

October 29, 2013

10 CFR 50, Appendix E, Section V

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Subject: **Docket Nos. 50-206, 50-361, 50-362, and 72-41  
Emergency Plan Implementing Procedures  
San Onofre Nuclear Generating Station (SONGS), Units 1, 2 and 3  
and Independent Spent Fuel Storage Installation**

Dear Sir or Madam:

Pursuant to 10 CFR 50, Appendix E, Section V, Attachment 1 of this letter provides a copy of the following revised Emergency Plan documents:

<b>Procedure</b>	<b>Rev.</b>	<b>Effective Date</b>
SO123-VIII-40.100 "DOSE ASSESSMENT"	19	October 1, 2013
SO123-VIII-40.200 "RADDOSE V DOSE ASSESSMENT"	7	October 1, 2013
SO123-VIII-0.200 EMERGENCY PLAN DRILLS PL AN EXERCISES	17	October 2, 2013
SO123-VIII-EOF	1	October 8, 2013

For your convenience, Attachment 2 provides an updated index listing titles, revisions, and editorial corrections (ECs) of the SONGS Emergency Plan Implementing Procedures (EPIPs). A bar in the right margin indicates items changed since our previous submittal.

Attachment 3 lists the current Emergency Plan Manuals, Orders and Training Procedures that are referenced in the Emergency Plan. This document is unchanged since our previous submittal.

As specified in 10 CFR 50.54(q)(iv)(5), Attachment 4 provides a report and analysis summary for these EPIP changes. These changes do not reduce the effectiveness of the Emergency Plan or the EPIPs.

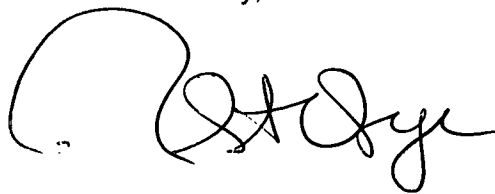
AX45  
NIM5526  
FSHE20

October 29, 2013

There are no commitments contained in this letter or its attachments.

If you have any questions, please contact Mr. Dan Cleavenger, Emergency Planning Manager, at (949) 368-6643.

Sincerely,

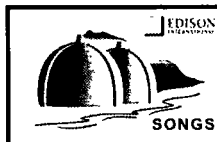
A handwritten signature in black ink, appearing to read 'Dan Cleavenger', with a large, stylized initial 'D'.

Attachments: 1. Revised Emergency Plan Implementing Procedures  
2. SONGS Emergency Plan Implementing Procedures (EIPs) Index  
3. SONGS Emergency Plan Referenced Manuals, Orders and Training  
Procedures Index  
4. Report and Analysis Summaries

cc: Emergency Response Coordinator, NRC Region IV (2 copies of Attachment 1)  
S. A. Reynolds, Acting Regional Administrator, NRC Region IV  
B. Benney, NRC Project Manager, SONGS Units 2 and 3  
G. G. Warnick, NRC Senior Resident Inspector, SONGS Units 2 and 3

**Attachment 1**

**REVISED EMERGENCY PLAN IMPLEMENTING PROCEDURES**



## Dose Assessment

SO123-VIII-40.100

REV: 19

Page 1 of 16

Procedure Usage Requirements		Sections
Information Use	<ul style="list-style-type: none"><li>The user may complete the task from memory. However, the user is responsible for performing the activity according to the procedure.</li><li>Information use documents that contain a specific process order are performed in the given order unless otherwise specified within the document.</li></ul>	Sections 1.0-3.0, 7.0-9.0, and Attachment 2
Reference Use	<ul style="list-style-type: none"><li>Review and understand the procedure before performing any steps, including the prerequisite section.</li><li>Have a copy or applicable pages/sections open at the work site.</li><li>Use Placekeeping method according to SO123-XV-HU-3.</li><li>If any portion of the document is performed from memory, do so in the sequence specified. Perform each step as written, except when an approved process specifically allows deviation.</li><li>Refer to the procedure or instruction at least once to ensure completion of the task in accordance with the requirements.</li><li>Review the document at the completion of the task to verify that all appropriate steps are performed and documented.</li></ul>	Sections 4.0-6.0, and Attachment 1

### Color Usage

This Document Does Not Contain Relevant Color

### QA PROGRAM AFFECTING

50.59 DNA / 72.48 DNA / RX DNA

Procedure Type
General

Procedure Owner
Larry McCann


## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 PURPOSE AND SCOPE .....	3
2.0 RESPONSIBILITIES.....	3
3.0 DEFINITIONS .....	3
4.0 PRECAUTIONS AND LIMITATIONS .....	5
5.0 PREREQUISITES .....	5
6.0 PROCEDURE .....	6
6.1 Obtaining a Source Term .....	6
6.2 Source Term Estimate Using Radiation Monitor Data.....	6
6.3 Source Term Assessment from Field Team Measurements .....	8
6.4 Calculating a Dose Assessment.....	10
6.5 Verification of Calculations .....	12
7.0 ACCEPTANCE CRITERIA .....	13
8.0 RETENTION OF RECORDS .....	13
9.0 REFERENCES / COMMITMENTS .....	13

<u>Section</u>	<u>Page</u>
----------------	-------------

### **ATTACHMENT**

1	Units 2(3) Dose Assessment Calculation Worksheet.....	16
2	Summary of Changes .....	16

	<p style="text-align: center;"><b>Dose Assessment</b></p>	<p><b>SO123-VIII-40.100</b> <b>REV: 19</b></p>
		<p>Page 3 of 16</p>

## 1.0 **PURPOSE AND SCOPE**

- 1.1 Identify resources for obtaining a source term and provide a manual method for Technical Support Center (TSC) Radiation Protection Leader (RPL) to determine an offsite dose in an accident situation.
- 1.2 This procedure is intended to provide guidance to calculate a dose assessment from a gross activity source term. The procedure is intended for use as an alternate to the Dose Assessment Computer. As a quick method, it is not intended to exactly duplicate the Dose Assessment Computer results

## 2.0 **RESPONSIBILITIES**

- 2.1 Describe the individual and organization(s) that have responsibilities concerning the accomplishment of tasks or activities relative to the implementation of the procedure.

## 3.0 **DEFINITIONS**

- 3.1 ARM: Area Radiation Monitor
- 3.2 CAPR: Corrective Action to Prevent Reoccurrence
- 3.3 CED: Corporate Emergency Director
- 3.4 CEDE: Committed Effective Dose Equivalent
- 3.5 CDE: Committed Dose Equivalent
- 3.6 CR: Control Room
- 3.7 DAC: Derived Airborne Concentration
- 3.8 EAB: Exclusion Area Boundary
- 3.9 DACS: Dose Assessment Computer System
- 3.10 EOC: Emergency Operations Center
- 3.11 EOF: Emergency Operations Facility
- 3.12 EP: Emergency Plan
- 3.13 EPC: Emergency Planning Coordinator

## REFERENCE USE



## Dose Assessment

SO123-VIII-40.100

REV: 19

Page 4 of 16

3.14	<u>EPIP:</u>	Emergency Plan Implementing Procedure
3.15	<u>ERDS:</u>	Emergency Response Data System
3.16	<u>ERF:</u>	Emergency Response Facility
3.17	<u>ERO:</u>	Emergency Response Organization
3.18	<u>ERTD:</u>	Emergency Response Telephone Directory
3.19	<u>GCC:</u>	Grid Control Center
3.20	<u>IOC:</u>	Irvine Operations Center
3.21	<u>KI:</u>	Potassium Iodide
3.22	<u>NRC:</u>	Nuclear Regulatory Commission
3.23	<u>OCA:</u>	Owner Controlled Area
3.24	<u>ODAC:</u>	Offsite Dose Assessment Center
3.25	<u>OSLD</u>	Optically Stimulated Luminescent Dosimeter
3.26	<u>PA:</u>	Protected Area
3.27	<u>PAR:</u>	Protective Action Recommendation
3.28	<u>PASS:</u>	Post-Accident Sampling System
3.29	<u>PAZ:</u>	Protective Action Zone
3.30	<u>RP:</u>	Radiation Protection
3.31	<u>SCE:</u>	Southern California Edison
3.32	<u>SM:</u>	Shift Manager
3.33	<u>SONGS:</u>	San Onofre Nuclear Generating Station
3.34	<u>TSC:</u>	Technical Support Center

REFERENCE USE

	<p style="text-align: center;"><b>Dose Assessment</b></p>	<p><b>SO123-VIII-40.100</b> <b>REV: 19</b></p>
		<p>Page 5 of 16</p>

3.35 YPS: Yellow Phone System

#### 4.0 **PRECAUTIONS AND LIMITATIONS**

##### 4.1 **Precautions**

4.1.1 An elevated release (lofted plume) may occur during cold, stable atmospheric conditions, or during an energetic release (e.g., expelled by fans, steam dumps or steam safety valves). If these conditions occur, plume readings close to the plant (0-2 miles, or so) may be lower than expected for a ground level release. Although quantitative changes to dose estimates are not needed, consideration should be made for effects of plume loft when directing field teams.

4.1.2 SO123-VIII-10.3, Protective Actions Recommendations, requires decisions based on Total Effective Dose Equivalent (TEDE) and Thyroid Committed Dose Equivalent (CDE) dose assessments for the Exclusion Area Boundary (EAB).

##### 4.2 **Limitations**

4.2.1 None

#### 5.0 **PREREQUISITES**

5.1 **WHEN NOT** in a declared emergency or drill, **THEN** personnel are responsible for verifying this is the current copy of this document using one of the methods described in SO123-XV-HU-3.

5.2 **VERIFY** level of use requirements on the first page of the document.


5.3 Emergency Planning is responsible for ensuring current copy of this document is in emergency notebooks for use during declared emergencies and drills.

5.3.1 ERO members must maintain the following task qualifications

- 7L1QWT, TSC RP Leader Qual. Walkthrough (Radiation Protection Leader)

#### REFERENCE USE



	<p style="text-align: center;"><b>Dose Assessment</b></p>	<p><b>SO123-VIII-40.100</b> <b>REV: 19</b></p>
		<p>Page 6 of 16</p>

## 6.0 PROCEDURE

### NOTE

- 1) Each section of this procedure may be performed independently.
- 2) Potential releases from Unit 2 FHB and Unit 3 FHB utilize a common plenum before exhausting past their respective RE7865 monitors. Therefore, this procedure section and Attachment 1 can be used for single or multiple unit accidents.

### CAUTION

Failure to maintain effective communications with ERO members providing information to you and requiring your input may result in errors in Dose Assessment, Emergency Classifications and/or Protective Action Recommendation.

## 6.1 Obtaining a Source Term

- 6.1.1 **OBTAIN** total (Unit 2 and Unit 3) Source Term from TSC Technical Leader or TSC Technical Team Mitigator, **AND PROCEED** to Section 6.2.4 of this procedure.
- 6.1.1.1 IF TSC Technical Leader or TSC Technical Team Mitigator is **NOT** available, **THEN PROCEED** to Section 6.2 of this procedure.
- 6.1.1.2 IF release is unmonitored, **or** affected radiation monitors are **not** available for source term calculations, **THEN PROCEED** to Section 6.2 6.3 of this procedure.
- 6.1.1.3 IF release is from Independent Spent Fuel Storage Installation (ISFSI), **THEN PROCEED** to Section 6.3 of this procedure.

## 6.2 Source Term Estimate Using Radiation Monitor Data

- 6.2.1 IF accident is a FHB, **THEN USE** PVS radiation monitor for source term calculation.
- 6.2.1.1 IF PVS radiation monitor does **NOT** show an increase, **THEN REQUEST** a survey for an unmonitored release.
- 6.2.1.2 IF survey results indicate an unmonitored release, **THEN PROCEED** to Section 6.3 of this procedure.



## Dose Assessment

SO123-VIII-40.100

REV: 19

Page 7 of 16

### NOTE

1. For Wide Range Gas Monitors (WRGMs), the  $\mu\text{Ci/sec}$  value on "Eff" channel is preferred when calculating a source term. If that channel is not available, then displayed  $\mu\text{Ci/cc}$  value for "Lo", "Med" or "Hi" channel should be used as long as those values are in the range of  $1\text{E-}7$  to  $1\text{E-}1$ ,  $1\text{E-}4$  to  $1\text{E+}2$ , or  $1\text{E-}1$  to  $1\text{E+}6$   $\mu\text{Ci/cc}$ , respectively.
2. If the effluent release flow is not known or readily available, then 82,000 cfm should be assumed for each monitor 2(3)RE7685, or 164,000 cfm should be assumed for monitor 2/3RE7808 at the start of the release.

### CAUTION

Unit 2 and Unit 3 PVSs have a common header, therefore the total release source term can be determined using monitor 2/3RE7808 (if on scale), or the sum of monitors 2(3)RE7865.

- 6.2.2 **OBTAIN** the following radiation monitor data from CFMS, RTIME Data Viewer, RADDOSE-V, Control Room instrumentation or any other available source **AND RECORD** on Section 1, Noble Gas Source Term Calculation, of Attachment 1, Units 2(3) Dose Assessment Calculation Worksheet.

- Radiation monitor(s)
- Activity ( $\mu\text{Ci/sec}$  or  $\mu\text{Ci/cc}$ )
- Effluent Flow if  $\mu\text{Ci/sec}$  data is not available

- 6.2.2.1 IF using Control Room instrumentation and WRGM Effluent channel is available, THEN PRESS "Eff" button and **RECORD** displayed  $\mu\text{Ci/sec}$  reading in Attachment 1, Section 1.

- 6.2.2.2 IF using Control Room instrumentation and WRGM Effluent channel is **NOT** available, THEN PRESS "Lo" or "Med" or "Hi" button **AND RECORD** displayed  $\mu\text{Ci/cc}$  reading. **PRESS** "Mon", "0", "2", "9", and "Item" buttons **AND RECORD** displayed cfm reading in Attachment 1, Section 1.



## Dose Assessment

SO123-VIII-40.100

REV: 19

Page 8 of 16

### **CAUTION**

Uneven mixing can occur in the common exhaust plenum. The results using the following step may underestimate total release source term. Field monitoring results should be immediately used to validate calculation results.

- 6.2.2.3 **IF** using monitors 2(3)RE7865 and one of them is **NOT** available, **THEN DOUBLE** the value of the working monitor in the calculation **AND ANNOTATE** on Attachment 1 which radiation monitor was **NOT** available.
- 6.2.3 **PERFORM** calculations for applicable radiation monitor(s) and **RECORD** in Attachment 1, Section 1.
- 6.2.4 **RECORD** Noble Gas Source Term in Section 3, Dose Assessment Calculation, of Attachment 1.
- 6.2.5 **PROCEED** to Section 6.4 of this procedure to perform steps needed to calculate a dose assessment.


### 6.3 **Source Term Assessment from Field Team Measurements**

### **CAUTION**

This method assumes field samples are taken in centerline of plume and at EAB. Off axis samples will underestimate source term. Samples taken at locations not exactly on the EAB can result in significant errors in calculated source term because concentration decreases exponentially with distance between release point and sample point.

- 6.3.1 Effective Dose Equivalent (EDE) Rate @ EAB
- 6.3.1.1 **OBTAIN** a Close Window Reading in mrem/hour at Waist Level, centerline of the plume at the EAB.
- 6.3.1.2 **RECORD** EAB Field Reading (mR/hr) in Section 4, Source Term Calculation from EAB Field Readings, of Attachment 1.
- 6.3.2 **OBTAIN** the following meteorological data from CFMS, RTIME Data Viewer or RADDOS-V **AND RECORD** on Section 2, Technical Information, of Attachment 1, Units 2(3) Dose Assessment Calculation Worksheet:
- Delta T
  - Wind speed
  - Wind direction
- 6.3.2.1 **IF** wind speed or wind direction is unavailable, **then OBTAIN** data from EOF meteorological tower **or** from references listed in ERTD to obtain meteorological information.

## REFERENCE USE

	<p style="text-align: center;"><b>Dose Assessment</b></p>	<p><b>SO123-VIII-40.100</b> <b>REV: 19</b></p>
		<p>Page 9 of 16</p>

- 6.3.2.2 **IF** Delta T is unavailable, **THEN USE** Stability Class D for daytime conditions or Stability Class F for nighttime conditions.
- 6.3.3 **CONVERT** wind speed to seconds-per-meter using calculation in Section 2, Technical Information, of Attachment 1, and **RECORD**.
- 6.3.4 **RECORD** Wind Speed Factor from Section 2, Technical Information, to Section 4, Source Term Calculation from EAB Field Readings, of Attachment 1.
- 6.3.5 **IDENTIFY** Stability Class using Delta T identified in Section 2, Stability Information, of Attachment 1.
- 6.3.5.1 **IDENTIFY** proper EAB  $X_{\mu}/Q$  using Stability Class.
- 6.3.5.2 **RECORD** identified  $X_{\mu}/Q$  values in Section 4, Source Term Calculation from EAB Field Readings, of Attachment 1.
- 6.3.6 **PERFORM** Attachment 1, Units 2(3) Dose Assessment Calculation Worksheet, Section 4, Source Term Calculation from EAB Field Readings.
- 6.3.7 **RECORD** Noble Gas Source Term in Section 3, Dose Assessment Calculation, of Attachment 1.
- 6.3.8 **PROCEED** to Section 6.4 of this procedure to **PERFORM** steps needed to calculate a dose assessment if not already performed in Section 6.3,

	<p style="text-align: center;"><b>Dose Assessment</b></p>	<p><b>SO123-VIII-40.100</b> <b>REV: 19</b></p>
		<p>Page 10 of 16</p>

## 6.4 Calculating a Dose Assessment

- 6.4.1 **OBTAIN** the following meteorological data from CFMS, RTIME Data Viewer or RADDose-V and **RECORD** on Section 2, Technical Information of Attachment 1:
- Delta T
  - Wind speed
  - Wind direction
- 6.4.1.1 IF wind speed or wind direction is unavailable, then **OBTAIN** data from EOF meteorological tower or from references listed in ERTD to obtain meteorological information.
- 6.4.1.2 IF Delta T is unavailable, THEN **USE** Stability Class D for daytime conditions or Stability Class F for nighttime conditions.
- 6.4.2 IF a release is in progress or there is a potential for a release, THEN **OBTAIN** an estimated release duration from SM or Operations Leader **AND RECORD** in Section 3, Dose Assessment Calculation, of Attachment 1.
- 6.4.2.1 IF not already performed in Section 6.3, THEN **CONVERT** wind speed to seconds-per-meter using calculation in Section 2, Technical Information, of Attachment 1 and **RECORD**.
- 6.4.2.2 **RECORD** Wind Speed Factor from Section 2, Technical Information, to Section 3, Dose Assessment Calculation, of Attachment 1.



## Dose Assessment

SO123-VIII-40.100

REV: 19

Page 11 of 16

### NOTE

Protective Action Zones (PAZs) should be used within Emergency Planning Zone (EPZ) and Sectors should be used outside the EPZ.

6.4.3 **DETERMINE** affected Sector(s) or PAZs using the following table(s):


Degrees (from)	<u>SECTORS</u>		Affected Sector
	From Sector	To Sector	
170-191	S	N	A
192-214	SSW	NNE	B
215-236	SW	NE	C
237-259	WSW	ENE	D
260-281	W	E	E
282-304	WNW	ESE	F
305-326	NW	SE	G
327-349	NNW	SSE	H
350-11	N	S	J
12-34	NNE	SSW	K
35-56	NE	SW	L
57-79	ENE	WSW	M
80-101	E	W	N
102-124	ESE	WNW	P
125-146	SE	NW	Q
147-169	SSE	NNW	R

### PAZs

WIND DIRECTION (From)	DOWNWIND PAZ
0° - 100°	PAZs 1 and 2
101°	PAZs 1, 2, and 4
102° - 213°	PAZs 1 and 4
214°	PAZs 1, 3, and 4
215° - 326°	PAZs 1 and 3
327°	PAZs 1, 2, and 3
328° - 360°	PAZs 1 and 2

6.4.3.1 **RECORD** Affected Sector or PAZ in Section 2, Technical Information, of Attachment 1.

## REFERENCE USE

	<b>Dose Assessment</b>	<b>SO123-VIII-40.100</b> <b>REV: 19</b>
		Page 12 of 16

6.4.4 **IDENTIFY** Stability Class using Delta T identified in Section 2, Stability Information, of Attachment 1.

6.4.4.1 **IDENTIFY** proper EAB  $X_{\mu}/Q$  using Stability Class.

6.4.4.2 **RECORD** identified  $X_{\mu}/Q$  values in Section 3, Dose Assessment Calculation, of Attachment 1.

6.4.5 **PERFORM** calculations indicated for EAB in Section 3, Dose Assessment Calculation, of Attachment 1, and **RECORD** Noble Gas EDE (mrem).


## 6.5 Verification of Calculations

6.5.1 **SIGN** Attachment(s) used AND **PROVIDE** worksheet(s) to another qualified individual, as time permits, to verify mathematical calculations and correct use of  $X_{\mu}/Q$  constants and conversion factors.

6.5.1.1 **RESOLVE** discrepancies AND **ENSURE** individual signs VERIFIED BY section of worksheet.

6.5.2 **REQUEST** dispatch of onsite and offsite monitoring teams to validate dose projections and to detect and quantify unmonitored releases.

6.5.3 **PROVIDE** dose projections to Station Emergency Director or Emergency Coordinator.

	<p style="text-align: center;"><b>Dose Assessment</b></p>	<p><b>SO123-VIII-40.100</b> <b>REV: 19</b></p>
		<p>Page 13 of 16</p>

## 7.0 **ACCEPTANCE CRITERIA**

7.1 None

## 8.0 **RETENTION OF RECORDS**

8.1 Deliver all logs and worksheet to Emergency Planning Coordinator at conclusion of emergency.

## 9.0 **REFERENCES / COMMITMENTS**

### 9.1 **Implementing Reference**

#### 9.1.1 **Procedures**

9.1.1.1 SO123-XV-HU-3, Written Instruction Use and Adherence

9.1.1.2 SO123-VIII-10.3, Protective Action Recommendations

9.1.1.3 SO123-XV-109, Procedure and Instruction Format and Content

#### 9.1.2 **Drawings**

9.1.2.1 None

#### 9.1.3 **Manuals**

9.1.3.1 None

#### 9.1.4 **Other**

9.1.5 Emergency Response Telephone Directory (ERTD)

### 9.2 **Developmental References**

#### 9.2.1 **Commitments**

9.2.1.1 None

#### 9.2.2 **Corrective Actions to Prevent Recurrence (CAPR)**

9.2.2.1 None

#### 9.2.3 **Procedures**

9.2.3.1 SO123-VIII-10.3, Protective Action Recommendations



9.2.4      Drawings

9.2.4.1      None

9.2.5      Manuals


9.2.5.1      None

9.2.6      Other

9.2.6.1      Memorandum for File from R.A. Garcia Dated September 23, 2013,  
 SO123-VIII-40.100, Dose Assessment" Revision 19 Calculation Methodology

9.2.6.2      Technical Team Notebook, Revision 1.12

9.2.6.3      EPA 400 92-001, May 1992, Manual of Protective Action Guides and Protective  
 Actions for Nuclear Incidents

	<h2 style="margin: 0;">Dose Assessment</h2>	<b>SO123-VIII-40.100</b> <b>REV: 19</b>
		Page 15 of 16

<b>Units 2(3) Dose Assessment Calculation Worksheet</b>	<b>Attachment 1</b>
---	---------------------


Date		Time			
<b>(Section 1) NOBLE GAS SOURCE TERM CALCULATION</b>					
Release Path	Radiation Monitors	Activity $\times$	Effluent Flow $\times$	Conversion Factor =	Noble Gas Source Term
Units 2/3 Plant Vent Stack [Sum Both Units' 2(3)7865s]	2RE7865 Eff <u>OR</u>	$\mu\text{Ci/sec}$	1 cfm	1.00 E-6	Ci/sec
	2RE7865 L,M,H <u>AND</u>	$\mu\text{Ci/cc}$	cfm	4.72 E-4	Ci/sec
	3RE7865 Eff <u>OR</u>	$\mu\text{Ci/sec}$	1 cfm	1.00 E-6	Ci/sec
	3RE7865 L,M,H	$\mu\text{Ci/cc}$	cfm	4.72 E-4	Ci/sec
	2/3RE7808 Eff	$\mu\text{Ci/sec}$	1 cfm	1.00 E-6	Ci/sec
	2/3RE7808	$\mu\text{Ci/cc}$	cfm	4.72 E-4	Ci/sec
Total Unit 2/3 Noble Gas Source Term					Ci/sec

<b>(Section 2) ASSESSMENT INFORMATION</b>				
<b>TECHNICAL INFORMATION</b>			<b>STABILITY INFORMATION</b>	
Unit 2, 3, or 2/3 (circle one)			Delta T	Class EAB $X_{\mu/Q}$
Wind Speed Factor	2.24 /	mph = sec/m	$\leq$ -0.57	A 1.3E-5
or	1.96 /	knots sec/m	-0.56 to -0.51	B 4.6E-5
Delta T (40m-10m)		C/30m	-0.50 to -0.45	C 9.4E-5
Wind Direction (from)		degrees	-0.44 to -0.15	D 1.3E-4
Affected Sector or PAZ			-0.14 to 0.45	E 3.1E-4
			0.46 to 1.20	F 5.8E-4
			$>$ 1.20	G 1.2E-3

<b>(Section 3) DOSE ASSESSMENT CALCULATION</b>					
Noble Gas Source Term (Ci/sec)	Wind Speed $\times$ Factor	Noble Gas $\times$ EDE CF	Release Duration $\times$ (hrs)	Noble Gas EDE (mrem)	Noble Gas EDE (mrem)
	$\times$	$\times$	$\times$ 1.3E3	$\times$	= (mrem)

<b>(Section 4) SOURCE TERM CALCULATION FROM EAB FIELD READINGS</b>				
EAB Field Reading (mR/hr) /	Wind Speed (Factor)	Noble Gas $\times$ EDE CF	Nobel Gas Source Term	Nobel Gas Source Term (Ci/sec)
	/ (	$\times$	$\times$ 1.3E3 )	= (Ci/sec)

Calculation <b>PERFORMED BY</b>	<b>VERIFIED BY</b>
---------------------------------	--------------------

	<b>Dose Assessment</b>	<b>SO123-VIII-40.100</b> <b>REV: 19</b> Page 16 of 16
---	------------------------	---

Summary of Changes	Attachment 2
--------------------	--------------

Author: Richard Garcia PAX: 83845

NN, Order, or Other Action	Description of Change	Reviewer(s)	50.59 / 72.48	Step, Section, Attachment or Page
202596380	Added additional guidance on source term calculation.  Added additional guidance on source term assessment from field readings to Section 6.3 and Attachment 1.  Miscellaneous editorial corrections.	See Table below	DNA	Throughout

Document Reviewers:	Name:
RP	Sandra Sewell
RP	Andrew Martinez
EP	Lucia Sischo
Cognizant Supervisor	Larry McCann
<b>Approvers:</b>	
<b>CFDM Final Approval:</b>	Deborah Lindbeck



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 1 of 22

Procedure Usage Requirements		Sections
Information Use	<ul style="list-style-type: none"><li>The user may complete the task from memory. However, the user is responsible for performing the activity according to the procedure.</li><li>Information use documents that contain a specific process order are performed in the given order unless otherwise specified within the document.</li></ul>	Sections 1.0-3.0, 7.0-9.0 and Attachment 4
Reference Use	<ul style="list-style-type: none"><li>Review and understand the procedure before performing any steps, including the prerequisite section.</li><li>Have a copy or applicable pages/sections open at the work site.</li><li>Use Placekeeping method according to SO123-XV-HU-3.</li><li>If any portion of the document is performed from memory, do so in the sequence specified. Perform each step as written, except when an approved process specifically allows deviation.</li><li>Refer to the procedure or instruction at least once to ensure completion of the task in accordance with the requirements.</li><li>Review the document at the completion of the task to verify that all appropriate steps are performed and documented.</li></ul>	Sections 4.0-6.0, Attachments 1-3

### Color Usage

This Document Does Not Contain Relevant Color

### QA PROGRAM AFFECTING

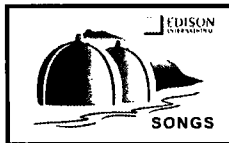
50.59 DNA / 72.48 DNA / RX DNA

Procedure Type

General

Procedure Owner

Mayra Alvarado



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 2 of 22

### TABLE OF CONTENTS

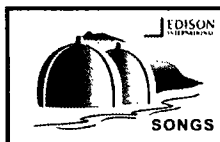
<u>Section</u>	<u>Page</u>
1.0 PURPOSE AND SCOPE .....	3
2.0 RESPONSIBILITIES.....	3
3.0 DEFINITIONS .....	3
4.0 PRECAUTIONS AND LIMITATIONS .....	5
5.0 PREREQUISITES .....	5
6.0 PROCEDURE .....	6
6.1 SYSTEM START UP .....	6
6.2 METEOROLOGICAL DATA ENTRY .....	10
6.3 SOURCE TERM DATA ENTRY .....	11
6.4 PERFORMING A CALCULATION .....	12
6.5 PERFORMING A BACK CALCULATION USING FIELD DATA .....	13
6.6 PERFORMING A FORECAST .....	14
6.7 MULTIPLE UNIT DOSE ASSESSMENT.....	15
6.8 SYSTEM SHUTDOWN .....	16
7.0 ACCEPTANCE CRITERIA .....	17
8.0 RETENTION OF RECORDS .....	17
9.0 REFERENCES / COMMITMENTS .....	17

<u>Section</u>	<u>Page</u>
----------------	-------------

### ATTACHMENT

1	Supplemental Raddose-V Information .....	19
2	PAR Assessments Beyond 10 Miles.....	20
3	Multiple Unit Dose Assessment Worksheet .....	21
4	Summary of Changes .....	22

### INFORMATION USE



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 3 of 22

### 1.0 **PURPOSE AND SCOPE**

- 1.1 Provide operating instructions for the Raddose-V Dose Assessment computer code on the Radiation Protection (RP) computers in the TSC and EOF.

### 2.0 **RESPONSIBILITIES**

- 2.1 This procedure should be used by personnel qualified to ENCODE HPLDAC, to operate Raddose-V on HP Computers located in the TSC and EOF as primary dose assessment tool as directed in SO123-VIII-TSC, Emergency Response Organization (ERO) Technical Support Center Position Instructions, and SO123-VIII-EOF, Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists. SO123-VIII-40.100, Dose Assessment, describes a manual dose assessment methodology that should only be used when the computer system is not available (due to inoperability or lack of qualified operators) or for backup calculations.

### 3.0 **DEFINITIONS**

- 3.1 Cal OES: California Office of Emergency Services
- 3.2 CAPR: Corrective Action to Prevent Reoccurrence
- 3.3 CEDE: Committed Effective Dose Equivalent
- 3.4 CDE: Committed Dose Equivalent
- 3.5 CFMS: Critical Function Monitoring System
- 3.6 DAC: Derived Airborne Concentration
- 3.7 DACS: Dose Assessment Computer System
- 3.8 EAL: Emergency Action Level
- 3.9 EP: Emergency Plan
- 3.10 EPIP: Emergency Plan Implementing Procedure
- 3.11 ERDS: Emergency Response Data System
- 3.12 ERF: Emergency Response Facility
- 3.13 ERO: Emergency Response Organization

### REFERENCE USE



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 4 of 22

3.14	<u>ERTD</u> :	Emergency Response Telephone Directory
3.15	<u>ISFSI</u> :	Independent Spent Fuel Storage Installation
3.16	<u>KI</u> :	Potassium Iodide
3.17	<u>NRC</u> :	Nuclear Regulatory Commission
3.18	<u>OCA</u> :	Owner Controlled Area
3.19	<u>ODAC</u> :	Offsite Dose Assessment Center
3.20	<u>OSLD</u>	Optically Stimulated Luminescent Dosimeter
3.21	<u>PA</u> :	Protected Area
3.22	<u>PAPA</u> :	Protected Area Personnel Accountability
3.23	<u>PAR</u> :	Protective Action Recommendation
3.24	<u>PASS</u> :	Post Accident Sampling System
3.25	<u>PAZ</u> :	Protective Action Zone
3.26	<u>RP</u> :	Radiation Protection
3.27	<u>SCE</u> :	Southern California Edison
3.28	<u>SONGS</u> :	San Onofre Nuclear Generating Station
3.29	<u>TEDE</u> :	Total Effective Dose Equivalent
3.30	<u>TLD</u> :	Thermoluminescent Device
3.31	<u>TSC</u> :	Technical Support Center
3.32	<u>VNF</u> :	Verbal Notification Form
3.33	<u>YPS</u> :	Yellow Phone System

REFERENCE USE

	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 5 of 22

## 4.0 **PRECAUTIONS AND LIMITATIONS**

### 4.1 **Precautions**

- 4.1.1 SO123-VIII-10.3, Protective Actions Recommendations, requires decisions based on Total Effective Dose Equivalent (TEDE) dose assessments for the Exclusion Area Boundary (EAB).
- 4.1.2 An elevated release (lofted plume) may occur during cold, stable atmospheric conditions, or during an energetic release (e.g., expelled by fans, steam dumps or steam safety valves). If these conditions occur, plume readings close to the plant (within approximately 2 miles) may be lower than expected for a ground level release. Although quantitative changes to dose estimates are not needed, consideration should be made for the effects of plume loft when directing field teams.
- 4.1.3 This procedure is intended to provide operating instructions for using Raddose-V Computer Code to calculate a dose assessment. SO123-VIII-40.100, Dose Assessment, describes a manual dose assessment methodology that can be used if Raddose-V cannot be executed or if an independent backup assessment is desired.
- 4.1.4 When operating in slave mode, verify the control station has performed the calculation before printing any reports to prevent the report from containing results from previous calculations.
- 4.1.5 WHEN performing a Back Calculate Source Term/Dose Assessment, be sure to use field data location where the plume has arrived. OTHERWISE, IF the plume has **NOT** reached the distance from which you are back calculating RADDOSE V will calculate zero dose at that point.

