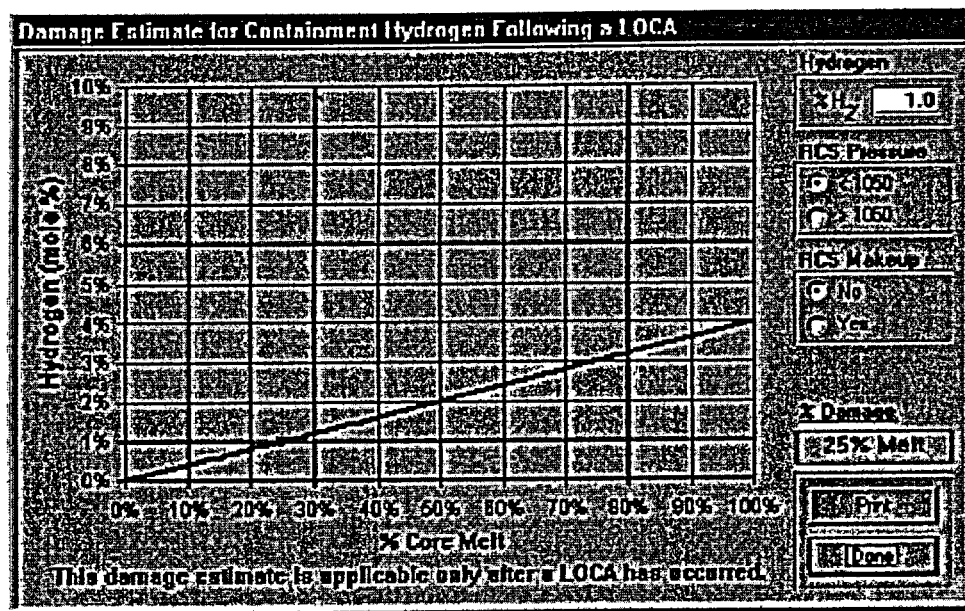


NOTE: Red lines are used to illustrate the upper and lower melt thresholds (100% to 1%). Yellow lines are used to illustrate clad upper and lower thresholds (100% to 1%).

1. Enter required values.
 - a. Condition - whether sprays are on or off
 - b. Monitor Reading
 - c. Time after shutdown
2. Select 'Print' to print a report for this method.
3. Select 'Done' and return to previous window.

3.7 Containment Hydrogen Analysis

Containment Hydrogen analysis (taken from hydrogen monitor or dry sample analysis) compares the monitor reading with an expected reading for a given core damage scenario.



1. Enter or select the required inputs.
 - a. % Hydrogen
 - b. RCS Pressure
 - c. RCS Makeup (any source of cold water injection)
2. Select 'Print' to print a report for this method.
3. Select 'Done' and return to previous window.

3.8 Nuclide Ratio and Presence of Abnormal Isotopes Analyses

This window estimates core damage in two ways. Either by the ratio of nuclides to each other or by the presence of rare isotopes. Results will be qualitative (Clad or Melt) rather than quantitative but may assist in the overall estimate when used in conjunction with the other methods.

Ratio Comparison/Abnormal Nuclide Identification

Time Since Shutdown (hours):

Gas	Activity	Melt	Sample	Gap
Xe-133	3.00E+03	1.10	1.10	1.10
Kr-85m	3.00E-01	0.122	0.023	0.023
Kr-87		0.293		0.0234
Kr-88		0.93		0.0495

Liquid	Activity	Melt	Sample	Gap
I-131	2.00E+00	1.10	1.10	1.10
I-132	2.00E-03	1.46	0.127	0.127
I-133	2.00E-03	2.09	0.685	0.685
I-134		2.3		0.155
I-135		1.97		0.364

