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THE FOLLOWING CHANGES HAVE OCCURRED TO THE HARDCOPY OR ELECTRONIC MANUAL ASSIGNED TO YOU:

102 - 102 - TECHINICAL SUPPORT COORDINATOR: EMERGENCY PLAN- POSITION SPECIFIC PROCEDURE

REMOVE MANUAL TABLE OF CONTENTS DATE: 03/30/2002

ADD MANUAL TABLE OF CONTENTS DATE: 05/24/2002

CATEGORY: PROCEDURES TYPE: EP
ID: EP-PS-102
REMOVE: REV:20

ADD: REV: 21

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EP-PS-102, REV21

REMOVE	**EP-PS-102, REV20**	
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REMOVE	**TAB A, REV2**	
ADD	**TAB A, REV3**	
REMOVE	**TAB B, REV2**	**MS WORDCONVERSION**
ADD	**TAB B, REV2**	
REMOVE	**TAB C, REV3**	
ADD	**TAB C, REV4**	
REMOVE	**TAB D, REV3**	
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ADD	**TAB K, REV3**	

PROCEDURE COVER SHEET

PPL SUSQUEHANNA, LLC	NUCLEAR DEPARTMENT PROCEDURE	
TECHNICAL SUPPORT COORDINATOR EMERGENCY PLAN-POSITION SPECIFIC PROCEDURE		EP-PS-102 Revision 21 Page 1 of 4

QUALITY CLASSIFICATION:	APPROVAL CLASSIFICATION:
( ) QA Program (X) Non-QA Program	( ) Plant ( ) Non-Plant (X) Instruction

EFFECTIVE DATE: 5-24-2002

PERIODIC REVIEW FREQUENCY: 2 Years

PERIODIC REVIEW DUE DATE: 5-24-2004

RECOMMENDED REVIEWS:

Procedure Owner: Nuclear Emergency Planning

Responsible Supervisor: Manager-NSE

Responsible FUM: Supv.-Nuclear Emergency Planning

Responsible Approver: General Manager-Plant Support

TECHNICAL SUPPORT COORDINATOR: Emergency Plan-Position Specific Procedure

WHEN: Technical Support Center (TSC) is activated

HOW NOTIFIED: On-hours: Phone or Page
Off-hours: Paged by Security

REPORT TO: Damage Control Team Coordinator

WHERE TO REPORT: TSC

OVERALL DUTY:

Coordinate work of the Technical Staff Support Engineers, Chemistry Coordinator, and Data Technicians. Answer questions and solve problems posed by the Damage Control Team Coordinator, Ops Coordinator, and Emergency Director.

MAJOR TASKS:	TAB:	REVISION:
Upon arrival at the TSC, get updated on the status of the plant and determine Technical Support requirements.	TAB A	3
Review the current classification.	TAB B	2
Coordinate problem-solving efforts.	TAB C	4
Communicate technical information.	TAB D	4
Organize technical, chemical, and engineering support in the TSC Library.	TAB E	4
Make sure information and functions that are in progress during shift relief are turned over smoothly.	TAB F	1
Close out your function when emergency is terminated.	TAB G	2
Determine if RB HVAC can be restarted.	TAB H	4
Determine if fuel pool boiling can be expected and initiate actions as necessary to prevent fuel pool boiling or to mitigate the consequences of fuel pool boiling.	TAB I	3

MAJOR TASKS:	TAB:	REVISION:
Monitor plant conditions to identify potential long term operational impacts and/or recovery action.	TAB J	6
Determine if ESW has been, or will be aligned to supply cooling to RBCCW and/or TBCCW heat exchangers, and ensure that adequate cooling is provided for normal ESW heat loads.	TAB K	3