### 4.2 **Limitations**

- 4.2.1 None

## 5.0 **PREREQUISITES**

- 5.1 Before using this procedure user should know which operating mode to select. Raddose-V provides a Control/Slave mode to allow one work station to run the model as the control station and other stations to "watch" results (from control station) as slave stations. The model also provides an Independent mode where the station works independently from the Control/Slave functions.
- 5.2 Emergency Planning is responsible for ensuring the current copy of this Document is in emergency notebooks for use during declared emergencies and drills.

## REFERENCE USE



	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 6 of 22

- 5.3 Personnel are responsible for ensuring they use the current copy of this document when not in a declared emergency or drill by verifying this document is current using one of the methods described in SO123-XV-HU-3
- 5.4 ERO members must maintain one of the following task qualifications
- 7L1QWT, TSC RP Leader Qual. Walkthrough (Radiation Protection Leader)
  - 7L5QWT, EOF RP Leader Qual Walkthrough

**NOTE**

Section 6.7 should be referred to for dose assessment instructions when there are accidents involving both Units 2 and 3.

**6.0 PROCEDURE**

**6.1 SYSTEM START UP**

- 6.1.1 IF computer equipment is not already energized, THEN start up system by turning on power switches for computer, monitor, and printer. WHEN the computer's start up sequence has completed, THEN the Dose Assessment Computer System (DACS) program icons will be on the Windows XP desktop.
- 6.1.2 **SELECT** the icon on the XP desktop for the unit for which dose assessments are required (Unit 2 or 3). "DACS: Raddose-V" title screen is displayed indicating work station identity code XXXX, e.g., EOF1
- 6.1.3 **SELECT [Continue]** button.  
(Raddose-V prompts: "Do you want to use automatic data from the network or manual data entry?")

**NOTE**

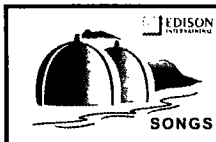
In an actual emergency the data is pulled from Emergency Response Data System (ERDS) computer. In event that ERDS is not functioning or communicating to DACS properly, manual entry of data will be required.

- 6.1.4 **SELECT [Automatic]** to enable automatic entry of actual data from ERDS database.

**OR**

**SELECT [Manual]** to enable manual entry of meteorological and radiological data.  
(Raddose-V prompts: "Do you want to run in Control/Slave or Independent Mode?")

**REFERENCE USE**



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 7 of 22

- 6.1.5 **SELECT [Control/Slave]** to take control of system or to receive dose assessments as a slave station.

### **OR**

**SELECT [Independent]** to run Raddose-V independent from control station. (If no one is on the system as controller, then computer will prompt: "No one is in control, do you want control? Slave mode cannot be used since there is no control station").

- 6.1.6 To assume control **SELECT [Yes]**. This will permit data you calculate to be viewed by other slave computers on the system. (If another work station already has taken control of system, THEN computer will prompt: "XXXX is in control. Do you want to be a slave, or run independently?")

### **NOTE**

A slave station cannot perform real-time calculations. A slave station can watch results from control station and perform forecasts after initial calculations have been made at control station.

- 6.1.6.1 **SELECT [Slave]** to be put on system as a slave station.

- 6.1.6.1.1 **SELECT [Continue Previous Incident]** to view data from control station.

- 6.1.6.1.2 To perform forecasts REFER to Section 6.6

### **OR**

- 6.1.6.2 **SELECT [Independent]** to take over control of system from current control station. Raddose-V "Main Menu" is displayed

- 6.1.6.2.1 **CONTACT** station that has control of system AND **INFORM** them you are taking control of system.

- 6.1.6.2.2 **SELECT [Take Control]** from Main Menu. Computer will prompt: "XXXX is in control. Are you sure you want to be in control?"

- 6.1.6.2.3      **SELECT [Yes]** to complete process. (Computer will prompt, "Do you want to run in Drill Mode or Accident Mode?" **SELECT [Drill]** or **[Accident]** mode, "Inventory Listing" screen is displayed.)

**NOTE**

Selecting **[Drill]** will cause program to take radiological and meteorological data from a database developed by drill planner for specific drill. Selecting **[Accident]** will cause program to take radiological and meteorological data from ERDS database of actual plant and meteorological data.

- 6.1.6.3      **SELECT [Continue]**. "Start-Up Menu" is displayed.
- 6.1.7      **DETERMINE** which of the following conditions apply and go to designated procedure step
- 6.1.7.1      To start a new assessment with system in proper configuration (neither of the following Steps 6.1.7.2 or 6.1.7.3 apply), **GO TO** Procedure Step 6.1.8.
- 6.1.7.2      To recover from a computer error that led to an unplanned program termination, **GO TO** Procedure Step 6.1.9.
- 6.1.7.3      To recover system after computer was improperly shut down by a previous user **NOT** in this scenario, **GO TO** Procedure Step 6.1.10.
- 6.1.8      **SELECT [Begin New Incident]** from Start-Up Menu to start a new assessment
- 6.1.8.1      **SELECT [Yes]** to erase all previous data.
- 6.1.8.2      **GO TO** Procedure Step 6.1.11.
- 6.1.9      **SELECT [Continue Previous Incident]** from Start-Up Menu to recover from a computer error that led to an unplanned program termination. ("Continuation Data" screen will be displayed.)

**NOTE**

The Continuation Data screen will display the date and time of the reactor shutdown, the date and time of the release, and the operators initials.

- 6.1.9.1      **VERIFY** accuracy of input data on Continuation Data screen.
- 6.1.9.2      **SELECT [Continue]** to return to Main Menu.
- 6.1.9.3      **GO TO** Procedure Step 6.2.1.



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 9 of 22

- 6.1.10 **SELECT [Continue Previous Incident]** from Start Up Menu to recover system after computer was improperly shut down by a previous user NOT IN THIS SCENARIO.
- 6.1.10.1 **SELECT [Continue]** on Continuation Data Screen.
- 6.1.10.2 **SELECT [Go to Start Up Menu]**.
- 6.1.10.3 **SELECT [Exit Raddose-V]**.
- 6.1.10.4 To restart Raddose-V program, **GO TO** Procedure Step 6.1.2. "Accident Scenario Definition" screen should now be displayed.
- 6.1.11 **PERFORM** the following:

### NOTE

Trip date/time may be entered as a future time or time after release in the unlikely event of a release without a reactor trip. Decay correction of source term does not occur until reactor trip occurs.

- 6.1.11.1 **ENTER** date and time of reactor trip (Use a Date of 1/1/2012 and a Time of 0000 for a Fuel Handling Accident (FHB) Only).
- 6.1.11.2 **ENTER** date and time of start of release.
- 6.1.11.3 **ENTER** your initials as operator.
- 6.1.11.4 **VERIFY** accuracy of input data on Accident Scenario Definition screen.
- 6.1.11.5 **SELECT [Accept]** to return to Main Menu.

### NOTE

- 1) DACS must be restarted in order that correct reactor trip time and/or radiological release time is being inputted. This will require all operators in "Slave" mode to logoff until DACS is restarted.
- 2) DACS should be updated with a new time step every 15 to 30-minutes, in order to keep time step current. This should be done even if source term has not changed.

- 6.1.12 **IF** an accident related release of radioactive material begins, **THEN CALCULATE** an emergency dose projection every 15-30 minutes based on latest source term provided by the TSC Technical Team Mitigator.



- 6.1.13 **POLL AND PRINT** meteorological, radiation monitor, and PIC data approximately every 15 minutes. This should occur automatically if **[Automatic Rad Report]** button is enabled on Main Menu screen.

## REFERENCE USE

6.1.13.1 To access meteorological, radiation monitor, and PIC data, **GO TO** Windows XP desktop.

6.1.13.2 **SELECT [Historical Data].**

**NOTE**

- 1) The following procedure steps describe how to input meteorological and radiological data to perform a dose assessment. Determination of appropriate Radiological data should be made in direct consultation with TSC Technical Leader.
- 2) Raddose-V can be used to track or forecast an "empty" plume which can be used to pre-stage field teams in anticipation of an actual accident related release. To simulate an "empty" plume use a very low plant vent stack Noble Gas release rate such as 2.0E-14 Curies/sec to avoid hypothetical release data being interpreted as an actual release.

## 6.2 **METEOROLOGICAL DATA ENTRY**

6.2.1 **SELECT [Enter/Edit Meteorological Data]** from Main Menu. "Meteorological Data Input" screen will be displayed. (If Raddose-V is in automatic mode, then Raddose-V will download appropriate meteorological data.)

6.2.2 IF Raddose V is in automatic mode, THEN **GO TO** Procedure Step 6.2.5.

6.2.2.1 IF Raddose-V is not in automatic mode, THEN **CLICK** on **[OK]** to enable manual entry.

6.2.3 Manually **ENTER** the following data by highlighting blank data field (displayed as \*\*\*\*\*) AND manually INPUTTING desired value.

**NOTE**

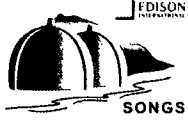
Double clicking on an existing value will allow value to be edited. Data is accepted by using enter key.

6.2.3.1 **ENTER** Wind Speed.

6.2.3.2 **ENTER** Wind Direction.

6.2.3.3 **ENTER** Delta T.

6.2.3.4 IF Delta T is not available, THEN Stability class can be estimated and entered directly.



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 11 of 22

### NOTE

Unless better information is available use Stability Class D for daytime conditions and Stability Class F for night time conditions.

6.2.3.5 **ENTER** Air Temperature.

6.2.3.6 **ENTER** Precipitation.

6.2.4 **VERIFY** input data.

6.2.5 **SELECT [Accept]** to return to Main Menu.

### 6.3 SOURCE TERM DATA ENTRY

6.3.1 **SELECT [Enter/Edit Source Term Data]** from Main Menu. "Source Term Data Input" screen will be displayed. Click on **[OK]** to enable manual entry.

### NOTE

- 1) Accident type should be a Fuel Handling Building (FHB) accident unless otherwise determined by TSC Technical Team.
- 2) Raddose-V can evaluate three separate release paths simultaneously.

6.3.2 **ENTER** accident type by clicking the mouse in the cell for release path of concern in Accident Type Column. A drop down menu will appear.

6.3.3 **SELECT** accident type from drop down menu by double clicking in first cell of row containing description of accident type.

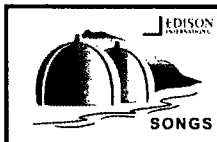
### NOTE

1. For Wide Range Gas Monitors (WRGMs), the  $\mu\text{Ci/cc}$  value for "Lo", "Med", or "Hi" channel should be used as long as those values are in the range of  $1\text{E-}7$  to  $1\text{E-}1$ ,  $1\text{E-}4$  to  $1\text{E+}2$ , or  $1\text{E-}1$  to  $1\text{E+}6$   $\mu\text{Ci/CC}$ , respectively.
2. For the Unit 2 and 3 Plant Vent Stacks (PVSs), if a  $\mu\text{Ci/sec}$  is unavailable, then average the  $\mu\text{Ci/cc}$  of both PVSs (use the  $\mu\text{Ci/cc}$  of one monitor if only one PVS is available) and use 164,000 cfm release rate.

6.3.4 **SELECT** Noble Gas entry method by first clicking in cell in NG Method column. A drop down menu will appear.

6.3.4.1 **SELECT** Noble Gas entry method from drop down menu by double clicking in first cell of row containing description of Noble Gas entry method.

## REFERENCE USE



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 12 of 22

- 6.3.4.2 If Direct (**DIRECT**) is selected as Noble Gas entry method, THEN **ENTER** Noble Gas release rate in Curies per second in NG Rel Rate (Ci/s) field.
- 6.3.4.3 **ENSURE** Noble Gas source term data is entered using units specified in Noble Gas entry method drop down menu.
- 6.3.5 **SELECT** Iodine entry method by first clicking in cell in I Method column. A drop down menu will appear.
- 6.3.5.1 **SELECT** the Direct (**DIRECT**) Iodine entry method from drop down menu by double clicking in first cell of row containing description of Iodine entry method.
- 6.3.6 **ENTER** Iodine release rate as '0' in Curies per second in I Rel Rate (Ci/s) field.
- 6.3.7 **VERIFY** accuracy of inputs on Source Term Data Input Screen.
- 6.3.7.1 **SELECT** [**Accept**] to return to Main Menu.

### 6.4 PERFORMING A CALCULATION

- 6.4.1 From Main Menu, **SELECT** [**Perform Calculations**].

#### NOTE

- 1) Computer will calculate dose rates for defined plume segment, and will calculate dose rates and plume segment movement for plume segments already released. Once completed, program displays 10-mile Emergency Planning Zone (EPZ) map.
- 2) After calculation has been performed, slave computer will be able to view data.

- 6.4.2 **SELECT** [**Continue**] to remove map. ("Output Menu" will be displayed).
- 6.4.3 From Output Menu, **SELECT** [**Go to Report Menu**].

#### NOTE

- 1) Unless other options have been requested, print the following reports from Report Menu.
- 2) Selecting [**Print reports ODAC Forms and Maps**] will print a multi-page report of greater than 10 pages.

- 6.4.4 From Report Menu, **SELECT** [**Print Header Pages**].
- 6.4.5 From Report Menu, **SELECT** [**Print 2-mile Map**].

### REFERENCE USE



## RADDOSE-V Dose Assessment

SO123-VIII-40.200

REV: 7

Page 13 of 22

- 6.4.6 CLICK on [Return to Output Menu].
- 6.4.7 From Output Menu, **SELECT [Return to Main Menu]** to return to Main Menu.

### NOTE

**[Continue Calculations]** also returns to Main Menu.

- 6.4.8 **CONTINUE** running dose assessments on 15 minute plume segments approximately every 15 minutes with source term data provided by TSC Technical Team Mitigator or TSC Technical Leader.
- 6.4.9 **ENSURE** results of dose assessments are transmitted to appropriate slave stations.

## 6.5 PERFORMING A BACK CALCULATION USING FIELD DATA

### NOTE

- 1) To perform a back calculation at least one plume segment must have been entered and calculated. Distance and bearing where field measurement is taken is critical to calculation of proper X/Q value. Bearing is expressed in "degrees to" field location and will be 180° out of phase with wind direction which is expressed as "degrees from".
- 2) Back calculation assumes actual field or PIC readings are centerline of plume. If this assumption is not correct, Raddose-V calculated values and field or PIC value comparisons may not match.

### CAUTION

When performing a back calculation from field data, Raddose-V uses Iodine to Noble Gas ratio from previous plume step. This value must be checked to ensure it is still applicable or significant miscalculations could occur.

- 6.5.1 From Main Menu, **SELECT [Enter/Edit Source Term Data]**.
- 6.5.2 At "Source Term Data Input Screen", **SELECT (BACK)** from drop down menu for Noble Gas method. This will open "Back Calculation of Release Rate" screen.
- 6.5.3 **SELECT** Noble Gas method (either PIC or actual field measurements).
- 6.5.4 **SELECT** Iodine I-131 concentration method.
- 6.5.5 IF field measurement data is being used, THEN **ENTER** distance and bearing from the plant for field reading.
  - 6.5.5.1 **ENTER** Closed Window field measurement in mR/hr.

## REFERENCE USE



6.5.5.2

6.5.5.2.1        **ENTER**  $\mu\text{Ci/cc}$  I-131 value of "0".

6.5.6        IF PIC data is being used, THEN **ENTER** PIC ID# and PIC reading in mR/hr.

6.5.6.1        **VERIFY** input data.

6.5.6.2        **SELECT [OK]** to return to Source Term Data Input Screen.

6.5.7        **SELECT [Accept]** to return to Main Menu.

6.5.8        **PERFORM** calculations AND **PRINT** reports as described in Section 6.4.

6.5.9        **CONTINUE** to poll meteorological, radiation monitor, and PIC data as time allows.

6.5.10       **ENSURE** results of dose assessments are transmitted to appropriate slave stations.

## 6.6    **PERFORMING A FORECAST**

### **NOTE**

- 1) At least one plume segment must be calculated before forecasts can be performed.
- 2) Tracking or forecasting an "empty" plume may be used to pre-stage field teams in anticipation of an actual accident related release. To simulate an "empty" plume use a very low plant vent stack Noble Gas release rate such as  $2.0\text{E-}14$  Curies/sec to avoid hypothetical release data being interpreted as an actual release.
- 3) All printouts of "empty" plume calculations should be clearly identified with phrase "No Release" written on printout(s).
- 4) All "WHAT IF" plume calculations should be clearly identified with "WHAT IF" written on printout(s).

6.6.1        **VERIFY** accuracy of meteorological and source term data.

6.6.1.1       From Main Menu, **SELECT [Enter/Edit Meteorological Data]**.

6.6.1.1.1       **ENTER** meteorological data for forecast period in current time step.

6.6.1.1.2       **SELECT [Accept]** to return to Main Menu.

6.6.1.2       From Main Menu, **SELECT [Enter/Edit Source Term Data]**.

6.6.1.2.1       **ENTER** source term data for forecast period in current time step.

6.6.1.2.2       **SELECT [Accept]** to return to Main Menu.

**NOTE**

When proceeding with real-time calculations after having performed "WHAT IF", be certain data in new plume segment is correct (edited) for real time data. A warning pop up box will appear to remind you.

- 6.6.2      **SELECT [Perform Forecast]** from Main Menu. A pop up box appears asking operator to verify forecast period. A default time of 2 hours is displayed.
- 6.6.2.1      **ACCEPT** default value if 2 hours is appropriate;
- OR**
- ENTER** a different forecast period in hours.
- 6.6.2.2      **SELECT [OK]** to perform forecast calculations. [Upon completion of calculations, 10-mile EPZ map for forecast period is displayed along with PAG (Protective Action Guideline) information].
- 6.6.3      **SELECT [Continue]** to remove map. "Output Menu" is displayed.
- 6.6.4      From Output Menu **SELECT [Go to Report Menu]** to obtain dose reports.
- 6.6.5      **SELECT [Return to Output Menu]**.
- 6.6.6      From Output Menu **SELECT [Return to Main Menu]** to continue calculations or perform another forecast.
- 6.6.7      **ENSURE** results of dose assessments are transmitted to appropriate slave stations.
- 6.7      **MULTIPLE UNIT DOSE ASSESSMENT**
  - 6.7.1      **COMPLETE** U2 Dose Assessment following sections 6.1.through 6.4.
    - 6.7.1.1      **ENTER** TEDE value from page 3 of Header Report on Attachment 3.
    - 6.7.1.2      **ENTER** two hour estimate TEDE value from page 3 of Header Report on Attachment 3.
  - 6.7.2      **COMPLETE** U3 Dose Assessment following steps in 6.1.through 6.4.
    - 6.7.2.1      **ENTER** TEDE value from page 3 of Header Report on Attachment 3.
    - 6.7.2.2      **ENTER** two hour Estimate TEDE value from page 3 of Header Report on Attachment 3.
  - 6.7.3      **ADD** Unit 2 and Unit 3 Dose Assessment TEDE on Attachment 3:
  - 6.7.3.1      ADD Unit 2 and Unit 3 TEDE values **AND ENTER** the total on Attachment 3.

**REFERENCE USE**

6.7.3.2      **ADD** Unit 2 and Unit 3 two hour Estimate TEDE values **AND** **ENTER** the total on Attachment 3.

6.7.4      **SIGN AND DATE** Performed By on Attachment 3.

6.7.5      **ENSURE** Attachment 3 is peer checked and the reviewed by line is signed.

6.7.6      **ATTACH** Header Report and 2 Mile Map for each Unit to Attachment 3.

## 6.8      **SYSTEM SHUTDOWN**

### **NOTE**

The dose associated with a radiological plume should be completely assessed to the maximum credible distance before the RP Leader determines the Raddose-V program will no longer be needed and system may be shut down.

6.8.1      **IF** your station has been in control, **THEN** **SELECT [Relinquish Control]** from Main Menu.

6.8.1.1      Model will prompt "Are you sure?"


6.8.1.2      **SELECT [Yes].**

6.8.1.3      **SELECT [Go to Start Up Menu].**

6.8.1.4      **SELECT [Exit Raddose-V].**

6.8.2      **IF** your station has been running in either slave or independent mode, **THEN** **SELECT [Go to Start Up Menu]** from Main Menu.

6.8.2.1      **SELECT [Exit Raddose-V].**

	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 17 of 22

## 7.0 **ACCEPTANCE CRITERIA**

7.1 None.

## 8.0 **RETENTION OF RECORDS**

8.1 Deliver all logs and worksheets used during response activities to EOF Emergency Planning Coordinator or TSC Manager at conclusion of emergency.

## 9.0 **REFERENCES / COMMITMENTS**

### 9.1 Implementing Reference

#### 9.1.1 Procedures

9.1.1.1 SO123-VIII-10.3, Protective Action Recommendations

9.1.1.2 SO123-VIII-40.100, Dose Assessment

9.1.1.3 SO123-XV-109, Procedure and Instruction Format and Content

9.1.1.4 SO123-XV-HU-3, Written Instruction Use and Adherence

9.1.1.5 SO123-VIII-TSC, Emergency Response Organization (ERO) Technical Support Center Position Checklist

9.1.1.6 SO123-VIII-EOF, Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

#### 9.1.2 Drawings

9.1.2.1 None

#### 9.1.3 Manuals

9.1.3.1 Operator's Manual for DACS/RADDOSE-V, Rev. 3, June 1998


#### 9.1.4 Other

9.1.4.1 None

### 9.2 Developmental References

#### 9.2.1 Commitments

9.2.1.1 None

	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 18 of 22

9.2.2 Corrective Actions to Prevent Recurrence (CAPR)

9.2.2.1 None

9.2.3 Procedures

9.2.3.1 SO123-VIII-40.3, EOF Radiation Protection (RP) Leader Duties.

9.2.3.2 SO123-VIII-40, TSC Radiation Protection (RP) Leader Duties.

9.2.4 Drawings


9.2.4.1 None

9.2.5 Manuals


9.2.5.1 Operator's Manual for DACS/RADDOSE-V, Rev. 3, June 1998

9.2.6 Other.

9.2.6.1 Action Request 060301941, Assignment 3

	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 19 of 22
	Supplemental Raddose-V Information	<b>Attachment 1</b>

1. All DACS databases "time stamp" data from the beginning of the interval. For the case of the 15-minute average data, intervals begin on the quarter hour. The data represent an average of the following 15 one-minute readings.
2. For the 09:00 record, the one-minute average for 09:00, 09:01, and 09:02...09:14 are averaged and reported. The one-minute average is actually the average of fifteen readings taken at 4-second intervals. As such, the actual time period of the 09:00 fifteen-minute average is really 09:00:00 to 09:14:56.
3. Raddose-V can back calculate a source term for dose projections based on field data including PIC readings. To use this feature the location of the field sample or PIC reading must be within the Raddose-V generated plume area. The field data should be entered in the appropriate accident time step coinciding with the field measurement.
4. Back calculation assumes the actual field or PIC readings are the centerline of the plume. If this assumption is not correct, the Raddose - V calculated values and the field or PIC value comparisons may not match.
5. Raddose-V can be used to track or forecast an "empty" plume which can be used to pre-stage field teams in anticipation of an actual accident related release. To simulate an "empty" plume use a very low plant vent stack Noble Gas release rate such as 2.0E-14 Curies/sec to avoid hypothetical release data being interpreted as an actual release.
6. Occasionally, there will be a puff release during an incident or drill. Make sure that releases which stop are terminated in the Raddose-V program.
7. The accident type can change during an accident. Make sure this change is properly recorded in Raddose-V even if the source term values remain the same.
8. In the **[Enter/Edit Source Term Data]** screen do not attempt to enter rad data unless an entry method has been selected. Attempting to enter rad data without specifying an entry method will produce an error message "Subscript out of Range". When the error message is acknowledged the program will terminate. The user will need to restart the program from the Raddose-V icon in the DACS Program group.


	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b>
		<b>REV: 7</b>
		Page 20 of 22

PAR Assessments Beyond 10 Miles	<b>Attachment 2</b>
---------------------------------	---------------------

In an extreme radiological release under adverse meteorological conditions there is a potential that Plume exposure PAR's may need to be evaluated at distances beyond 10 miles. Raddose-V can assess dose rates beyond 10 miles by utilizing the Point-of-Interest Doses screen. This screen can be accessed from the Main Menu by selecting **[Display Point-of-Interest Doses]**.

The Point-of-Interest screen allows a user the ability to obtain dose rates and deposition rates at any point within the 50-mile Ingestion Pathway Zone (IPZ). When the screen is first entered, the maximum dose rates and deposition rates at each ring distance (EAB, 1, 2, 5 and 10 miles) are displayed. For any other location, the radial distance in miles and the bearing in degrees can be entered to assess the plume EDE dose rate, TEDE dose rate, as well as a deposition rate.

When protective action guideline doses are exceeded at 10 miles (i.e.,  $\geq 1$  rem TEDE) an evaluation should be made to determine the distance to which the Protective Action Recommendations should be extended. The Point-of-Interest Doses feature of Raddose-V can be utilized together with an estimated release duration to determine the distance where protective action guideline doses will not be exceeded.

	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 21 of 22
Multiple Unit Dose Assessment Worksheet		<b>Attachment 3</b>

**One hour estimate:**

U2 TEDE (mrem/hour) from page 3 of header report	_____ (mrem/hour)
U3 TEDE (mrem/hour) from page 3 of header report	_____ (mrem/hour)
Total (mrem/hour) add unit 2 + unit 3	_____ (mrem/hour)


**Two hour estimate:**

U2 TEDE (mrem) from page 3 of header report	_____ (mrem)
U3 TEDE (mrem) from page 3 of header report	_____ (mrem)
Total (mrem) add unit 2 + unit 3	_____ (mrem)

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_



	<b>RADDOSE-V Dose Assessment</b>	<b>SO123-VIII-40.200</b> <b>REV: 7</b>
		Page 22 of 22
<b>Summary of Changes</b>		<b>Attachment 4</b>

Author: Richard Garcia PAX: 83845

NN, Order, or Other Action	Description of Change	Reviewer(s)	50.59 / 72.48	Step, Section, Attachment or Page
202596380	Removed references to SGTR, LOCA, and Thyroid dose as they are no longer applicable.  Added additional guidance on entering Iodine release rates.	See Table Below	DNA	Throughout

Document Reviewers:	Name:
RP	Andrew Martinez
RP	Sandy Sewell
EP	Lucia Sischo
EP	Dan Cleavenger
Cognizant Supervisor	Larry McCann
<b>Approvers:</b>	
CFDM Final Approval:	Deborah Lindbeck

---

EMERGENCY PLAN DRILLS AND EXERCISES

---

TABLE OF CONTENTS

SECTION	PAGE
<b>1.0 OBJECTIVES .....</b>	<b>2</b>
<b>2.0 REFERENCES.....</b>	<b>2</b>
<b>3.0 PREREQUISITES .....</b>	<b>3</b>
<b>4.0 PRECAUTIONS .....</b>	<b>3</b>
<b>5.0 RESPONSIBILITIES .....</b>	<b>4</b>
<b>6.0 PROCEDURE .....</b>	<b>6</b>
<b>7.0 RECORDS .....</b>	<b>21</b>
<b>ATTACHMENTS</b>	
1 Periodic Drill and Exercise Requirements .....	22
2 Matrix of Drill and Exercise Objectives.....	23
3 Scenario Development Team and Responsibilities.....	29
4 Drill Planning Checklist .....	33
5 Controller Evaluator Organization .....	40
6 Drill Preparation Flowchart.....	45
7 Exercise Preparation Flowchart .....	46
8 Controller and Evaluator Briefing .....	47
9 Controller Training.....	48
10 Controller / Evaluator Guidelines .....	50
11 Observer Guidelines .....	59
12 Security/Confidentiality Agreement .....	60
13 Participant Briefing .....	61
14 Drill Report .....	65
15 Definitions .....	68
16 Developmental Resources .....	70
17 Summary of Changes .....	71

REFERENCE USE  
QA PROGRAM AFFECTING  
50.59 DNA/72.48 DNA

---

## EMERGENCY PLAN DRILLS AND EXERCISES

---

### 1.0 OBJECTIVES

- 1.1 Identify requirements for periodic Emergency Plan Drills and Exercises by references in Section 2.0.
- 1.2 Provide guidelines for development, conduct, evaluation, and records maintenance of Emergency Plan Drills and Exercises.
- 1.3 Establish a system for correcting deficiencies and weaknesses identified by Emergency Plan Drill and Exercise evaluations.

### 2.0 REFERENCES

- 2.1 NRC Commitment
  - 2.1.1 SONGS Emergency Plan, Units 1, 2 and 3
- 2.2 Procedures
  - 2.2.1 SO123-VIII-0.201, Emergency Plan Equipment Surveillance Program (EPESP)
  - 2.2.2 SO123-XXI-1.11.3, Emergency Plan Training Program Description
  - 2.2.3 SO123-XV-109, Procedure and Instruction Format and Content
  - 2.2.4 SO123-XV-HU-3, Written Instruction Use and Adherence
  - 2.2.5 SO123-XV-50, Corrective Action Program
  - 2.2.6 SO23-XXI-REC, Training Records
  - 2.2.7 SO123-VIII-0.100, Maintenance and Control of Emergency Planning Documents
  - 2.2.8 SO123-XV-50.CAP-1, Writing Nuclear Notifications for Problem Identification and Resolution
  - 2.2.9 SO123-XV-ERO-2, Emergency Planning Oversight
  - 2.2.10 SO123-VIII-0.210, Emergency Planning Drill Objectives and Demonstration Criteria

2.3 Other

- 2.3.1 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.3.2 FEMA Interim Radiological Emergency Preparedness (REP) Program Manual April, 2012
- 2.3.3 NRC Inspection Manual Chapter 0609, Appendix B, Emergency Preparedness Significance Determination Process, 02/24/12
- 2.3.4 Form EP (123) 20, Emergency Planning Document Review Sheet
- 2.3.5 NN 201944331, Exercise Scheduling
- 2.3.6 NN 201974817, Identification of Drill Weaknesses
- 2.3.7 NN 202044191, 10CFR50.47(b) Identification of Deficiencies Identified as a Result of Periodic Exercises.

**3.0 PREREQUISITES**

- 3.1 Verify this document is current by using one of the methods described in SO123-XV-HU-3.
- 3.2 Verify level of use requirements on page one of this document.

**4.0 PRECAUTIONS**

- 4.1 Drills and exercises shall minimize interference with plant operations, maintenance and construction activities, consistent with achieving objectives.
- 4.2 Drills and exercises shall be developed such that interactions with the actual control room are minimized. When interaction with the actual control room is necessary, it shall be done in such a manner as to minimize control room distractions.
- 4.3 Security procedures shall remain in effect during drills and exercises.
- 4.4 Drill or exercise activities shall be suspended in the event of an actual emergency.
- 4.5 Electronic communications and data relating to the drill or exercise should be identified as drill or exercise information by prefacing them with the statement, "This is a drill." This statement should also be repeated periodically on communication lines (telephone, radio) which are kept open for extended periods or could be monitored or overheard by non-participants.
- 4.6 Scenarios shall maintain the safety of employees and the public and meet approved objectives.

## 5.0 RESPONSIBILITIES

5.1 Manager, Emergency Preparedness Planning (EPM) is responsible to:

- Ensure the emergency preparedness drill/exercise program maintains the level of proficiency of the Emergency Response Organization (ERO).
- Implement the site emergency preparedness drill/exercise program.
- Assign an individual to perform the functions of and serve as Drill/Exercise Coordinator.
- Ensure drills and exercises required by the Emergency Plan are scheduled, conducted and evaluated.
- Coordinate with site management for resource assignment to a Scenario Development Team (SDT).
- Ensure drill/exercise six-year plan is maintained and up-to-date.
- Ensure corrective actions are identified and resolved for objectives "not met" and for weaknesses or improvement areas.
- Ensure lessons-learned are disseminated or available to all ERO personnel.
- Approve all drill/exercise objectives, critiques, and reports for each drill and exercise.
- Brief the site management team and the NRC inspection team of the exercise evaluation results.
- Ensure distribution or availability of the drill/exercise report.

5.2 Manager, Safety, Human Performance and Performance Improvement is responsible to:

- Provide personnel from the training staff to assist with the development, validation and execution of drill scenarios.
- Coordinate with the EP Department to schedule the use of the simulator for drills or exercises.
- Provide remediation training for personnel demonstrating unsatisfactory performance during drills or exercises.

5.3 Site Management team is responsible to:

Schedule personnel to participate in the Scenario Development Team and participate in drills and exercises as controllers, evaluators, and drill or exercise participants.

5.4 Drill/Exercise Coordinator is responsible to:

- Develop and maintain the drill/exercise schedule
- Coordinate all activities of the drill/exercise from planning through the final report.
- Select the drill/exercise program and performance objectives from the six-year plan and update the plan after the demonstration.
- Lead the development, validation and approval of scenarios.
- Coordinate the assembly of the drill/exercise package and coordinate the distribution to the assigned controllers and evaluators.
- Ensure scenario security and submit to the applicable government agencies when required.
- Ensure drill/exercise controllers, evaluators, and participants are identified and notified of the drill schedule.
- Manage the overall conduct of the drill/exercise (typically as the Drill Coordinator).

5.5 Scenario Development Team is responsible to:

- Develop the scenario and drill/exercise package using the scenario development checklist in Attachment 3.
- Participate in the drill/exercise as controllers.