Visible Isotopes

Alkaline Earths
☒ Sr ☐ Br

Refractories
☐ Zr ☒ Nb

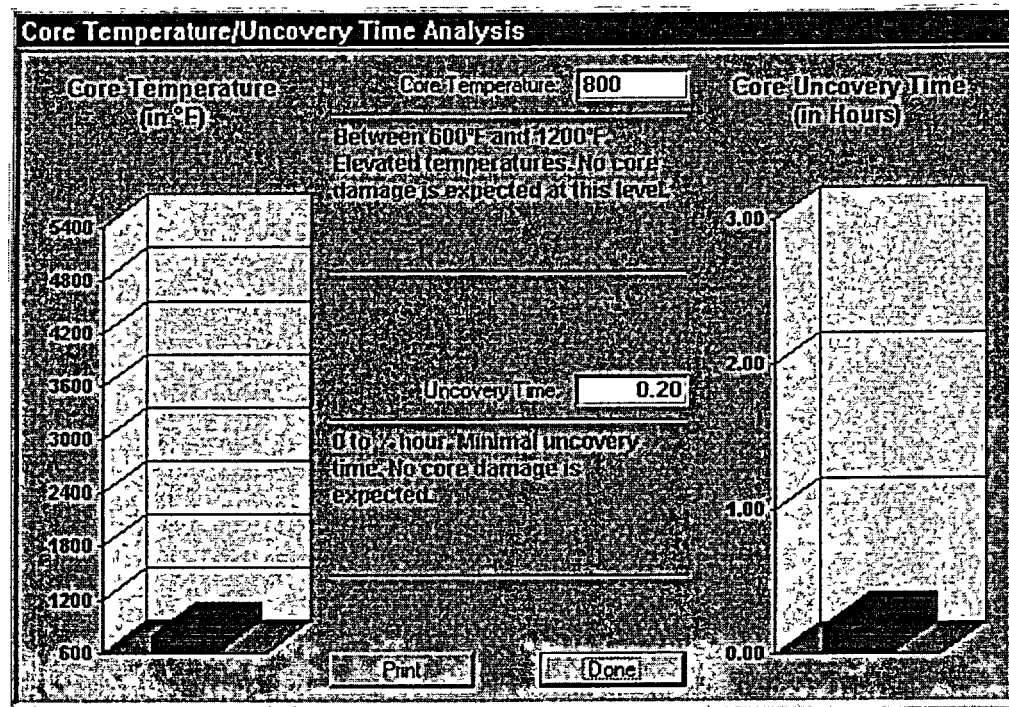
Noble Metals
☐ Ru ☐ Rh ☐ Pd
☐ Mn ☒ Tc

Rare Earths
☐ Y ☐ La ☐ Ce
☐ Nd ☐ Eu ☐ Pm
☐ Sm ☐ Np ☐ Pr
☒ Pu

1. Enter required values.
 - a. Time since shutdown (time in hours from reactor shutdown to when the sample is drawn from the system).
 - b. Gaseous Samples - At a minimum, Xe-133 and one other Noble Gas is required to provide indication of the type of damage.
 - c. Liquid Samples - At a minimum, I-131 and one other Halogen is required to provide indication of the type of damage.
 - d. Select (check) the presence of abnormally high concentrations of the listed isotopes which may be indicative of core melt.
2. Select 'Print' to print a report for this method.
3. Select 'Done' and return to previous window.

3.9 Core Exit Temperatures and Core Uncovery Time Analyses

Core temperature/Core uncovery time can be used to estimate the amount of core damage. Results will be qualitative (Clad or Melt) rather than quantitative but may assist in the overall estimate when used in conjunction with the other methods.



1. Enter required values
 - a. Core Temperature - based on core exit thermocouples.
 - b. Core Uncovery Time - (RVLIS Full Range < 39%).
2. Select 'Print' to print a report for this method.
3. Select 'Done' and return to previous window.