SUPPORTING INFORMATION:	TAB:
Emergency Telephone Instructions	TAB 1
Emergency Organization	TAB 2
Logkeeping	TAB 3
NERO Technical Support Overview	TAB 4
Emergency Facility Form Flow	TAB 5
Emergency Classification	TAB 6
Intentionally Blank	TAB 7
Emergency Forms • Emergency Notification Report	TAB 8
Anticipated Question List	TAB 9
Public Protective Action Recommendation Guide	TAB 10
General Electric BWR Emergency Support Program	TAB 11

REFERENCES:

SSES Emergency Plan

NUREG-0654, Planning Standards and Evaluation Criteria

NUREG-0731, Guidelines for Utility Management Structure and Technical Resources, September 1980

EDR #G20020 Loss of Fuel Pool Cooling Event Evaluation

MAJOR TASK:

Upon arrival at the TSC, get updated on the status of the plant and determine Technical Support requirements.

SPECIFIC TASKS:	**HOW:**
1. Consult with those available who can provide sequence of events and current status.	1a. Personnel who can provide sequence of events and current status are, (but not limited to): (1) Shift Technical Advisor (2) Ops Coordinator (3) Emergency Director. (4) Damage Control Team Coordinator. (5) Rad Protection Coordinator. (6) Shift Supervisor. (7) Unit Supervisor.
2. Review available data.	2a. Review: (1) PICSY (2) Logs
3. Determine Technical Support required and request Admin. Coordinator to call them out.	3a. Those you might need include: (1) Data Technicians (2) System Engineers (3) Reactor Engineers (4) Chemistry Support (5) Operations Engineer (6) Fuels Lead Engineer (7) TSC Lead Engineer
4. Set up administrative functions	4a. Start log, recording: (1) Time (2) Your initials (3) Actions you take

HELP

Logkeeping
See TAB 3

SPECIFIC TASKS:	HOW:
	4b. Check assigned phone for dial tone.
	4c. Check for sufficient supplies, etc.
	NOTE: **Contact the Administrative Coordinator if clerical supplies are needed.**
5. Review status boards with Data Technicians.	5a. Check especially to:
	(1) Make sure method of acquiring data is operating properly.
	(2) Determine any additional parameters which should be tracked.
	(3) Ensure data is accurate.
6. Tell DCTC that Tech Support Coordinator is ready to assume its function, including plant status parameter tracking.	

MAJOR TASK:

Review the current classification.

SPECIFIC TASKS:	HOW:	
1. Verify accuracy of current classification in light of data you've acquired.		**HELP** **Emergency Classification** **See TAB 6**
2. Report results.	2a.	Specifically, tell: (1) Ops Coordinator (2) Emergency Director
3. Determine if event was caused by LOCA.	3a.	If LOCA occurred, review Tab J for additional actions.

MAJOR TASK:

Coordinate problem solving efforts.

SPECIFIC TASKS:	HOW:
1. Consult with Damage control Team Coordinator, OPS Coordinator, and Emergency Director.	1a. Use this conference to: (1) Determine action items. (2) Determine priorities. (3) Provide status.
2. Provide direction to on-site Chemistry Sampling Team for assessment of liquid and gaseous release until arrival of the Chemistry Coordinator.	2a. Specify type and location of sample to be obtained when required.
3. Provide technical support to the Chemistry Coordinator, upon request.	
4. Assign action items.	4a. Provide information to TSC Lead Engineer who will: (1) Establish action item plans. (2) Assign individual action items. (3) Track status of action items
5. Report results and make engineering recommendations.	5a. Provide status and recommendations to Damage Control Team Coordinator, Operations Coordinator, and Emergency Director, as required.
6. Periodically obtain status of action items.	6a. Review action item plans and strategies with Lead Support Engineer.

MAJOR TASK:

Communicate technical information.