5.6 Emergency Planning Department staff is responsible to:

- Assist in the development and validation of the scenario.
- Assist in the preparation of the drill/exercise scenario packages.
- Support the selection and notification of controllers, evaluators and participants.
- Verify equipment readiness before the drill or exercise.
- Support drills and exercises in the role of a Facility Lead Controller or controller
- Support in developing and maintaining the six-year plan.

## 6.0 PROCEDURE

### 6.1 EP DRILL/EXERCISE SCHEDULE

#### NOTE

The meaning of "drills" in this usage is intended to include performance enhancing experiences (exercises, functional drills, simulator drills, tabletop drills, mini drills, etc.) that reasonably simulate the interactions between appropriate centers and/or individuals that would be expected to occur during emergencies. For example, control room interaction with offsite agencies could be simulated by instructors or OSC interaction could be simulated by a control cell simulating the TSC functions, and damage control teams.

Exercises must provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to implement the principal functional areas of emergency response, including activities such as:

- Event classification
- Notification of offsite authorities
- Protective action recommendation development
- Accident assessment
- Management and coordination of emergency response
- Assessment of the onsite and offsite impact of radiological releases
- Protective action decision making
- Plant system repair and mitigation action implementation

Additionally, each exercise must provide the opportunity for the ERO to demonstrate key skills specific to emergency response duties in the Control Room, TSC, OSC, EOF and JIC.

- 6.1.1 The drill/exercise coordinator will develop and maintain a rolling six-year schedule of drill/exercise dates or approximate dates that allows demonstration of all major portions of the emergency plan over a six-year period.

- .1 An annual drill and exercise schedule for the coming year should be developed before the end of each year.
- Determine drill dates that involve outside government or supporting agencies by consulting the IPC, NRC, FEMA, and other NRC Region IV utilities.
  - Obtain Nuclear Organization management approval of the proposed drill/exercise dates.
  - Confirm the drill/exercise dates with all affected internal and external organizations.

- 6.1.2 Schedule annual/periodic drills to meet the minimum drill frequencies and types in Attachment 1 during any six-year period.
- 6.1.3 The EPM will identify which drill objectives will be evaluated prior to the drill.
- 6.1.4 Coordinate the required resources with planning and scheduling / work control at least 20 weeks in advance to include in the 20 week work schedule when possible.
- 6.1.5 Notify ERO members selected to control, evaluate, and participate approximately 4 to 6 weeks in advance of the scheduled drill/exercise.
- 6.1.6 Ensure the drill schedule provides the opportunity for all ERO members to maintain proficiency.
- 6.1.7 Any changes to the exercise or drill schedule shall be confirmed with all affected internal and external organizations, and approved by the Manager, Emergency Planning (EP).

## **6.2 SELECTION OF DRILL/EXERCISE OBJECTIVES**

- 6.2.1 Emergency planning program objectives in SO123-VIII-0.210 are the planning standard elements that are demonstrated annually or over a six-year period during drills/exercises, in accordance with NUREG 0654, Section II.
- 6.2.2 Emergency planning performance objectives are criteria or measures that are intended to be achieved, by the ERO, during emergency planning drills/exercises to demonstrate the capability to meet the planning standards.
- 6.2.3 The selection of objectives shall be based upon:
  - Objectives that support the offsite agencies demonstration of scheduled FEMA REP evaluation areas
  - Areas of improvement / weaknesses identified in previous drills/exercises (facility and/or team performance)
  - Review NNs/Inspection Reports/Drill Critiques
  - Site or industry operating experience lessons learned located in CAP, INPO web site, NRC web site, NEI or RUG peer group communication or recommendations from site management.
  - Revisions to the E-plan and major EPIP revisions
  - Six-year schedule and objective demonstration tracking.
- 6.2.4 Ensuring drill objectives provide for the verification of the effectiveness of corrective actions initiated from previous drills.



- 6.2.5 Update Attachment 2, 'Matrix of Periodic Drill and Exercises Objectives' following each drill/exercise.
- 6.2.6 Inform the Emergency Planning Manager of any objectives that have not been performed within their periodicity per the SONGS Emergency Plan.

### 6.3 SCENARIO DEVELOPMENT

#### NOTE

"Periodic Drill and Exercise Requirements," Attachment 2, describes the specific drills required by the SONGS Emergency Plan.

- 6.3.1 Acceptance policy for a scenario
  - .1 Acceptable exercise scenarios include:
    - Newly created scenarios.
    - Re-use of an existing scenario provided:
      - Participants have not seen the scenario as a participant, evaluator, controller, observer or scenario developer/reviewer within the previous 12 months
      - OR
      - The scenario is revised such that the scenario is changed substantially by any of the following:
        - Initial plant conditions and components out of service
        - Classification level and emergency action levels (EAL)
        - Specific component failures/malfunctions/indications resulting in escalation of the classification and EAL
        - Specific component failures/malfunctions/indications resulting in the loss of a safety system function(s)
        - Plant radiological conditions
        - Offsite release failure mechanism, release magnitude and/or release duration
        - Meteorological data
        - Initial protective action recommendation (PAR) and/or PAR upgrade
        - Other as determined by scenario sequence

- 6.3.2 The Biennial Exercise scenario must be substantially different from the previous biennial exercise and all integrated scenarios conducted between exercises that the key exercise participants have observed. (Failures and event classifications may be similar but the timing, basis for the classification and offsite radiological release should vary from the previous biennial exercise.)
- 6.3.3 The scenario shall be developed for each Emergency Plan site-wide drill and exercise conducted by EP.
- 6.3.4 Assemble a scenario development team from any or all of the desired positions described in Attachment 4.
- 6.3.5 Utilize the drill/exercise scenario package development checklist in Attachment 3 and develop the scenario and supporting data and messages.
- Ensure the timeline allows the opportunity to demonstrate the selected objectives.
  - Verify the scenario and timeline in the simulator and develop a simulator guide if desired.
  - Review EALs used during previous drills/exercises to ensure a variety of EALs are being utilized.
- 6.3.6 The scenario shall provide the necessary information and guidance to achieve the identified objectives.
- 6.3.7 Scope of the drill or exercise should be developed to indicate:
- Participants
  - Types and extent of responses by the Emergency Response organization including extent of notifications and degree of simulation
  - Offsite participation
- 6.3.8 Guidelines for Drill or Exercise Conduct should be developed and distributed for review by selected site personnel, including participants, prior to the drill.
- 6.3.9 After validation, the EPM will approve the scenario prior to commencement of the drill or exercise.

## 6.4 SCENARIO PACKAGE

### NOTE

The scenario package varies with the type of drill/exercise, simple for a single facility tabletop drill and very detailed for a full scale drill or exercise. Performance indicator and federally required scenarios must include enough information to adequately evaluate those types of drills. Simulator generated scenario data is not included.

6.4.1 The scenario package may contain any or all of the elements listed in this section.

- *Sequence of Events*: Time-line listing of all cue cards and activities that drive drill and controller actions. Included in the scenario are the initial conditions, a description of all predicted events with the expected time of the event and any associated anticipated actions the participants will take. This section is used by the evaluators and controllers during the drill/exercise as a prompt for issuing drill/exercise messages
- *Messages and Cue Cards*: Messages/cue cards are used to provide information to participants concerning simulated conditions or events. Messages/cue cards are delivered to participants per the timeline by the controller.
  - Message/cue cards will inform the participant of an event, conditions in an area, what they are seeing when they arrive or simulate a task or inform them of task completion.
  - They are normally delivered to the participant when the information is earned but may be given earlier to keep the scenario on the timeline.
  - They may be communicated to the participants using the written message sheet or verbally as determined by the controller. If messages are delivered verbally, the controller must assure no communication error occurs.
  - Contingency messages/cue cards are delivered by Drill Coordinator or Facility Lead Controller to keep the scenario on the timeline when a major event has been missed or not completed.
  - The scenario should document any expected data for classification, notification, and protective action recommendations (PAR).
  - Prepared preliminary notification forms may be included in the evaluator package as an evaluator aid to grade the PI opportunities.
  - Contingencies are identified for actions or times where the potential may exist for the progression of the drill/exercise to depart from the scenario.
- *Drill Controller List*: List of controllers, assignments, locations and contact information.

6.4.1 The scenario package may contain any or all of the elements listed in this section.  
(continued)

- *Evaluation Forms:* This material provides the demonstration criteria for each objective being evaluated.
- *Meteorological, radiological and chemistry data:* support data for both onsite and offsite.
- *Objectives:* List of objectives to be demonstrated, applicable facility or organization, and extent of play (anticipated participant response to scenario events developed to provide a measure to assure that the objectives are met).
- *Summary:* Time-line, narrative summary, sequence of events, hypothetical data, messages, and contingency messages.
- *Controller Instruction:* Controller organization, communication network, allowable simulations, precautions, safety considerations, and lessons learned.
- *Participant Instruction:* General instruction to participants, including safety considerations, controller interface, how data will be available, and response expectations.
- *Joint Information Center support data:* JIC material may be in a separate package from the scenario package.

## **6.5 SCENARIO SECURITY**

- 6.5.1 Scenario security shall be maintained for drill/exercise evaluated objectives and unannounced drills. (e.g., Secure drill manual out of sight when stored at your work location and your work location is unattended, maintain control of drill manual or have other drill controllers assist, do not leave it unattended or open for view by drill participants during an exercise or drill).
- 6.5.2 Individuals involved in scenario development and drill/exercise control and evaluation need to ensure drill/exercise participants do not have advance information about the scenario to ensure the evaluations are equitably and consistently administrated.
- 6.5.3 Individuals who assist in the scenario development and validation may not participate as a participant for the associated scenario or drill.
- 6.5.4 Each individual, except Federal, State, and Local agency representatives, knowledgeable of the scenario scheduled for a biennial exercise are expected to sign a confidentiality agreement. A typical agreement can be found in Attachment 12.

## **6.6 CONDUCT OF DRILLS AND EXERCISES**

### **6.6.1 Before the drill/exercise starts:**

- If offsite agencies are participating ensure objectives and extent of play by offsite agencies have been determined.
- Notify facility participants and drill/exercise controllers of their participation and conduct briefs. See guidelines in Attachment 10 for controller/evaluator and observer briefing and Attachment 13 for participant briefing.
- Ensure preliminary activities needed for conduct of the drill or exercises are taken. Use Attachment 4 to conduct drill/exercise readiness checks.
- Ensure controllers are at their assigned location, at least 30 minutes prior to start of scenario.
- Ensure controllers establish drill control communications at least 15 minutes prior to start of scenario.
- Inform offsite agencies and/or offsite controllers of the start of the exercise or drill.
- Inform the on-shift control room crew and the CAS/SAS operator of the drill and start time and any extent of play which may or may not involve the actual staff.
- Make a plant announcement of the drill/exercise start and instructions for non-participants.

6.6.2 During the drill/exercise:

- Start the drill/exercise at the scheduled timeline and following the Simulator Operations crew taking the shift.
- Ensure the simulator events are run according to the scenario timeline and that the data is flowing to the emergency response facilities.
- The Drill Coordinator controller may determine the need for modification of scenario information, or if necessary, with concurrence of the Emergency Planning Manager, the suspension or termination of the drill/exercise.
- The lead simulator controller will inform the facility controllers when major events are about to occur.
- If plant or personnel safety issues develop or ERO performance does not meet expectations, all Facility Lead Controllers shall inform the Drill Coordinator.
- The OSC controller will keep the simulator controller informed of the dispatch and return of teams.
- Facility Lead Controllers may resolve discrepancies in data or field information with concurrence of the Drill Coordinator.
- Controllers shall distribute messages and cues as scheduled in the scenario with concurrence of the Facility Lead Controller or the Drill Coordinator.
- All controllers will inform the Facility Lead Controller of problems encountered that impact the timeline and completion of major events.
- Controllers will inform the simulator controller of events in the field before the participant informs the operating crew so that simulator fidelity is maintained.
- Evaluators and controllers will maintain a chronological record of sequence of events and participant responses in a sufficient detail in their assigned area to provide an accurate record of activities.

6.6.3 Termination of the drill/exercise:

- The Drill Coordinator shall obtain concurrence from the Simulator Controller, Facility Lead Controllers, the Lead Offsite Controller and any participating agency (local, state, and federal) that all applicable objectives were demonstrated and evaluated.
- Once concurrence is obtained, all controllers will agree on a termination time.
- Drill/exercise coordinator shall inform the control room and CAS/SAS that the exercise or drill is terminated.
- An announcement should be made over the plant paging system that the drill/exercise is terminated.
- The lead EOF facility controller will ensure participating federal, state and local agencies and any state or federal agency controller/evaluators are notified that the drill/exercise is terminated.
- The Facility Lead Controllers will coordinate the following activities:
  - Verify all participants, controllers, and evaluators have signed an attendance sheet and collect all the sheets. (Observers may sign a separate attendance sheet if a record is desired. Observers do not get credit for drill participation.)
  - Ensure that all drill/exercise paperwork is collected from each participant and ensure drill phone lists and all material stamped "This is a drill" is removed.
  - Hand out drill/exercise critique or feedback sheets to all participants with direction to complete the critique and focus on performance based issues. Collect all completed sheets after the critique is complete.

6.7 **DRILL AND EXERCISE EVALUATION**

- 6.7.1 Drills and exercises should be evaluated against criteria identified by the specific objectives.
- 6.7.2 Other observations of drill or exercise performance that require corrective action should be identified.
- 6.7.3 Corrective actions should be recommended for any findings identified by the evaluation.



6.7.4 Immediately after the drill or exercise, controllers should:

- .1 Distribute Comment Sheets to participants following the termination of the drill or exercise.
- .2 Forward completed Comment Sheets to the Facility Lead Controller or EP.

6.7.5 EP will compile the information from the evaluation forms, response records, drill data, participant comments, and other drill records and then should conduct a controller debrief to discuss these preliminary findings.

6.7.6 Manager, EP or designee should ensure the Controller debrief remains focused on evaluation of objectives, NOT the development of Corrective Action Plans.

6.7.7 At the controller debrief, determine if the items in the preliminary findings are critique report items, other findings, or not a finding.

6.7.8 The preliminary status of each objective is listed on a "tally sheet" in order to facilitate a synopsis review at the end of the Controller debrief.

6.7.9 Initiation of Nuclear Notifications should be assigned to the cognizant Controller.

6.7.10 Facility Critique - A critique meeting shall be conducted with personnel in each facility at the conclusion of the drill/exercise. Players should be provided the opportunity to self-identify errors and performance deficiencies. Controllers should then provide additional observations and evaluations.

6.7.11 Drill participants unable to attend the post-drill critique should be provided an opportunity to provide feedback using the Comment Sheet.

6.7.12 Conduct Management Critique in accordance with SO123-XV-ERO-2.

6.7.13 Emergency Supplies - Emergency response supplies and equipment, including forms and procedures, shall be restored and maintained following drills and exercises in accordance with Reference 2.2.1.

6.7.14 Maintenance shall be notified of drill and exercise dates to allow them to schedule emergency tool kit inventories within 14 days following a drill or exercise.

## 6.8 CORRECTIVE ACTIONS/EVENT TRENDING

### NOTE

Per Reference 2.2.9, all SONGS employees and supplemental personnel are responsible for promptly identifying, reporting, and documenting problems by writing an NN prior to leaving the site for the day.

6.8.1 Observations identified as the result of drills and exercises shall be evaluated.

- In relation to applicable federal regulations, the SONGS Emergency Plan, and Emergency Plan implementing procedures, and
- Using the Significance Determination Process (SDP) specified in NRC Inspection Manual Chapter 0609, Appendix B.

.1 Observations are grouped in three categories as follows:

- Deficiencies: Items which identify that the EP program or procedures do not conform to the provisions of applicable federal regulations.
- Weaknesses: Items of documented performance that could have precluded effective implementation of the Emergency Plan in the event of an actual emergency.
- Other Issues: Items not quality affecting or of regulatory concern. These are items noted for trending purposes and actions intended to improve the emergency preparedness program.

.2 EP personnel are to generate Nuclear Notifications (NNs) for issues related to 10CFR50.74(b) planning standards (Reference 2.3.7).

.2.1 Include the following information in the NN:

- Is it a risk significant planning standard (RSPS)?
- Is it a deficiency, weakness, or other issue?
- The Division responsible for resolution.

.3 Disposition an identified weakness, deficiency, or other issue per Reference 2.2.5.

**NOTE**

The Risk Significant Planning Standards are 10CFR50.47(b)(4), 50.47(b)(5), 50.46(b)(9), and 50.49(b)(10). All other 10CFR50.57(b) planning standards are not risk significant.

- 6.8.2 A Risk Significant [50.47(b)] Planning Standard (RSPS)-related drill/exercise performance weakness is corrected within 90 days of identification or before the next ERO site wide drill/exercise, whichever is sooner (Reference 2.3.5).
  - 6.8.3 A Planning Standard-related drill/exercise performance weakness is corrected within 180 days of identification.
  - 6.8.4 Resolution of other drill/exercise issues (betterment) will be resolved within the next biennial exercise cycle.
  - 6.8.5 Findings identified as Other Issues should be entered into the yearly drill Operating Experience (OE) Rollup Report.
- 
- .1 IF a trend indicating a potential weakness is identified, THEN corrective action shall be taken per Reference 2.2.5.

## 6.9 TABLETOP AND MINI-DRILL TRAINING

NOTES	
1)	Tabletop training is presented in a lecture and/or discussion format without exercising or evaluating the players.
2)	Mini-drill training includes player participation and evaluation, simulating elements of drills or special topics.



6.9.1 Tabletops/mini-drills should be conducted periodically to provide training to Emergency Response Personnel and to correct identified drill weaknesses or deficiencies.

6.9.2 Develop an outline and determine the objectives of the tabletop/mini-drill. Consider the following topics:

- Lessons learned from previous drills, focusing on the "Top Three" past drill weaknesses
- Facility changes
- Computer system changes
- Key personnel changes
- EPIP changes
- Training issues
- Resource materials update
- Telecommunications changes
- Administrative changes
- Emergency planning topics
- Industry events

6.9.3 Mini-drill preparation should incorporate the applicable elements of Section 6.3.

## 6.10 DRILL AND EXERCISE REPORT GENERATION

- 6.10.1 The preliminary report for the biennial exercise should be completed prior to the agreed upon NRC exit meeting.

### NOTE

Remedial Exercises will be required on a case-by-case basis when any of the following conditions associated with the biennial exercise occurs:

Confidentiality is compromised to an extent that broadly affects ERO performance

The scenario does not provide the opportunity for demonstration of key skills

The scenario is not implemented in such a way that provides the opportunity for demonstration of key skills

ERO performance does not provide the NRC with a basis to determine that key skills have been maintained

Additionally, the extent of State and Local participation must be sufficient to show that appropriate corrective measures have been taken regarding the elements of the plan not properly tested in previous exercises.

- 6.10.2 The final biennial exercise report should be approved by the Manager, Emergency Planning and distributed within 30 days of the exercise.
- 6.10.3 Reports for drills involving the formal evaluation of NRC DEP performance indicators and/or performance objectives should be completed, approved by the Manager – Emergency Planning, and distributed within 30 days of the drill.
- 6.10.4 Reports for training drills not involving the evaluation of ERO performance (designated objectives or DEP) are not required. Actions may be generated per the corrective action process in EN-LI-102 to address facility, equipment, process or procedure issues identified during the training session.
- 6.10.5 Attachment 14 provides an example of a typical drill/exercise drill report to show the desired minimum report content.
- 6.10.6 The EPM, or designee, will distribute the report electronically to site management team members and emergency response facility leads.

## 7.0 RECORDS

- 7.1 Drill and Exercise Records - Data records, logs, etc., used by participants to transmit or record information shall be collected by the controllers at the end of the mini-drill, drill or exercise and forwarded to the Facility Lead Controller.
  - 7.1.1 All controllers and participants including trainees, shall sign training attendance records in accordance with Reference 2.2.6.
  - 7.1.2 Attendance records shall be forwarded to NTD for recording attendance.
  - 7.1.3 Additional pertinent records (Response records, data records and logs, participant comments etc.), shall be kept until the end of the current 2-year EP Program Inspection Cycle.
  - 7.1.4 Scenarios used to conduct drills and exercises by EP in accordance with Periodic Drill and Exercise Requirements (Attachment 2) shall be maintained in EP files.
- 7.2 The completed written critique report shall be sent to CDM-SONGS within three months of the date it is signed.
  - 7.2.1 The critique report transmittal shall include the signed critique report containing a list of drill objectives and the drill summary document.
  - 7.2.2 A copy of the written critique report shall be kept on file at EP for a period of six years.
  - 7.2.3 The written critique report should be made available to members of the ERO.

---

Periodic Drill and Exercise Requirements

A. BIENNIAL

1. FEMA graded exercise - each State within the 10-mile EPZ of a commercial nuclear power site shall fully participate in an exercise jointly with the licensee and appropriate local governments at least every two years (Reference 2.3.2) (EP, OEP).
2. Integrated NRC Graded Exercise - tests the integrated capability and a major portion of the basic elements of the Emergency Plan (EP, OEP).
  - a. Off-hours activation once every 6 years.
  - b. Unannounced exercise once every 6 years.
  - c. Federal Agency participation once every 6 years.

B. ANNUAL

1. Medical Emergency Drill - participation by some, if not all, of the local medical support personnel and organizations (e.g., physicians, ambulance services, and hospitals) and shall involve one or more contaminated/injured individual(s)(EP, RP, SCE Medical).
2. Environmental Monitoring Drill - collection and analysis of radiological sample media (e.g., water, air, soil and vegetation) both onsite and offsite (should include record keeping and communications). Does not necessarily include analysis of samples with actual elevated levels of radiation (EP, Chemistry, RP, Environmental Monitoring).
3. Field Team Communications Drill - communications links between SONGS EOF and State and local Emergency Operations Centers (EOCs) and field assessment teams (OEP, EP).
4. Fire Drill - participation by Camp Pendleton Fire Department (San Onofre Fire Department).

C. SEMI-ANNUAL

1. Health Physics Drills - response to simulated abnormal airborne and liquid samples and direct radiation measurements in the site environs, and analysis of these samples. Does not necessarily include analysis of samples with actual elevated levels of radiation (EP, Chemistry, HP).

D. QUARTERLY

1. Fire Drill - at least one drill per shift per calendar quarter for SONGS Fire Department. These drills are conducted in accordance with the Firefighters Training Program (Drills meet NFPA Code 600) (San Onofre Fire Department).

E. MONTHLY

1. Communications Drill - communication links with Federal, State, and local governments within the plume exposure Emergency Planning Zone in accordance with surveillance procedures. The surveillance procedure, when completed, will serve as a written critique (Operations, EP).

Matrix of Drill and Exercise Objectives

SONGS \_\_\_\_ (year)

#	Objective	Ref.	Freq	Drill Num. Last Performed	Next Year Due	Drill Num. Scheduled
1	Exercise must reach SAE or GE	A	B			
2	Exercise tests offsite emergency response which simulates conditions resulting in offsite radiological releases which would require protective response by offsites	A	B			
3	Exercise conducted back-shift between 1800 - 0400  NOTE: Document requests for offsite participation and responses in the COMMENTS Section.	L A	A 6 Y			
4	Unannounced drill	L C N.1.b	A 6 Y			
5	Exercise conducted under various simulated weather conditions	C N.1.b	6 Y			
6	Exercise includes participation by 1+ offsite agency	A	B			
7	Exercise (should) include State of CA participation, w/offsites participating	A	6 Y			
8	Exercise (should) include Federal Agencies	A	6 Y			
9	Contaminated/injured person drill w/some local medical support personnel participating	A B 03.02.b.5 C L.1, L.4, N.2.c, O.4.h	A 6 Y			
10	Environmental Monitoring Drill, sampling water AND air AND soil AND vegetation from onsite AND offsite sources, and should include record-keeping AND communications	A C N.2.d	A			
11	Sampling AND analysis of abnormal airborne samples	A	S			



Matrix of Drill and Exercise Objectives

SONGS ____ (year)						
#	Objective	Ref.	Freq	Drill Num. Last Performed	Next Year Due	Drill Num. Scheduled
12	Sampling AND analysis of abnormal liquid samples	A	S			
13	Direct radiation measurement in the site environs (may be satisfied by #11 or 12)	A	S			
14	Field team communications between: EOF-State AND EOF-local EOCs AND EOF-field teams	A 8.1.3.7	A			
15	Exercise should include: accident detection and assessment	B 03.02.a.1 C I.1, I.2	A			
16	Exercise should include: emergency classification	B 03.02.a.2 C D.1, D.2	A			
17	Exercise should include: notification of onsite and offsite emergency responders	B 03.02.a.3 C E.1, E.2, E.3, J.1	A			
18	Exercise should include: communications	B 03.02.a.4 C E.2, E.4, F.1, F.2, H.6 D 8.1, 8.2, 8.3, 8.4	A			
19	Exercise should include: radiological exposure control	B 03.02.a.5 C J.3, J.6, K.1, K.2, K.3, K.5, K.6,	A			

Matrix of Drill and Exercise Objectives

SONGS ____ (year)						
#	Objective	Ref.	Freq	Drill Num. Last Performed	Next Year Due	Drill Num. Scheduled
20	Exercise should include: protective action recommendations	B 03.02.a.6 C J.7	A			
21	Exercise should include: staff augmentation	B 03.02.a.7 C A.1, A.3, A.4, B.7, B.8, B.9	A			
22	Exercise should include: shift staffing	B 03.02.a.8 C B.1, B.2, B.3, B.5 D Table 2	A			
23	Exercise w/Off-hours staffing (1800 - 0400)  NOTE: Document requests for offsite participation and responses in the COMMENTS Section.	L B 03.02.b.1 C N.1.b (Rev. 1, Supp. 1)	A 6 Y			
24	Exercise w/Activation of Joint Information Center	G Table 4 B 03.02.b.2 C G.3, G.4	B 6 Y			
25	Exercise w/Use of Fire Control Teams	B 03.02.b.3 C N.2.b, O.4.d	6 Y			
26	Exercise w/Use of First Aid and/or rescue teams	B 03.02.b.4 C K.1, K.2, K.3, K.4, K.5, L.2, O.4.f	6 Y			

Matrix of Drill and Exercise Objectives

SONGS ____ (year)						
#	Objective	Ref.	Freq	Drill Num. Last Performed	Next Year Due	Drill Num. Scheduled
27	Exercise w/security personnel providing prompt access for emergency equipment and support	B 03.02.b.7 C O.4.d	6 Y			
28	Exercise w/use of backup communications	B 03.02.b.8 C F.1	6 Y			
29	Exercise w/rumor control	G Table 4 B 03.02.b.9 C G.4.c	B  6 Y			
30	Exercise w/use of emergency power (where not a part of plant safety systems, e.g., TSC)	B 03.02.b.10 D 8.2.1	6 Y			
31	Exercise w/evacuation of Emergency Response Facilities and relocation to backup ERFs	B 03.02.b.11 E 3.2	6 Y			
32	Exercise w/ingestion pathway exercise  NOTE: State of CA rotates this 6Y frequency between nuclear sites	B 03.02.b.12 C J.9, J.11 G Table 4	6 Y			
33	Exercise w/field monitoring, including soil, vegetation, and water sampling	B 03.02.b.13 C I.7, I.8, I.11	6 Y			
34	Exercise w/capability for determining the magnitude and impact of the particular components of a release	B 03.02.b.14 C I.3, I.4, I.6, I.8, I.9, I.10	6 Y			

Matrix of Drill and Exercise Objectives

SONGS ____ (year)						
#	Objective	Ref.	Freq	Drill Num. Last Performed	Next Year Due	Drill Num. Scheduled
35	Exercise w/use of potassium iodide	B 03.02.b.16 C J.6.c	6 Y			
36	Exercise w/assembly and accountability	B 03.02.b.17 C J.5	6 Y			
37	Exercise w/recovery and reentry	B 03.02.b.18 C M.1	6 Y			
38	Exercise with Severe Accident Management	H	3 Y			
39	Exercise with Hostile Action-Based Scenario	J	6 Y			
40	Exercise with Extensive Damage Mitigation	K	6Y			
41	Exercise with B.5.b Time-Sensitive Action - Depressurize and Make Up to Steam Generators (2 hrs)	M	8Y			
42	Exercise with B.5.b Time-Sensitive Action - Make up to Spent Fuel Pool from External Source (2 hrs)	M	8Y			
43	Exercise with B.5.b Time-Sensitive Action - Spray Spent Fuel Pool from External Source (2 hrs)	M	8Y			
44	Exercise with B.5.b Time-Sensitive Action - Manually Operate Turbine-Driven Auxiliary Feed Water Pump (1 hour)	M	8Y			

yy = last two digits of the year

xx = last two digits of the drill number

zz = specific drill objective number

Freq. B=biennial, S=semi-annual, A=annual, Y=years

Matrix of Drill and Exercise Objectives

SONGS \_\_\_\_ (year)

COMMENTS:

References:

- A - Emergency Plan
- B - NRC Inspection Manual, Inspection Procedure 82302, "Review of Exercise Objectives and Scenarios for Power Reactors" (Superseded by NRC Inspection Procedures 71114.01 and 71151. Retained as reference for response to CAR 971100692-8 and AR 970601893, only.
- C - NUREG 0654, "Criteria for Preparedness and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"
- D - NUREG 0737, Supplement 1
- E - NUREG-0696, "Functional Criteria for Emergency Response Facilities"
- F - MOSAIC/RCTS commitment (provide commitment number)
- G - FEMA Interim Radiological Emergency Preparedness (REP) Program Manual, August 2002
- H - AR 060200801-01
- J - NRC Bulletin 2005-02: Emergency Preparedness and Response Actions for Security-Based Events
- K - NN 200105582-19
- L - Annual, unannounced, drive-in response drill, NN 201809145-CA0002 (beginning calendar year 2013)
- M - NN 201866328-CA0001

NOTE: Review that all major elements are tested within 6 years.

All objective(s) due this year are scheduled.

PREPARED BY: \_\_\_\_\_  
Emergency Planning Staff Member

APPROVED BY: \_\_\_\_\_  
Manager, Emergency Planning

All objective(s) due this year were tested or Nuclear Notification(s) written and the objective(s) rescheduled.

REVIEWED BY: \_\_\_\_\_  
Emergency Planning Staff Member

APPROVED BY: \_\_\_\_\_  
Manager, Emergency Planning

## SCENARIO DEVELOPMENT TEAM AND RESPONSIBILITIES

---

### NOTE

The Scenario Development Team (SDT) is chaired by the Drill/Exercise Coordinator, as designated by the Emergency Planning Manager, who has overall responsibility for the drill and scenario. The team size and members may vary and will be dictated by the desired objectives and extent of play of the drill/exercise. The following are recommended team member responsibilities. Team members will be selected and assigned responsibilities based on their area of expertise

### **1.0** Emergency Planner/Drill Coordinator

- Select performance objectives, extent of play, and evaluation criteria.
- Responsible for ensuring that all data required to drive the scenario or to enhance ERO participant's demonstration of objectives, is provided in the scenario package.
- Develop the scenario narrative, events and expected response.
- Identify and coordinate additional resources, as necessary, for participant, controller or evaluator positions (e.g., offsite fire department, emergency medical services, peers from other licensees, federal agents).
- Compile scenario data / materials in a standardized format.
- Provide a peer review of scenario content to assure expected ERO response and technical content is accurate.
- Identify operating experience, lessons learned, or improvement actions to incorporate into the scenario.

### **2.0** Emergency Planning Staff

- Assist in the development of the scenario and provide input to the Drill Coordinator.
- Coordinate the simulator data capture and deliver to the EP group in a useable format for input to the scenario package.
- Schedule simulator development and validation sessions in the Learning Management System.
- Attend Scenario development/validation sessions.
- Provide a peer review of scenario content to assure expected ERO response and technical content is accurate.
- Identify operating experience, lessons learned, or improvement actions to incorporate into the scenario.

## SCENARIO DEVELOPMENT TEAM AND RESPONSIBILITIES

---

### 3.0 Operations Senior Reactor Operator/Certified Fuel Handler

- Select and verify the accuracy of EALs in the scenario.
- Provide details and develop all messages to be given to the operations crews members participating in the drill.
- Determine probable and possible operator actions in response to scenario events. This is to ensure that the scenario anticipates actions and all actions are considered.
- Attend Simulator development sessions, as available.
- Attend Scenario development/validation sessions.
- Create 'normal' Control Room paperwork, (e.g. shift turnover logs, Tech Spec log, Night Orders, and Danger Tag series) as applicable and ensure paperwork indicates "DRILL".
- Provide and assemble all pertinent data for any assigned supplemental (mini) scenarios.
- Function as a controller/evaluator for the developed drill.

### 4.0 Training Instructor

- Attend or conduct simulator development sessions.
- Provide Simulator capabilities, limitations, and options to model given desired events.
- Capture simulated data and prepare a hard copy of the simulator data for the scenario package.
- Ensure a qualified booth operator is available to setup and run the simulator for the drill development and validation.
- Function as a controller/evaluator for the developed drill (as assigned).
- For exercises, prepare a hard copy of the simulator data in case of simulator failure.

### 5.0 Radiation Protection(RP)

- Review radiological data presented by and/or retrieved from the Simulator or other dose models.
- Provide details to be included in any radiological messages to be given out during the drill.
- Determine probable and possible radiation protection actions in response to scenario events. (This is to ensure the scenario anticipates all possible and probable actions and all such 'paths' are provided for.)
- Attend Scenario development/validation sessions
- Provide on-site/in-plant radiological data to include re-entry team maps, if it is being demonstrated.
- Assist in creating data for off-site monitoring team controllers, to include; plume maps, field team data, and open/closed meter readings.
- Assist in converting off-site data for use by state team controllers (e.g. efficiencies, instrumentation, etc.)
- Provide and assemble all pertinent data for any assigned supplemental (mini) scenarios.
- Function as a controller/evaluator for the developed drill.

