

R. A. JONES
Vice President

Duke Power
29672 / Oconee Nuclear Site
7800 Rochester Highway
Seneca, SC 29672

864 885 3158
864 885 3564 fax

October 13, 2003

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
Emergency Plan Implementing Procedures Manual
Volume B, Revision 2003-07

Please find attached for your use and review copies of the revision to the Oconee Nuclear Station Emergency Plan:

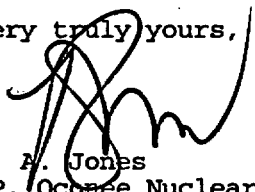
Volume B Revision 2003-07 October 2003

This revision is being submitted in accordance with 10 CFR 50-54(q) and does not decrease the effectiveness of the Emergency Plan or the Emergency Plan Implementing Procedures.

Any questions or concerns pertaining to this revision please call Rodney Brown, Emergency Planning Manager at 864-885-3301.

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

Very truly yours,


R. A. Jones
VP, Oconee Nuclear Site

xc: (w/2 copies of attachments)
Mr. Luis Reyes,
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
61 Forsyth St., SW, Suite 24T23
Atlanta, Georgia 30303

w/copy of attachments
Mr. James R. Hall
Rockville, Maryland

(w/o Attachments, Oconee Nuclear Station)
NRC Resident Inspector
M. D. Thorne, Manager, Emergency Planning

A045

October 13, 2003

OCONEE NUCLEAR SITE

SUBJECT: Emergency Plan Implementing Procedures
 Volume B, Revision 2003-07

Please make the following changes to the Emergency Plan, Volume B by following the below instructions.

REMOVE

Cover Sheet Rev. 2003-06

Table of Contents, page 1 & 2

Chemistry Manual 5.1 - 05/09/03

INSERT

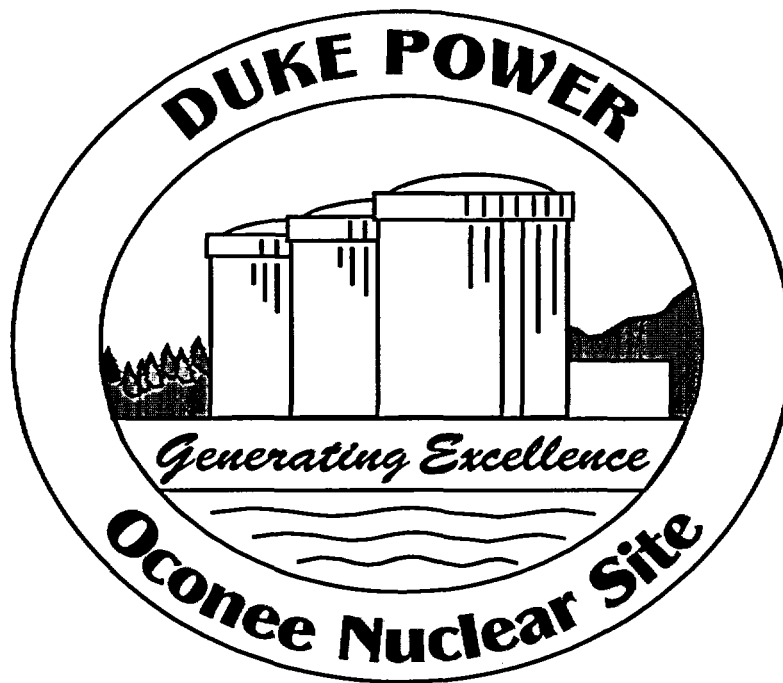
Cover Sheet Rev. 2003-07

Table of Contents page 1 & 2

Chemistry Manual 5.1 - 10/10/03

DUKE POWER

EMERGENCY PLAN
IMPLEMENTING PROCEDURES
VOLUME B



APPROVED:

Rocky Brown for W.W. Foster

W. W. Foster, Manager
Safety Assurance

10/13/2003

Date Approved

10/13/2003

Effective Date

VOLUME B
REVISION 2003-07
OCTOBER 2003

VOLUME B
TABLE OF CONTENTS

Chemistry Lab LM-O-P003C	Determination Of Boron By Manual Colorimetric Titration	11/06/02
Chemistry Lab LM-O-P919	Boron Analysis by Mettler DL 58 Boron Titration	10/28/02
CP/1/A/2002/004C	Operating Procedure For The Post Accident Liquid Sampling System (PALSS)	01/10/03
CP/1&2/A/2002/005	Post Accident Caustic Injection Into The Low Pressure Injection System	09/10/03
CP/2/A/2002/004C	Operating Procedure For The Post Accident Liquid Sampling System (PALSS)	01/10/03
CP/3/A/2002/004C	Operation Procedure For The Post-Accident Liquid Sampling System (PALSS)	01/10/03
CP/3/A/2002/005	Post Accident Caustic Injection Into The Low Pressure Injection System	09/10/03
HP/0/B/1009/009	Procedure For Determining The Inplant Airborne Radioiodine Concentration During Accident Conditions	12/03/97
HP/0/B/1009/012	Distribution Of Potassium Iodide Tablets In The Event Of A Radioiodine Release	01/09/01
HP/0/B/1009/015	Procedure For Sampling And Quantifying High Level Gaseous Radioiodine And Particulate Radioactivity	07/23/01
HP/0/B/1009/016	Procedure For Emergency Decontamination Of Personnel And Vehicles On-Site And From Off-Site Remote Assembly Area	12/29/97
HP/1/A/1009/017	Operating Procedure For Post-Accident Containment Air Sampling System	09/13/00
HP/2/A/1009/017	Operating Procedure For Post-Accident Containment Air Sampling System	09/13/00
HP/3/A/1009/017	Operating Procedure For Post-Accident Containment Air Sampling System	09/13/00
RP/0/B/1000/011	Planned Emergency Exposure	02/01/94
RP/0/B/1000/025	Operational Support Center Manager Procedure	04/29/03
RP/0/B/1000/027	Re-Entry Recovery Procedure	05/30/00

VOLUME B
TABLE OF CONTENTS

Chemistry Manual 5.1	Emergency Response Guidelines	10/10/03
Chemistry Manual 5.2	Post Accident Procedure Use Guidelines	05/29/03
Maintenance Directive 9.1	Emergency Preparedness Plan Activation	08/06/02
WPG 1.5	Emergency Plan for Work Control Group	03/31/03
OMP 1-7	Operations Emergency Response Organization	08/31/00
Radiation Protection Manual 11.1	Radiation Protection Emergency Response	09/01/98
Radiation Protection Manual 11.4	Radiation Protection Site Assembly	06/05/00
Safety Services Procedure 2.1	Safety Services Emergency Response Procedure 2.1	03/14/00

INFORMATION ONLY

CHEMISTRY MANUAL 5.1 EMERGENCY RESPONSE GUIDELINES

<u>REVISION NUMBER</u>	<u>ISSUE DATE</u>
Original	10/25/83
1	09/27/95
2	11/30/95
3	01/24/96
4	03/14/96
5	09/16/96
6	10/31/96
7	11/26/96
8	01/02/97
9	09/22/97
10	11/20/97
11	03/12/98
12	06/15/98
13	08/24/98
14	02/04/99
15	05/27/99
16	09/29/99
17	03/27/00
18	12/05/00
19	02/22/01
20	04/11/02
21	04/16/02
22	07/29/02
23	05/09/03
24	10/10/03

Prepared by: Dedrick Wald Date: 10-8-03

10CFR50.59 required: Yes _____ No ☒

Approval: Bryan L. New Date: 10/10/03

Control Copies delivered to Emergency Planning: Pam Moller
Date: 10/13/03

DUKE POWER COMPANY

OCONEE CHEMISTRY MANUAL

Emergency Response Guidelines

NOTE: Seven Control Copies and one Information Only copy of this CSM shall be routed to the Emergency Preparedness Team within three (3) working days following any approved changes/modifications.

1. Purpose

- 1.1 To identify members of the Chemistry Emergency Response Organization and their responsibilities.
- 1.2 Provide preplanned responses to emergency situations that may arise.

2. Chemistry Emergency Response Organization

- 2.1 The positions identified in Enclosure 6.1 may be filled by personnel identified in Enclosure 6.2.
- 2.2 Chemistry Manager, Chemistry Team Leader or qualified Scientists may serve as Chemistry Manager in the OSC as identified in Enclosure 6.2. During backshift, holidays and weekends the Radwaste or Primary shift/coverage person will be the Chemistry Single Point of Contact until relieved.
- 2.3 A list of alternates for other positions is identified in Enclosure 6.2. These personnel may be designated by the Chemistry Manager as essential or non-essential as the emergency condition or event dictates.
- 2.4 The responsibilities of the Chemistry Emergency Response Organization are contained in Enclosure 6.3.
- 2.5 Once the OSC is activated for emergency response, all activities of field teams prior to, during, and thereafter become the responsibility of the OSC to coordinate and control. Upon the activation of the OSC all chemistry activities currently in progress should be turned over to the OSC for coordination. The turnover should at a minimum include:
 - Emergency Job(s) in the field
 - Communication capability with the field team
 - Emergency equipment out of service/job description
 - Status of plant including power availability

If approval to continue is given, an OSC task sheet should be submitted to document the activity(s).