SPECIFIC TASKS:	HOW:
1. Transmit information to DEP/BRP-Technical.	1a. Establish telephone contact with DEP/BRP. **NOTE:** **Do this by means of:** **CTN 4965 or commercial phone lines as listed in Emergency Telephone Directory.** 1b. Transmit information from Emergency Notification Report to DEP/BRP - Technical every 30 minutes or within 15 minutes after a significant event. **HELP** **Emergency Notification Report** **See TAB 8** 1c. Review Anticipated Question List in preparation for briefing DEP/BRP-Technical. **HELP** **Anticipated Question List** **See TAB 9** 1d. Answer technical questions. **NOTE:** **Continue communication with DEP/BRP until the Engineering Support Supervisor in Emergency Operations Facility relieves you.**
2. Direct requests for additional engineering support to the EOF Engineering Support Supervisor.	2a. Request design/engineering information as necessary.

SPECIFIC TASKS:	HOW:
3. Establish communications with STA.	3a. Request specific plant data and/or status as necessary.
4. Establish communications with Engineering Support Supervisor when EOF is activated.	4a. Turn over official communications with DEP/BRP to Engineering Support Supervisor.

MAJOR TASK:

Organize technical, chemical, and engineering support in the TSC Library.

SPECIFIC TASKS:	HOW:
1. Brief TSC Engineering support.	1a. Be sure to include: (1) TSC engineers and Data Technicians. Inform them: (a) Who the staff members are and identify their positions. (b) Current plant status. **HELP** **NERO Technical Support Overview** **See TAB 4** **HELP** **Emergency Organization** **See TAB 2**
2. Designate and brief Technical Support roles.	2a. Assign the following functions: (1) TSC Lead Engineer (2) Trending (3) Open items tracking (4) On-going evaluation of plant status. 2b. TSC Lead Engineer (1) Assigns manpower (2) Assists in developing action plans for priority items.

SPECIFIC TASKS:	HOW:
	(3) Ensures tracking of action is maintained. (4) Assign the following functions: (a) Trending (b) Open item tracking (c) On going evaluation of plant status.
3. When needed, request General Electric BWR Emergency Support.	**HELP** **GENERAL ELECTRIC BWR EMERGENCY SUPPORT PROGRAM** **See TAB 11**

MAJOR TASK:

Make sure information and functions that are in progress during shift relief are turned over smoothly.

SPECIFIC TASKS:	HOW:
1. Remain at your duty station with full responsibility until properly relieved.	
2. Make sure all your personnel going off duty relay pertinent information to their counterparts.	2a. Instruct personnel on what to relay. Information should include: (1) Relay pertinent information and data. (2) Discuss in detail only that information that is directly related to their own function. (3) Review logbooks and status boards, as necessary.
3. Advise off-going staff about any protective actions that should be taken when they leave the facility.	**NOTE:** **Information regarding protective actions should come from Rad Protection Coordinator.**
4. Brief the relieving Technical Support Coordinator on the status of both the emergency and shift turnover.	4a. Make sure the relieving Coordinator is fully briefed: (1) Brief on all pertinent emergency information and data: (a) Current status of plant. (b) Emergency classification. (c) Big Picture (d) Review assigned open items and priority of each. (e) Review actions taken and results.

SPECIFIC TASKS:	HOW:
	(f) Current rad conditions. (2) Make him or her aware of initial and long-term manning schedules in the facility.
5. Advise the DCTC when shift turnover is complete.	
6. Leave a contact telephone number with the Admin. Coordinator.	

MAJOR TASK:

Close out your function when emergency is terminated.

SPECIFIC TASKS:	HOW:
1. Turn in appropriate documents.	1a. Review and update logs and forms.
	1b. Collect logs and forms that have been generated.
	1c. Turn written material in to the Admin. Coordinator.
2. Identify open technical action items that need to be completed.	2a. Issue appropriate documents: (1) PCWO's (2) EWRs (3) T-Mods
	2b. Assign responsibility with appropriate group.
3. Review plant status and configuration.	3a. Review with the Damage Control Team Coordinator: (1) Determine action items. (2) Establish priorities. (3) Assign tasks.
4. Debrief with Emergency Director.	

MAJOR TASK:

Determine if RB HVAC can be restarted to provide cooling to the Reactor Building or if electrical load must be shed to reduce heat load to the reactor building.