## SCENARIO DEVELOPMENT TEAM AND RESPONSIBILITIES

---

### 6.0 Dose Assessment (may be the same RP as above)

- Review radiological data presented by and/or retrieved from the Simulator or other dose models.
- Provide details to be included in any Field Monitoring Team or dose assessment messages to be given out during the drill.
- Determine probable and possible radiation releases in response to scenario events. This is to ensure that the scenario anticipates all possible and probable release paths.
- Attend Scenario development/validation sessions.
- Assist in creating on-site/in-plant radiological data to include re-entry team maps.
- Create data for off-site monitoring team controllers, to include; plume maps, field team data, and open/closed meter readings.
- Assist in converting off-site data for use by state team controllers (e.g. efficiencies, instrumentation, etc.)
- Provide and assemble all pertinent data for any assigned supplemental (mini) scenarios such as collection and analysis of samples.
- Function as a controller/evaluator for the developed drill.

### 7.0 Maintenance (MM, EM, I&C)

- Provide routine maintenance forms (e.g., WOs, PMs, surveillances, work packages etc.) for the scenario equipment.
- Provide static information on work-in progress at the time the scenario begins (as required).
- Provide details to be included in any maintenance messages to be given to maintenance personnel during the drill.
- Attend Scenario development/validation sessions.
- Assist in determining probable and possible maintenance actions in response to scenario events. This is to ensure that actions anticipated by the scenario are considered.
- Provide or recommend mock-ups to be used to provide realism for applicable maintenance personnel.
- Provide and assemble all pertinent data for any assigned supplemental (mini) scenarios.
- Function as a controller/evaluator for the developed drill (as assigned).

### 8.0 Joint Information/News Center Representative

- Develop messages to test the media monitoring, call centers, and/or public inquiry/rumor control of the Joint Information/News Center
- Provide the applicable controllers with the expected protective actions and probable EAS messages.
- Attend Scenario development/validation sessions.
- Coordinate media monitoring scripts and expectations with the simulated media participants.
- Function as a controller/evaluator for the developed drill (as assigned).



## SCENARIO DEVELOPMENT TEAM AND RESPONSIBILITIES

---

### **9.0** Engineering (Mechanical, Electrical, and Reactor)

- Provide details to be included in any messages to be given to the field teams.
- Provide and assemble all pertinent data for any assigned supplemental (mini) scenarios or scenario content.
- Attend Scenario development/validation sessions.
- Function as a controller/evaluator for the developed drill (as assigned).

### **10.0** Chemistry (as required by the scenario)

- Review chemistry data presented by and/or retrieved from the Simulator.
- Provide details to be included in any messages to be given to the field team.
- Provide and assemble all pertinent data for any assigned scenario data.
- Attend Scenario development/validation sessions.
- Function as a controller/evaluator for the developed drill (as assigned).

### **11.0** Security / Fire and/or Medical team (as required by the scenario)

- Provide details to be included in any messages to be given to the field teams.
- Provide and assemble all pertinent data for any assigned supplemental (mini) scenarios.
- Attend Scenario development/validation sessions.
- Function as a controller/evaluator for the developed drill (as assigned).

### **12.0** Senior ERO Leader (Preferable CED or SED)

- Provide oversight on the Scenario Selection and flow
- Provide concurrence on initiating events and correct responses for Classification, Notification and PAR related events.
- Attend Scenario development/validation sessions.

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
1	Develop Drill Checklist (A)			-105			
2	Provide Drill date or change of Drill date to Assistant On-Line Work Mgr in 15-Week Work Window (SSR) (A)			-105			
3	Choose Scenario Development Team (A)			-84			
4	Schedule Simulator time for line items 25, 32 and 140 (C)			-84			
5	Coordinate EP Sim. Dev. Sched. w/ OPS & NTD (B)			-84			
6	Review Drill Requirements/Objectives (A)			-56			
7	Review NNs/Inspection Reports (A)			-56			
8	Develop Confidentiality Form (A)			-56			
9	Meet to Develop Original Scope (A)			-56			
10	Draft Mock NRC Team Roster			-56			
11	Determine if state will participate on Blue Phone (B)			-49			
12	Determine YPS stations that will participate in drill (B)			-49			
13	Develop Drill-Specific Objectives (A)			-49			
14	Develop Offsite Objectives (A)			-49			
15	Develop JIC Objectives (A)			-49			
16	Design Basic Scenario (G)			-49			
17	Prepare draft Drill Participant Roster (B)			-49			
18	Drill Planning Meeting (P)			-49			
19	Sched. Rooms for Controller Debrief (C)			-42			
20	Sched. Rooms for Management Critique (C)			-42			
21	Sched. Room for Controller Pre-drill Brief (C)			-42			
22	Sched. Venues for Pre-drill Briefing (C)			-42			
23	Sched. Venues for Walkthroughs (C)			-42			
24	Schedule VP/Station Mgr. Pre & Post Drill Briefing (C)			-42			

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
25	Simulator Run #1 (Verification) (G)			-42			
26	Drill Planning Meeting (P)			-42			
27	Finalize Mock NRC Team Roster			-42			
28	Schedule Offsite Controller Briefing (C)			-35			
29	Identify Required Drill Controller Positions (B)			-35			
30	Schedule Required Drill Controllers (B)			-35			
31	Draft/Submit VP letter to Mgr./Supv. (K)			-35			
32	Notify Meteorologist of Drill (D)			-35			
33	Simulator Run #2 (Validation) (G)			-35			
34	Identify/Develop Props (G)			-35			
35	Identify/Develop Casualty Props (G)			-35			
36	Drill Planning Meeting (P)			-35			
37	Email Evacuation Drill EPB to Site Personnel (K)			-28			
38	MTCE Develop. Session (P)			-28			
39	OPS / SIM Develop. Session (P)			-28			
40	Admin. Develop. Session (P)			-28			
41	ENG Develop Session (P)			-28			
42	Security Develop. Session (P)			-28			
43	Develop Controller/Observer Roster and List (G)			-28			
44	Develop Offsite Cue Cards, including additional "rumor control" for the ENC (G)			-28			
45	Inspect Evacuation Signs and Routes (K)			-28			
46	Identify Local Assembly Area Supervisors (K)			-28			
47	Check Local Assembly Area Signs/E-kits (K)			-28			
48	Develop Patient Algorithms (M)			-28			

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
49	Drill Planning Meeting (P)			-28			
50	Coordinate SSR with Security for Fire Dept support			-21			
51	Identify and Train Vanpool Drivers for Site/Mesa (K)			-21			
52	Update Assembly Area Instructions (K)			-21			
53	Email Assembly Area Supv. Responsibilities (K)			-21			
54	Email to Vanpoolers re: action @ Alert (K)			-21			
55	PRA Analysis of Scenario (P)			-21			
56	Notify GOC of Drill (realtimesm@sce.com) (D)			-21			
57	Notify GCC of Drill (John Bocka) (D)			-21			
58	Notify SDG&E of Drill (Mike DeMarco) (D)			-21			
59	Notify ANI of Drill (Ed Everett 860-682-1301- ext. 238) (D)			-21			
60	Notify Saddleback District Office of Drill & Reserve JIC (D)			-21			
61	Drill Planning Meeting (P)			-21			
62	Chemistry Development Session (P)			-21			
63	Develop/Transmit Communications Package (N)			-21			
64	Develop Cue Cards/Sequence of Events (G)			-21			
65	Develop Evaluation Forms (G)			-21			
66	Develop Morning Report / Shift Relief Forms (G)			-21			
67	Develop Participant Comment Sheet (G)			-21			
68	Develop Response Record (G)			-21			
69	Develop Instructions to Drill Controllers (G)			-21			
70	Develop Guidelines for Drill Conduct (G)			-21			
71	Develop Objectives Document (G)			-21			
72	Develop Extent of Play Document (G)			-21			

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
73	Develop Raddose V Database (H)			-21			
74	Develop MET Data (H)			-21			
75	Develop Survey Maps (Onsite) (H)			-21			
76	Develop Plant Data (Cont & Player) (H)			-21			
77	Develop Rad Monitor Data (H)			-21			
78	Develop/Validate PIC Data (H)			-21			
79	Develop Survey Maps and Data (Offsite) (H)			-21			
80	Develop Drill Participants Roster (D)			-21			
81	Check Objectives Against Cue Cards (G)			-21			
82	Develop Chemistry Data (H)			-21			
83	Review Survey Maps and Data (Offsite) (H)			-21			
84	Develop Attendance Records (Facility Positions)(G)			-21			
85	Final Review of Scenario Documents Prior to Copying (I) (P)			-20			
86	Notify Managers of Managers Critique Meeting (D)			-14			
87	Sched E50 Classroom for Simulator Prebrief and Debrief (C)			-14			
88	Coordinate Food Service/Catering (D) (Manager 3 Approval Required)			-14			
89	Add Observers to Controller List (I)			-14			
90	Notify EOF Personnel of Drill Date/Time (D)			-14			
91	Notify Work Window Manager (D)			-14			
92	Obtain site access for offsite controllers (M)			-14			
93	Develop Participant and Controller e- mail Lists (E)			-14			
94	Update Non-ERP Coloring Books (K)			-14			
95	List of Exempt PA Personnel (K)			-14			
96	Coordinate Siren Surveillance. (0.302) (L)			-14			

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
97	Complete Moulage Training (M)			-14			
98	Issue final EPIP changes (M)			-14			
99	Schedule Venue for Mock NRC Training			-14			
100	Drill Planning Meeting (P)			-14			
101	Final Review of Plant Data Prior to Copying (H)			-14			
102	Develop Pre-drill Briefing (J)			-12			
103	Final Review Pre-drill Briefing package (J)			-9			
104	Develop and test drill recall message			-9			
105	Assemble Controller Notebooks/Data books (I)			-8			
106	Email Reminder re: Controllers Meeting (D)			-8			
107	ODAC Pre-Job Briefing (J)			-7			
108	Coordinate Closure of 70' lunchroom (Jimenez) (D)			-7			
109	Verify Casualty Scene Setup (M)			-7			
110	Assemble Observer Package (I)			-7			
111	Verify Simulator Setup (L)			-7			
112	Notify Edison Operator of drill date/time (D)			-7			
113	Notify Local & State Authorities of Date and On-site Sirens (D)			-7			
114	Notify TCC (949-587-5500) of Date and On-site Sirens (D)			-7			
115	Notify O.C. 911 Center (714-628-7008) of Date and On-site Sirens (D)			-7			
116	Notify USMC/State Parks of Date and On-site Sirens (D)			-7			
117	Notify Marine Rec. Facility of Date and On-site Sirens (John Preston) (D)			-7			
118	Drill Planning Meeting (P)			-5			
119	TSC Controller Walkthrough (M)			-2			
120	OSC Controller Walkthrough (M)			-2			

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
121	EOF Controller Walkthrough (M)			-2			
122	OPS / Simulator Controller Walkthrough (M)			-2			
123	Sim Cell Walkthrough (M)			-2			
124	TSC Pre-Job Briefing (J)			-2			
125	OSC Pre-Job Briefing (J)			-2			
126	EOF Pre-Job Briefing (J)			-2			
127	Brief NRC Resident Inspector			-2			
128	Brief On-shift SM			-2			
129	Raddose V Computer Operational Check (M)			-1			
130	Pre-Drill CFMS Test (M)			-1			
131	HP Computer Data Entry (M)			-1			
132	Disable Emergency Recall System 0810 Daily Test (M)			-1			
133	Pre-Job Controller Briefing (M)			0			
134	OPS Crew Pre-shift Briefing (M)			0			
135	<b>CONDUCT DRILL</b>			0			
136	Sched. Mgmt. Critique Pre-Meetings as required (N)			1			
137	Post Drill Briefing of VP & Station Manager (N)			1			
138	Determine Number of Teams Dispatched (N)			1			
139	Develop Offsite Notification Timeline (N)			1			
140	Develop Anticipated/Actual Timeline (N)			1			
141	Develop Source Term Projection (N)			2			
142	Correlate Actual vs. Prepared Drill Data (N)			2			
143	Controller De-Briefing (N)			2			
144	Apply Significance Determination Process to Drill Findings (N)			2			

#	Description	Owner	Status or F/C	Lead	Due Date	Comments / Restraints	Completed Date
145	Develop Management Critique Meeting Package (N)			5			
146	Conduct Management Critique Meeting (N)			7			
147	Schedule NRC Critique Debrief Meeting (N)			7			
148	Post-Drill E-Kit Survey (N)			14			
149	Post-Drill Notebooks Survey (N)			14			
150	Submit Attendance Sheets to T2000 (N)			14			
151	Update SO123-VIII-0.200 Objective Matrix (N)			14			
152	Post Drill Checklist Meeting (N)			14			
153	Develop/Distribute Final Drill Critique Report (N)			30			
154	Archive Records (N)			42			

- (A) Preparatory Work
- (B) Preliminary Items
- (C) Scheduling
- (D) Notifications
- (E) Initial Controller Package – PDF

Files

- (F) Initial Player Package – PDF Files
- (G) Developing the Scenario and Drill

Documents

- (H) Developing Drill Data
- (I) Assemble Drill Packages
- (J) Training Activities
- (K) Evacuation Drill Preparations
- (L) Check Misc. Equipment
- (M) Final Preparations and Drill
- (N) Post-Drill Activities
- (O) Drill Specific Misc.
- (P) Planning Activities



## CONTROLLER/EVALUATOR ORGANIZATION

- 1.0** Controllers/Evaluators shall be qualified by completing controller/evaluator training within the last 12 months prior to participating in a drill/exercise.
- 2.0** Controller general rules
- Training and mentoring/coaching is not permitted during NRC graded biennial exercises or drills where the EPM determines performance indicators or other objectives may be evaluated.
  - Controller interface with participants is limited to:
    - Messages and communications planned in the scenario
    - After the participant has attempted to perform a task, the controller determines the incorrect method should be corrected on the spot (site training drills only) with necessary instructions to maintain the scenario schedule. Coaching for correction on the spot should only be for significant procedure steps or processes and should be noted on the controller timeline.
    - Any inject to stop an industrial safety, radiological or security unsafe practice
    - To keep the scenario on track or correct information that can negatively impact the scenario
    - Communications between controllers shall be performed in a way that does not provide unintended cueing to drill players.
    - Any inject determined necessary to advance the scenario in the intended direction must be approved by the Drill Coordinator.
    - The individual designated by the EPM to coordinate the conduct of the drill or exercise is the Drill Coordinator. All drill/exercise controllers, evaluators and observers are responsible to the Drill Coordinator.

Drill Coordinator is responsible for:

- The safe conduct of the drill/exercise.
- Controller and evaluator pre-drill/exercise brief.
- Establishing start time for the drill/exercise and coordinate the start with the controller/evaluator staff.
- Interfacing with the Facility Lead Controllers to resolve any inter-facility questions concerning the drill/exercise scenario.
- The Drill Coordinator should be stationed in an area where they cannot be seen or heard by drill players to prevent unintended cueing to drill players.
- Determining the extent, if any, of "free play" that will be permissible on the part of the ERO participants (particularly in the Simulator).
- Terminating the drill/exercise upon receiving verification from the Facility Lead Controllers (and State lead controller in an exercise) that the objectives have been demonstrated.
- Stopping the drill/exercise if events have occurred which require that resources be directed to the resolution of an actual problem or emergency.

### CONTROLLER/EVALUATOR ORGANIZATION

#### 3.0 (continued)

- Advising Facility Lead Controllers of unanticipated simulator problems and scenario deviations / time adjustments, as necessary, (Only the Drill Coordinator can authorize adjustments in the sequence of events.)
- Ensuring the following handouts are prepared prior to the drill and distributed, as necessary, to the controllers and evaluators during their final briefing:
  - List of drill/exercise controllers and evaluators
  - List of controller phone numbers
  - List of drill/exercise participants for the applicable facility (optional)
  - Attendance sheets (Facility Lead Controller)
  - Evaluation checklists
  - Scenario, messages, and timeline
- A controller will be assigned to each participating Emergency Response Facility (ERF) to be responsible for all scenario related activities in that facility and will be designated as the Facility Lead Controller.

Facility Lead Controller is responsible for:

- All controller, evaluator and observer activities for that facility and its associated ERO team.
- Monitoring issuance of scenario messages and completion of scenario inputs with Drill Coordinator
- Maintaining a comprehensive log of events to aid in compiling event reconstruction for the drill report.
- Assuming the roles of simulated representatives for NRC and other agencies not participating in the drill.
- Ensuring attendance sheets are completed for the facility.
- Modify drill messages if required after approval by the Drill Coordinator.
- Summarizing all participant/evaluator/controller comments and evaluations on performance.
- Preparing the drill report for their facility.
- Controllers are responsible for:
  - Verifying or completing controller/evaluator briefing and training.
  - Maintaining scenario confidentiality and signing a security agreement.
  - Providing drill injects to the participants and keeping the scenario on track by ensuring that the actions of the participants do not jeopardize the rest of the scenario.
  - Keeping a chronological timeline of events/problems for the area controlling.
  - Ensuring the work place and facilities are left in a restored state when the drill/exercise is over.
  - Attending the facility critique, unless excused

## CONTROLLER/EVALUATOR ORGANIZATION

- Controller Instructions
- Before the drill/exercise
  - Be familiar with the overall exercise scenario and the performance objectives for the assigned area.
  - Review the appropriate procedures and protocols.
  - Attend the required controller and evaluator briefing.
  - Maintain scenario confidentially.
  - Report to the assigned location approximately 30 minutes before start time.
  - Establish controller communications (bridge line and/or radio approximately 15 minutes before start time.
  - Clearly identify yourself as a controller or evaluator at the beginning of the drill/exercise and/or wear controller identification.
  - Remind participants to use identification tools (e.g., badges, vests, arm bands).
- During the drill/exercise
  - Avoid personal conversations with any participant.
  - Do not provide information unless it is requested or earned by the participants and then, only within the limits of the scenario.
  - Do not give information to the participants regarding event progress or resolution of problems encountered by others. Participants are expected to obtain information through their own resources.
  - Controllers shall distribute messages and cues as scheduled in the scenario with concurrence of the Facility Lead Controller or the Drill Coordinator.
  - All controllers will inform the Facility Lead Controller of problems encountered that impact the timeline and completion of major events.
  - Do not accelerate the drill/exercise by providing information ahead of schedule.
  - Suspend local play for safety reasons and, if necessary, recommend to the Drill Coordinator the suspension of the whole drill.
  - Inform the simulator controller of events in the field before the participants inform the operating crew so that simulator fidelity is maintained.
  - Controller in the simulator should communicate with the EP facility controllers, using the controller phones, to verify the sequence of events are occurring as planned and adequate time is given for objective demonstration and evaluation.
  - The OSC controller will keep the simulator controller informed of the dispatch and return of teams.
  - Ensure the use of "This is a drill" in communications to outside of the facility by controllers, evaluators, and participants and coach on-the-spot, if necessary, for plant announcements or communication offsite.
  - Maintain a chronological log and ensure key events and times are captured.
  - Log any scenario discrepancies.

## CONTROLLER/EVALUATOR ORGANIZATION

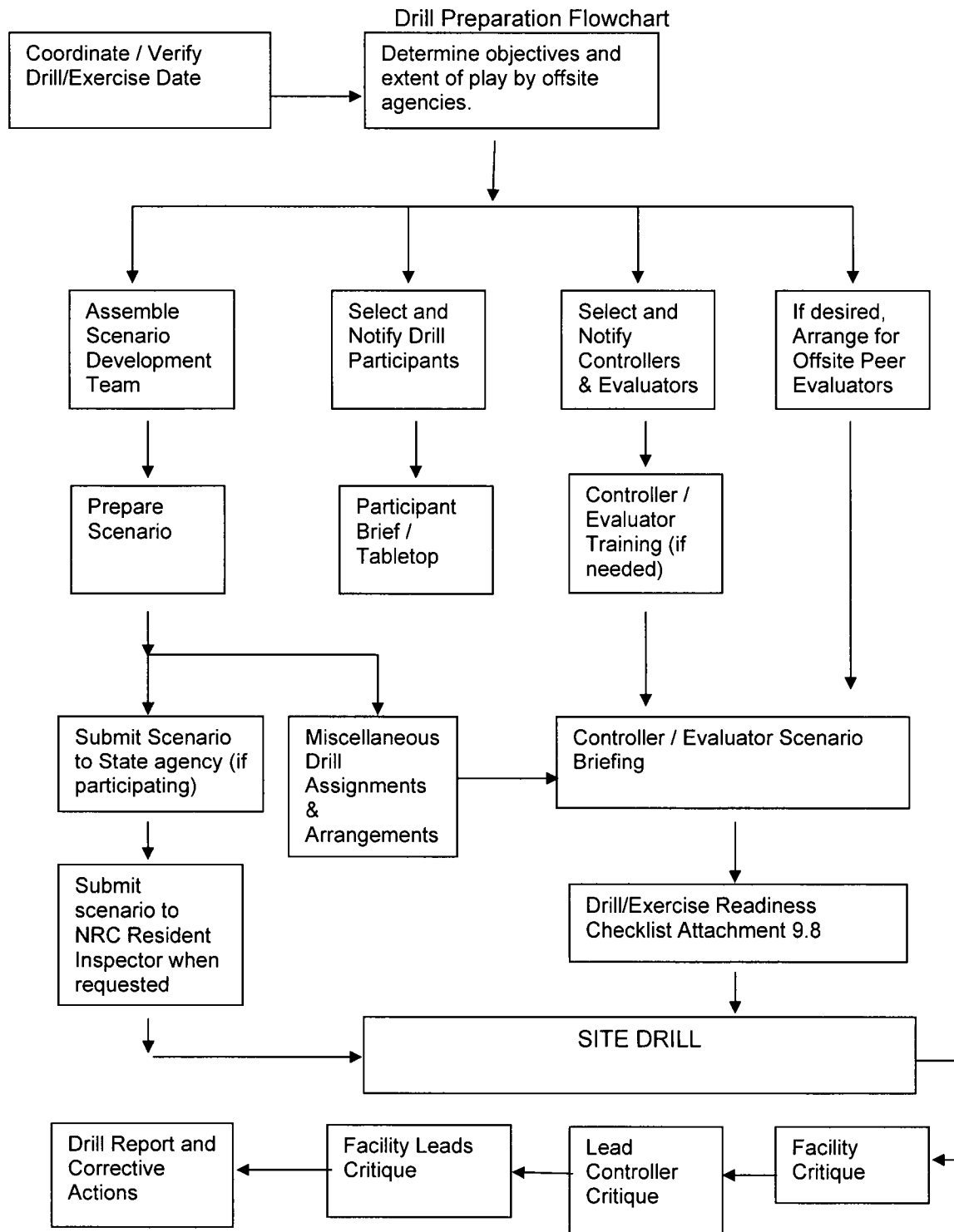
### 6.0 (continued)

- After the drill/exercise
  - Ensure the facility is restored to a readiness condition.
  - Attend meeting held by the Facility Lead Controller to identify control issues that may have affected the performance of participants.
  - Distribute and collect copies of participant feedback forms (coordinate with the lead controller in the facility).
  - Collect the completed logs and procedure checklists at the end of the drill/exercise.
  - If asked for impressions of how things went before the participant self-critique, specific issues or problems should not be discussed.
  - Attend the facility critique and provide feedback at the end of the participant self-critique on issues not identified and critiqued by the participants. Evaluate the effectiveness of the participant self-critique
  - Summarize notes and prepare for the controller and evaluator debrief.
  - Summarize all participant/evaluator/controller comments and evaluations on facility performance for the report.
  - Evaluators are responsible for:
    - Determining gaps or weaknesses in response capability. One or more evaluators will be assigned to each facility.
    - Evaluating the performance of the entire organization and plan as opposed to that of individuals and focus on results not processes.
    - Evaluating Individual performance of key decision-makers or of critical tasks (e.g., notification, dose assessment) may be evaluated to assess training or remedial training needs.
    - Objectively observing response actions and make detailed notes on the sequence of events that can later be analyzed to identify response problems and their cause.
- Before the drill/exercise
  - Be familiar with the overall exercise scenario and the performance objectives for the assigned area.
  - Review the appropriate procedures and protocols.
  - Attend the required controller and evaluator briefing.
  - Maintain scenario confidentially.
  - Report to the assigned location approximately 30 minutes before start time.
  - Establish controller communications (bridge line and/or radio approximately 15 minutes before start time.
  - Clearly identify yourself as a controller or evaluator at the beginning of the drill/exercise and/or wear controller identification.
  - Remind participants to use identification tools (e.g., badges, vests, arm bands).

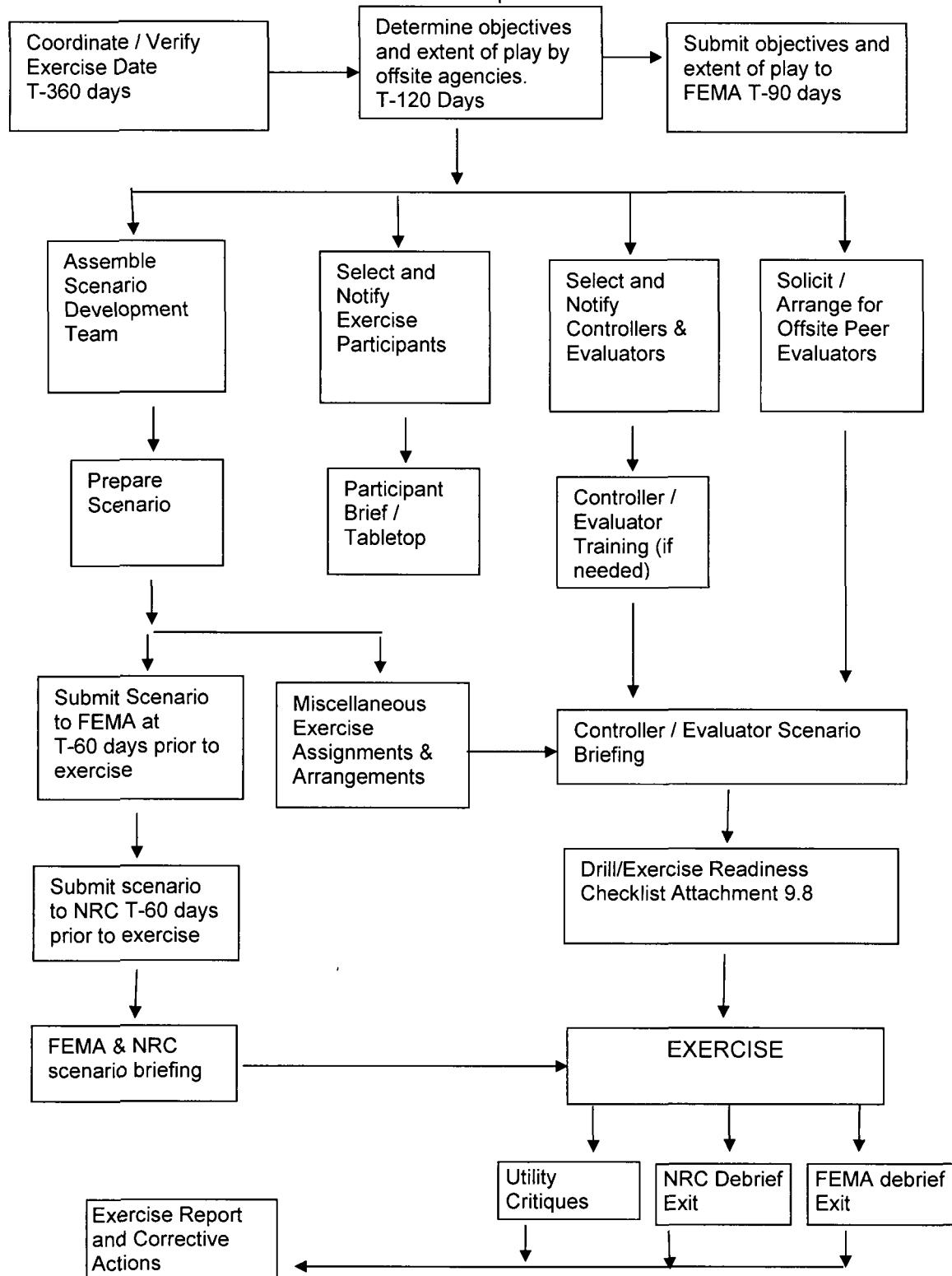
## CONTROLLER/EVALUATOR ORGANIZATION

### 8.0 (continued)

- During the drill/exercise
  - Avoid personal conversations with any participant.
  - Do not provide information unless it is requested or earned by the participants and then, only within the limits of the scenario.
  - Do not give information to the participants regarding event progress or resolution of problems encountered by others. Participants are expected to obtain information through their own resources.
  - Controllers shall distribute messages and cues as scheduled in the scenario with concurrence of the Facility Lead Controller or the Drill Coordinator.
  - All controllers will inform the Facility Lead Controller of problems encountered that impact the timeline and completion of major events.
  - Do not accelerate the drill/exercise by providing information ahead of schedule.
  - Suspend local play for safety reasons and, if necessary, recommend to the Drill Coordinator the suspension of the whole drill.
  - Inform the simulator controller of events in the field before the participants inform the operating crew so that simulator fidelity is maintained.
  - Controller in the simulator should communicate with the EP facility controllers, using the controller phones, to verify the sequence of events are occurring as planned and adequate time is given for objective demonstration and evaluation.
  - The OSC controller will keep the simulator controller informed of the dispatch and return of teams.
  - Ensure the use of "This is a drill" in communications to outside of the facility by controllers, evaluators, and participants and coach on-the-spot, if necessary, for plant announcements or communication offsite.
  - Maintain a chronological log and ensure key events and times are captured.
  - Log any scenario discrepancies.
- After the drill/exercise
  - Ensure the facility is restored to a readiness condition.
  - Attend meeting held by the Facility Lead Controller to identify control issues that may have affected the performance of participants.
  - Distribute and collect copies of participant feedback forms (coordinate with the lead controller in the facility).
  - Collect the completed logs and procedure checklists at the end of the drill/exercise.
  - If asked for impressions of how things went before the participant self-critique, specific issues or problems should not be discussed.
  - Attend the facility critique and provide feedback at the end of the participant self-critique on issues not identified and critiqued by the participants. Evaluate the effectiveness of the participant self-critique
  - Summarize notes and prepare for the controller and evaluator debrief.
  - Summarize all participant/evaluator/controller comments and evaluations on facility performance for the report.



Exercise Preparation Flowchart



### CONTROLLER AND EVALUATOR BRIEFING

An essential component of a successful drill and exercise program is the selection and briefing of a controller/evaluator organization. Personnel to serve in this organization shall be chosen based on their knowledge in specific areas. It is desirable to use ERO personnel as controllers and evaluators whenever possible.

Quality Assurance personnel observing the drill are not required to complete the controller/evaluator briefing, but should receive the observer guidelines.

Controller Briefing Checklist/Walk-Through		
	Ensure all controllers have signed the current year's Confidentiality Agreement and that the current year's Confidentiality Agreement list is updated.	
1	Drill/exercise scenario package Each controller/evaluator receives the scenario material <sup>(1)</sup> Briefed on scenario security and signs security agreement for package	<input type="checkbox"/>
2	Review purpose and objectives of the drill/exercise. Include whether coaching from controllers will be allowed and if so when it is appropriate. Evaluators do not coach. <ul style="list-style-type: none"> <li>Activities for which PI credit will be taken CANNOT be guided or coached.</li> <li>Coaching is not allowed during a Graded EXERCISE</li> </ul>	<input type="checkbox"/>
3	Review scenario timeline – review expected conditions for EAL, classifications and time frame for facility activation, accountability, protective action recommendations, etc.	<input type="checkbox"/>
4	Bases for scenario events – explain the rationale for each event with respect to industry and previous site experience.	<input type="checkbox"/>
5	Review each player message and controller information sheet contained in the scenario package. <sup>(2)</sup>	<input type="checkbox"/>
6	Review any past ERO team strengths and weaknesses that should receive special controller/evaluator scrutiny. Discuss any risk significant standards that were not met during the last drill/exercise.	<input type="checkbox"/>
7	Drill/exercise ground rules – emphasize the need to not interfere with participant decisions and actions. Ensure each controller/evaluator has reviewed Controller Organization and/or Evaluator Organization.	<input type="checkbox"/>
8	Facility and/or participant evaluation checklist from EN-EP-308 – ensure each controller/evaluator understands the objectives for their facility and the proper method for completing the checklists.	<input type="checkbox"/>
9	Review schedule and responsibilities for post-drill/exercise critiques.	<input type="checkbox"/>
10	Review any past controller or participant strengths and weaknesses that should receive special awareness from the controllers.	<input type="checkbox"/>



## CONTROLLER TRAINING

### 1.0 Controller Training - Training shall be conducted annually for all controllers.

The training should include the following subjects:

- Establishing initial conditions and briefing the drill participants
- Specifying extent of play and activities to be simulated
- Intervention by controllers to ensure the actions of drill participants do not cause the drill to deviate from the scenario.
- Use of cue cards
- Use of props and staging of simulated plant conditions and events
- Distribution of data
- Coaching in order to provide training
- Prompting of actions to maintain the scenario time line
- Documentation requirements including all interactions with drill participants.
- Adherence to all HP, Safety, and Security rules
- Evaluation Criteria
- Evaluation Techniques
- Critique Process
  - Conduct of player debriefings
  - Review of identified deficiencies
  - Eliciting player comments in the course of a comparison and analysis of anticipated versus actual responses

### 2.0 Controllers Materials and Meetings - Initial controller packages should be distributed approximately two weeks prior to the drill/exercise.