- 2.6 The SPOC Supervisor is responsible for assigning tasks and managing all resources during the first 75 minutes of a back shift drill and/or emergency. If Chemistry management is not available, the SPOC Supervisor (Interim OSC Manager) will direct the Chemistry resources. If Chemistry management arrives in the OSC during the 75 minutes, then Chemistry management will manage Chemistry resources.
- 2.7 When calling in personnel who are off site, determine Fitness for Duty per Enclosure 6.4.
- 2.8 The Chemistry Emergency Response Organization work schedule should be established as the emergency condition or event dictates.
- 2.9 The Chemistry Emergency Response Organization should use Enclosure 6.5 and 6.6 to assist in planning sampling, analysis, and chemical addition activities during an emergency situation.
- 2.10 If G.O. Chemistry support is needed, contact one of the following per the Chemistry Emergency phone list in the OSC file:

R. W. Eaker

M. K. Johnson

D. P. Rochester

2.11 Expectations for Communication in the OSC:

- 2.11.1 Use the 4 communication techniques which help reduce errors:
- Communications will be directed.
 - Use repeat backs (I send, you repeat, I confirm).
 - Radio / telephone communications should include name and location.
 - Use the phonetic alphabet for train designations.
- 2.11.2 Teams dispatched from the OSC will take a radio or have access to a radio. Chemistry staff in the OSC will have access to a radio.
- 2.11.3 Radio communications will be verified. If radio communication **CANNOT** be made, the dispatched team will call Chemistry Staff in the OSC at 3858 or 3495 to determine how communications will be handled.
- 2.11.4 Prior to the team leaving the OSC, specify when communications will be required (e.g., when the team reaches the task area, every 30 minutes, when results are obtained, etc.).

- 2.11.5 Tasks are to be completed as directed from the OSC. Should conditions change, notify Chemistry Staff in the OSC immediately. Do **NOT** go off on another task without direction from the OSC.

3. Chemistry Response to Site Assembly During Normal Working Hours
(Monday through Thursday excluding holidays)

3.1 Inside the Protected Area:

- Personnel shall assemble at their respective Chemistry office.
- Upon arriving at assembly location,
 - Card in (swipe security badge)
 - Report accountability to Team Leader or designee
 - Remain in the assembly location until given further instructions by the Emergency Coordinator.
- Personnel who assemble at an alternate Chemistry office shall:
 - Card in (swipe security badge)
 - Report accountability to their Team Leader or designee
 - Remain in the assembly location until given further instructions by the Emergency Coordinator.
- Personnel working in the RCA/RCZ who are wearing protective clothing shall:
 - Proceed to the change room
 - Frisk appropriately
 - Card in (swipe security badge)
 - Contact their Team Leader or designee to report their location
 - Wait for further instructions
- Personnel who **CANNOT** reach their card reader / assembly location within 30 minutes of the Site Assembly alarm shall:
 - Immediately call their Team Leader or designee
 - Proceed to their card reader / assembly location as soon as possible

- Personnel engaged in critical work activities: (e.g., resin bed regeneration, valve / equipment operation related to the event, critical path work, work of a sensitive nature associated with the Security Plan, Fire Plan, or Nuclear Safety)
 - Must contact their Team Leader or designee to provide their names, work location, nature of work, estimated time to completion, and any other relevant information.
 - Team Leaders shall relay pertinent information through the Chemistry Manager to the OSC Coordinator/Manager, who then assumes responsibility for the industrial and radiological safety of the workers.
 - For drills, such arrangements may be made in advance by location management and Emergency Planning.
- Team Leaders or designee will report location and numbers to the Administrative Specialist at ext. 3856.

NOTE: WHEN personnel are reporting to the OSC/TSC, it is necessary to report their accountability once they arrive at the OSC/TSC.

3.2 OSC / TSC Activation

- All personnel responding to the OSC/TSC, should card in (swipe security badge) upon arriving at the OSC/TSC.
- Chemistry Manager or designee will report accountability for Chemistry OSC responders to Chemistry Administrative Specialist (dayshift).

