



Duke Energy

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W. R. McCollum, Jr.
Vice President

December 18, 2000

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 2000-07

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

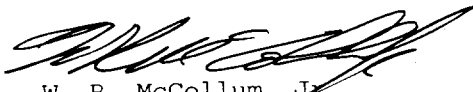
Volume B Revision 2000-07 December 2000

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 Mike Thorne,
Emergency Planning Manager
at 864-885-3210.

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

Very truly yours,



W. R. McCollum, Jr.
VP, Oconee Nuclear Site

xc: (w/2 copies of attachments)
Mr. Luis Reyes,
Regional Administrator, Region II
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w/copy of attachments
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Rockville, Maryland

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

AD15

December 18, 2000

OCONEE NUCLEAR SITE

SUBJECT: Emergency Plan Implementing Procedures
Volume B, Revision 2000-07

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

REMOVE

Cover Sheet Rev. 2000-06

LM-O-P003A - 06/18/98 - DELETED

Table of Contents page 1, 2, & 3

Chemistry Manual 5.1 - (03/08/00)

ADD

Cover Sheet Rev. 2000-07

Table of Contents page 1, 2, & 3

Chemistry Manual 5.1 - (12/05/00)

DUKE POWER

EMERGENCY PLAN IMPLEMENTING PROCEDURES VOLUME B



APPROVED:

W. W. Foster, Manager
Safety Assurance

12/18/2000

Date Approved

12/18/2000

Effective Date

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Chemistry Lab LM-O-P919	Boron Analysis by Mettler DL 58 Boron Titration – (10/26/99)
CP/1/A/2002/004C	Operating Procedure for the Post Accident Liquid Sampling System (PALSS) - (12/16/99)
CP/1&2/A/2002/005	Post Accident Caustic Injection into the Low Pressure Injection System - (05/23/00)
CP/2/A/2002/004C	Operating Procedure for the Post Accident Liquid Sampling System (PALSS) - (12/16/99)
CP/3/A/2002/004C	Operation Procedure for Operation of the Post-Accident Liquid Sampling System (PALSS) - (12/16/99)
CP/3/A/2002/005	Post Accident Caustic Injection into the Low Pressure Injection System - (05/23/00)
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 - (06/15/99)
HP/0/B/1009/015	Procedure for Sampling and Quantifying High Level Gaseous Radioiodine And Particulate Radioactivity - (06/16/99)
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/O/B/1000/011	Planned Emergency Exposure - (02/01/94)
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CP/0/A/2003/02B	Determination of Failed Fuel - (04/03/86) DELETED
CP/0/A/2004/02A	Post Accident Determination of Boron Concentration Using the Orion Fluoroborate Electrode - (03/28/85) DELETED
CP/0/A/2004/02F	Determination of Boron for High pH Samples Following Caustic - (12/12/94) - DELETED
CP/0/A/2004/09D	Post Accident Determination of PH - (03/28/85) DELETED
CP/0/A/2004/037	Determination of Boron by Manual Colorimetric Titration Using Phenolphthaleine Indicator - (12/12/94) DELETED
CP/0/A/2005/2D	Post Accident Determination of Gamma Isotopic Activity - (07/09/82) DELETED
CP/0/B/2001/05A	Post Accident Analytical Procedure Guidelines- (06/14/85) DELETED
CP/0/B/2005/09	Determination of Failed Fuel - (10/05/90) DELETED
CP/0/B/4003/01	Procedure for Environmental Surveillance Following a Large Unplanned Release of Gaseous Radioactivity - (07/25/85) DELETED
CP/0/B/4003/02	The Determination of Plume Direction and Sector(s) to be Monitored Following a Large Unplanned Release of Gaseous Activity DELETED
HP/0/B/1009/10	Procedure for Quantifying Gaseous Releases Through Steam Relief Valves Under Post-Accident Conditions - (10/30/85) DELETED
HP/0/B/1009/11	Projection of Offsite Dose from the Uncontrolled Release of Radioactive Materials Through a Unit Vent - (05/24/85) DELETED
HP/0/B/1009/14	Project Offsite Dose from Releases other than Through a Vent - (02/12/85) DELETED
IP/0/A/0050/001	Procedure to Provide Emergency Power to an HPI Pump Motor from the ASW Switchgear - (10/05/92) DELETED
IP/0/B/0050/004	Emergency Power - Telephone System - (03/30/87) DELETED
DTA-1	Site Assembly (ESS - Maintenance Division) - (11/07/95) DELETED
DTA-2	Station Support During a Site Assembly - (03/26/92) DELETED
Integrated Sched.	Integrated Scheduling Group Directive 6.0 - (10/26/89) DELETED
STA. SVCS. 3.1.6	Industrial Safety, Health, and/Fire Protection Section - (09/18/89) DELETED
Commodities & Facilities CF 1-10	Site Assembly CF 1-10 - (11/01/94) - DELETED
Commodities & Facilities Functional Area Directive 102	Station Support During a Site Assembly Functional Area Directive 102 - (07/14/97) - DELETED from Volume B, moved to Volume C on 06/15/98 Rev. 98-04
LM-O-P003A	Determination of Boron Using The Mettler DL40GP - 06/18/98 - DELETED