The initial controller package should contain:

- Confidentiality Form
- Sequence of Events
- Summary
- Instructions to Controllers
- Controller Walkthrough Meeting Schedule

### 3.0 Upon receipt of the initial controller package, controllers should identify their drill responsibilities in accordance with the summary and sequence of events.

### 4.0 Controllers should attend the meetings identified on the controller schedule.

### 5.0 Instructions to controllers should include the following:

- Steps for drill or exercise preparation
- Steps for drill conduct
- Steps for drill evaluation and record keeping
- Instructions for correcting and demonstrating proper emergency response
- Modification of PA announcements and other notifications for appropriate drill response

## CONTROLLER TRAINING

**6.0** Each controller package should contain the following:

- Objectives
- Sequence of events
- Drill summary
- List of Controllers and communications information (PAX phone numbers, etc.)
- Instructions to Controllers
- Guidelines for Drill Conduct
- Response record sheets for note-taking
- Participant comment sheets
- Evaluation form
- Individual cue cards which the controller will distribute
- Survey data for field team controllers

**7.0** Each Facility Lead Controller should be provided a data book from which data shall be used or distributed and should contain the following:

- Plant Data
- Health Physics Data
- Complete set of cue cards

**8.0** The walkthrough should:

- Provide detailed orientation of controllers on the particular scenario
- Highlight critical scenario sequences and review anticipated responses
- Resolve scenario conflicts or inconsistencies
- Review the manner of presentation of information or data to players
- Identify necessary props
- Identify procedures for review
- Identify controllers responsibility for evaluating players' performance against specific objectives

**9.0** A final pre-drill or exercise meeting should be conducted just prior to the drill or exercise to finalize the preparations, pre-stage controllers and to synchronize controller watches as directed by the Drill Coordinator.

**10.0** Late changes to the controller packages should be identified.

## CONTROLLER/EVALUATOR GUIDELINES

The following information, as augmented, should be used to instruct controller/evaluators on functions and responsibilities for conduct during drills or exercises. Personnel assigned as controller/evaluators should be proficient in the area they are evaluating and briefed on these guidelines prior to any scheduled drill or exercise.

1. The controller/evaluator organization is coordinated through a chain of command. Controllers report to their Facility Lead Controller who reports to the Drill Coordinator. This chain of command is vital for accurate and timely information flow and message issue through the controller organization; and allows for rapid dissemination of changes, if required.
2. Evaluators are individuals assigned to key functional areas to document and evaluate emergency response actions. Evaluators have no responsibility or authority for controlling or impacting scenario simulation.
3. Written messages are used to initiate, modify, and/or complete events posed by the scenario. Controllers issue messages to pre-designated individuals, or distribute information sheets at pre-designated locations after demonstration of ability to obtain the information, as stipulated by the scenario timeline. Message/information delivery is assigned to specific controllers responsible for issuing the message. Controllers may ensure that ERO participants understand the content of all messages. There are two types of messages:
  - Controlling messages are messages that pose hypothetical events or communicate data necessary to promote a response. Controlling messages are the primary means of implementing scenario events if any automated data source is not available.
  - Contingency messages are messages that prevent, correct, or direct certain responses. Contingency messages should be clearly marked and are to be used by controllers to maintain the scenario continuity or correct the timeliness of scenario activities. Controllers should always obtain approval from the Drill Coordinator prior to issuing a contingency message and must record times such messages are issued. Contingency messages may be printed on colored paper.
4. Scenario messages generally include the following, as appropriate:
  - Sequential number and type of message, either controlling or contingency.
  - Message Delivery Time - Approximate time the message is delivered.
  - From - Message origination and controller responsible for delivery.
  - To - ERO participant or facility to receive the message.
  - TEXT - Clear, concise verbal or written picture that should prompt a response.
  - Controller note - Notes including precautions; actions required to be completed by ERO participants before receiving message; subsequent controller actions, and additional information, etc.
  - Expected response - Generic narrative of expected minimum actions (i.e. inform management of the situation presented, mitigating actions the responder could take, etc.).

## CONTROLLER/EVALUATOR GUIDELINES

5. Controllers must not provide scenario information to the ERO participants or resolve problems encountered, unless ERO participants take actions necessary to obtain information. In the event of incorrect or incomplete responses; or if an ERO participant indicates lack of knowledge of how to proceed, controllers may find it necessary to coach the ERO participant with necessary instructions to maintain the scenario schedule. Prompting or coaching must be noted. When this lack of knowledge on how to proceed occurs in an exercise the participant is expected to be reliant upon his/her resources; however if it is necessary controllers may intercede only after it is determined actions cannot be completed and the action is necessary to advance the scenario as intended. Controllers shall take note and discuss actions during the post drill critique to resolve any confusion after the drill/exercise is terminated.
6. The controller should confer with their lead to determine whether a prompt should be made. A contingency message indicates the anticipation by the SDT that an inject message in the scenario may be necessary. All prompting must be approved by the Drill Coordinator and must be included in the critique.
7. Controllers may have responsibilities for issuing time - related process or radiological parameters. This information should only be issued if ERO participants' actions would allow them access to the information if it were an actual event.
8. Scenario data must not be issued prior to ERO participants performing the necessary actions required to obtain the data.
9. Scenario material is to be treated as confidential and must not be provided to ERO participants prematurely; i.e., scenario books and messages must not be left unattended.
10. Scenario events are hypothetical. NO actions or reactions involving operation of plant systems or affecting operability or emergency preparedness should be initiated.
11. Some ERO participants may insist that events or times are unrealistic. The scenario should be based on real world failures when possible. Controllers have the authority to clarify questions critical to the continuity of the simulation or demonstration of objectives. It may be necessary to state, "This is due to requirements of the scenario for the ERO to demonstrate emergency plan implementation ". Ensure that ERO participants are aware they are being given credit for all actions.
12. NRC Performance Indicators of classification, notification, and protective action recommendations should be discussed with controllers and times documented by each facility. Controllers shall not intervene, prompt or provide guidance during these opportunities of the scenario timeline.

### CONTROLLER/EVALUATOR GUIDELINES

13. Do not coach the following if NRC performance indicators are being evaluated and counted:
  - Classification of emergencies or indications that lead to classification. If indications that an EAL initiating condition exists but is not recognized by the ERO, coaching that the indication exists (not EAL) may occur after the time for classification (15 minutes) has expired and the classification is required for the progression of the drill. Do not coach missed classifications, the ERO as a team should recognize this.
  - Timeliness of classification.
  - State and local notifications of classification or PARs or timeliness of the notification. Do not coach on errors on the notification form or call or the missed time limit.
  - Protective Action Recommendations or indications that lead to a PAR or re-evaluation/upgrade of a PAR.
14. Drills designated as non-evaluated training drills may have mentor/coaches assigned to specific positions to ensure positive training occurs. Coaching may be used to:
  - Ensure the participant adheres to the communications standard.
  - Coach or train the participant in the understanding of position responsibility, position procedures, interface with other positions or facilities, how to obtain information, or equipment required for the position.
  - Identify good performance or areas needing improvement or additional training.
15. Controllers are *not* allowed to arbitrarily inject free play into the scenario. Any deviation from the scenario must be approved by the Drill Coordinator.
16. The controller/evaluator organization must synch clocks to ensure messages are delivered at the prescribed time.
17. Phone and radio communications associated with the drill begin and end with the phrase "This is a drill". Controllers are encouraged to interrupt and prompt participants with "This is a drill" if not used. Three way communications is the standard during drills.
18. Controllers and evaluators must ensure that they are at their assigned positions and are easily identifiable to ERO participants.
19. Controllers are thoroughly familiar with the ERO participant guidelines which establish the scope of simulation and emergency response. When any questions arise during the conduct of a drill or exercise, contact your Facility Lead Controller or the Drill Coordinator for guidance.
20. As part of the controller evaluator briefing facility controllers should group together in a tabletop to walk-through and validate events and associated control activities.

## CONTROLLER/EVALUATOR GUIDELINES

21. Some reminders:

- Maintain professional conduct during drills/exercises and critiques.
- Become familiar with the controller/evaluator organization.
- Perform a walk-down of the facility and areas you will control/evaluate prior to the drill / exercise.
- Make sure you understand the scenario.
- Know what the ERO participants' required actions are.
- Give yourself time to set up at your location
- Controllers shall locate the communications equipment to be used for drill/exercise control.
- Position yourself to maximize your effectiveness in issuing messages, observing the ERO participants, or conducting your evaluation without interfering.
- Identify yourself to the ERO participants. Wear the identification provided.
- Issue messages on time. Make sure that ERO participants understand the content.
- Verify that the scenario is running on schedule.
- Document demonstration of objectives.
- Allow ERO participants reasonable flexibility to perform their functions and demonstrate their ability, knowledge and initiative.
- Take accurate, detailed notes on strengths, deficiencies, weaknesses, and improvement items. State facts, not opinions.
- Complete any evaluation forms provided. Resist the tendency to draw conclusions.
- Attend all scheduled critique functions and be ready to contribute.
- Do not leave your scenario package unattended.
- Do not leave your post at key times.
- Do not criticize ERO participants' actions during the simulation.
- Do not allow external influences to distract ERO participants' emergency response.
- Do not allow simulation of equipment or supplies if they are actually available, without authorization from the Drill Coordinator.
- Do not carry on conversations in the facility that may distract ERO participants.

## CONTROLLER/EVALUATOR GUIDELINES

### BEFORE THE EXERCISE

1. Read the Exercise Summary and Sequence of Events to understand Cue Card distribution and the anticipated responses.
2. Read the Guidelines for Exercise Conduct and Exercise Extent of Play to understand what responses are to be simulated, and how far actual responses are to be carried out.
3. Review procedures to be implemented by participants you will be observing to identify critical steps and error-likely situations.
4. Note any additional information you think you will need to give the participants, including props and other staging materials. Identify this information to the Exercise Coordinator as early as possible.
5. Review the Exercise Objectives and Evaluation Form. These are the performance areas you must pay particular attention to during the Exercise.
6. Ensure that your Radiological and Security access levels are current and adequate for the areas you must enter during the Exercise.
7. Prior to the day of the Exercise, contact any participants you expect to interact with to coordinate times and locations for briefings, etc.
8. On the day of the Exercise, assemble and brief any participants who require staging. Review the Guidelines for Exercise Conduct and simulated plant conditions with them.
9. Direct any participants who are pre-staged without authorization to leave the area.
10. Inform participants assigned to OSC field teams that they MUST check with a Controller to obtain simulated Exercise conditions. If they are assigned to a team without a Controller, participants must check with a Controller in the OSC for simulated conditions prior to reporting status to other Exercise participants.

## CONTROLLER/EVALUATOR GUIDELINES

### DURING THE EXERCISE

1. Identify the Exercise participants in your area. Ensure they understand the Guidelines for Exercise Conduct. Participants need to sign attendance sheets to document their participation.
2. CONFIDENTIALITY is crucial. Ensure that Controller Notebooks and other Exercise data are never left unattended or uncontrolled. Ensure your conversations with other Controllers or Observers regarding the scenario elements and timing cannot be overheard by participants. Give participants Exercise conditions and plant and equipment status only when they take appropriate steps to EARN the information.
3. Instruct participants that they are to carry out assignments as follows:
  - Walk through the assignment, performing such steps as retrieving tools, equipment and procedures, reporting to supervision and the Control Room Simulator (via radio or phone), and wearing protective gear, WITHOUT manipulating plant equipment or controls, unless directed by a Controller.
  - Observe all Security, RP, Safety and Administrative controls.
  - Assume equipment works normally, unless told otherwise by a Controller or indicated by Exercise guidelines, props or signs.
  - Describe all actions and communications to the Controller or Evaluator observing their response.
4. Record the actions of Exercise participants on the Exercise Response Record. Try to record a BRIEF OBSERVATION every 2 - 3 minutes. Document thoroughly but do not attempt to formally evaluate participant performance at this time. Note the following:
  - Time at which information associated with classification or PAR determination is available to Exercise participants.
  - Time of event classification or PAR determination.
  - Time of notification, and verbiage used.
  - Time at which recalled personnel arrive.
  - Information flow between Exercise participants.
  - Procedure implementation.
  - Actions taken in response to Exercise scenario.
  - Use of "THIS IS A DRILL" with all electronic communications.
  - Audibility and accuracy of PA announcements.
  - Location of any defective or muted PA speakers.
5. Contact the Drill Coordinator or Facility Lead Controller if problems arise, especially if:
  - Timing of Cue Cards or responses is in question.
  - Response to Exercise conditions is different from expected
  - Questions arise about how far to carry Exercise responses.



## CONTROLLER/EVALUATOR GUIDELINES

### DURING THE EXERCISE (continued)

6. Direct RP Technicians to use normal instruments for response inside the Radiological Controlled Area (RCA), and to use Emergency Kit instruments for response outside the RCA.
7. If required, direct participants to use GMRI canisters marked "Drill Use Only."
8. OSC Controllers:
  - Ensure Controllers accompany dispatched teams. Track assignments of teams already in the field, in case they are redirected to locations requiring specific Controllers.
  - If any additional teams must be dispatched without Controllers, then give them the instructions for participant response listed in item 3, above. Instruct them to contact you from the field if they have any questions, and to report their actions to you before reporting in to the OSC for debriefing.
  - If there are no radiological survey maps prepared for an area, then indicate that the readings are "as read." If uncertain, contact the OSC HP Controller.
  - While the participant's instrument is moving closer to the source of radiation indicate the reading as rising, while the participant's instrument is moving further from the source indicate the reading as lowering, and when the instrument is stationary provide the appropriate value.
9. Remind Observers not to interfere with participants. Their questions should be directed to Exercise Controllers or Evaluators only.
11. The Exercise will be terminated when all objectives have been tested and play at all locations has reached a logical stopping point. Facility Lead Controllers will be notified about 10 minutes before the Exercise is terminated, and should inform other Controllers and Evaluators.
12. The Exercise may need to be terminated due to an actual emergency or at the direction of management. If the Exercise is terminated due to an actual emergency, the Shift Manager will declare the event in the Control Room, and notify the facility leaders over the Ivory Phone. If the Exercise is terminated at the direction of management, the Exercise Coordinator will notify the facility leaders over the Ivory Phone. If the Exercise is terminated for any reason, return the facilities to their pre-Exercise condition and wait for further instructions.

## CONTROLLER/EVALUATOR GUIDELINES

### AFTER THE EXERCISE

1. Conduct a debriefing of participants in your area immediately after the Exercise. This may be done alone or with other Controllers and Evaluators. The following specific items should be discussed:
  - a. Brief review of the Sequence of Events and the Exercise Summary.
  - b. Statement of any Objectives applicable to your area, and preliminary results.
  - c. Brief description of any response findings.
  - d. Request for participant response to the items above.
2. Collect Exercise Participant Comments.
3. Assist the Facility Lead Controller and Participants in restoring the facility to a ready condition.
4. Complete the Exercise Evaluation Form as soon as possible.
5. Explain any unsatisfactory areas.
6. Note procedures, actions, etc., that worked well or were particularly successful.
7. Make copies for your own use, then turn in completed original Evaluations, Participant Comments, collected Exercise materials, log sheets, etc., to your Facility Lead Controller as soon as possible after the Exercise. EVALUATION FORMS AND PARTICIPANT COMMENT SHEETS MUST BE TURNED IN AT OR BEFORE CONTROLLER DEBRIEF.
8. Designated Controllers attend debriefing.

## CONTROLLER/EVALUATOR GUIDELINES

### OPERATING EXPERIENCE RELATED TO CONTROLLER PERFORMANCE

1. From NN 201122755: A Drill Controller intercepted radiological survey information, preventing others in the ERO and the SED from having the opportunity to analyze the information and respond accordingly to determine whether a General Emergency Classification was warranted. Per NEI 99-02 Rev. 6 and SO123-VIII-0.401, "if a controller intervenes (e.g., coaching, prompting) with the performance of an individual to make an independent and correct classification, notification, or PAR, then that DEP PI Opportunity shall be considered a failure."
2. Controllers failed to coordinate with Simulator Machine Operator to display changing plant conditions in the Simulator prior to allowing players report their simulated actions. This resulted in confusion and interrupted the flow of the scenario.
3. Controllers were observed eating and drinking when it was prohibited. Restrictions apply to all personnel involved in drills and exercises.
4. Use of draft procedure for the Security Leader caused confusion between the OSC and TSC (steps and pages were numbered in a different sequence).
5. The Chemistry Controller in the Reactor Lab did not ensure the proper sequence of interaction between the Reactor Lab and the Control Room Simulator. Conflicting information is a distraction to drill participants.
6. Controllers allowed players to simulate an excessive amount of the actions that they described they would do (i.e., obtaining keys and tools; reporting to various plant locations in accordance with EIPs).
7. From NN 200503504: Controllers assigned to the Control Room Simulator and JIC need to look more aggressively for OE opportunities and document these findings to aid in improving performance in the CR and ENC.
8. From NN 200937487: Drill/Exercise Performance opportunities were not included, as the confidentiality of the drill data may have been compromised when drill materials were left unattended prior to the drill by an observer.
9. From NN 200931482: Controller and Evaluator drill evaluation forms are not completely filled out. It is just as importance to have a complete evaluation record as it is to have complete participant records.
10. From NN 201023756: Drill controllers aren't always familiar with the subject matter enough to speak to participant's questions objectively. Controllers need to ensure they obtain information specific to the area they are going to cover.
11. From NN 202405588: During the INPO observed drill it was noted that the Lead Drill Controller could be overheard by the drill participants resulting in unplanned cueing of impending events.

### OBSERVER GUIDELINES

Observers must have the permission of the Manager, Emergency Planning or the Facility Lead Controller to observe in the specific facility. The following is a topical guideline from which pertinent topics may be drawn. The chosen content may be provided to observers by email or presentation.

1. An observer is just that, he/she is to observe. Professional conduct should be maintained during drills and critiques.
2. Always wear your OBSERVER identification in plain view.
3. NO interaction with ERO participants is allowed. If you are asked anything by an ERO participant, simply state that you are an observer only. No other statement should be needed as ERO participants have been advised of the role of observers. Only time this will not apply will be for safety issues and concerns. Please notify Facility Lead Controller immediately if a safety issue arises.
4. Minimal interaction with controllers is allowed. Any questions you may have may be directed to a controller, but controller duties will take precedence over answering your questions, especially during a drill. It is preferred that you simply record your questions and ask them after the drill.
5. Observers may observe the critique and may participate (i.e., comment or ask questions) after the participants have completed their self-critique. The critique process is a vital part of the drill or exercise to be conducted by the ERO and controller organization. Comments about the critique must be left for the end or may be given to the Manager, Emergency Planning.
6. Information concerning the level of simulation, interaction between ERO participants and controllers and scenario information needed may be obtained from the Drill and Exercise Coordinator.
7. Do not carry on lengthy discussions with other observers during the drill in the emergency response facilities. Such discussions should be moved out of the facilities.
8. Do not interfere with any drill activity. For example, use of the phones, stand in front of a status board, use procedures provided for the ERO participants, etc.
9. You are eyes and ears only. If your needs exceed that, communicate your needs to the Facility Lead Controller.
10. If you are an assigned observer, any food or drink provided to the ERO participants will also be provided to you.
11. If you are being escorted, follow all security requirements (i.e., stay with your escort, etc).
12. All observers shall comply with site procedures and practices for entry into actual security and radiological controlled areas.

SECURITY/CONFIDENTIALITY AGREEMENT

CONFIDENTIALITY is crucial. Ensure that Controller Notebooks, Drill data, and Scenario Details are never left unattended or uncontrolled or discussed with persons not on the active Security Agreement. [NN 201619612-CA0003]

Personnel listed below acknowledge that they are aware of confidential details of, or possess confidential materials for Emergency Plan Mini-Drills, Drills or Exercises, of which portions may be included in the Emergency Preparedness Cornerstone NRC Performance Indicators.

They understand that any information regarding scenario content may not be disclosed to personnel not yet evaluated until completion of the final use of the scenario in a single evaluation or series of evaluations, as indicated by the End Date.

They understand that report to the NRC of performance based upon compromised scenario information constitutes providing inaccurate information to the NRC and violation of 10CFR50.9.

Scenario:	Start Date:	End Date:
Printed Name	Signature	

## PARTICIPANT BRIEFING

This section provides information to be provided to drill/exercise participants prior to the drill/exercise. The information is intended to assist participants in understanding proper drill/exercise conduct protocol as well as the initial plant conditions and equipment status at the start of the drill/exercise. Information will not be provided which discloses any specifics of the subsequent scenario events.

Participants should be encouraged to ask questions about the drill control process, level of simulation, etc. This attachment should be utilized for participant briefings.

Recent changes to the Emergency Plan or Implementing Procedures, and close-of-business or initial conditions should be added to this list prior to presentation/distribution. Discussions of lessons learned and any Risk significant standards that were not met from previous drill/exercises shall be held during participant Briefings.

### Participant Briefing Guidelines

- Training and mentoring/coaching is not permitted during NRC graded biennial exercises.
- Controllers, evaluators and observers will wear an identification aid (e.g., badge, vest,)
- The success of the drill/exercise is largely dependent upon participant responses to the simulated event. Therefore, it is crucial that participants know how they can get and/or request data.
- Participants may not inject "Free Play" or assume that certain things may be simulated or not tested. If there is any doubt about the level of simulation, ask a controller.
- Do not request information from, or provide information to, someone in an Observer role.
- Drill participants are expected to earn information. For example; an RP Technician will not be provided survey data if he/she doesn't have the meter turned on, and OSC repair teams should have the right tools /procedures to perform the task.
- Information may be obtained by participants in any of several ways:
  - Operators/other participants:
    - Live data off simulator
    - Controller issued message
    - Operators in field will get data from a controller also in the field.
  - Maintenance / Repair Teams in the Field:
    - All information will be provided by a controller in the field. Each mission shall have a drill/exercise controller with it.
    - In some cases a mockup may be used. If a mockup is provided, work on the mockup should actually proceed and the controller will inject information if necessary.
  - Radiological Protection/Health Physics:
    - Chemistry Data will be provided by a controller after the sample(s) has been obtained and analyzed (simulated).
    - Radiological data not driven off the simulator or indications are not available outside the simulator will be provided by a controller. In-plant radiological conditions for repair teams will also be provided by a controller.
    - Environmental team data will be provided by a controller.

### PARTICIPANT BRIEFING

- TSC, OSC, and EOF:
  - Data will be transmitted through normal communication paths
  - Live data off the simulator
  - Messages
- Fire, Medical, Hazmat, etc.
  - Data provided by a controller
- Joint Information /News Center:
  - Mock media may be used
  - Inject messages may be provided for media monitoring and public inquiry.
- Personnel required to maintain safe operation (i.e., on-shift operators) of the plant will be exempt from drill activities.
- Participants may ask controllers for clarification of scenario data or information on plant conditions not adequately provided by the simulator. Examples are:
  - Initial Conditions of systems including:
    - system status and availability
    - valve line ups
    - chemistry and radiological activity
    - operating history
    - meteorological data
    - operational parameters
- All drill/exercise communications should be preceded and ended by "THIS IS A DRILL"
- Accept the drill/exercise information as provided. Questions may be asked to clarify the information, but recognize that some events in emergency drills/exercises can seem unrealistic. Remember we are testing how well ERO personnel can implement the Emergency Plan, not the realism the scenario.
- Participants in an evaluated exercise may not ask for the following:
  - Information contained in procedures, drawings, etc.
  - Determinations of which procedures to use.
  - Data not normally available
  - Assistance in activating the facilities
  - Assistance in performing emergency response
  - Assistance in repairing, replacing, or substituting emergency response equipment, i.e., telephones, fax machines
  - Explanation of scenario events
- Get the attention of a controller when making key decisions. Make sure the controller understands the basis for your decisions. Keep good, detailed logs.
- Maintain a professional attitude. Play the drill/exercise as if it were an actual event.

#### PARTICIPANT BRIEFING

- **NEVER** violate any safety, radiation protection, operation, or security practices during a drill/exercise.
- A controller will inject information at times when something may be simulated. Simulation will be kept to a minimum, but when in doubt - ask.
- **NEVER** operate any plant equipment as part of drill/exercise activities.
- **DO NOT** enter high radiation areas. Practice ALARA.
- Practice proper communication protocols, (three-part, phonetic alphabet, etc.). Think pro-actively.
- Note items for the critique. Both positive and negative items may be presented. Use of a participant observation form is encouraged, although written comments will be received in any format.
- Participants will be informed of a scheduled exercise, but may not be informed of the start time and will not be informed of scenario, expected actions, or any other information that may compromise the exercise. Participants and equipment shall not be pre-staged for the exercise.
- If you disagree with a controller, you may request reconsideration from the Facility Lead Controller. Under **NO** circumstances are you to argue or indulge in theoretical discussions with the controller.
- Do not accept any data/instruction from an observer including the NRC observers. All information must be obtained from normal sources or from the controller organization
- Participants must respond to simulated events as if they are real. This includes but is not limited to the following: [As amended by extent of play or controllers]
  - Wearing of dosimetry and anti-C's.
  - Observing good radiation protection practices
  - Minimizing exposures
  - Responding to failed instruments in the field
  - Reporting hazards to the correct personnel
  - Proper contamination control
- Controllers and observers are exempt from responding to simulated radiological hazards during the drill/exercise.
- All normal site procedures and rules are to be followed when entering the protected area and actual radiological controlled or radiation areas. NO ONE, including controllers, and observers, are exempt from normal station radiological or safety practices.
- Following termination, collect all logs, work sheets, etc.
- Always leave your work area as you found it. The Emergency Response Facilities should be left in an operational status following the drill/exercise.
- A Participant critique will be held following every drill/exercise. This is an important part of the drill/exercise. Identify strengths as well as areas for improvement, however it is important to be "self-critical" to ensure the critique will lead to an improved Emergency Response.



PARTICIPANT BRIEFING

- When personnel accountability is listed as a drill/exercise objective provide the following information regarding exempted personnel:
  - Notify the ERO that there are exemptions for the drill
  - The exempt personnel list will be provided at the beginning of the drill to the participants needing the information
  - The initial report concerning the results of personnel accountability will include the number of exempt personnel.
  - The controller may assist in the deletion of exempt personnel from the "missing persons list."
  - Personnel on the exempt list will not be tracked or contacted during the search and rescue.
  - Exempt personnel lists should be provided to security.

DRILL REPORT

Typical report – page 1 (optional, use site distribution and records method)

Letterhead

Date: mm/dd/yyyy  
To: Distribution (site specific)  
From: (EPM name)  
Subject: Team X (drill or exercise type/name and date)  
File No. (Site specific)  
Letter No. (Site specific)

This report advises you of the results of our evaluation of Emergency Response Organization Team X performance during the (drill/exercise name and date).

The team (general summation of team performance).

Actions have been entered into CAP to improve the areas identified as needing improvement. These will be followed to completion.

Please contact me or a member of my staff if you have any questions regarding this report.

---

EP Manager

Attachments:

- 1 Executive Summary
- 2 Objectives and Evaluation Criteria
- 3 Areas For Improvement

## DRILL REPORT

Typical report – page 2

PERFORMANCE INDICATORS (include all that were determined by scenario)

PI Opportunity	Indications available	PI Declaration	PI Met	PI Notification	PI Met	ENS Notification	PI Met
NOUE/UE	(time)	(time)		(time)		(time)	
Alert	(time)	(time)		(time)		(time)	
SAE	(time)	(time)		(time)		(time)	
GE	(time)	(time)		(time)		(time)	
PAR	(time)	(time)		(time)		(time)	

### CLASSIFICATION:

- Number of opportunities
- Number successful (correct & timely)

### NOTIFICATIONS: (Short form submissions)

- Number of opportunities
- Number successful (correct & timely)

### PROTECTIVE ACTION RECOMMENDATIONS:

- Number of opportunities
- Number successful (correct & timely)

Total Opportunities:

Total Successful:

### OBJECTIVES

Objectives	Met	Not Met	Met with Comments
Overall Objectives			
Evaluation Criteria			

### EMERGENCY CLASSIFICATIONS AND PARS (EXAMPLES)

NOUE/UE N/A

Alert	FA1-1 (FC1 300µCi/g)
SAE	FS1-1 (RC1 DW 1.68 psid & FC1)
GE	FG1-1 (PC 2 SAPs, RC1 & FC1)
PAR	PAR – evacuate 2 mile and 5 mile downwind, shelter 10 mile based on wind from 358°

## DRILL REPORT

When a Health Physics, radiological monitoring, medical emergency or communication drill is being credited within the scope of a larger drill / exercise, the drill may be documented in this report or in a separate report. The communication drill requirement is normally satisfied by scheduled communication tests and is documented per the governing procedure. The following should be included in the report:

- The drill being credited
- An evaluation of objective(s) and evaluation criteria
- Ensure the following findings are documented in the critique report:
  - Deficiencies
  - Weaknesses, and
  - Other Issues (betterment)
- A summary of actions taken by the ERO, documentation and critique
- Evaluator/Controller credentials (RP Supervisor, Chemistry management, etc.)
- Summary of CAP actions
- Summary of other significant items
- Completed critique/evaluation sheets (SO123-VIII-0.220)
- Overall score for the drill or actual emergency and a score for each facility.

## DEFINITIONS

Annual – For the purpose of this procedure, annual is once per calendar year.

Biennial – For the purpose of this procedure, biennial is once every two calendar years.

Controller - An individual familiar with the drill/exercise scenario who directs the conduct of the drill by interacting with participants, giving appropriate data when requested, monitoring the progress of the participants with respect to the scenario, and directing the participants if necessary to ensure the scenario follows the intended event sequence.

Critical Task – Tasks that must be performed during a major event to prevent (re)occurrence, reduce loss of life or serious injuries, or mitigate significant property damage, or are essential to the success of the emergency planning mission to protect the health and safety of the general public, licensee staff, plant equipment and the environment.

Drill – A controlled scenario event that is conducted to provide training and practice for the participants. Drills may also include evaluated objectives and demonstration criteria as part of drill and exercise performance (DEP) or to meet periodic performance objective requirements as pre-designated by the scenario. Drills may include one or more emergency response facility and/or may be focused on one or more functional area (i.e., classification, dose assessment, PAR). See HSEEP definitions when communicating with offsite agencies. Most drills conducted with offsite agencies are an exercise per HSEEP guidance.

Evaluators – Personnel, knowledgeable in the duties and action requirements of the personnel they are monitoring, responsible for assessing the conduct of drills or exercises, including the adequacy of participant response to scenario events, the implementation of emergency plans and procedures, and the use of emergency response facilities and equipment.

Exercise – An event that evaluates the integrated capability and a major portion of the basic elements against designated objectives and demonstration criteria. An exercise may involve participation of personnel from State, Local and Federal governments. See HSEEP definitions when communicating with offsite agencies. HSEEP does not use the terms graded or evaluated exercise.

Homeland Security Exercise and Evaluation Program (HSEEP) selected definitions:

- (a) Drill – A drill, a type of operations-based exercise, is a coordinated, supervised activity usually used to test a single specific operation or function in a single agency. Drills are commonly used to provide training on new equipment, develop or test new policies or procedures, or practice and maintain current skills. [A drill will normally test a single function, primarily field activities.]
- (b) Exercise - An exercise is an instrument to train for, assess, practice, and improve performance in prevention, protection, response, and recovery capabilities in a risk-free environment. Exercises can be used for testing and validating policies, plans, procedures, training, equipment, and interagency agreements; clarifying and training personnel in roles and responsibilities; improving interagency coordination and communications; identifying gaps in resources; improving individual performance; and identifying opportunities for improvement.

## DEFINITIONS

- (c) Full-Scale Exercise (FSE) - An FSE is a multiagency, multijurisdictional activity involving actual deployment of resources in a coordinated response as if a real incident had occurred. An FSE tests many components of one or more capabilities within emergency response and recovery and is typically used to assess plans and procedures and a coordinated response under crisis conditions. Characteristics of an FSE include mobilized units, personnel, and equipment; a realistic, stressful environment; and scripted exercise scenarios. [A FSE will normally include command activities, EOCs and field activities.]
- (d) Functional Exercise (FE) - An FE is a single or multiagency activity designed to evaluate capabilities and multiple functions using a simulated response. An FE is typically used to evaluate the management of Emergency Operations Centers (EOCs), command posts, and headquarters and to assess the adequacy of response plans and resources. Characteristics of an FE include simulated deployment of resources and personnel, rapid problem solving, and a highly stressful environment. [A FE will normally include command activities and one or more EOCs without field activities.]
- (e)

Mentor – A mentor (coach) is an ERO member possessing no knowledge of the scenario that trains or coaches a trainee or less experienced ERO member in a position the mentor is qualified.

Observer – An individual that has been identified to monitor the drill and may report observations to controllers or evaluators.

Objective – A major element of the emergency preparedness program that is selected for performance in a scenario. The objective describes the task, behavior or activity to be demonstrated and provides criteria to measure satisfactory demonstration.

Participant – An individual, trained or being trained in an ERO position, that performs emergency response functions in a drill or exercise in accordance with the Emergency Plan and Implementing Procedures.

Planning Standard – NUREG 0654 categories outline the evaluation criteria used to measure the adequacy of evaluation criteria against the requirements of Title 10 Part 50.47(b) to the Code of Federal Regulations (CFR). Certain planning standards are designated as Risk Significant. Risk Significant Planning Standards are concerned with assessment, classification, notification, and protective actions.

Scenario – The controlling document for an emergency drill, exercise, or simulator PI evaluation drill designed to test the capabilities of the ERO.

Tabletop Drill – A structured discussion that is based on a scenario set of conditions and/or objectives for potential emergency response situations among decision makers or responders. They are a teaching/training aid as well as an opportunity to talk through plans and procedures or discuss new systems. DEP credit may be given in tabletop drills.