3.3 Outside the Protected Area

- Chemistry personnel shall:
 - Assemble in the Environmental Chemistry office area.
 - Report their accountability to their Team Leader or designee.
 - Team Leader or designee will provide location and numbers to the Administrative Specialist at ext. 3856.
- Personnel shall not enter the Protected Area unless they are responding to the OSC and shall keep their Team Leader or designee informed of their location until the Emergency Coordinator terminates the Site Assembly.

- 3.4 The Administrative Specialist will report accountability to the Security Shift Supervisor at ext. 5050 no later than 20 minutes after the initiation of Site Assembly. She will leave a message stating group name, her name, phone number and whether accountability is complete.
- 3.5 When personnel accountability has been completed as part of the Site Assembly, one of the following will occur:
 - 3.5.1 If the Assembly was a test of response time and accountability procedures or if the requirement for an assembly no longer exists, permission to return to normal duties will be given by the Operations Shift Manager/Emergency Coordinator.
 - 3.5.2 Plant conditions may require activation of the Site Emergency Response Organization. The notification to establish the Technical Support Center (TSC) and Operational Support Center (OSC) should be made over the PA system. The Chemistry Manager/Alternate should then implement the Organization outlined in Enclosure 6.1.
 - 3.5.3 Other instructions may be given by the Operations Shift Manager / Emergency Coordinator.

4. Chemistry Response to Site Assembly During Backshifts, Weekends, and Holidays

- 4.1 All Chemistry personnel should assemble at their normal office area or any other Chemistry Assembly point, card in (swipe their badge), and report their location to the Radwaste Control Room at ext. 3230 or Primary at 2323. The Radwaste or Primary shift/coverage person should account for all Chemistry personnel on site. The accountability should be reported by calling ext. 5050 with name, location, and number of people accounted for including names of any personnel presently not accounted for. All jobs in progress should be safely secured before reporting.

- 4.2 When personnel accountability has been completed as part of a Site Assembly one of the following may occur:
- 4.2.1 If the Assembly was a test of response time and accountability procedures or if the requirement for an assembly no longer exists, permission to return to normal duties should be given by the Operations Shift Manager/Emergency Coordinator.
 - 4.2.2 Plant conditions may require activation of the Site Emergency Response Organization. The notification to establish the TSC/OSC shall come from the Operations Shift Manager/Emergency Coordinator. The Radwaste/Primary shift/coverage person will establish the Chemistry Organization and act as Chemistry Single Point of Contact until relieved by Chemistry Manager or designee.
 - 4.2.3 Other instructions may be given by the Operations Shift Manager/ Emergency Coordinator.

5. Chemistry Response to Site Evacuation Announcement

NOTE: A Site Assembly alarm will <u>always</u> precede a Site Evacuation Announcement.

- 5.1 Based on plant conditions or radiological conditions, the Emergency Coordinator makes a determination that Site Evacuation / Relocation is warranted.
- 5.2 TSC requests OSC personnel to prepare for Site Evacuation / Relocation.
- 5.3 Chemistry management will identify essential / non-essential personnel and provide information to Group Evacuation Coordinator at ext. 3856.
- 5.4 TSC Offsite Communicator makes PA announcement to initiate Site Evacuation / Relocation.
- 5.5 Group Evacuation Coordinator accesses Evacuation / Relocation instructions through the DAE (Duke Application Environment) and coordinates evacuation / relocation of assigned personnel by notifying Team Leaders or designee.
- 5.6 Personnel being relocated to Oconee Training Center or Oconee Complex should notify the Group Evacuation Coordinator at ext. 3856 of their location and a number where they can be reached. The Group Evacuation Coordinator will then notify TSC/OSC/EOF Managers.

6. Enclosures

- 6.1 Chemistry Emergency Response Organization**
- 6.2 Designation of Essential Chemistry Personnel**
- 6.3 Responsibilities of Emergency Response Organization**
- 6.4 Fitness For Duty Questions for Call Outs (if needed)**
- 6.5 Post Accident Sampling and Analysis Checklist**
- 6.6 Post Accident Chemical Addition Checklist**

Enclosure 6.1 **CSM 5.1**
Chemistry Emergency Response Organization **Page 1 of 1**
(Minimum Staffing)

NOTE: OSC - Operational Support Center - the area in the back of the Unit 3 Control Room.