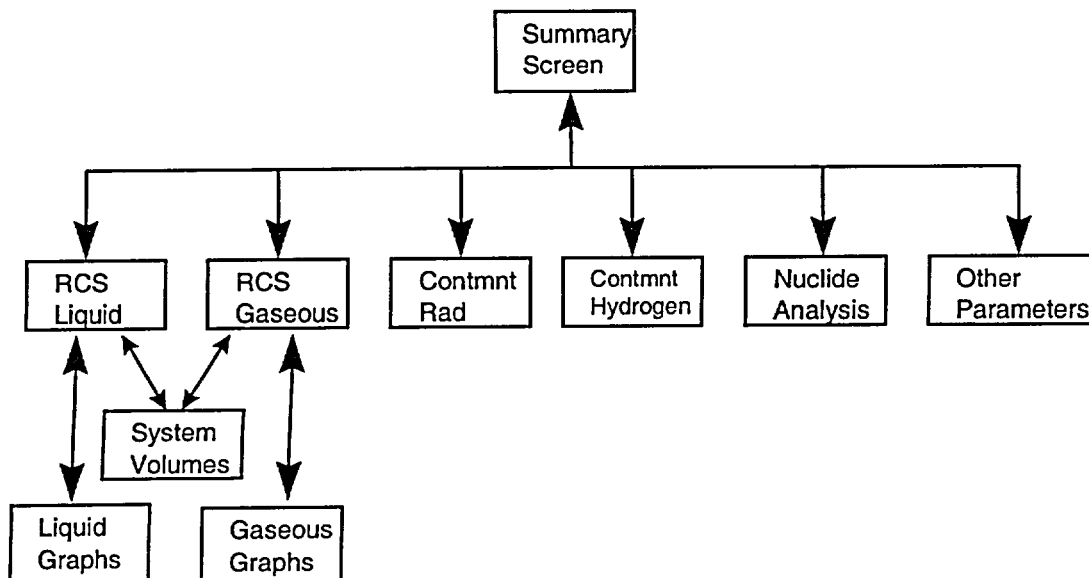
3.10 Reports

1. Individual Reports for individual methods are printed from each of the analysis windows.
2. The Core Damage Summary Analysis is printed from the summary (main) window. It provides a summary of the methods used for the core damage analysis. To complete the report the items must be completed:
 - a. A determination of the best estimate of the type and quantity of core damage based upon the available indications.
 - b. A determination of the NRC numeric representation of the core condition category.
 - c. Name, date and time for when the report is completed.
3. Reports should be provided to the Site Emergency Coordinator (SEC), Technical Analysis Director (TAD), the Radiological Control Manager (RCM), and to the Radiological Control Director (RCD).

4.0 GENERAL

4.1 Basic Program Flow Diagram

DAMAGE, Version 1.1 is a Microsoft Windows based application designed in Access that contains standard user interfaces. Instructions are not provided in basic computer operations in the Windows® environment. The user must be familiar with these to efficiently operate the program.



4.2 DAMAGE Program Use

The program is to be used to estimate the type and amount of core damage. The primary purpose of these damage estimates are:

1. Used to confirm whether fuel barriers are breached.
2. To determine the potential quality (type) and/or quantity (%) of source term available for release in support of projected offsite doses.
3. To support the determination of radiological protection actions that should be considered for long term recovery activities.
4. Satisfy inquiries from local and federal government agencies and provide evidence that the utility understands the plant conditions.

4.3 Limitations of the DAMAGE Application

1. The program should be used by qualified personnel as a tool to estimate type and amount of core damage.
2. Other methods of estimating core damage should also be considered as time permits.

5.0 REFERENCES

1. EPM-601, Core Damage Assessment Technical Bases

6.0 DIAGRAMS / ATTACHMENTS

1. Attachment 1, Sample Summary Report
2. Attachment 2, Sample RCS Sample Report

Sample Summary Report

Core Damage Estimate:

Summary Analysis

Assessment Methods	% Clad	% Melt
RCS Liquid Analysis	RCS: 56.0	1
RCS Gaseous Analysis	4.0	0
Containment Radiation Monitors*	56	7
Containment Hydrogen Concentration*	13% Melt	
Isotopic Ratio/Abnormal Nuclide Analysis	Ratios:	Cladding Failure
	Abnormal Isotopes:	5 of 19 Present
Other Plant Parameters/Indications	Core Temps:	Possible Rupture
	Core Uncovery Time:	Fuel Melting

* These methods should NOT be used for qualitative or quantitative assessment except in the case of a LOCA.