Trainee – An individual being trained in the duties and responsibilities of an ERO position.

## DEVELOPMENTAL RESOURCES

EP ACE 040600717

AR 060200801-01 (for SAMG periodic objective)

AR 060901233-01 (for PASS removal)

AR 051100440-01 (for documenting offsites' back-shift drill participation)

AR 040801204-02 (for Drill Records and Critique Report distribution)

AR 050101029-03 (for use of Form EP[123] 20)

AR 070300353-03 (for limits on ERO participation for security drills)

NN 200105582-19 (for Extensive Damage periodic objective)

NN 201421756 (Added note clarifying that "players" included CAS, SAS, Craft, Firefighters, etc.)

NN 201489165 (Corrected typo – Step 6.1.2.1 – 'on' should be 'one')

SUMMARY OF CHANGES

SO123-VIII-0.200

Rev 17

Author: RLMcCann

PAX:

89281

Location:

D1N

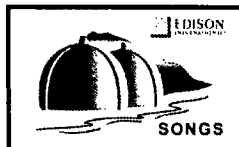
NN, Order, or Other Action	Description of Change	50.59	Step, Section, Attachment or Page
202405588	<ul style="list-style-type: none"> <li>Deleted reference to SO123-VIII-0.401, Emergency Preparedness Performance Indicators</li> <li>Added reference to SO123-VIII-0.210, Emergency Planning Drill Objectives and Demonstration Criteria</li> </ul>	DNA	Section 1
	<ul style="list-style-type: none"> <li>Updated revision date for FEMA REP Manual</li> </ul>		Section 2
	<ul style="list-style-type: none"> <li>Renamed section from Checklists to Responsibilities</li> <li><b><u>Added responsibilities for:</u></b> <ul style="list-style-type: none"> <li>Manager, Emergency Preparedness Planning (EPM):</li> <li>Manager, Safety, Human Performance and Performance Improvement</li> <li>Site Management team</li> <li>Drill/Exercise Coordinator</li> <li>Scenario Development Team</li> <li>Emergency Planning Department staff</li> </ul> </li> </ul>		Section 5
	<ul style="list-style-type: none"> <li>Combined the following Steps into new Section 6.1 EP Drill/Exercise Schedule                             <ul style="list-style-type: none"> <li>6.1.1 Exercise Scheduling</li> <li>6.1.2 Drill Scheduling</li> <li>6.1.3 Simulator Activity Scheduling</li> <li>6.1.4</li> </ul> </li> </ul>		Section 6.1
	<ul style="list-style-type: none"> <li>Moved Step 6.2.1 Objectives into new Section 6.2 SELECTION OF DRILL/EXERCISE OBJECTIVES</li> </ul>		Section 6.2
	<ul style="list-style-type: none"> <li>Combined Steps 6.2.1.1 through 6.2.1.14 for filling out Attachment 2 into one step (6.2.5) to update Attachment 2.</li> </ul>		Step 6.2.5
	<ul style="list-style-type: none"> <li>Moved Step 6.2.2 Scenario Development into new Section 6.3 SCENARIO DEVELOPMENT</li> </ul>		Section 6.3
	<ul style="list-style-type: none"> <li>Added section to describe acceptable drill/exercise scenarios</li> </ul>		Step 6.3.1
	<ul style="list-style-type: none"> <li>Added requirement to assemble a Scenario Development Team</li> </ul>		Step 6.3.4



NN, Order, or Other Action	Description of Change	50.59	Step, Section, Attachment or Page
202405588	<ul style="list-style-type: none"> <li>Moved scenario condition and events instructions from Step 6.2.2.5 to Section 6.4, SCENARIO PACKAGE</li> <li>Deleted Step 6.2.7 as each controller receives a full scenario package as described in Section 6.4, SCENARIO PACKAGE</li> </ul>	DNA	Section 6.4
	<ul style="list-style-type: none"> <li>Guidelines for Drill/Exercise Conduct moved from Step 6.2.2.5.5 into Step 6.4.1 and Attachments: <ul style="list-style-type: none"> <li>10 Controller / Evaluator Guidelines</li> <li>11 Observer Guidelines</li> <li>13 Participant Briefing</li> </ul> </li> <li>Moved instructions from Step 6.2.2.5.6 through 6.2.2.5.7 to Step 6.4.1</li> <li>Moved instructions from Step 6.2.2.5.8 to Step 6.4.1 and Attachment 3</li> </ul>		Step 6.4.1
	<ul style="list-style-type: none"> <li>Deleted Steps 6.2.11 through 6.2.15 and moved the instructions to Section 6.6, CONDUCT OF DRILLS AND EXERCISES</li> </ul>		Section 6.6
	<ul style="list-style-type: none"> <li>Deleted Steps 6.2.16 through 6.2.20 and moved the instructions to Section 6.7, Drill and Exercise Evaluation</li> <li>Moved instructions from Section 6.4 Corrective Actions/Event Trending to Section 6.7, Drill and Exercise Evaluation</li> </ul>		Section 6.7
	<ul style="list-style-type: none"> <li>New Attachment describing Scenario Development Team process</li> <li>Moved instructions from Step 6.2.3.1 through 6.2.3.4 into Attachment 3, SCENARIO DEVELOPMENT TEAM AND RESPONSIBILITIES</li> </ul>		Attachment 3
	<ul style="list-style-type: none"> <li>New Attachment providing a Drill Planning Checklist</li> <li>Deleted Step 6.2.2.4 as this information is captured in Attachment 4, Drill Planning Checklist</li> <li>Step 6.2.9, Notifications and Announcements deleted as the instructions are provided in Attachment 4, Drill Planning Checklist</li> </ul>		Attachment 4
	<ul style="list-style-type: none"> <li>New Attachment providing a CONTROLLER/EVALUATOR ORGANIZATION instructions</li> <li>Moved Steps 6.2.4 Controller Organization and 6.2.5 Controller Requirements/Assignments, into Attachment 5, CONTROLLER/EVALUATOR ORGANIZATION</li> </ul>		Attachment 5
	<ul style="list-style-type: none"> <li>Added new attachment providing DRILL PREPARATION FLOWCHART</li> </ul>		Attachment 6
	<ul style="list-style-type: none"> <li>Added new attachment providing EXERCISE PREPARATION FLOWCHART</li> </ul>		Attachment 7
	<ul style="list-style-type: none"> <li>Added CONTROLLER AND EVALUATOR BRIEFING instructions</li> </ul>		Attachment 8

NN, Order, or Other Action	Description of Change	50.59	Step, Section, Attachment or Page
202405588	<ul style="list-style-type: none"> <li>Added new attachment providing CONTROLLER TRAINING guidelines</li> <li>Moved Step 6.2.6, Controller training into Attachment 9 CONTROLLER TRAINING</li> </ul>	DNA	Attachment 9
	<ul style="list-style-type: none"> <li>Added new attachment providing CONTROLLER/EVALUATOR guidelines</li> </ul>		Attachment 10
	<ul style="list-style-type: none"> <li>Added new attachment providing OBSERVER guidelines</li> </ul>		Attachment 11
	<ul style="list-style-type: none"> <li>Added new attachment providing an example SECURITY/CONFIDENTIALITY AGREEMENT</li> </ul>		Attachment 12
	<ul style="list-style-type: none"> <li>Added PARTICIPANT BRIEFING instructions</li> </ul>		Attachment 13
	<ul style="list-style-type: none"> <li>Added attachment providing a DRILL REPORT template</li> <li>Moved instructions from Section 6.5, Written Critique Report to Attachment 14, DRILL REPORT</li> </ul>		Attachment 14
	<ul style="list-style-type: none"> <li>Added new attachment providing DEFINITIONS</li> </ul>		Attachment 15
	<ul style="list-style-type: none"> <li>Renumbered old Attachment 3</li> </ul>		Attachment 16

Document Reviewers:	Name:
EP – Cognizant Supervisor	McCann
EP	Cleavenger
EP	Kennel
CFDM Final Approval:	Lindbeck



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 1 of 62

Procedure Usage Requirements		Sections
Information Use	<ul style="list-style-type: none"> <li>The user may complete the task from memory. However, the user is responsible for performing the activity according to the procedure.</li> <li>Information use documents that contain a specific process order are performed in the given order unless otherwise specified within the document.</li> </ul>	Attachment 10
Reference Use	<ul style="list-style-type: none"> <li>Review and understand the procedure before performing any steps, including the prerequisite section.</li> <li>Have a copy or applicable pages/sections open at the work site.</li> <li>Use Placekeeping method according to SO123-XV-HU-3.</li> <li>If any portion of the document is performed from memory, do so in the sequence specified. Perform each step as written, except when an approved process specifically allows deviation.</li> <li>Refer to the procedure or instruction at least once to ensure completion of the task in accordance with the requirements.</li> <li>Review the document at the completion of the task to verify that all appropriate steps are performed and documented.</li> </ul>	All except Attachment 10

### TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 RESPONSIBILITIES .....	2
2.0 ACRONYMS .....	4
3.0 PROCEDURE .....	7
4.0 RETENTION OF RECORDS .....	7

### **ATTACHMENT**

1	Corporate Emergency Director Checklist .....	8
2	EOF Manager Checklist .....	16
3	EOF Technical Leader Checklist .....	20
4	EOF Security Director Checklist .....	23
5	EOF Administrative Leader Checklist .....	32
6	EOF Emergency Planning Coordinator Checklist .....	40
7	EOF Radiation Protection Leader Checklist .....	47
8	EOF Emergency Advisor, Notifications Checklist .....	53
9	EOF Offsite Field Monitoring Team Checklist .....	58
10	Summary of Changes .....	61

### QA PROGRAM AFFECTING

50.59 DNA / 72.48 DNA / 50.54(q) APPLIES / RX DNA

Procedure Type
EPIP

Procedure Owner
Deborah Lindbeck



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 2 of 62

### 1.0 **RESPONSIBILITIES**

1.1 **VERIFY** level of use requirements on the first page of this procedure.

1.2 The responsibilities of the Emergency Operations Facility (EOF) ERO personnel are as follows:

#### 1.2.1 Corporate Emergency Director (CED)

- Assumes Emergency Coordinator (EC) function from either the Station Emergency Director, or directly from the Emergency Coordinator in the Control Room following activation of the EOF.
- Makes decision to notify offsite agencies (non-delegable)
- Makes Protective Action Recommendations (PARs) to offsite agencies (non-delegable)
- Initiates Site Evacuation (non-delegable)

#### 1.2.2 EOF Emergency Advisor, Notifications (EAN)


- Responsible for advising the CED and preparing offsite notifications.
- Responsible for maintaining communications with applicable local offsite agencies and the state.

#### 1.2.3 EOF Manager

- Responsible for monitoring offsite activities and providing interface with offsite agencies, advising the CED and developing PARs. The EOF Manager, if CED qualified, may fill in as the CED (prior to CED arrival or if the CED falls ill, etc.).
- Communicates Technical information to the JIC Director and coordinates approval of press releases between the CED and JIC staff.
- Briefs offsite representatives on radiological release and plant status.
- Acts as liaison between EOF personnel and interjurisdictional offsite authorities.

#### 1.2.4 EOF Emergency Planning Coordinator

- Advises the Emergency Advisors and/or the CED in all Emergency Plan requirements.
- Ensures support to various general positions which provide warehouse, auto services and telecommunication support to EOF personnel. Includes communicating with INPO and supporting the OSC Maintenance Coordinator in the procurement of emergency parts and supplies.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 3 of 62

1.2.5 EOF Technical Leader

- Provides engineering technical updates from the Technical Support Center (TSC) to the CED. Responsible for following the status of the plant, using information from Ivory Phone, the TSC and Critical Function Monitoring System (CFMS).
- Monitors the Ivory Phone.
- Updates the plant status board to keep EOF staff informed of plant conditions.
- Uses the Brown Phone to communicate with the TSC.

1.2.6 EOF Administrative Leader

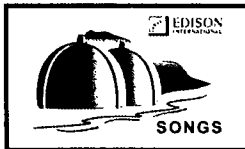
- Coordinates provisions for food, transportation and other logistical support for emergency personnel. Acts as a liaison with offsite groups in providing additional resources. Keeps the assembly area personnel informed of emergency status.
- Provides administrative and logistical support to support personnel including telephone and facsimile operations, and other coordination activities.
- Updates the offsite status board and acts as a runner when needed.

1.2.7 EOF Security Director

- Provides information on security activities to the Corporate Emergency Director, and acts as liaison to the FBI/Law Enforcement agencies in the Joint Operations Center (JOC), if manned.
- Coordinates security activities in the EOF including access control and accountability.

1.2.8 EOF Radiation Protection Leader

- Directs onsite and offsite monitoring during plume phase and recovery phase.
- Advises the Corporate Emergency Director on radiological aspects of activities, including protective actions.
- Supports EOF with respect to dosimetry.
- Briefs and controls the onsite and offsite monitoring during plume phase and recovery phase.
- Assists with keeping ODAC informed of position and results found by the onsite and offsite field monitoring teams.
- Performs radiological surveys in EOF to ensure EOF habitability.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 4 of 62

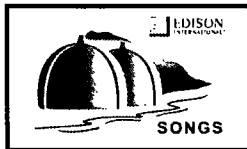
### 1.2.9 EOF Offsite Field Monitoring Teams (Monitors ) (Drivers)

- Monitors and performs air samples usually within the Emergency Planning Zone (EPZ) from the owner controlled fence out to the EPZ boundary.
- Performs environmental sampling during recovery phase.

## 2.0 **ACRONYMS**

2.1	<u>ARM:</u>	Area Radiation Monitor
2.2	<u>AWS:</u>	Administration Warehouse & Supply/Shop
2.3	<u>Cal OES:</u>	California Office of Emergency Services
2.4	<u>CAPR:</u>	Corrective Action to Prevent Reoccurrence
2.5	<u>CED:</u>	Corporate Emergency Director
2.6	<u>CEDE:</u>	Combined External Dose Equivalent
2.7	<u>CDE:</u>	Combined Dose Equivalent
2.8	<u>CFMS</u>	Critical Function Monitoring System
2.9	<u>CHP</u>	California Highway Patrol
2.10	<u>CR:</u>	Control Room
2.11	<u>DAC:</u>	Derived Airborne Concentration
2.12	<u>DACS</u>	Dose Assessment Computer System
2.13	<u>EAL:</u>	Emergency Action Level
2.14	<u>EAN:</u>	Emergency Advisor, Notifications
2.15	<u>EOA</u>	Emergency Advisor, Operations
2.16	<u>EC:</u>	Emergency Coordinator
2.17	<u>EDT:</u>	Event Declaration Time

## REFERENCE USE



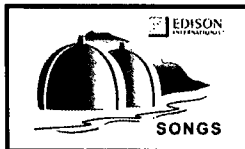
## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 5 of 62

2.18	<u>EGL</u>	Emergency Group Leader
2.19	<u>ENF</u> :	Event Notification Form
2.20	<u>EOC</u> :	Emergency Operations Center
2.21	<u>EOF</u> :	Emergency Operations Facility
2.22	<u>EP</u> :	Emergency Plan
2.23	<u>EPC</u> :	Emergency Planning Coordinator
2.24	<u>EPIP</u> :	Emergency Plan Implementing Procedure
2.25	<u>EPZ</u>	Emergency Planning Zone
2.26	<u>ERDS</u> :	Emergency Response Data System
2.27	<u>ERF</u> :	Emergency Response Facility
2.28	<u>ERO</u> :	Emergency Response Organization
2.29	<u>ERTD</u> :	Emergency Response Telephone Directory
2.30	<u>GCC</u> :	Grid Control Center
2.31	<u>IOC</u> :	Irvine Operations Center
2.32	<u>ISFSI</u> :	Independent Spent Fuel Storage Installation
2.33	<u>JIC</u>	Joint Information Center
2.34	<u>JOC</u>	Joint Operations Center
2.35	<u>KI</u> :	Potassium Iodide
2.36	<u>NRC</u> :	Nuclear Regulatory Commission
2.37	<u>OCA</u> :	Owner Controlled Area
2.38	<u>ODAC</u> :	Offsite Dose Assessment Center

REFERENCE USE



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

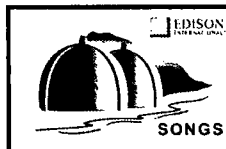
SO123-VIII-EOF  
REV: 1

Page 6 of 62

2.39	<u>OSL</u>	Optically Stimulated Luminescent Dosimeter
2.40	<u>OSSC</u> :	Onsite Security Commander
2.41	<u>PA</u> :	Protected Area
2.42	<u>PAPA</u> :	Protected Area Personnel Accountability
2.43	<u>PAR</u> :	Protective Action Recommendation
2.44	<u>PASS</u> :	Post Accident Sampling System
2.45	<u>PAZ</u> :	Protective Action Zone
2.46	<u>REPCET</u> :	Representative Core Exit Temperature
2.47	<u>RP</u> :	Radiation Protection
2.48	<u>SAMG</u> :	Severe Accident Management Guideline
2.49	<u>SC</u> :	Shift Communicator
2.50	<u>SCBA</u> :	Self-Contained Breathing Apparatus
2.51	<u>SCE</u> :	Southern California Edison
2.52	<u>SCP</u> :	Safeguards Contingency Plan
2.53	<u>SED</u> :	Station Emergency Director
2.54	<u>SL</u> :	Security Leader
2.55	<u>SM</u> :	Shift Manager
2.56	<u>SONGS</u> :	San Onofre Nuclear Generating Station
2.57	<u>SRO</u> :	Senior Reactor Operator
2.58	<u>SSAB</u>	SONGS Site Access Badge
2.59	<u>SSPF</u> :	South Security Processing Facility

### REFERENCE USE





## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 7 of 62

2.60 TEDE: Total Effective Dose Equivalent

2.61 TSC: Technical Support Center

2.62 VNF: Verbal Notification Form

2.63 YPS: Yellow Phone System

### 3.0 PROCEDURE

3.1 **OBTAIN** a copy of the applicable ERO Position Checklist. This checklist may be found in the first tab of each ERO Position Book.

#### 3.2 ACTIVATION AND OPERATION OF THE EOF

3.2.1 Upon declaration of an ALERT or higher classification, EOF personnel shall report to the EOF. ERO positions shall obtain their Position Checklist and follow the instructions contained within.


3.2.2 The Corporate Emergency Director (CED) should declare the EOF activated when the following minimum staff positions have been filled:

- Corporate Emergency Director
- EOF Emergency Advisor, Notifications
- EOF Manager
- EOF Emergency Planning Coordinator
- EOF Technical Leader
- EOF Security Director
- EOF Administrative Leader
- EOF Radiation Protection Leader
- EOF Offsite Field Monitoring Teams (Monitors) (Drivers)

### 4.0 RETENTION OF RECORDS

4.1 **COLLECT** all paperwork generated in response to the emergency event (e.g., logs procedures, attachments, forms and checklists) **AND DELIVER** to either the TSC Manager, EOF Emergency Planning Coordinator or OSC Emergency Planning Coordinator.

## REFERENCE USE

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 8 of 62
	<b>Corporate Emergency Director Checklist</b>	

## **POSITION CHECKLIST**

### Corporate Emergency Director Supplemental Position Instructions Table of Contents

Section Number	Title	Page
2.0	EOF/AEOF Activation	
3.0	EVENT NOTIFICATIONS .....	11
4.0	CREDIBLE THREAT .....	12
5.0	SECURITY EVENT ACTIVITIES .....	12
6.0	ACTIVATION OF ALTERNATE EOF AT IRVINE OPERATIONS CENTER.....	13
7.0	RE-ENTRY INTO EVACUATED AREAS .....	13
8.0	EVENT RECLASSIFICATION/PAR/PAR UPGRADE/RADIOLOGICAL RELEASE .....	13
9.0	EMERGENCY RESPONSE COORDINATION .....	14
10.0	TURNOVER .....	14
11.0	EVENT CLOSEOUT .....	15


### **NOTE**

1. Sections 2.0 through 11.0 provide supplemental instructions for performing the CED duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.

## **1.0 INITIAL ACTIONS**

### **1.1 REFER** to the following contained in position notebook:

- EP(123) 5, Turnover Status
- EP(123) 6, Emergency Response Log Book
- EP(123) CED-1, CED-EOF Briefing Guidelines
- EP(123) EC-1, Emergency Coordinator Turnover Status
- EP(123) EOF-17, Guidance for Assembly/Evacuation of Non-Essential Personnel
- EP(123) ERO-2, Alternate Emergency Response Facility Status Checklist
- EP(123) ERO-5, Credible Threat Plan Development
- Controlled set of EIPs
- Emergency Response Telephone Directory (ERTD)

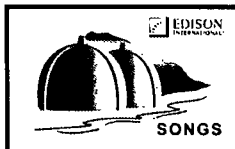
	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 9 of 62
<b>Corporate Emergency Director Checklist</b>		<b>Attachment 1</b>

- 1.2 **MAINTAIN** a log of activities.
- 1.3 **MAINTAIN** an open phone circuit with the SED to ensure awareness of changing plant conditions.
- 1.4 **DECLARE** the EOF/AEOF activated when minimum staffing requirements are met and EOF personnel are able to perform their emergency response duties.
  - 1.4.1 **ANNOUNCE** the activation of the EOF to EOF personnel **AND PERFORM** an Initial EOF Briefing using the Desktop job aide.
- 1.5 **REVIEW** copies of completed EP(123) 10, Event Notification Form, and/or EP(123) 11, Verbal Notification Form.
- 1.6 **INFORM** the SED the EOF/Alt EOF is activated and is ready for EC turnover.
- 1.7 Emergency Coordinator (EC) Turnover
  - 1.7.1 **DIRECT** EOF Leaders to come to the CED table for EC turnover:
    - EOF Manager
    - EOF Technical Leader
    - EOF Radiation Protection Leader
    - EOF Emergency Planning Coordinator
    - EOF Security Director
    - EOF Administrative Leader
- 1.8 **DIRECT** the SED to begin EC Turnover using EP(123) EC-1, Emergency Coordinator Turnover Status.

**NOTE**

SO123-VIII-10, Emergency Coordinator Duties may be referenced for detailed EC duties.

- 1.9 **WHEN** EC Turnover is complete, **THEN**:
  - 1.9.1 **PERFORM** a Team Update to inform the EOF the EC title is turned over to the CED using CED/EOF Briefing Guidance (Section 2.0, only).



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 10 of 62

Corporate Emergency Director Checklist

Attachment 1

### NOTE


Emergency announcements must be made by the Control Room (due to need to activate the Emergency Alarms). This is accomplished by either calling the SM and providing instructions or faxing copy of the announcement to the Control Room and providing direction to make the announcement.

- 1.10 **IF** NRC Site Team is present in the EOF, **THEN NOTIFY** the NRC Site Team immediately after completion of notification to local and state authorities.
- 1.11 Assume the following non-delegable duties:
- Decision to notify offsite agencies
  - Making protective action recommendations to offsite agencies
  - Site Evacuation
- 1.12 **CONDUCT** periodic EOF briefings (approximately every 30-60 minutes) or following significant changes in plant status.
- 1.13 **DETERMINE AND SUPPORT** plant priorities.
- 1.14 **ENSURE** that adequate technical and logistic support is available to the station emergency organization.
- 1.15 **ENSURE** Offsite Notifications are completed per SO123-VIII-30.7, Emergency Notifications.

### NOTE

Direct verbal briefings to ODAC concerning PARs assists timely offsite agency participation.

- 1.16 **ENSURE** PARs are completed per SO123-VIII-10.3, Protective Action Recommendations.
- 1.17 **PERFORM** evacuation of non-essential site personnel per EP(123) EOF-17, Guidance for Assembly/Evacuation of Non-Essential Personnel at SAE or higher.
- 1.18 **ENSURE** status boards are maintained.
- 1.19 **ENSURE** Offsite Organizations in EOF are briefed.
- 1.20 **CONDUCT** shift turnover as warranted.
- 1.21 **ENSURE** event closeout and recovery per SO123-VIII-10.5, Event Closeout and Recovery.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 11 of 62
Corporate Emergency Director Checklist		<b>Attachment 1</b>

- 1.21.1 **COMPLETE** all checklist items.
- 1.21.2 **ENSURE** post-event critiques are conducted in each Emergency Response Facility.
- 1.21.3 **RETURN** the workstation to its original condition.
- 1.21.4 **RETURN** all document binders to their storage location.
- 1.21.5 **RETURN** any emergency response equipment to its original location.
- 1.21.6 **PROVIDE** all paperwork to the Emergency Preparedness Coordinator.

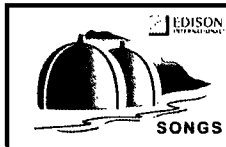
### **SUPPLEMENTAL POSITION INSTRUCTION**

#### **NOTE**

1. Sections 2.0 through 11.0 provide supplemental instructions for performing the CED duties and may be referenced for clarification of duties.
1. Steps may be performed in any order or concurrently.
2. The following steps are an enhancement to the position checklist. Placekeeping is not required.

## **2.0 EOF/AEOF Activation**

- 2.1 Notifications to California Office of Emergency Services (CAL OES) and Yellow Phone System (YPS) Stations
  - 2.1.1 **REVIEW, APPROVE, AND SIGN** required EP(123) 11 Forms (Verbal Notification Forms) prior to being communicated to CAL OES or YPS Stations.
  - 2.1.2 **REVIEW, APPROVE, AND SIGN** all EP(123) 10 Forms (Event Notification Forms) prior to being faxed to CAL OES or YPS Stations.
- 2.2 Protective Action Recommendations (PARs)
  - 2.2.1 **DETERMINE** PARs in accordance with SO123-VIII-10.3.
  - 2.2.2 **WHEN** conditions require PAR upgrades, **THEN UPGRADE** PARs.
    - 2.2.2.1 **MONITOR** Changing wind direction from one Protective Action Zone (PAZ) to another in accordance with SO123-VIII-10.3.
    - 2.2.2.2 **MONITOR** Changing radiological conditions when wind direction impacts PAZ 5 in accordance with SO123-VIII-10.3.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 12 of 62

Corporate Emergency Director Checklist

Attachment 1

### NOTE

- 1) The Emergency Response Position (Shift Manager or Station Emergency Director) who is the EC is responsible for ensuring Non-Essential Personnel are assembled.
- 2) The Emergency Response Position (Shift Manager or Station Emergency Director) who is the EC is responsible for ensuring Non-Essential Personnel are evacuated.
- 3) The SED may use EP(123) EOF-17, (Guidance for Assembly/Evacuation of Non-Essential Personnel) to assist in the assembly/evacuation process.

### 2.3 Evacuation of Non-Essential Personnel

- 2.3.1 **PERFORM** EP(123) EOF-17, Guidance for Assembly/Evacuation of Non-Essential Personnel.
- 2.3.2 **ASSESS** the status and potential for evacuation of Camp Mesa.
- 2.3.3 **EVALUATE** the need for evacuation of non-emergency response personnel per SO123-VIII-10.3:

### 3.0 EVENT NOTIFICATIONS


- 3.1 **ENSURE** the Technical Leader to notify American Nuclear Insurers (ANI) of the declaration of an emergency at San Onofre (refer to Emergency Response Telephone Directory [ERTD] for Phone Number).
- 3.2 **REVIEW AND APPROVE** news releases prior to their release. (For Security-related events, direct the Security Director to review news releases prior to their approval).

### 4.0 CREDIBLE THREAT

- 4.1 **REVIEW** EP(123) ERO-5, Credible Threat Plan Development, with the Security Director and the SED to develop an appropriate level of response to a credible threat.

### 5.0 SECURITY EVENT ACTIVITIES

- 5.1 **IF** the emergency is a Security Event, **THEN CONFER** with the Security Director to determine the appropriate time to address EP(123) EC-2, EC Post-Security Event Checklist.
- 5.2 **REFER** to SO123-VIII-10.6 for guidance on declared Security-related events.

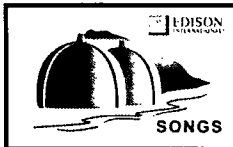
	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 13 of 62
---	--	---

Corporate Emergency Director Checklist	Attachment 1
--	--------------

6.0 **ACTIVATION OF ALTERNATE EOF AT IRVINE OPERATIONS CENTER**

- 6.1 IF conditions exist that prevent access to the EOF as a result of severe weather or other reason, **THEN CONSULT** with Emergency Advisors to direct activation of the Alternate EOF (AEOF) at the Irvine Operations Center (IOC).
- 6.2 IF the EOF is already manned, **AND IF** conditions exist which require evacuation, **THEN DIRECT** the EOF staff to relocate to the AEOF at the IOC.
- 6.3 IF any of the hazards listed below affect the EOF, **THEN CONSULT** with EOF Staff to determine the necessity for relocation of the staff to the AEOF.
- High EOF or portable radiation monitor readings
  - Fire in or near the EOF
  - Security hazards which threaten personnel
- 6.4 **TURN OVER** EC functions to the SED in the TSC until the AEOF is staffed.
- 6.5 **COLLECT AND TRANSPORT** materials and equipment necessary to perform emergency response functions at the alternate facility.
- 6.6 WHEN time allows, **THEN CONDUCT** an assessment of emergency response facility status, command and control functions, and key ERO functions using EP(123) ERO-2, Alternate Emergency Response Facility Status Checklist.
- 7.0 **RE-ENTRY INTO EVACUATED AREAS**
- 7.1 IF the hazard causing an evacuation of the EOF has been eliminated or controlled to a point that will allow use of the EOF, **THEN DIRECT** the EPC to coordinate re-entry efforts.
- 8.0 **EVENT RECLASSIFICATION/PAR/PAR UPGRADE/RADIOLOGICAL RELEASE**
- 8.1 **DETERMINE** PARs using SO123-VIII-10.3.

1. Classification and declaration of an emergency event.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 14 of 62

Corporate Emergency Director Checklist

Attachment 1

### 9.0 **EMERGENCY RESPONSE COORDINATION**

9.1 **BRIEF** the following EOF Leads at periodic intervals so that they are aware of current emergency conditions in accordance with form EP(123) CED-1, CED-EOF Briefing Guidelines:

- EOF Manager
- Radiation Protection Leader
- Technical Leader
- Emergency Advisor Notification
- Administrative Leader
- Security Director
- ODAC (if not already provided information)
- NRC (if present)

### 9.2 Emergency Response Facility (ERF) Staff Minimization

9.2.1 IF the plant is stable and there is **NO** threat of escalation, THEN the CED may reduce the staffing in the ERFs to appropriate levels.

### 10.0 **TURNOVER**

10.1 Turnover shall **NOT** prevent timely completion of the primary EC responsibilities of classification, notification and PAR.

10.2 **CONDUCT** an assessment of notifications in progress prior to turnover of the EC duties.


10.3 EP(123) EC-1, Emergency Coordinator Turnover Status, with the relief CED.

10.3.1 IF alternate emergency response facilities have been activated, THEN COMPLETE EP(123) ERO-2, Alternate Emergency Response Facility Status Checklist, AND DISCUSS with the relief CED.

10.3.2 WHEN the off-going CED is relieved of all duties, THEN the relief CED shall announce to EOF personnel over the public address system the following:

- Name
- Assumption of the CED position
- Emergency Class
- PAR



	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 15 of 62

Corporate Emergency Director Checklist	<b>Attachment 1</b>
--	---------------------

10.3.3     **HAVE** the turnover announced to all Emergency Response Facilities via the Ivory Phone.

11.0     **EVENT CLOSEOUT**

11.1     WHEN conditions have improved and meet the criteria for event closeout, **THEN PERFORM** actions IAW SO123-VIII-10.5.

### **POSITION CHECKLIST**

#### **NOTE**

Steps may be performed in any order or concurrently.

#### **1.0 INITIAL ACTIONS**

**1.1 REFER** to the following contained in position notebook:

- EP(123) 5, Turnover Status
- EP(123) 6, Emergency Response Log Book.

**1.2 ASSUME** the position of EOF Manager.

**1.2.1 SIGN** in on the EOF Minimum Staffing Board.

**1.2.2 VERIFY** communications devices function.

**1.3 ESTABLISH AND MAINTAIN** a log using form EP (123) 6.

**1.4 LOG** onto the computer to receive press releases from the JIC.

- Network User ID – enccomm
- Network Password - NewscenterQ (the last four digits of the password will always be current quarter and current year, e.g. 0113)
- Lotus Notes Email ID - ENC Communications
- Lotus Notes Password - NewscenterQ (the last four digits of the password will always be current quarter and current year, e.g. 0113)


**1.5 IF** the CED is **NOT** present, **THEN IMPLEMENT** the CED appropriate portions of this procedure UNTIL the CED arrives - **ONLY IF CED QUALIFIED**.

**1.6 ESTABLISH AND MAINTAIN** contact with the intrajurisdictional offsite authorities.

**1.7 ASSIST** Corporate Emergency Director (CED) in setting offsite priorities.

**1.7.1 CONSIDER** including minimum staffing and facility activation as initial priorities.

**1.7.2 CONSIDER** including initial and follow-up notifications as on-going priorities.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 17 of 62

<b>EOF Manager Checklist</b>	<b>Attachment 2</b>
------------------------------	---------------------

1.8 **ASSIST** in the activation of the facility.

1.8.1 **VERIFY** minimum staffing prior to declaring the EOF activated.

- CED
- EOF Manager
- EOF Emergency Advisor, Notifications
- EOF Emergency Planning Coordinator
- EOF Technical Leader
- EOF Security Leader
- EOF Administrative Leader
- EOF Radiation Protection Leader
- EOF Offsite Field Monitoring Teams (Monitors) (Drivers)

1.9 **REPORT** to the CED when the EOF is ready to assume responsibilities.