* - 75 minute response time

OSC

Chemistry Manager * (one)

(phone: ext. 3495)

OSC

Chemistry Area Manager (one)

(phone: ext. 3858)

OSC

Chemistry Staff Support (one)

OSC

Chemistry Specialist (four)

1. Operational Support Center (OSC)

NOTE: For Initial Response, one Chemistry Manager OR Area Manager is all that is required to respond. For extended drills and all emergencies, two persons are required.

1.1 Chemistry Manager / Area Manager (one) - OSC phone 3495

Bryon Norris	Dean Cantrell
Rick Wright	Amanda Breland
Dale White	Andy Perry
Sheila Constance	

NOTE: Two Staff persons will be called out per the Community Alert Network System.

1.2 Chemistry Staff Support (one) - OSC phone 3858

Dedrick Wald	Steve Davenport
Ellen Morris	Keith Beddingfield
Garen Denard	Mark Drost
Mark Sanders	Ann Clark
Travis Rollins	

NOTE: Only four technicians are required although as many as six may respond (includes two shift persons (minimum staffing requirements) plus four persons to be called by the Community Alert Network System).

Included in the minimum staffing is the requirement that the qualifications of the two shift persons in combination will allow RCS sampling, PALS operation, and Caustic addition.

1.3 Chemistry Technicians / Specialists (five)

Secondary	Environmental	Primary	Radwaste
Lance Young	Mike McCoy	Sherri Lackey	Roy Hanks
Saverne Haynes	Jac Cashin	Gina Roach	Sharon Strickland
Ida Huff	Ronnie Tucker	Charlie Hendricks	Greg Aldrich
Lawrence Nesbitt	Peri Bush	Dana Gaillard	Ron Sager
Skip Fletcher	Gary Barker	Vivian Howell	Wayne Evans
Lynette Wright	Stephen Johannes	Jake Lamey	John Lowdermilk
E. T. Moss	Don Hoshaw	Butch Wilson	Keith Peebles
Harold Bruce		Lilly Blue	
Luke Calvert			

**Enclosure 6.3
Responsibilities of
Emergency Response Organization**

CSM 5.1
Page 1 of 4

1. Responsibilities of the Chemistry Manager

- 1.1 Set up the Chemistry Emergency Response Organization for OSC and Chemistry Office. Designate non-essential personnel.

NOTE: Appropriate procedures are located in OSC in the identified file cabinet.
--

- 1.2 Keep the OSC Coordinator informed of current status of Chemistry areas of responsibility.
- 1.3 Inform OSC Coordinator of any Chemistry Emergency Response Activities initiated prior to the activation of OSC.
- 1.4 Maintain assessment of the emergency and recovery efforts and identify trends and conditions that have the potential to cause changes in the chemical parameters of the emergency situation.
- 1.5 Participate in the development of recovery programs in Chemistry areas of responsibility.
- 1.6 Use Enclosures 6.5 and 6.6 as needed to plan sampling, analysis and/or chemical addition activities.
- 1.7 IF liquid radioactive releases are in progress, classify the release for the OSC/TSC.
- Releases \leq 10 EC are within normal limits.
 - Releases $>$ 10 EC are above normal limits.
- 1.8 Complete Enclosure 4.11 of RP/0/B/1000/025 (Operational Support Center Manager Procedure).

2. Responsibilities of the Radwaste/Primary Shift/Coverage Person on Holidays, Weekends, Backshift

- 2.1 Serve as Single Point of Contact for Chemistry until relieved.
- 2.2 Account and report for all Chemistry personnel on-site during a Site Assembly. The accountability should be reported to Security at ext. 5050 within 20 minutes and should include name, location, and number of people accounted for including names of any personnel presently not accounted for.
- 2.3 Upon implementation of the Site Emergency Response, report to the Operational Support Center (OSC) and provide immediate support to the Operations Shift Manager.

**Enclosure 6.3
Responsibilities of
Emergency Response Organization**

CSM 5.1
Page 2 of 4

NOTE: Appropriate procedures are located in the OSC in the file cabinet labeled Chemistry procedures.

- 2.4 Inform OSC Coordinator of any Chemistry Emergency Response Activities prior to the activation of OSC.
- 2.5 **IF** radioactive releases are in progress, classify the release for the OSC/TSC.
 - Releases \leq 10 EC are within normal limits.
 - Releases $>$ 10 EC are above normal limits.
- 2.6 No persons will need to be called out. One (1) Chemistry Manager/Alternate will always be on duty and will respond when their emergency response pager is automatically actuated. Four (4) technicians/specialists and two (2) area Staff support persons and one (1) Team Leader will be called out by the automated "Community Alert Network System".
- 2.7 In the event the Community Alert Network System fails or is out-of-service, Call Outs for the four technicians/specialists may be requested. Persons have the responsibility to respond to a call out (Management Procedure "Overtime, Call-Outs and 16-Hour Provision").
 - Fitness for duty must be determined by asking the questions listed in Enclosure 6.4.
 - Two Staff persons from the Duty list should be paged a second time through the Switchboard Operator to please report to the OSC.