Analyst's Estimate:

<input type="checkbox"/> No Damage <input type="checkbox"/> Cladding Failure <input type="checkbox"/> Fuel Melt		Amount: <input style="width: 50px;" type="text"/>	
NRC Core Condition Category: <input style="width: 50px;" type="text"/>			
Degree of Degradation	Minor (<10%)	Intermediate (10%-50%)	Major (>50%)
No Fuel Damage	1	1	1
Cladding Failure	2	3	4
Fuel Overheat	5	6	7
Fuel Melt	8	9	10

Generated By:

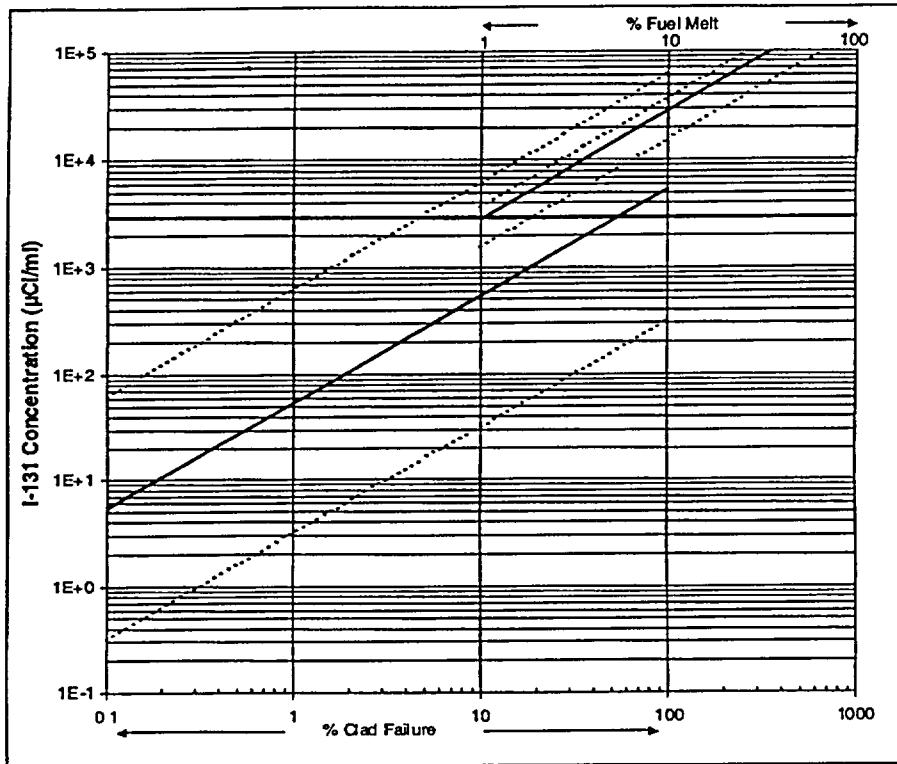
Name: _____ Date: _____ Time: _____

HNP DAMAGE v1.1

Sample RCS Sample Report

Core Damage Estimate:

RCS I-131 Activity



Sample Data

	RCS	Sump
Activity (µCi/ml):	<input type="text" value="3.00E+03"/>	<input type="text"/>
Time After S/D (hr):	<input type="text" value="0.00E+00"/>	<input type="text"/>
Systems Are In Equilibrium. <input type="radio"/> Yes <input checked="" type="radio"/> No		

Damage Estimates

Normalized Activity (µCi/ml): <input type="text" value="3.00E+03"/>		
	% Clad	% Melt
High Estimate:	<input type="text" value="100.0"/>	<input type="text" value="2"/>
Best Estimate:	<input type="text" value="56.0"/>	<input type="text" value="0.001"/>
Low Estimate:	<input type="text" value="4.8"/>	<input type="text" value="0"/>

Assessment Data:

Name: _____ Date _____ Time: _____

RCS I-131 Activity

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PEP-342 Revision Summary

Revision 3 implements version 1.1 of the DAMAGE software, which corrected the "high" values for the Containment DHRMs per NCR 51614/DCF2002P0999.

<u>Page</u>	<u>Change Description</u>
1	Added logo to title page
3	Section 3.2 - Updated to version 1.1 of DAMAGE software Updated location of the file (moved from C drive to Y drive)
4	Section 3.3.1 - Updated image to version 1.1 of DAMAGE software
8	Section 3.5 - Updated image to use more realistic values.
10	Section 3.6 - Updated image to version 1.1 of DAMAGE software
14	Section 4.1 - Updated to version 1.1 of DAMAGE software
16	Attachment 1 - Updated image to version 1.1 of DAMAGE software
17	Attachment 2 - Updated image to version 1.1 of DAMAGE software
All	Changed "PASS" to "RCS" throughout procedure
All	General clean-up and header format changes