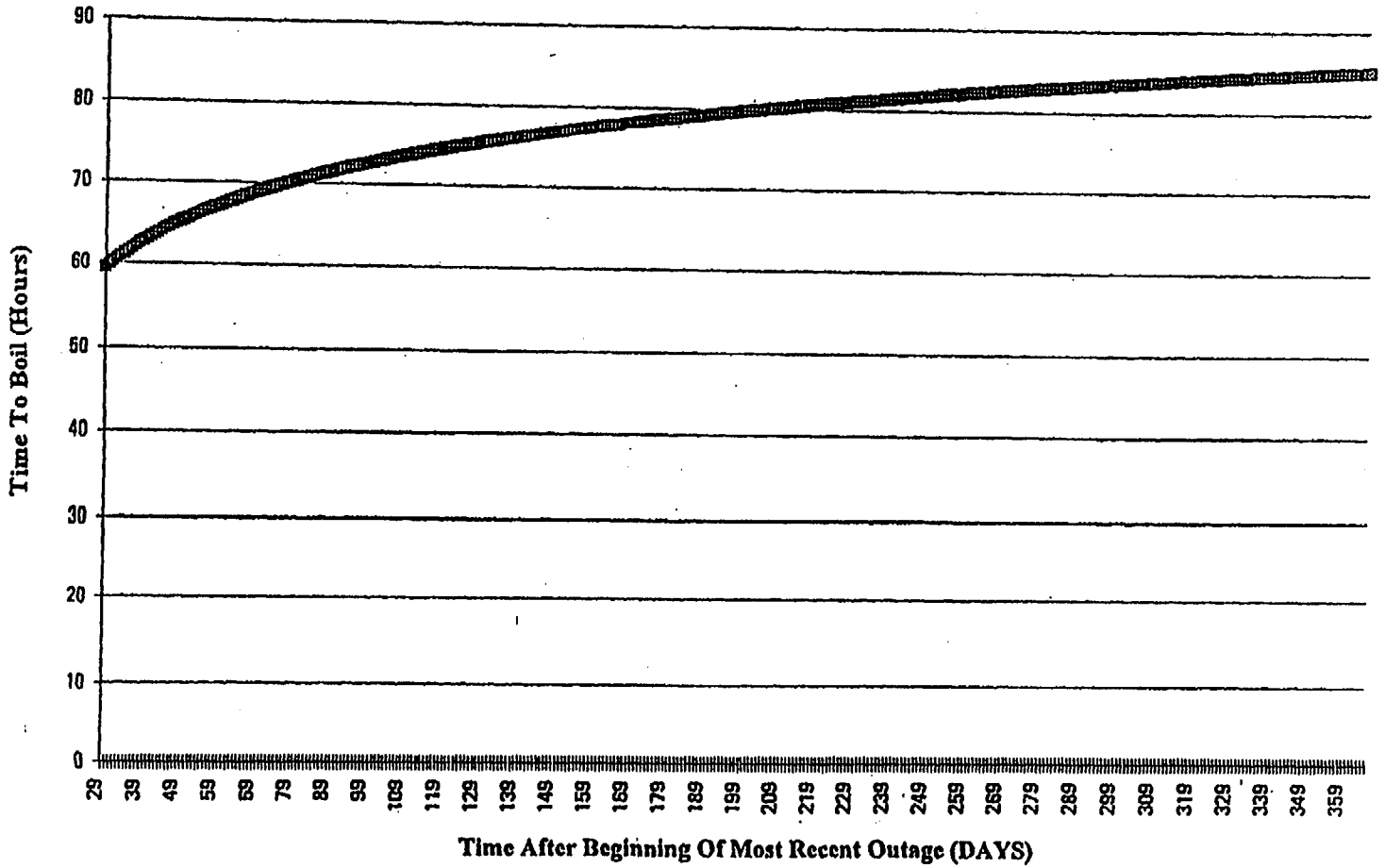
SPECIFIC TASKS:	HOW:
1. Determine if Reactor Building Heating, Ventilation and Air Conditioning (RB HVAC) (including chilled water) can be restarted post accident.	1a. Operators should restart RB-HVAC in accordance with applicable procedures.
NOTE: **Restart of RB HVAC or Electrical Load Shed must be initiated within 24 hours following the Secondary Containment Isolation.**	**NOTE:** **The RB HVAC System cannot be restarted if system integrity has been comprised by a seismic event. (Ref: ON-000-002)**
2. If you determine if RB HVAC can be restarted, instruct the Ops Coordinator to have operations either restart it or shed load.	2a. Instruct Operations to restart RB HVAC as specified in OSC Coordinator's Emergency Plan-Position-Specific Instruction.
3. If you determine that RB HVAC cannot be restarted, provide direction to Ops Coordinator to shed electrical loads.	3a. Instruct Operations to shed electrical loads as specified in the OSC Coordinator's Emergency Plan-Position-Specific Instruction.