1.10 **ESTABLISH** contact with the JIC Director by calling 7-51502 **AND PROVIDE** initial conditions including radiological conditions and PAR.

## 2.0 **CONTINUING ACTIONS**

2.1 **DISMISS** EOF personnel not filling positions and instruct them to assemble in a designated area of the building.

2.2 **ENSURE** the EOF functions are executed in a timely and efficient manner.

2.2.1 **COORDINATE** and direct all personnel assigned to the EOF.


2.2.2 **PROVIDE** guidance to key members of the EOF staff.

2.2.3 **INFORM** the CED of significant activities of the EOF.

2.3 **ENSURE** offsite communications are being made.

2.3.1 **CONFIRM** EAN has made contact with offsite Federal, State, and local officials to inform them of the current situation at SONGS.

2.3.2 **IF** delegated by the CED is his absence from the area, **THEN SIGN AND TRANSMIT** follow-up notifications following a review.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 18 of 62
<b>EOF Manager Checklist</b>		<b>Attachment 2</b>

## 2.4 Press Releases

### 2.4.1 **REVIEW** press releases.

2.4.1.1 **IF** the CED has any changes to the press release, **THEN COMMUNICATE** these changes by phone to the JIC Director at 7-51502.

2.4.1.2 **IF** there are **NO** changes required to the email, **THEN COMMUNICATE** this to the JIC Director via phone at 7-51502.

2.4.1.3 **PROVIDE** a copy of the approved Press release to the EOF Administrative Leader for distribution throughout the EOF.

2.5 **ACT** as a liaison for CED for any topics concerning press releases.

2.6 **ACT** as a liaison to gather and provide information for the JIC.

2.6.1 **PROVIDE** updates on changes to radiological conditions, PARs, or significant changes in plant or personnel conditions.

2.7 **RECORD** any JIC requested information **AND ASK** the EOF Technical Leader (for Operational questions) or the EOF RP Leader (for Radiological questions) to provide appropriate information.

2.8 **ASSIST AND ADVISE** the CED in formulation of the PAR.

2.8.1 **DETERMINE** the status of implementation of any previously issued offsite protective actions.


2.8.2 **MAINTAIN** liaison with the Radiation Protection Leader, Tech Team Leader and Security Director for PAR development.

2.8.3 **DISCUSS** PARs with ODAC, including explanations of plant conditions.


2.9 **ASSIST** the EA Notifications in the preparation of Event Notification forms.

2.10 **ADVISE** the EOF Administrative Leader and the EP Coordinator to perform the following:

- **COORDINATE** site arrival of NRC
- Have Security **ESCORT** NRC to Joint Operations Center (JOC).
- **COLLECT** pertinent information (provide list, includes most recent written; Verbal Notifications, EOF layout, etc.).
- **MEET** NRC in JOC **AND BRIEF** them on the status of the emergency.
- **ESCORT** NRC to EOF, **INTRODUCE** them to EOF counterparts **AND PROVIDE** seat assignments.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 19 of 62
	<b>EOF Manager Checklist</b>	<b>Attachment 2</b>

- 2.11 **ENSURE** the EOF and Plant Priorities Board reflects pertinent offsite related activities.
- 2.12 **DEVELOP** a recovery plan for the emergency in accordance with SO123-VIII-10.6.
- 2.13 **PROVIDE** oversight and direction for Evacuation of onsite personnel.
  - 2.13.1 After consulting with the Radiation Protection Leader, **DESIGNATE** the evacuation route to the EOF Administrative Leader based on wind direction.
- 2.14 **CONDUCT** shift turnover with oncoming EOF Manager.
- 2.15 Upon event termination, **ENSURE** all EOF Manager materials have been returned to a state of readiness.
  - 2.15.1 **COMPLETE** all checklist items.
  - 2.15.2 **FACILITATE** facility post-event critique.
  - 2.15.3 **RETURN** the workstation to its original condition.
  - 2.15.4 **RETURN** all document binders to their storage location.
  - 2.15.5 **RETURN** any emergency response equipment to its original location.
  - 2.15.6 **PROVIDE** all paperwork to the Emergency Planning Coordinator.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 20 of 62
<b>EOF Technical Leader Checklist</b>		<b>Attachment 3</b>

### **POSITION CHECKLIST**

#### **NOTE**

Steps may be performed in any order or concurrently.

#### **1.0 INITIAL ACTIONS.**

**1.1 REFER** to the following contained in position notebook:

- EP(123) 5, Turnover Status
- EP(123) 6, Emergency Response Log Book

**1.2 ESTABLISH AND MAINTAIN** a log using form EP(123) 6.

**1.3 WHEN** ready to perform your ERO function, **THEN SIGN-IN** on the EOF minimum staffing board.

**1.4 ESTABLISH** Ivory Phone communications with the Control Room, TSC, and Operations Support Center (OSC).

**1.5 INFORM** the following persons of the current plant conditions:

- CED
- Emergency Advisor, Notifications
- EOF Manager

**1.6 POST** information on Plant Status Board.

**1.7 PROVIDE**, at a minimum, the following information over the Ivory Phone:

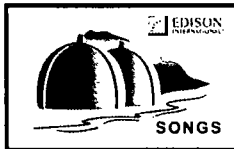
- Activation of the EOF
- Assumption of the CED duties

**1.8 PARTICIPATE** in facility staff briefings.

#### **2.0 CONTINUING ACTIONS**

**2.1 NOTIFY** the CED and EOF RP Leader of changing plant conditions as notified by the TSC Technical Team and/or CFMS.

**2.2 PROVIDE**, at a minimum, the following information over the Ivory Phone:



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 21 of 62

### EOF Technical Leader Checklist

### Attachment 3

- Changes in PARs
- Major Decisions made by the CED



2.3 IF requested by the TSC Technical Leader, THEN COORDINATE call-in of additional engineering personnel.

2.3.1 **ACT** as technical interface with ODAC.

2.4 **SUPPORT** PAR recommendations.

2.5 **PARTICIPATE** in facility staff briefings.

2.6 **ASSIST** in the development of new or revised operational procedures and strategies for mitigating the emergency.

2.7 **OBTAIN AND PROVIDE** technical information to the EOF Manager.

2.8 EVACUATION

2.8.1 IF the EOF is evacuated, THEN ENSURE you have the necessary materials before proceeding to the alternate EOF.

2.9 TURNOVER

2.9.1 WHEN a relief EOF Technical Leader arrives at the EOF, THEN:

2.9.1.1 **CONDUCT** turnover with the oncoming EOF Technical Leader in accordance with Form EP(123) 5.

2.9.1.2 **REPORT** completion of turnover to the CED.


2.10 RECOVERY

2.10.1 WHEN requested by the CED, THEN RECOMMEND additional personnel and equipment necessary for a recovery organization.

2.10.2 IF additional assistance is required, (beyond that available from SONGS and local agencies, Westinghouse, Bechtel, etc.), THEN OBTAIN aid from other utilities or from INPO.

2.10.3 **EVALUATE** staffing needs.

2.11 Event Termination/Recovery

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 22 of 62
<b>EOF Technical Leader Checklist</b>		<b>Attachment 3</b>

2.11.1     WHEN conditions have improved and meet the criteria for event closeout, THEN  
**PERFORM** actions IAW SO123-VIII-10.5.



### **POSITION CHECKLIST**

#### Security Director Supplemental Position Instruction Table of Contents

Section Number	Title	Page
3.0	INITIAL ACTIONS .....	28
4.0	MANUAL ACCOUNTABILITY .....	29
5.0	EVACUATION .....	29
6.0	RE-ENTRY INTO EVACUATED EOF .....	30
7.0	RADIO USE DURING A SECURITY EMERGENCY .....	30
8.0	TURNOVER .....	30
9.0	EVENT CLOSEOUT .....	31

#### **NOTE**

1. Sections 3.0 through 9.0 provide supplemental instructions for performing the Security Director duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.

#### **1.0    INITIAL ACTIONS**

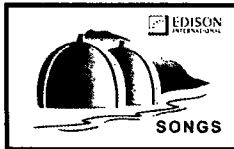
**1.1    REFER** to the following contained in position notebook:

- EP(123) 5, Turnover Status
- EP(123) 6, Emergency Response Log Book
- EP(123) 295, EOF Personnel Accountability
- EP(123) ERO-5, Credible Threat Plan Development
- EP(123) EOF-18, Emergency Information for Oncoming Personnel

**1.2    WHEN** ready to perform your ERO function, **THEN SIGN-IN** on the EOF minimum staffing board.

**1.3    ESTABLISH AND MAINTAIN** a log using form EP(123) 6.

**1.4    CLOSE** EOF steel doors **AND ESTABLISH** Site Electronic Access System (SEAS) access.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists


SO123-VIII-EOF  
REV: 1

Page 24 of 62

### EOF Security Director Checklist

### Attachment 4

- 1.5 **PROVIDE** additional security for EOF to limit EOF access to Emergency Response Organization (ERO) members.
- 2.0 **CONTINUING ACTIONS**
- 2.1 **IF** the emergency is due to a Security Event, **THEN** **PERFORM** the following:
  - 2.1.1 **REVIEW**, EP(123) ERO-5, Credible Threat Plan Development.
  - 2.1.2 **SUPPORT** discussions with the CED and the SED to develop an appropriate level of response to a credible threat.
  - 2.1.3 Continually **ASSESS** evacuation routes **AND** **NOTIFY** the CED **IF** any evacuation impediments exist.
  - 2.1.4 **IF** status of the event is established, **THEN** **CONTACT** the Security Leader and Incident Command Post **AND** **ACQUIRE** information regarding the following:
    - Event description (include personnel status and plant status)
    - Status of Law Enforcement Agencies notifications
    - Known response to requests for assistance
- 2.2 **INITIATE** Form EP(123) 295, EOF Personnel Accountability, as follows:
  - Whenever EOF entry/exit card reader is inoperable;
  - For personnel requiring EOF entry who do **NOT** have an SONGS Site Access Badge (SSAB);
  - For personnel who have another type of generic badge (e.g., Orange County);
  - For personnel requiring EOF entry who are assigned to OSC/TSC who do **NOT** have EOF SEAS access.
- 2.3 **IF** notified by the EOF EPC that there are personnel at the ERO Staging Areas, **THEN** **COORDINATE** the movement of ERO personnel to the EOF with local law enforcement agencies.
- 2.4 **ASSIST** with the review of security event related news releases prepared by the ERO to ensure the following:
  - 2.4.1 **IF** present in the Joint Operations Center (JOC), **THEN** **GIVE** Law enforcement an opportunity to review the news release prior to its approval.
  - 2.4.2 **IF** there are revisions needed prior to its issuance, **THEN** **PROVIDE** the suggested changes to the CED.
  - 2.4.3 **PROVIDE** a copy of the approved news release to the JOC.


	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 25 of 62
<b>EOF Security Director Checklist</b>		<b>Attachment 4</b>

## 2.5 Joint Operations Center (JOC) Liaison and Support


- 2.5.1 IF the JOC is to be staffed, **THEN ENSURE** that the CED/SED and the EOF EPC are aware that the JOC will be staffed.
- 2.5.2 **ENSURE** the JOC is open and ready for use by responding agencies and personnel.
- 2.5.3 **COMPLETE** EP(123) EOF-18, Emergency Information for Oncoming Personnel, **AND** **UTILIZE** it to brief JOC responders.
- 2.5.4 **INFORM** the CED/SED on the status of JOC staffing.
- 2.5.5 **PROVIDE** information to the JOC regarding site security actions associated with the event.
- 2.5.6 **PROVIDE** information to the JOC regarding plant conditions throughout the emergency by utilizing the Technical Leader.
- 2.5.7 **INTERFACE** with law enforcement personnel responding to the JOC **AND** **PROVIDE** periodic feedback to the CED/SED regarding actions taken by the JOC staff.
- 2.5.8 **PROVIDE** periodic information to the CED regarding the status of the security response throughout the emergency.
- 2.5.9 **PROVIDE** road conditions to the EOF Manager to support PARs.
- 2.5.10 In the event that the EOF HVAC System is operated in the Isolation mode, **INFORM** the JOC, staffing may be limited due to the constraints of the system.

## 2.6 Emergency Response Coordination

- 2.6.1 **ENSURE** that the CED is aware when ERO personnel may safely respond to the Station for mitigation and/or recovery actions.
- 2.6.2 **COORDINATE** ERO staff movement with the Law Enforcement Agencies to support response activities which may include:
  - 2.6.2.1 The movement of ERO personnel from the North and/or South Staging areas to the site.
  - 2.6.2.2 The movement of personnel to support ERO shift change and/or additional ERO staff.
  - 2.6.2.3 IF the OSC and TSC have relocated to the EOF/E50, **THEN COORDINATE** site access for ERO staff and OSC teams with the Security Leader and Law Enforcement Agencies.


	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 26 of 62
<b>EOF Security Director Checklist</b>		<b>Attachment 4</b>

- 2.7 **ASSIST** with evacuation of Camp Mesa and Assembly Areas by:
- 2.7.1 Supporting the Administrative Leader
  - 2.7.2 Contacting the TSC Security Leader to coordinate support with:
    - Assembly/evacuation of Camp Mesa personnel
    - Assembly/evacuation of non-essential personnel
- 2.8 **IF** any hazards listed below affect a major portion of Mesa Area, **THEN CONTACT** EOF EPC **AND RECOMMEND** a Mesa Area assembly or evacuation.
- High radiation alarms or unexpected high radiation levels on Area Radiation Monitors (ARMs), building or containment ventilation monitors, portable radiation monitors, or continuous air monitors
  - Spills of radioactive material which may result in excessive personnel exposure
  - Fire in any occupied area
  - Toxic/flammable gases or heavy smoke reported
  - Chemical hazards to personnel
  - High pressure steam or water leaks
  - Security hazards which threaten personnel or equipment safety
- 2.9 Upon direction of EOF EPC or CED to evacuate/relocate Primary EOF to Alternate EOF at Irvine Operations Center (IOC), or if initially rendered uninhabitable, **THEN**:
- 2.9.1 **NOTIFY** Security Leader and OSC Security Coordinator;
  - 2.9.2 **CONDUCT** a sweep of EOF to ensure all personnel have evacuated;
  - 2.9.3 **ENSURE NO** Safeguards Information (SGI) material is left unattended;
  - 2.9.4 **WHEN** EOF evacuation is complete/Building E50 has been secured, **THEN NOTIFY** OSC Security Coordinator and Security Leader.
  - 2.9.5 Upon arrival at Alternate EOF in Irvine, **NOTIFY** OSC Security Coordinator and Security Leader of your PAX number.
- 2.10 **PERFORM** necessary security support functions to facilitate re-entry.
- 2.11 **IF** possibility of a bomb or other explosive device exists, **THEN ADVISE** EOF EPC or CED to announce restrictions of radio transmissions for a 300-foot radius from device location.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 27 of 62

EOF Security Director Checklist	<b>Attachment 4</b>
---------------------------------	---------------------

- 2.12 **CONDUCT** turnover with oncoming Security Director per Form EP(123) 5.
- 2.13 **RECORD** completion of turnover in Security Director Log, **AND REPORT** completion of turnover to Security Director and EOF EPC.
- 2.14 Event Closeout
  - 2.14.1 **OPEN** EOF steel doors **AND RETURN** temporary security badges to storage.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
<b>EOF Security Director Checklist</b>	<b>Page 28 of 62</b>  <b>Attachment 4</b>	

### **SUPPLEMENTAL POSITION INSTRUCTION**

#### **NOTE**

1. Sections 3.0 through 9.0 provide supplemental instructions for performing the Security Director duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.
3. The following steps are an enhancement to the position checklist. Placekeeping is not required.

### **3.0 INITIAL ACTIONS**

**3.1 CLOSE AND SECURE large EOF steel doors.**

**3.2 ESTABLISH security controlled entry/exit to EOF by restricting EOF access to use of a single entry-exit door.**

**3.2.1 ENSURE personnel responding to EOF scan their SONGS Site Access Badge (SSAB) through Site Electronic Access System (SEAS) card reader.**

**3.2.2 IF E50 must be used as an alternate OSC or TSC, THEN DIRECT responding OSC/TSC members to the E50 lunch room door for access to the alternate OSC and TSC.**

**3.2.3 During activation of EOF, REQUEST EOF EPC to assign another person to assist with access and badging duties.**

**3.2.4 ENSURE classrooms 1-4 are open.**


**3.2.5 WHEN EOF security doors have been secured and EOF access control has been established, THEN REQUEST EOF EPC to make the following EOF PA announcement:**

“All non-emergency response personnel, exit the EOF and report to Classrooms 1 through 4.”


“EOF personnel who have **NOT** logged into SEAS, report to the security office to card into SEAS at this time.”

**3.3 OBTAIN EOF EPC authorization for access for those persons who do **NOT** possess photo identification.**

**3.3.1 Personnel or visitors who do **NOT** have an SSAB and/or do **NOT** have EOF access, **SIGN-IN** on Form EP(123) 295, EOF Personnel Accountability, **AND PROVIDE** photo identification.**

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 29 of 62
<b>EOF Security Director Checklist</b>	<b>Attachment 4</b>	

- 3.4 IF personnel declare they have consumed alcohol within 5 hours of reporting to EOF, THEN, **DIRECT** them to E50 Local Assembly Area (classrooms 1 through 4) to await further instructions.
- 3.4.1 **INFORM** EOF EPC or CED.
- 3.4.2 **FORWARD** all communications/instructions received from EOF EPC or CED to personnel who have declared alcohol consumption.
- 3.5 Immediately **NOTIFY** OSC Security Coordinator when NRC personnel arrive on site, providing their names.
- 3.6 **DIRECT** news media or other related inquiries to JIC Director at Joint Information Center (JIC) or EOF EPC.
- 3.7 WHEN directed by EOF EPC or CED, THEN **CONFIRM** radiological survey conducted by the RP Technicians prior to permitting personnel access to EOF.
- 3.8 **GRANT** access to medical casualties delivered to EOF medical treatment room on a priority basis with RP Technician's approval.
- 3.9 IF notified of an inbound helicopter, THEN **INFORM** EOF RP Leader and EOF EPC.
- 3.10 **ACT** as the primary Security interface within the EOF liaison organization.
- 3.11 **COORDINATE** security matters with TSC Security Leader and OSC Security Coordinator.
- 3.12 **ASSIST** with Site Evacuation AND **MONITOR** security sweeps of Mesa work areas.
- 4.0 **MANUAL ACCOUNTABILITY**
- 4.1.1 **INITIATE** Form EP(123) 295, EOF Personnel Accountability, as follows:
- Whenever EOF entry/exit card reader is inoperable;
  - For personnel requiring EOF entry who do **NOT** have an SSAB;
  - For personnel who have another type of generic badge (e.g., Orange County).
  - For personnel requiring EOF entry who are assigned to OSC/TSC who do **NOT** have EOF SEAS access.
- 5.0 **EVACUATION**
- 5.1 IF any hazards listed in step 5.2 exist, THEN immediately **NOTIFY** EOF EPC AND **AWAIT** instructions.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF</b> <b>REV: 1</b>  Page 30 of 62
---	--	---

<b>EOF Security Director Checklist</b>	<b>Attachment 4</b>
--	---------------------

5.2 **IF** any hazards listed below affect a major portion of Mesa Area, **THEN CONTACT** EOF EPC **AND RECOMMEND** a Mesa Area assembly or evacuation.

- High radiation alarms or unexpected high radiation levels on Area Radiation Monitors (ARMs), building or containment ventilation monitors, portable radiation monitors, or continuous air monitors
- Spills of radioactive material which may result in excessive personnel exposure
- Fire in any occupied area
- Toxic/flammable gases or heavy smoke reported
- Chemical hazards to personnel
- High pressure steam or water leaks
- Security hazards which threaten personnel or equipment safety

5.3 **WHEN** directed by EOF EPC or CED to evacuate/relocate Primary EOF to Alternate EOF at Irvine Operations Center (IOC), **OR IF** initially rendered uninhabitable, **THEN**:

5.3.1 **NOTIFY** TSC Security Leader and OSC Security Coordinator;

5.3.2 **CONDUCT** a sweep of EOF to ensure all personnel have evacuated;

5.3.3 **ENSURE NO** Safeguards Information (SGI) material is left unattended;

5.3.4 **WHEN** EOF evacuation is complete/Building E50 has been secured, **THEN NOTIFY** OSC Security Coordinator and TSC Security Leader.

5.3.5 Upon arrival at Alternate EOF in Irvine, **NOTIFY** OSC Security Coordinator and TSC Security Leader of your PAX number.

## 6.0 **RE-ENTRY INTO EVACUATED EOF**

6.1 **WHEN** requested by personnel coordinating re-entry efforts, **THEN PERFORM** necessary security support functions to facilitate re-entry.


## 7.0 **RADIO USE DURING A SECURITY EMERGENCY**

7.1 **IF** possibility of a bomb or other explosive device exists, **THEN ADVISE** EOF EPC or CED to announce restrictions of radio transmissions for a 300-foot radius from device location.

## 8.0 **TURNOVER**

8.1 **CONDUCT** turnover with oncoming EOF Security Director per Form EP(123) 5, Turnover Status.



	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 31 of 62
	<b>EOF Security Director Checklist</b>	

- 8.2     **RECORD** completion of turnover in Security Liaison Log, **AND REPORT** completion of turnover to Security Director and EOF EPC.
- 9.0     **EVENT CLOSEOUT**
- 9.1     **OPEN** EOF steel doors **AND RETURN** temporary security badges to storage.
- 9.2     EOF members LOG OUT of SEAS at the Security Office.

### **POSITION CHECKLIST**

#### Administrative Leader Supplemental Position Instruction Table of Contents

Section Number	Title	Page
9.0	ACTIVATION .....	38
0	.....	38
10.0	SITE AREA EMERGENCY/SITE ASSEMBLY .....	38
0	.....	38
11.0	EMERGENCY RESPONSE COORDINATION .....	38
0	.....	38
0	.....	38
0	.....	38
0	.....	38
12.0	LOGISTICAL SUPPORT .....	38
0	.....	39
0	.....	39

#### **NOTE**

1. Sections 9.0 through 12.0 provide supplemental instructions for performing the Administrative Leader duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.


#### **1.0    INITIAL ACTIONS**

##### **1.1    REFER** the following contained in position notebook:

- EP(123) 5, Turnover Status
- EP(123) 6, Emergency Response Log Book
- EP(123) EOF-5, Reporting Of Accidents
- EP(123) EOF-6, Notification Of Emergency Contact
- EP(123) ERO-4, Site And Local Assembly Area Tracking Sheet
- EP(123) ERO-6, Assembly Area Briefing Script

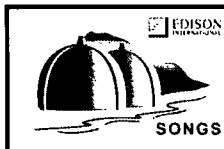
##### **1.2    WHEN** ready to perform your ERO function, **THEN SIGN-IN** on the EOF minimum staffing board.

##### **1.3    ESTABLISH AND MAINTAIN** a log using form EP(123) 6.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 33 of 62

<b>EOF Administrative Leader Checklist</b>	<b>Attachment 5</b>
--	---------------------

- 1.4 **ASSIST** EOF Security Director and EOF Emergency Planning Coordinator (EPC) with activation of the EOF.
- 1.5 **ASSIST** the EPC with facility set-up.
- 1.6 **COORDINATE** the following:
  - 1.6.1 Set-up of the hard-copy distribution boxes.
  - 1.6.2 Distributing/sending FAX messages.
  - 1.6.3 Providing and distributing copies.
  - 1.6.4 Providing Corporate Documentation Management (CDM) support to the OSC and TSC.
- 1.7 **CONSULT** with the EPC with questions.
- 1.8 IF a bomb threat is received, **THEN IMPLEMENT** SO123-IV-9.6, Bomb Threats.
- 2.0 **EMERGENCY RESPONSE COORDINATION**
- 2.1 Administrative Support
  - 2.1.1 **CONSULT** with EPC and other facility leaders to determine the need for resources or support.
  - 2.1.2 **ENSURE** material is copied and distributed.
    - 2.1.2.1 **CONSULT** with the EPC with questions on distribution of material.
  - 2.1.3 **ENSURE** distribution boxes, assigned to Offsite Dose Assessment Center (ODAC), and Offsite Liaison are checked periodically for material to distribute.
  - 2.1.4 **COORDINATE** food and lodging for Emergency Response Personnel via ERTD Corporate Support contacts.
- 2.2 CDM Support
  - 2.2.1 **REQUEST** support from Information Governance (Rosemead) or CDM Pomona at PAX 61633 for assistance with required drawings, manuals, or documents.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 34 of 62

### EOF Administrative Leader Checklist

### Attachment 5

#### 2.3 Facsimile Operations

##### 2.3.1 **ENSURE** material is faxed.

- Initial News Release as delivered by the EOF Manager/EPC: FAX to the Joint Information Center (JIC) and the Technical Support Center (TSC).
- Subsequent News Releases: FAX to the TSC.
- Offsite Dose Assessment Center Notification Forms: FAX as directed by ODAC personnel.

#### 2.4 Recall of Additional Personnel

##### 2.4.1 **CONSULT** with EOF RP Leader and Security Director to determine safest and most direct route to plant.

##### 2.4.2 **INFORM** EOF Leaders, TSC Manager, OSC (Emergency Planning Coordinator) and CR (Operations Leader) of relief shift plans (as discussed with CED or EOF Manager).

##### 2.4.3 **COORDINATE** recall, advising requested recall personnel, including relief shift reporting time and route recalled personnel should take to plant. [NN 201507385]

##### 2.4.4 **ENSURE** recall of requested personnel is coordinated, as directed.

##### 2.4.5 **COORDINATE** recall for EOF, TSC, OSC and CR personnel.

##### 2.4.6 **OBTAIN** a copy of relief rosters from TSC Manager and OSC Emergency Planning Coordinator (EPC).

##### 2.4.7 **TRACK** current staffing and relief staffing.

#### 3.0 **EOF TELEPHONE OPERATIONS**

##### 3.1 **ENSURE** incoming messages are delivered directly to EOF personnel (including local, state and federal representatives).

#### 4.0 **CONTINUING ACTIONS**

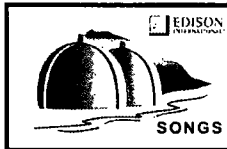
- 4.1 **DETERMINE** from any ERO Leader whether they are aware of any injuries or fatalities that have occurred.
- 4.1.1 **REPORT** injuries or fatalities to EC, CED, Operations Leader, Joint Information Center (JIC) Director and Grid Control Center (GCC) per EP(123) EOF-5, Reporting of Accidents.
- 4.1.2 **NOTIFY** emergency contacts per, EP(123) ERO-4, Site and Local Assembly Area Tracking Sheet
- 4.2 **REPORT** phone problems to Telecommunications Control Center at PAX 51200.
- 4.3 **IF** conditions exist which require EOF evacuation, **THEN ASSIST** the EPC with relocation activities to the Alternate EOF at the Irvine Operations Center.
- 4.4 Upon arrival at the Alternate EOF, **ASSIST** the EPC with the set up and activation.

#### 5.0 **SITE AREA EMERGENCY/SITE ASSEMBLY**

##### **NOTE**

1. Site Assembly followed by site evacuation is mandatory for all non-emergency response personnel at a Site Area Emergency or higher classification, unless assembly or evacuation exposes personnel to a greater hazard.
2. Site Assembly is mandatory for Camp Mesa during an Alert classification.
3. CED will use form EP(123) EOF-17, Guidance for Assembly/Evacuation of Non-Essential Personnel for Assembly and Evacuation.

- 5.1 **COMPLETE** EP(123) ERO-6, Assembly Area Briefing Script.
- 5.2 **COORDINATE** with EOF Radiation Protection Leader to identify the following:
- 5.2.1 Alternate Assembly Area(s) when an assembly area(s) is contaminated or when radiation levels are high near an assembly area.
- 5.2.1.1 **CONTACT** affected Assembly Area with relocation information.
- 5.2.1.2 **UPDATE** EP(123) ERO-4, Site and Local Assembly Area Tracking Sheet, with updated location.
- 5.2.1.3 Parking lot(s) inaccessible due to radiological or other hazardous conditions.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists


SO123-VIII-EOF  
REV: 1

Page 36 of 62

### EOF Administrative Leader Checklist

### Attachment 5

- 5.3 **TRACK** activation of Site and Local Assembly Areas EP(123) ERO-4, Site and Local Assembly Area Tracking Sheet.
- 5.4 **OBTAIN** CED review and approval on Assembly Area Coordinators using EP(123) ERO-6, Assembly Area Briefing Script, forms prior to disseminating information to Assembly Areas. Include the following:
- Emergency Classification
  - Radioactive Release in progress
  - Application or Removal of **NO** eating, drinking, or smoking rule
  - Parking lot or other areas closed due to radiological or other hazardous conditions
  - Evacuation Route direction and need to report to Reception Centers
  - Other plant information appropriate to the event as directed by CED (i.e., PARs issue, PADs implemented, actions planned or underway)
- 5.5 **OBTAIN** a head count of carpool riders who need transportation from Assembly Area Coordinators.
- 5.6 **COORDINATE** with RP and Security Leaders (SL) to obtain a count of vehicles affected by actual or potential parking lot closures given current or forecast radiological and weather conditions.
- 5.7 **ESTIMATE** number of 40 passenger buses that may be required using the following calculation:
- 5.7.1 Buses Required = (Impacted Vehicles + carpool riders who need transportation)  
X 0.03125
- 5.7.2 Contact number listed in Emergency Response Telephone Directory (ERTD), under Transportation, to request dispatch for needed vehicles.
- 6.0 **SITE EVACUATION**
- 6.1 **WHEN** a site evacuation has been directed by SED, **THEN**:
- 6.1.1 **OBTAIN** direction from EOF RP leader and EOF Security Director for evacuation via north, south, or normal departure routes.
- 6.1.2 **ENSURE** Assembly Area coordinators received PA information **AND VERIFY** evacuation direction (north, south, or normal departure routes).
- 6.1.3 **ENSURE** Assembly Area coordinators hold personnel whose transportation is inaccessible until requested transportation arrives.
- 6.1.4 **ENSURE** Assembly Area coordinators contact Administrative Leader when evacuation is complete.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 37 of 62
EOF Administrative Leader Checklist		<b>Attachment 5</b>

7.0 **TURNOVER**

7.1 **CONDUCT** turnover with oncoming Administrative Leader per Form EP(123) 5.


7.2 **REPORT** completion of turnover to Emergency Planning Coordinator **AND** **RECORD** completion of turnover in Administrative Leader Log.

8.0 **RECOVERY**

8.1 **WHEN** requested by SED, or CED, **THEN**

8.1.1 **EVALUATE AND REPORT** assessment of spare parts and equipment, site documents, and other administrative areas.

8.1.2 **RECOMMEND** additional personnel and equipment necessary for a Recovery Organization.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 38 of 62
<b>EOF Administrative Leader Checklist</b>		<b>Attachment 5</b>

### **SUPPLEMENTAL POSITION INSTRUCTION**

#### **NOTE**

1. Sections 9.0 through 12.0 provide supplemental instructions for performing the Administrative Leader duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.
3. The following steps are an enhancement to the position checklist. Placekeeping is not required.

#### **9.0     ACTIVATION**

- 9.1     **REFER** to the Emergency Response Telephone Directory (ERTD), located in the Administrative Leader notebook, as a source of phone numbers during declared emergencies.
- 9.2     **REPORT** status of Administrative staffing to the Emergency Planning Coordinator (EPC).
- 9.3     **PROVIDE** supplies for other emergency responders.
- 9.4     **REVIEW** the checklist periodically during emergency response and following each reclassification.

#### **10.0    SITE AREA EMERGENCY/SITE ASSEMBLY**

- 10.1    Continuously **UPDATE** all EP(123) ERO-6, Assembly Area Briefing Script, forms.

#### **11.0    EMERGENCY RESPONSE COORDINATION**

- 11.1.1   Facsimiles received at the EOF may include:

- Turnover Status Forms: Deliver to the Corporate Emergency Director or EPC.
- Recall Roster: Deliver to the EPC.
- Technical Team Data: Deliver to the Technical Leader.


#### **12.0    LOGISTICAL SUPPORT**

- 12.1    Recall of Additional Personnel

- 12.1.1   **IF** ERO Leaders request recall of additional personnel, **THEN**:

- 12.1.1.1   **CONSULT** with EOF RP Leader and Security Director to determine safest and most direct route to plant.



	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 39 of 62
<b>EOF Administrative Leader Checklist</b>		<b>Attachment 5</b>

12.2    Administrative Support

12.2.1    IF emergency response personnel may be required on shift for 4 hours, THEN DISCUSS need for the following with CED or EOF Manager:

- Work Hours Controls
- On shift and management personnel recall
- Food and lodging

|

### **POSITION CHECKLIST**

#### Emergency Planning Coordinator Supplemental Instruction Table of Contents

Section Number	Title	Page
3.0	ACTIVITIES TO SUPPORT THE EOF DURING A SECURITY-RELATED NOTIFICATION OF UNUSUAL EVENT AFTER ARRIVING AT THE EOF .....	43
4.0	ACTIVITIES TO SUPPORT THE EOF DURING AN ALERT OR HIGHER CLASSIFICATION ..	43
5.0	MEDIA RESPONSE TEAM .....	44
6.0	NOTIFICATIONS AFTER EC TURNOVER TO CED .....	44
7.0	REPETITIVE ACTIONS .....	44
8.0	EMERGENCY DIESEL GENERATOR OPERATIONS .....	45
9.0	EOF HVAC SYSTEM .....	45
10.0	ASSIST WITH THE PLACEMENT OF PERSONNEL DURING A RELOCATION OF TSC AND/OR OSC TO THE EOF .....	45

#### **NOTE**

1. Sections 3.0 through 10.0 provide supplemental instructions for performing the Emergency Planning Coordinator duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.