Revision 2000-07
December 2000

**CHEMISTRY MANUAL 5.1
EMERGENCY RESPONSE GUIDELINES**

REVISION NUMBER

Original

1

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INFORMATION ONLY

ISSUE DATE

10/25/83

09/27/95

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12/05/00

Prepared by:

Dean Cantrell

Date:

11-30-00

10CFR50.59 required: Yes

No

☒

Approval:

Bryan J. Huns

Date:

12/5/00

Control Copies delivered to Emergency Planning:

Sam Motter

Date:

12/5/00

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 Senior Scientist may serve as Chemistry Manager in the OSC as identified in Enclosure 6.2. During backshift, holidays and weekends the Radwaste 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 the SPOC Supervisor 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 | P. W. Downing |
- 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.

3.2 Outside the Protected Area

- Environmental 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.

3.3 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 her name, department name, number and names of missing personnel.

3.4 When personnel accountability has been completed as part of the Site Assembly, one of the following will occur:

- 3.4.1 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.

- 3.4.2 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.
- 3.4.3 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. The Radwaste 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 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 (five)

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	Jeff Bramblett
Dale White	Andy Perry
Charlie McIlwain	

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

1.2 Chemistry Staff Support (one) - OSC phone 3858

Roger Smith	Steve Davenport
Dedrick Wald	Keith Beddingfield
Ellen Morris	Amanda Breland
Garen Denard	

NOTE: Only five technicians are required although as many as seven may respond (includes two shift persons (minimum staffing requirements) plus five 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 and PALS operation.

1.3 Chemistry Technicians / Specialists (five)

Secondary	Environmental	Primary	Radwaste
Lance Young	Mike McCoy	Sherri Williams	Jake Lamey
Saverne Williams	Rick Morris	Dennis Earle	Dale Graham
Ida Huff	Jac Cashin	Gina Roach	Roy Hanks
Lawrence Nesbitt	Ronnie Tucker	Charlie Hendricks	Mark Sanders
Skip Fletcher	Peri Smith	Emmie Singleton	Sharon Strickland
Lynette Wright		Dana Gaillard	Greg Aldrich
E. T. Moss		Vivian Howell	
Harold Bruce		Ann Clark	

**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.
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- 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.

2. Responsibilities of the Radwaste 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.

NOTE: Appropriate procedures are located in the OSC in the file cabinet labeled Chemistry procedures.
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Enclosure 6.3
Responsibilities of
Emergency Response Organization

CSM 5.1
Page 2 of 4

- 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. Five (5) 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 five 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 Conduct pre-job briefings to:
- 3.4.1 Ensure employees are sufficiently familiar with the task to efficiently perform it under the anticipated conditions.
 - 3.4.2 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.

Enclosure 6.3
Responsibilities of
Emergency Response Organization

CSM 5.1
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- 3.4.3 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.
- 3.4.4 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.

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/0/A/2002/004 E	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/0/B/2005/021	Composite Sampling of #3 CTP for Radioactivity
_____	CP/1/B/3002/002	Unit One Chemical Additions for Secondary Systems for Normal Operating Conditions
_____	CP/2/B/3002/002	Unit Two Chemical Additions for Secondary Systems for Normal Operating Conditions
_____	CP/3/B/3002/002	Unit Three Chemical Additions for 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 Phenolphthaline 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

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

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<input type="checkbox"/>	CSM 5.1	Emergency Response Guideline		
<input type="checkbox"/>	CSM 5.2	Post Accident Procedure Use Guidelines		
<input type="checkbox"/>	Obtain applicable RIA readings from the Data Acquisition System or Control Room Liason:			
	<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.

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- _____ G. Determine stay-time(s) at PALS Panels.
- _____ H. Determine "best" route for sample transport.
- _____ Obtain equipment required to support sampling.
- _____ 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
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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
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_____ 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).