3. Responsibilities of the Chemistry Staff Support

- 3.1 Keep Chemistry personnel informed of current status of the emergency situation and recovery effort.
- 3.2 Implement control measures to operate the laboratory during emergency conditions.
- 3.3 Use Enclosures 6.5 and 6.6 as needed to plan sampling, analysis, and/or chemical addition activities.
- 3.4 Complete Enclosure 4.12 of RP/0/B/1000/025 (Operational Support Center Manager Procedure).

**Enclosure 6.3
Responsibilities of
Emergency Response Organization**

**CSM 5.1
Page 3 of 4**

3.5 Conduct pre-job briefings to:

- 3.5.1** Ensure employees are sufficiently familiar with the task to efficiently perform it under the anticipated conditions.
- 3.5.2** Ensure materials, parts, tools, and equipment necessary to perform the task are proper for the job, are readily available, have electric or pneumatic power sources available, and are familiar to workers.
- 3.5.3** Ensure workers assigned to the task have sufficient remaining exposure to contribute significantly to its completion and necessary requests for dose extensions are submitted in a timely manner and with proper justification.
- 3.5.4** Coordinate work activities with those of other work groups to achieve maximum efficiency in the task as a whole and to minimize the potential for unnecessary exposure due to poor communications or lack of proper planning/scheduling.

4. Responsibilities of Chemistry Technicians

- 4.1** Follow applicable emergency procedures unless directed to do otherwise by the Chemistry Manager.
- 4.2** Comply with requirements and special instructions of the applicable Radiation Work Permit (RWP), warning sign or barrier concerning radiation/contamination control unless directed to do otherwise by Radiation Protection or Chemistry Manager.
- 4.3** Know location of radiation sources and their dose rates at the task location or accesses. Utilize Low Exposure Waiting Areas where applicable. This information is to be provided by Radiation Protection personnel.
- 4.4** Ensure you are sufficiently familiar with the task to efficiently perform it under the anticipated conditions. Pre-job briefings should be conducted to ensure your complete understanding of the job. (Repeat any instructions given.)
- 4.5** Ensure you have sufficient remaining exposure to contribute significantly to the completion of the assigned task.
- 4.6** Radwaste or Primary Shift person should complete Enclosure 4.13 of RP/0/B/1000/025 (Operational Support Center Manager Procedure).

5. Training for Emergency Response Organization

NOTE: Emergency Response Training Module (OC-1818) was replaced with UALIIB (Radiation Worker Training).

5.1 Chemistry Manager / Team Leader

- Initial Chemistry Emergency Response Training (OC3704)
- Participate in at least one drill / two years (HS0537)
- Initial Training - OSC Facility Specific (OC7099)
- Chemistry Specific Emergency Plan / Response Yearly Update (OCC043)

5.2 Staff

- Initial Chemistry Emergency Response Training (OC3704)
- Participate in at least one drill / two years (HS0537)
- Initial Training - OSC Facility Specific (OC7099)
- Chemistry Specific Emergency Plan / Response Yearly Update (OCC043)

5.3 Technicians

- Initial Chemistry Emergency Response Training (OC 3704)
- Initial Training - OSC Facility Specific (OC 7099)
- Chemistry Specific Emergency Plan / Response Yearly Update (OCC043)

Enclosure 6.4
Fitness for Duty Questions for Call Outs

CSM 5.1
Page 1 of 1

1. Employees who acknowledge consumption of alcohol within 5 hours must be evaluated by supervision upon reporting to work. Evaluation may be by observation or breathalyzer.
2. IF the answer to the first question is no, the other questions should NOT be asked.
3. These questions apply to anyone being called out to work in the Protected Area of the plant, regardless of position or whether his/her name appears on a "duty list". Documentation of the phone call is NOT required by the Fitness for Duty "rule". However, if the call out results in a questionable situation, you may want this information documented.