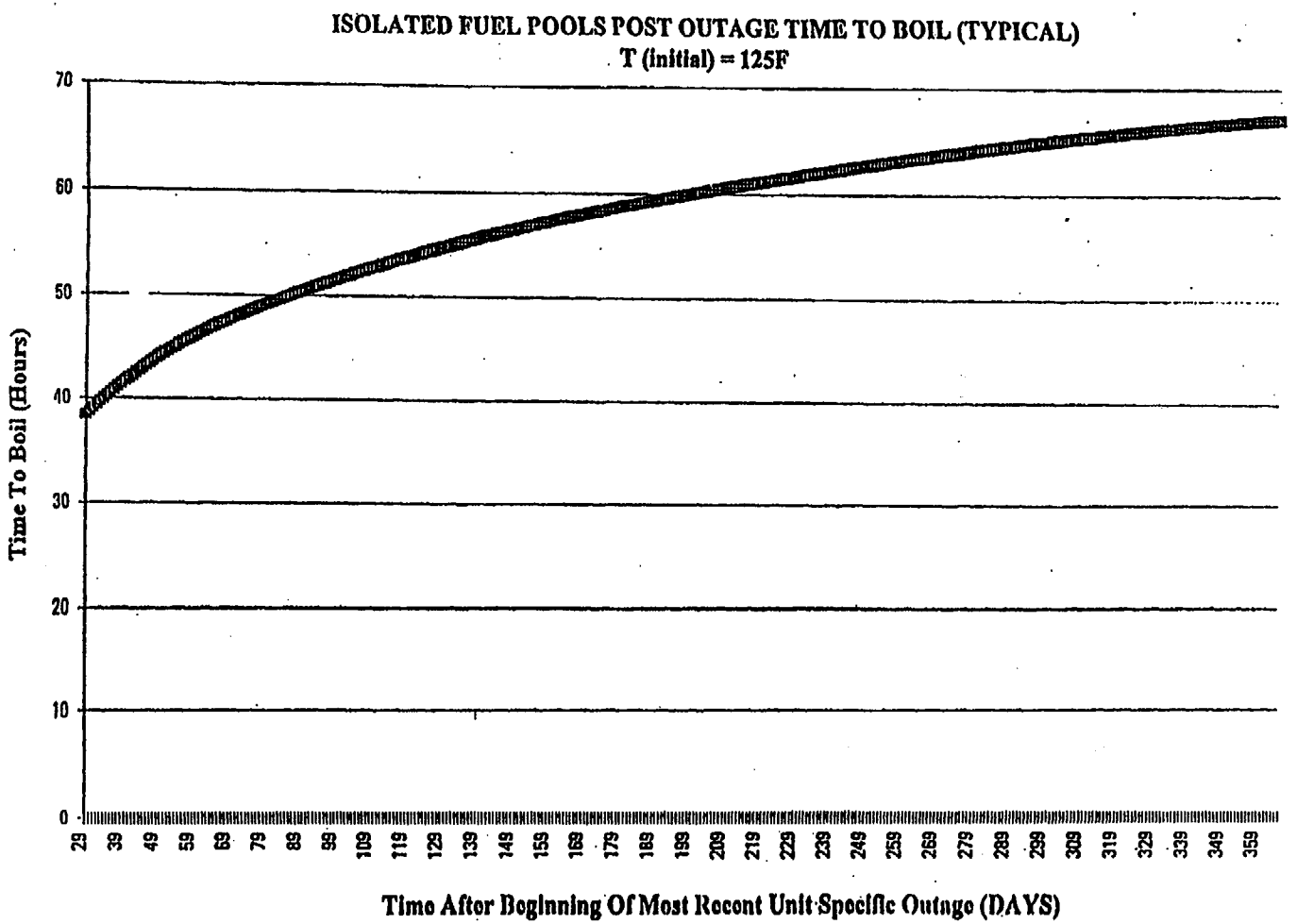
MAJOR TASK:

Determine if Fuel Pool boiling can be expected and initiate actions as necessary to prevent Fuel Pool boiling or to mitigate the consequences of Fuel Pool boiling. (Reference **NE-092-002**)

SPECIFIC TASKS:	**HOW:**
1. Determine status of Fuel Pool Cooling system.	1a. Review system status with Ops coordinator. **HELP** **Loss of Fuel Pool Cooling/Coolant Inventory See ON-135/235/001**
2. If Fuel Pool Cooling system is not available, determine the projected time to boil pool.	2a. Per temperature curves on pages 2 & 3 of this tab determine time to boil.
3. Is restoration of Fuel Pool Cooling expected prior to time to boil?	3a. Review current status with Ops Coordinator, Emergency Director and Damage Control Team Coordinator.
4. If restoration is not expected prior to pool boil, perform steps as directed by ON-135/235-001 to establish alternate cooling.	4a. Instruct Operations through Operations Coordinator and Damage Control Team Coordinator.
5. If alternate cooling can not be established, prepare plant for pool boiling.	5a. • Review plant status with Ops coordinator. • Prepare plant for pool boiling in accordance with ON-135/235-001. • Provide recommendations to minimize the effect of a boiling spent fuel pool (i.e., moisture, HVAC, etc.)

FUEL POOLS CONNECTED POST OUTAGE TIME TO BOIL (TYPICAL)
T (initial) = 125F




ISOLATED FUEL POOLS POST OUTAGE TIME TO BOIL (TYPICAL)
T (initial) = 125F
Time To Boil (Hours)
70
60
50
40
30
20
10
0
29
39
49
59
69
79
89
99
109
119
129
139
149
159
169
179
189
199
209
219
229
239
249
259
269
279
289
299
309
319
329
339
349
359
Time After Beginning Of Most Recent Unit Specific Outage (DAYS)

MAJOR TASK:

Monitor plant conditions to identify potential long term operational impacts and/or recovery actions.

SPECIFIC TASKS:	HOW:
1. Monitor the Spray Pond when the temperature is approaching or above 85°F, ensure: • The spray pond bypass valves are closed on each operable loop.	1a. Verify with Operations personnel. **HELP** **Spray Pond Operations** **See TAB 10**
• The spray inlet valves are operated in accordance with OP-116-001 for the RHRSW/ ESW Loop Flow aligned.	1b. Communicate these needs to the Damage Control Team Coordinator and Operations Coordinator.
2. Monitor diesel fuel oil supplies.	2a. Verify diesel fuel oil levels with operations personnel or in-plant teams.
	2b. Based on estimated or actual consumption rates, determine the need for, and acquisition of additional diesel fuel oil. (1) Communicate these needs to procurement personnel via the Administrative Coordinator.
3. Monitor spray pond water level.	3a. Verify spray pond water level with operations personnel or in-plant teams.
	3b. Based on estimated or actual rate of decrease, determine the need and timing of providing make-up water. **HELP** **Spray Pond Operation** **See TAB 10**