The following questions MUST be asked to determine Fitness for Duty:

1. *Have you consumed alcohol in the last 5 hours?*
2. *What did you have?*
3. *How much did you have?*
4. *Can you perform your job unimpaired?*
5. *Can you drive?*

**Enclosure 6.5
Post Accident Sampling
and Analysis Checklist**

**CSM 5.1
Page 1 of 4**

NOTE: Do <u>NOT</u> use this Enclosure for documentation.
--

Date: _____ Time: _____ Unit: _____

_____ Sample requested by TSC.

Sample from:

Normal		PALSS		Appendix R	
RCS - Pri. Sample Hood	_____	RCS "J-Leg"	_____	RCS "J-Leg"	_____
RCS - Wst. Sample Hood	_____	HPI Letdown	_____		
LPI - Wst. Sample Hood	_____	LPI Pump Disch.	_____		

_____ Determine analysis / analyses to be performed and list below:

_____ Initiate OSC Task Work Sheet.

Enclosure 6.5
Post Accident Sampling
and Analysis Checklist

CSM 5.1
Page 2 of 4

Procedures / Lab Methods to be used:

_____	CP/0/B/2001/008	Chemical Safety Equipment and Spill Control Response
_____	CP/1/A/2002/001	Unit One Primary Sampling System
_____	CP/2/A/2002/001	Unit Two Primary Sampling System
_____	CP/3/A/2002/001	Unit Three Primary Sampling System
_____	CP/1/A/2002/004 C	Operating Procedure for the Post Accident Liquid Sampling (PALS) System (EP)
_____	CP/2/A/2002/004 C	Operating Procedure for the Post Accident Liquid Sampling (PALS) System (EP)
_____	CP/3/A/2002/004 C	Operating Procedure for the Post Accident Liquid Sampling (PALS) System (EP)
_____	CP/1/A/2002/004 E	Unit 1 Reactor Coolant Sampling during an Appendix "R" Accident
_____	CP/2/A/2002/004 E	Unit 2 Reactor Coolant Sampling during an Appendix "R" Accident
_____	CP/3/A/2002/004 E	Unit 3 Reactor Coolant Sampling during an Appendix "R" Accident
_____	CP/1&2/A/2002/005	Post Accident Caustic Injection into the Low Pressure Injection System
_____	CP/3/A/2002/005	Post Accident Caustic Injection into the Low Pressure Injection System
_____	CP/1/B/3002/002	Unit 1 Chemical Additions to Secondary Systems for Normal Operating Conditions
_____	CP/2/B/3002/002	Unit 2 Chemical Additions to Secondary Systems for Normal Operating Conditions
_____	CP/3/B/3002/002	Unit 3 Chemical Additions to Secondary Systems for Normal Operating Conditions
_____	CP/0/B/5200/012	Turbine Building Sump Monitor Tank Operation
_____	CP/0/B/5200/045	Liquid Waste Release from RWF
_____	LM/O/P003C	Determination of Boron by Manual Colorimetric Titration Using Phenolphthaleine Indicator (EP)
_____	LM/O/P004	Determination of Chloride by Specific Ion Electrode
_____	LM/O/P919	Boron Analysis by Mettler DL-58 Boron Titration (EP)
_____	CSM 3.8	Secondary Lab Sampling Frequencies, Specifications, and Corrective Actions
_____	CSM 3.10	Primary Lab Sampling Frequencies, Specifications, and Corrective Actions
_____	CSM 5.1	Emergency Response Guideline
_____	CSM 5.2	Post Accident Procedure Use Guidelines

Enclosure 6.5
Post Accident Sampling
and Analysis Checklist

CSM 5.1
Page 3 of 4

_____ Obtain applicable RIA readings from the Data Acquisition System or Control Room Liaison:

<u>RIA</u>	<u>Reading</u>	<u>RIA</u>	<u>Reading</u>
RIA-4	_____mR/hr	RIA-32	_____CPM
RIA-8	_____mR/hr	RIA-57	_____R/hr
RIA-10	_____mR/hr	RIA-58	_____R/hr
RIA-13	_____mR/hr		

SYSTEM SAMPLING:

_____ Notify Operations Liaison an RP of support needs.

_____ Determine number of Chemistry personnel required for sampling and analysis:

Sampling: _____ Analysis: _____

_____ Ensure assigned personnel have sufficient remaining exposure to complete assigned tasks by obtaining Dose Extensions as required.

_____ Determine sample transporter to be used and its location.

_____ Conduct planning session with Chemistry, RP, and Operations personnel involved in sampling to identify / define specific roles and responsibilities:

_____ A. Designate Chemistry personnel to perform sampling.

_____ B. Designate Chemistry personnel to support sampling at the RCZ / control point.

_____ C. Identify Chemistry and RP personnel assigned to perform analysis.

_____ D. Determine required respiratory equipment and protective clothing.

_____ E. Determine required equipment to support sampling (eg; radios, sample bottles, flashlights, etc.).

_____ F. Establish Low Dose Waiting Areas / control points.

_____ G. Determine stay-time(s) at PALS Panels.

_____ H. Determine "best" route for sample transport.

_____ Obtain equipment required to support sampling.

**Enclosure 6.5
Post Accident Sampling
and Analysis Checklist**

**CSM 5.1
Page 4 of 4**

_____ Obtain keys required for sampling (located in the Chemistry OSC Emergency Procedures Cabinet).

_____ Establish and maintain stay-time log at the RCZ / control point.

ANALYSIS:

_____ Determine additional RP support required during analysis.

_____ Determine need to prepare back-up lab for analysis (RW Facility Lab).

_____ Obtain and label carboys for storing / handling liquid waste.

_____ Obtain lead shielding and prepare Chemistry Lab for analysis.

_____ Ensure analytical instruments are standardized prior to use.

_____ Ensure sufficient quantities of reagents are available; prepare as needed.

_____ Conduct planning session with Chemistry and RP personnel involved in analysis to identify / define specific roles and responsibilities:

_____ A. Designate Chemistry personnel required to perform specific analyses.

_____ B. Determine respiratory equipment and protective clothing requirements.

_____ C. Use Breathing Air Cylinders and set-up Air Line Header for Lab if respiratory equipment is required.

Enclosure 6.6
Post Accident Chemical Addition Checklist

CSM 5.1
Page 1 of 2

NOTE: Do NOT use this Enclosure for documentation.

This is a time-critical task. Caustic addition must be initiated within 30 minutes of recirc mode operation.

Date: _____ Time: _____ Unit: _____

_____ Caustic addition requested.

_____ Initiate OSC Task Work Sheet (when appropriate)

Procedures / Lab Methods to be used:

_____	CP/1&2/A/2002/005	Post Accident Caustic Injection into the Low Pressure Injection System
_____	CP/3/A/2002/005	Post Accident Caustic Injection into the Low Pressure Injection System
_____	CP/0/B/2001/008	Chemical Safety Equipment & Spill Control Response
_____	CSM 5.2	Post Accident Procedure Use Guidelines

_____ Verify LPI System is in service and taking suction from the Reactor Building Emergency Sump.

_____ Obtain the following applicable RIA readings from the Data Acquisition or the Control Room. Refer to Enclosure 6.2 of CSM 5.2 for RIA information.

<u>RIA</u>	<u>Reading</u>	<u>RIA</u>	<u>Reading</u>
RIA-12	_____mR/hr	1RIA-32-12	_____CPM
3RIA-19	_____mR/hr	3RIA-32-3	_____CPM
1RIA-32-3	_____CPM	3RIA-32-5	_____CPM
1RIA-32-10	_____CPM	RIA-57	_____CPM
1RIA-32-11	_____CPM	RIA-58	_____CPM

_____ Notify RP, Operations Liaison, and OSC Coordinator of support needs.

_____ Determine number of Chemistry personnel required for addition:
required _____ (minimum of two)

_____ Ensure assigned personnel have sufficient remaining exposure to complete assigned tasks.
Obtain Dose Extensions as required.

Enclosure 6.6
Post Accident Chemical Addition Checklist

CSM 5.1
Page 2 of 2

_____ Time permitting, conduct planning session with Chemistry, RP, Operations, and OSC personnel involved in addition to identify/define specific roles and responsibilities:

- _____ A. Designate Chemistry personnel to perform addition.
- _____ B. Designate additional OSC personnel to transport caustic.
- _____ C. Designate Chemistry or OSC personnel to support addition at the RCZ/control point.
- _____ D. Determine required respiratory equipment, protective clothing, and any additional RP requirements.
- _____ E. Determine required equipment to support addition (eg; radios, chemical resistant suits, flash lights, etc.).
- _____ F. Establish Low Dose Waiting Areas/control points (as required).
- _____ G. Determine stay time(s) at caustic addition area (as required).
- _____ H. Identify potential safety hazards to team members (eg; heat stress, caustic spill control, caustic hazards, etc.).

_____ Obtain equipment required to support addition.

_____ Establish and maintain stay time log at the RCZ/control point (as required).