SPECIFIC TASKS:	HOW:
	3c. Communicate this need, (make up water), with the Damage Control Team Coordinator and Operations Coordinator.
4. Monitor spray pond water Chemistry.	4a. Verify spray pond water Chemistry with Chemistry personnel.
	4b. Based on Chemistry data, determine the need to prevent scaling by adding chemicals or by providing make-up water to dilute the pond.
	(1) Communicate these needs to the Operations and Damage Control Team Coordinators.
	HELP **Spray Pond Operation** **See TAB 10**
5. Monitor nitrogen pressure to ADS-SRV.	5a. Verify ADS bottle pressure with operations personnel.
	5b. Based on estimated or actual rate of decrease, determine the need and timing of adding nitrogen to the ADS bottles.
	(1) > 150 psig needed at bottles. (2200 psig is normal pressure.)
	(2) Communicate these needs to the Operations and Damage Control Team Coordinators.
6. Monitor Stand-by gas treatment charcoal for depletion.	6a. Monitor radioactive effluents from stand-by gas treatment system, access charcoal efficiency.
	6b. Based on estimated or actual rate of efficiency reduction, determine the need for, and timing of charcoal replacement.

SPECIFIC TASKS:	HOW:
	(1) Communicate these needs to the Operations and Damage Control Team Coordinators.
7. Monitor ESW loop flow	7a. Verify loop flows are greater than 3000 gpm to avoid interaction concerns.
8. Monitor the need to remove fission products from the Main Steam Lines following a LOCA. [e.g., fuel failure, increased radiation in Main Steam Line and Main Steam Line Tunnel, (Rx Bldg./Turb.Bldg.)]	8a. Notify Operations to perform OP-184/284-001, Section 3.3.
9. If Containment Integrity is required then flow through the Feedwater (FW) penetrations (X-9A & B) is also needed to maintain Feedwater 30 Day Water Seal, to prevent Secondary Containment Bypass Leakage, and to establish Long Term Containment Isolation (Ref. FSAR Section 6.2).	9a. If there is no flow through the FW penetrations, from Feedwater and/or Condensate (1) Develop and implement method to re-establish water seal by filling Feedwater lines (e.g. place Condensate in Service, Fill lines using ESW/Fire Protection, etc.) AND Establish Long Term Isolation by closing FW INLET CKV A(B) HV-141(241)F032A(B), with its actuator.
	9b. If there is flow through the Feedwater Penetration from Feedwater and/or Condensate, and RWCU is not in service (1) Ensure Closed or Close RWCU to FW LOOP A & B ISO HV-141(241)82A & B, in accordance with ON-159(259)-002.

MAJOR TASK:

Determine if ESW has been, or will be aligned to supply cooling to RBCCW and/or TBCCW heat exchangers, and ensure adequate cooling is provided for normal ESW heat loads.

SPECIFIC TASKS:		HOW:	
1.	When alignment of ESW to RBCCW and/or TBCCW heat exchangers is necessary ensure:		
	a. If an RHRSW Loop is inoperable, RBCCW/TBCCW heat exchangers are aligned to the ESW loop corresponding with the inoperable RHRSW loop.	1a.	Verify with Operations Coordinator.
	b. Control structure chillers/DX units and diesel generator coolers are aligned to the ESW loop **not** selected for alignment to RBCCW/TBCCW.	1b.	Verify with Operations Personnel.
	c. Monitor RHR pump motor bearing temperature. Take action as necessary to protect pumps from failing due to excessive motor bearing temperature (<200°F).	1c.	Verify with Operations Personnel or computer points NHT 13 thru 20.
	d. Start RHR pump room cooler fans for all RHR pumps, including those which are not running.	1d.	Verify with Operations Personnel.
	e. Walkdown area near RBCCW and TBCCW Heat Exchangers to ensure no leakage which could result in loss of Spray Pond inventory and/or reduce ESW flows.	1e.	Communicate walkdown needs with Operations and Damage Control Team Coordinator.