#### 1.0 **INITIAL ACTIONS**

1.1 **REFER to** the following contained in position notebook:

- EP (123) 5, Turnover Status
- EP (123) 6, Emergency Response Log Book
- EP(123) EOF-4, EOF HVAC System


1.2 **WHEN** ready to perform your ERO function, **THEN SIGN-IN** on the EOF minimum staffing board.

1.3 **ESTABLISH AND MAINTAIN** a log using form EP(123) 6.

1.4 **UNLOCK** all emergency response cabinets and equipment (i.e., desk drawers, YPS cabinet, E-kits and CDM cabinets).

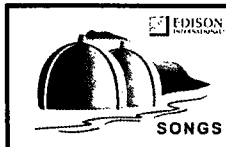
1.5 **REPORT** to the CED and review staffing requirements.

1.6 **ENSURE** leader books are distributed and assist in facility setup.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 41 of 62

<b>EOF Emergency Planning Coordinator Checklist</b>	<b>Attachment 6</b>
---	---------------------

- 1.7 **ENSURE** the FAX clock is synchronized clock to the EOF wall clock (Atomic Clock).
- 1.8 **REMIND** personnel to check PAX phones for dial tone and the ringer control is turned on.
- 2.0 **CONTINUING ACTIONS**
- 2.1 Activities to Support the EOF During a Security-Related Notification of Unusual Event after arriving at the EOF:
  - 2.1.1 **REMIND** personnel to sign-in on the Minimum Staffing Board and to scan their badge on the EOF card reader in the hall by the Security post.
  - 2.1.2 **INTERFACE** with and provide information relating to the event to the JIC Director/Spokesperson while they are at the site.
  - 2.1.3 **CALL** in additional support to provide information to the JIC Director/Spokesperson while they are at the site.
  - 2.1.4 **TRACK** CED briefings (approximately every 30 minutes).
- 2.2 Activities to Support the EOF During an Alert or Higher Classification:
  - 2.2.1 **REMIND** personnel to sign-in on the Minimum Staffing Board and to scan their badge on the EOF card reader in the hall by the Security post.
  - 2.2.2 **CONTACT** JIC for activation times and notify the CED and SRO Briefer (to announce over Ivory Phone).
- 2.3 **OBTAIN** media response team location, and request Security to send media to that location.
- 2.4 **ENSURE** the Emergency Advisor, Notifications initiates offsite notifications immediately following changes of emergency class, upgrade in PAR including additional PAZ(s), start or stop of a radiological release.
- 2.5 **OBTAIN** status of offsite sirens from the Telecom Control Center (TCC) in Irvine (PAX 51200).
  - 2.5.1 **REVIEW** with EOF Manager and advise CED of compensatory actions.
- 2.6 **MAKE** brief EOF PA announcement following CED briefings (as directed by the CED).
- 2.7 Emergency Diesel Generator Operations:
  - 2.7.1 **IF** normal power is lost, **THEN** **VERIFY** proper emergency diesel generator operation.
- 2.8 EOF HVAC System: (per Attachment 3)



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists


SO123-VIII-EOF  
REV: 1

Page 42 of 62

### EOF Emergency Planning Coordinator Checklist

### Attachment 6

- 2.8.1 **ENSURE** EOF HVAC system is in the proper mode.
- 2.9 Assist with the placement of personnel during a relocation of TSC and/or OSC to the EOF.
- 2.9.1 **RELOCATE** the following position with their counterparts:
- SED/CED
  - Emergency Advisor Operations/SRO Briefer
  - TSC Technical Lead/EOF Technical Lead
  - TSC RP Leader/EOF RP Leader
- 2.9.2 **ASSEMBLE** remaining TSC staff in E-50, Classroom 11.
- 2.9.3 **ASSEMBLE** OSC staff in E-50, Learning Center A/B.
- 2.9.4 Additional classrooms may also be utilized.
- 2.10 IF staffing of the EOF is not progressing as expected, THEN **COORDINATE** with the Security Director WHEN contacting the ERO staging locations to ensure contact is made and NOT duplicated.
- 2.10.1 **MAKE** contact with the ERO Staging locations to determine if there are responders awaiting instruction or assistance in responding to their ERF. The telephone numbers are located in the ERTD.
- The north staging location is the CHP Office at San Juan Capistrano.
  - The south staging location is the CHP Office at Oceanside.
- 2.10.2 **DETERMINE** the amount of SONGS ERP that are at each staging location.
- **ENSURE** that you have a name of an ERO contact at the staging location **AND** **MAKE** periodic contact with him/her providing status updates.
- 2.10.3 **RECORD** information acquired from the staging location.
- **PROVIDE** your telephone number to the staging location contacts.
  - **PROVIDE** information regarding the staging locations to the Security Director.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 43 of 62
<b>EOF Emergency Planning Coordinator Checklist</b>		<b>Attachment 6</b>

### **SUPPLEMENTAL POSITION INSTRUCTION**

#### **NOTE**


1. Sections 3.0 through 10.0 provide supplemental instructions for performing the Emergency Planning Coordinator duties and may be referenced for clarification of duties.
2. Steps may be performed in any order or concurrently.
3. The following steps are an enhancement to the position checklist. Placekeeping is not required.

#### **3.0 ACTIVITIES TO SUPPORT THE EOF DURING A SECURITY-RELATED NOTIFICATION OF UNUSUAL EVENT AFTER ARRIVING AT THE EOF**

- 3.1 **REPORT** to the CED **AND REVIEW** staffing requirements.
- 3.2 **UNLOCK** all emergency response cabinets and equipment (i.e., desk drawers, YPS cabinet, E-kits and CDM cabinets).
- 3.3 **ENSURE** leader books are distributed **AND ASSIST** in facility setup.
- 3.4 **ENSURE** the FAX clock is synchronized to the EOF wall clock (Atomic Clock).
- 3.5 **INTERFACE** with **AND PROVIDE** information relating to the event to the JIC Director/Spokesperson while they are at the site.
- 3.6 **CALL IN** additional support to provide information to the JIC Director/Spokesperson while they are at the site.

#### **4.0 ACTIVITIES TO SUPPORT THE EOF DURING AN ALERT OR HIGHER CLASSIFICATION**

- 4.1 **REPORT** to the CED **AND REVIEW** staffing requirements.
- 4.2 **REMIND** personnel to sign-in on the Minimum Staffing Board and to scan their badge on the EOF card reader in the hall by the Security office.
- 4.3 **UNLOCK** all emergency response cabinets and equipment (i.e., desk drawers, YPS cabinet, E-kits and CDM cabinets).
- 4.4 **ENSURE** leader books are distributed **AND ASSIST** in facility setup.
- 4.5 **CONTACT** JIC for activation times **AND NOTIFY** the CED EOF Technical Leader (to announce over Ivory Phone).

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 44 of 62
---	--	---

<b>EOF Emergency Planning Coordinator Checklist</b>	<b>Attachment 6</b>
---	---------------------

## 5.0 **MEDIA RESPONSE TEAM**

### **NOTE**

Prior to JIC activation, a media response team will report to a near site location to manage the media that will report to SONGS. The specific location will depend on the incident and the ability to get to SONGS (i.e., road closures).

5.1 **OBTAIN** media response team location, **AND REQUEST** Security to send media to that location.

## 6.0 **NOTIFICATIONS AFTER EC TURNOVER TO CED**

6.1 **ENSURE** the EOF Emergency Advisor, Notifications is making notifications per SO123-VIII-30.7, Emergency Notifications and time requirements are being met.

6.2 **ASSIST** the EOF Emergency Advisor, Notifications with the printed message hand-drafted Event Notification Form (ENF) to ensure sufficient time to meet the 30-minute requirement.

6.3 **OBTAIN** status of offsite sirens from the Telecom Control Center (TCC) in Irvine (PAX 51200).

6.3.1 **REVIEW** with EOF Manager and advise CED of compensatory actions.

## 7.0 **REPETITIVE ACTIONS**

7.1 **ENSURE** the CED provides facility briefings about every 30 minutes.

7.2 **MAKE** EOF PA announcements following:

- Event reclassification
- EOF activation
- Turnover of EC duties

7.3 **ENSURE** the proper declaration time and event code are posted on the Plant Status Board.

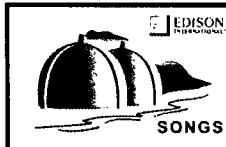
7.4 **CONTACT** TSC Manager in TSC **AND ASK** for the top 3 to 4 priorities the TSC is tracking.

7.5 **PLACE** these top priorities under Onsite Portion of the Priority Status Board.

7.6 **PLACE** additional EOF priorities on the Priority Status Board, as directed by the CED.

7.7 **OBTAIN** offsite siren status from the TCC in Irvine at PAX 51200. **REVIEW** status with the EOF Manager **AND ADVISE** the CED of any required compensatory actions.

7.8 **REVIEW** this checklist frequently, specifically after emergency class changes.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 45 of 62

### EOF Emergency Planning Coordinator Checklist

Attachment 6

#### 8.0 **EMERGENCY DIESEL GENERATOR OPERATIONS**

8.1 IF power is lost and the diesel generator automatically starts, THEN CHECK the diesel for proper operation by:

8.1.1 **GO TO** EOF Security Office (302 Watch).

8.1.2 **REVIEW** the Diesel Generator Remote Control Panel EOFL0002 for any Alarms or noticeable problems with the Panel.

8.1.3 IF any noticeable problems are found with the Diesel Generator Remote Control Panel EOFL0002, THEN NOTIFY the CED and Site Support Services of problems.

8.1.4 IF any portion of the panel is in Alarm, THEN NOTIFY the CED and Site Support Services of Alarms.

8.1.5 **REQUEST** the Security Force person to notify you at PAX 83811 or 83821 if any Alarms come in on the Diesel Generator Remote Control Panel EOFL0002.

#### 9.0 **EOF HVAC SYSTEM**

9.1 WHEN requested by the RP Leader, THEN PLACE the EOF HVAC system in either the emergency filtration or isolation mode using EP(123) EOF-4, EOF HVAC System. **ASSIST** the CED to ensure that the number of personnel in the controlled ventilation area are maintained within permissible limits as described in EP(123) EOF-4, EOF HVAC System, Section 3 Caution statements.

9.2 **ENSURE** EOF HVAC system is in the proper mode IAW EP(123) EOF-4.

#### 10.0 **ASSIST WITH THE PLACEMENT OF PERSONNEL DURING A RELOCATION OF TSC AND/OR OSC TO THE EOF**


10.1 **RELOCATE** the following position with their counterparts:

- SED / CED
- Emergency Advisor Operations / SRO Briefer
- TSC Technical Leader / EOF Technical Leader
- TSC RP Leader / EOF RP Leader

10.2 **ASSEMBLE** remaining TSC staff in E-50, Classroom 11.

10.3 **ASSEMBLE** OSC staff in E-50, Learning Center A / B


10.4 **ADDITIONAL** classrooms may also be utilized.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 46 of 62

<b>EOF Emergency Planning Coordinator Checklist</b>	<b>Attachment 6</b>
---	---------------------

- 10.5 IF staffing of the EOF is **NOT** progressing as expected, THEN **COORDINATE** with the Security Director when contacting the ERO staging locations to ensure contact is made and **NOT** duplicated.
- 10.6 **MAKE** contact with the ERO Staging locations to determine if there are responders awaiting instruction or assistance in responding to their ERF. The telephone numbers are located in the ERTD.
  - The north staging location is the CHP Office at San Juan Capistrano.
  - The south staging location is the CHP Office at Oceanside.
- 10.7 **DETERMINE** the amount of SONGS ERP that are at each staging location.
  - 10.7.1 **ENSURE** that you have a name of an ERO contact at the staging location **AND MAKE** periodic contact with him/her providing status updates.
  - 10.7.2 **RECORD** information acquired from the staging location.
  - 10.7.3 **PROVIDE** your telephone number to the staging location contacts.
  - 10.7.4 **PROVIDE** information regarding the staging locations to the Security Director.
- 10.8 Communication with Media Response Team and JIC
  - 10.8.1 **OBTAIN** media response team location from the JIC Communications/Technical Liaison.
  - 10.8.2 **REQUEST** Security to direct media to the media response team near site location or to the JIC.



	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF</b> <b>REV: 1</b>  Page 47 of 62
<b>EOF Radiation Protection Leader Checklist</b>		<b>Attachment 7</b>

### **POSITION CHECKLIST**

#### **NOTE**

Steps may be performed in any order or concurrently.

#### **1.0 INITIAL TASKS**

**1.1 ENSURE** the following is contained in position notebook:

- EP (123) 5, Turnover Status
- EP (123) 6, Emergency Response Log Book
- EP (123) EOF 4, EOF HVAC System
- EP(123) EOF-9, Radioactive Release Data For Joint Information Center
- EP(123) EOF-10, Environmental Sample Log
- EP(123) EOF-13, Offsite Field Monitoring Team Briefing/Instructions
- EP(123) EOF-14, CDE Thyroid Correction Factor
- EP(123) EOF-15, Offsite Field Monitoring Team Data Vs. Raddose-V Plume Data
- EP(123) ERO-3, Authorization To Issue Potassium Iodide
- EP(123) ERO-9, Response Team Guidelines
- EP(123) OFMT-2, Dosimetry Log
- EP(123) OFMT-3, Offsite Field Monitoring Team Survey/Sampling Log

**1.2 WHEN** ready to perform your ERO function, **THEN SIGN-IN** on the EOF minimum staffing board.

**1.3 Test** PAX phone.

**1.4 REPORT** equipment malfunctions to the EOF Emergency Planning Coordinator or Telecommunications Control Center at PAX 51200.

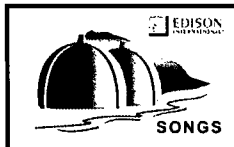
**1.5 ESTABLISH AND MAINTAIN** a log using form EP (123) 6.

**1.6 REPORT** all radiation monitoring equipment malfunctions to OSC RP Coordinator.

**1.7 SET-UP/CHECK** air and dose rate monitoring equipment in EOF.

**1.8 PERFORM** surveys in EOF to assess potential exposure to EOF personnel.

**1.9 PROVIDE** RP support to individuals planning to approach EOF by air or ground.




## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

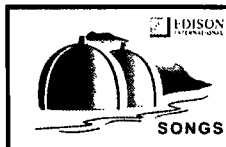
SO123-VIII-EOF  
REV: 1

Page 48 of 62

### EOF Radiation Protection Leader Checklist

Attachment 7

- 1.10 **CONTACT** TSC RP Leader upon arrival **AND CHECK** on any abnormal radiological conditions, radiation monitor readings, or radiological release.
- 1.11 **ASSIST** the EOF Security Director and the EOF Emergency Planning Coordinator with the activation of the EOF.
- 1.12 **ASSIST** with PAR development.
- 1.13 **ENSURE** Offsite field monitoring teams are dispatched and being controlled in accordance with Attachment 9, EOF Offsite Field Monitoring Team Checklist.
  - 1.13.1 The EOF RP Leader may retain Field Monitoring Team members in the EOF to assist in EOF activities.
- 2.0 **CONTINUING ACTIONS**
  - 2.1 **MAINTAIN** communications between the TSC and OSC.
  - 2.2  **CHECK** area radiation monitors (e.g., north EOF door, south EOF door, east EOF door and E49 Conference Room) for operability and trends at least hourly.
  - 2.3 **POST** source term, radiation levels and weather conditions on EOF Radiation Status Board periodically.
  - 2.4 **TRACK** onsite and offsite field teams by number, location, and dose rate.
  - 2.5 As dose rate data is updated, **INDICATE** an increasing trend with an up arrow and a decreasing trend with a down arrow.
  - 2.6 **ENSURE** one Raddose-V computer is being operated in the SLAVE mode.
  - 2.7 Immediately **NOTIFY** CED, Technical Team Leader, and TSC RP Leader of any changing radiological conditions thought to be significant.
  - 2.8 **COMPLETE** form EP(123) EOF-9, Radioactive Release Data For Joint Information Center for any changing radiological conditions.
  - 2.9 Declared General Emergency **OR** a Radiological Release in Progress
    - 2.9.1 **IF** a radiological release starts or stops, **THEN PERFORM** the following:
      - 2.9.1.1 **NOTIFY** the CED of the start or stop of any radiological release and the applicable start/stop times.
      - 2.9.1.2 **NOTIFY** the EOF Emergency Advisor Notifications of the start or stop of a radiological release and the applicable start/stop times.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 49 of 62

### EOF Radiation Protection Leader Checklist

Attachment 7

2.9.1.3 **MAKE** an announcement in the EOF of the start/stop of the radiological release including applicable time.

2.9.2 **CONSIDER** requesting EPC to place EOF HVAC into Emergency Filtration Mode.



2.9.3 **CHECK** the 15-minute average "from" wind speed every 15-minutes for possible impact on the EOF and PAR upgrade.



2.9.4 IF conditions require surveys of EOF, THEN PERFORM surveys of EOF are being performed every 30 minutes or more often.

2.9.5 Until surveys are performed showing **NO** radiological contamination, THEN CONSIDER prohibiting eating and drinking in the EOF.

2.9.6 **ENSURE** Offsite field monitoring teams briefing/review of offsite field team monitoring information is performed with ODAC.

2.9.7 **REQUEST** radiological information from onsite and offsite field monitoring teams.

### 3.0 CHEMICAL OR GASEOUS RELEASE

3.1 IF a chemical or gaseous release is in progress **AND IF** the wind direction "from" is 135 degrees to "from" 165 degrees, THEN CONSIDER requesting EPC to place EOF HVAC in Isolation Mode.

### 4.0 EOF DOSIMETER ISSUE

4.1 **ENSURE** personnel who may receive exposures in excess of 10 CFR 20 limits have authorization from EC/SED.

4.2 **MAINTAIN** a hard copy exposure and dose-tracking records, form EP(123) OFMT-2, Dosimetry Log, for all personnel assigned to EOF.

4.3 **ENSURE** SRDs are issued when dose rates reach 2.5 mR/hr in EOF.


### 5.0 MONITORING COORDINATION

5.1 **PREPARE** Offsite Field Monitoring Team briefing IAW EP(123)-EOF-13 (Offsite Field Monitoring Team Briefing/Instructions) and Offsite Field Monitoring Team Briefing Guidelines (pages 5 and 6 of this attachment).

5.1.1 **COORDINATE** placement of Field Monitoring Teams with Offsite Dose Assessment Center (ODAC), as time and circumstances permit.

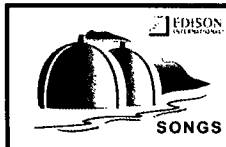
5.2 **PERFORM** a briefing to the Field Monitoring Team(s) IAW form EP(123) EOF-13 (Offsite Field Monitoring Team Briefing/Instructions).

5.3 **PERFORM** communication checks with the Field Monitoring Team hand held portable radios.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>
		Page 50 of 62

<b>EOF Radiation Protection Leader Checklist</b>	<b>Attachment 7</b>
--	---------------------

- 5.4 **STAY** in communications with **AND DIRECT** the Onsite and Offsite Field Monitoring Team(s).
- 5.5 During the recovery phase **RECORD** field monitoring survey and sampling data on EP(123) EOF-10, Environmental Sample Log.
- 5.6 **PERFORM** appropriate calculations using field monitoring survey and sampling data IAW SO123-VIII-40.300, form EP(123) EOF-10, Environmental Sample Log, and EP(123) EOF-14, CDE Thyroid Correction Factor, as time permits.
- 5.7 **RECORD** Offsite Field Monitoring Team locations and survey data on appropriate map.
- 5.8 **SHARE** field monitoring data with ODAC representative.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 51 of 62

EOF Radiation Protection Leader Checklist

Attachment 7

### OFFSITE FIELD MONITORING TEAM BRIEFING GUIDELINES

#### 1.0 **ACTIONS**

##### 1.1 Radio Protocol

1.1.1 **ENSURE** radio protocol is conducted in the following manner:

1.1.1.1 **USE** of 3-way communications (REPEAT BACKS).

1.1.1.2 **USE** of the phonetic alphabet.

1.1.1.3 Do **NOT** **USE** slang or profanity.

1.1.1.4 **LIMIT** use of acronyms and abbreviations.

1.2 **ENSURE** the Radiation Protection Leader has a cell phone number for the Offsite Field Monitoring Team(s).

##### 1.3 Potassium Iodide (KI)

1.3.1 IF member(s) of the Offsite Field Monitoring Team(s) is allergic or believes he/she may be allergic to KI, **THEN** **CONSIDER** possible reassignment of individual.

1.3.2 IF the Offsite Field Monitoring Team have been or will be exposed to a Thyroid CDE in excess of 25 rem, **THEN** **REFER** to **AND** **SIGN** EP(123) ERO-3, Authorization To Issue Potassium Iodide in preparation of taking KI.

##### 1.4 Meteorological Conditions


1.4.1 **OBTAIN AND PROVIDE** current and forecast meteorological information to Offsite Field Monitoring Team(s) including the following:

- Wind direction(s) and map areas (Sectors) that are or may be impacted
- Wind Speed
- Precipitation

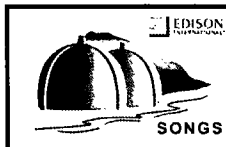
##### 1.5 Hazards

1.5.1 **ENSURE** any current road hazards that are known are included in the briefing such as:

- Flooded Roads
- Closed Roads
- Traffic Accidents

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 52 of 62
<b>EOF Radiation Protection Leader Checklist</b>		<b>Attachment 7</b>

- 1.5.2      **EMPHASIZE** that personnel safety is a higher priority than obtaining surveys and/or samples.
  
- 1.5.2.1    IF it is **NOT** safe to survey/sample from the requested location due to traffic, surroundings, etc, **THEN RELOCATE** to an area close to the original requested survey/sampling location **AND BEGIN** survey/sampling.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 53 of 62

EOF Emergency Advisor, Notifications Checklist

Attachment 8

### POSITION CHECKLIST

#### NOTE

Steps may be performed in any order or concurrently.

#### 1.0 INITIAL ACTIONS

1.1 **ENSURE** the following is contained in position notebook:

- EP(123) 6, Emergency Response Log Book
- EP(123) 10, Event Notification Form
- EP(123) 11, Verbal Notification Form

1.2 **VERIFY** YPS equipment is ready for use.

1.2.1 **VERIFY** the YPS is operational by calling at least one other Emergency Response Facilities (TSC 37, EOF 35, CR 38).

1.2.2 **VERIFY** fax clock is set to facility clock. (The Pacific Time Zone at <http://www.time.gov> can be used as a backup, JAVA animation may need to be disabled.)

1.2.3 **TEST** fax transmission of YPS and backup fax.

1.2.4 **CHECK** paper supply to ensure there is enough paper.

1.3 **IF** YPS equipment is not working properly, **THEN** **CONTACT** Telecommunications Control Center at PAX 51200.

1.4 **ESTABLISH AND MAINTAIN** a log of all decisions and actions required by EIPs, **AND IDENTIFY** items requiring feedback.

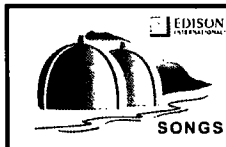
1.5 **SIGN-ON** to the Staffing Board.

1.6 **OBTAIN** emergency status from status boards and ERO leaders and previous ENF/VNFs for the event.

1.7 **MAINTAIN** the Notification Status Board.

1.8 **MONITOR** the Yellow Phone using the orator.

1.9 **IF** transfer of EC duties to Corporate Emergency Director (CED) has occurred, **THEN** **ASSUME** responsibility for notifications **AND** **CONTACT** TSC EAN to confirm transfer of duties.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 54 of 62

### EOF Emergency Advisor, Notifications Checklist

Attachment 8

- 1.10 **WHEN** the SED conducts turnover of EC functions to the EOF, **THEN REVIEW** the status of notifications with the TSC EA, Notifications to determine which facility should complete the notifications.
- 1.11 **COMPLETE** Form EP(123) 11, Verbal Notification, based on Event declaration, PAR upgrade, start or stop of radiological release, activation of the EOF/Alternate EOF, and follow-up or close out message requirements.
- 2.0 **CONTINUING ACTIONS**
- 2.1 **VERIFY** notifications are initiated as soon as possible and **NO** later than the times indicated below (event declaration/reclassification, PAR upgrade, start or stop of radiological release sets EDT time 0):

NOTIFICATION TIME LIMITS		
TIME LIMIT	NOTIFICATION	RESPONSIBILITY
EDT + 15 minutes	EP(123) 11, Verbal to Local & State	EAN
As soon as possible but within 1 hour of EDT	Red Phone verbal to NRC	OPS
EDT + 30 minutes	EP(123) 10, ENF to Local & State	EAN
EDT + 90 minutes and every 60 minutes thereafter	EP(123) 10, ENF Follow-up	EAN

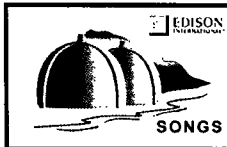
(EDT = Event Declaration Time)

- 2.2 **COMPLETE** Form EP(123) 11, Verbal Notification form (VNF), based on Event declaration, PAR upgrade, start or stop of radiological release and follow-up or close out message requirements (step may be repeated to facilitate completing new forms).



- 2.2.1 15-Minute Verbal Notification.
- 2.2.1.1 **PREPARE** Form EP(123) 11, Verbal Notification Form (VNF).
- 2.2.1.2 **OBTAIN** Verbal Notification independent Verification from EOF Manager and approval initials from the EC.
- 2.2.1.3 **PERFORM** Blue Phone verbal notification.
- 2.2.1.4 **PERFORM** YPS verbal notification IAW SO123-VIII-30.7, Emergency Notifications.
- 2.2.1.5 **REPORT** verbal notification status to the EC **AND UPDATE** notification board with actual times of notification.





## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 55 of 62

### EOF Emergency Advisor, Notifications Checklist

Attachment 8



#### 2.2.2 30-Minute Printed Message.

2.2.2.1 **ENTER AND PRINT** Event Notification Form (ENF), EP(123) 10.

2.2.2.2 **OBTAIN** EC approval on both forms.

2.2.2.3 **FAX** ENF to all YPS stations by pressing the BATCH TX key followed by the START key on the dedicated FAX Machine.

2.2.2.4 **FAX** ENF to the California Office of Emergency Services (CAL OES).

2.2.2.5 **RECORD** Fax start time on VNF, Section 6.0.

2.2.2.6 **FAX** completed VNF to TSC and/or EOF (ref ERTD).

2.2.2.7 **RECORD** printed message status on the Notification Board.

#### 2.2.3 Follow-Up Notification

2.2.3.1 **PREPARE** VNF (Sections 2 and 5 only).

2.2.3.2 **ENTER AND PRINT** ENF.

2.2.3.3 **OBTAIN** EC approval on both forms.

2.2.3.4 **PERFORM** blue and yellow phone verbal notification using VNF Sections 2 and 5.

2.2.3.5 **FAX** ENF to all YPS stations by pressing the BATCH TX key followed by the START key on the dedicated FAX Machine.

2.2.3.6 **FAX** ENF to the California Office of Emergency Services (CAL OES).

2.2.3.7 **RECORD** completion time on VNF, Section 6.0.

2.2.3.8 **FAX** completed VNF to TSC.

2.2.3.9 **RECORD** message status on the Notification Board.


#### 2.2.4 Close-out Notifications.

2.2.4.1 **PREPARE** VNF (Sections 2 and 5 only).

2.2.4.2 **ENTER AND PRINT** ENF.

2.2.4.3 **OBTAIN** EC approval on both forms.

2.2.4.4 **PERFORM** blue and yellow phone verbal notification using VNF Sections 2 and 5.

	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF</b> <b>REV: 1</b>  Page 56 of 62
---	--	---

<b>EOF Emergency Advisor, Notifications Checklist</b>	<b>Attachment 8</b>
---	---------------------

- 2.2.4.5 **FAX** ENF to all YPS stations by pressing the BATCH TX key followed by the START key on the dedicated FAX Machine.
- 2.2.4.6 **FAX** ENF to the California Office of Emergency Services (CAL OES).
- 2.2.4.7 **RECORD** completion time on VNF, Section 6.0.
- 2.2.4.8 **FAX** completed VNF to TSC and/or EOF.
- 2.2.4.9 **RECORD** printed message status on the Notification Board.

### 2.3 Administrative Actions.

- 2.3.1 **DELIVER** one copy of printed message to EOF Administrative Leader for distribution.

### 3.0 **YELLOW PHONE SYSTEM PROBLEMS**

- 3.1 IF there are YPS system problems, **THEN CONTACT** Telecom Control Center (TCC) at PAX 51200.

- 3.2 IF nearest YPS is not working or is inaccessible (i.e., equipment malfunction or uninhabitable atmosphere), **THEN** emergency notifications could be completed using the YPS at other Emergency Response Facilities, or from a safe location using the alternate telephone and fax numbers.

- 3.2.1 **REFER** to Verbal Notification Form, EP(123)11 for CAL OES alternate number. (**REFER** to ERTD for Yellow Phone alternate numbers.)

- 3.3 IF Yellow Phone Voice Circuit is completely inoperable, **THEN**:

- 3.3.1 Using the alternate number found in the ERTD, **CONTACT** Orange County (Station 27),


- 3.3.1.1 **READ** the VNF information **AND**

- 3.3.1.2 **INFORM** them the Yellow Phone is inoperable.

- 3.3.1.3 **REQUEST** Orange County relay the information to the cities of Dana Point, San Juan Capistrano and San Clemente.

- 3.3.2 **INFORM** the jurisdictions that further updates will be through the Yellow Phone Bridge Line (949-368-3800, access code 0852).

- 3.3.3 Using the alternate number found in the ERTD; **CONTACT** the San Diego County EOC (Station 46), USMC Command Center (Station 23), State Parks Dispatch (Station 29), Edison Generation Operations (Station 42).

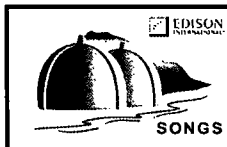
	<b>Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b>	<b>SO123-VIII-EOF REV: 1</b>  Page 57 of 62
<b>EOF Emergency Advisor, Notifications Checklist</b>		<b>Attachment 8</b>

- 3.3.3.1 **READ** the VNF information **AND**, **INFORM** them the Yellow Phone is inoperable.
- 3.3.3.2 **INFORM** the jurisdictions that further updates will be through the Yellow Phone Bridge Line (949-368-3800, access code 0852).
- 3.3.3.3 **INFORM** the jurisdictions that further updates will be through the Yellow Phone Bridge Line (949-368-3800, access code 0852).
- 3.3.4 **REPORT** all phone problems to EOF Telecom Supervisor, facility EPC or TSC Manager.
- 3.3.5 IF all stations report no message receipt, THEN **FAX** printed message from another fax machine.

**NOTE**

The following steps will tie an outside phone call directly into YPS. The station must maintain an open line.

- 3.4 IF a YPS voice circuit fails, THEN **CONTACT** affected station **AND** **DIRECT** them to dial (949) 368-3880 followed by Access Code 0852 to connect to YPS verbal circuit.
- 3.4.1 IF more than three backup lines are needed, THEN **CONTACT** affected station **AND** **DIRECT** them to dial (949) 368-3800 followed by Access Code 0852 to YPS verbal circuit.
- 3.4.2 Immediately **INFORM** Telecommunications Control Center at PAX 51200 of circuit problem.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 58 of 62

EOF Offsite Field Monitoring Team Checklist

Attachment 9

### POSITION CHECKLIST

#### NOTE

Steps may be performed in any order or concurrently.

#### 1.0 INITIAL ACTIONS

1.1 **SIGN-IN** on the EOF Position Sign-In Board.

1.2 **ENSURE** the following is contained in position notebook:

- EP(123) OFMT-1, Offsite Field Monitoring Team Equipment Inventory Checklist
- EP(123) OFMT-2, Dosimetry Log
- EP(123) OFMT-3, Offsite Field Monitoring Team Survey/Sampling Log

1.3 **REPORT** to EOF Radiation Protection (RP) Leader.

1.4 **OBTAIN** the Offsite Emergency Vehicle keys, room key, and Ekit key located in EOF key lock box.

1.5 The Offsite Field Monitoring Team (Monitor and/or Driver) **PERFORM** the following:

1.5.1 IF the seal on Cabinet Door 1 is intact, THEN Portable Action Kits (Black Cloth Brief Case) do **NOT** have to be inventoried prior to use.

1.5.2 IF the seal on Cabinet Door 1 is **NOT** intact, THEN **INVENTORY** the Portable Action Kits (PAKs) prior to use, using EP(123) OFMT-1, Offsite Field Monitoring Team Equipment Inventory Checklist.

1.6 **PERFORM** a response check on all count and dose rate instruments.

1.7 **PERFORM** Radio and/or cell phone checks.

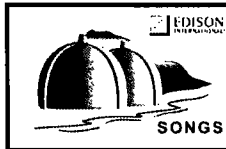
1.8 **READ AND ENSURE** you understand form EP(123) ERO-3 concerning the issuing of Potassium Iodide (KI).

1.9 **NOTIFY** the RP Leader if after reading form EP(123) ERO-3, you do **NOT** believe you can ingest KI.

1.10 **ZERO** dosimetry (self-reading or electronic).

1.11 **COMPLETE** dosimetry information form EP(123) OFMT-2, Dosimetry Log.

1.12 **GIVE** completed EP(123) OFMT-2, Dosimetry Log to EOF RP Leader.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 59 of 62

### EOF Offsite Field Monitoring Team Checklist

Attachment 9

- 1.13 **RECEIVE** a briefing from EOF RP Leader prior to leaving the EOF to perform survey and sampling duties.
- 1.14 **LOAD** equipment into Offsite Field Monitoring vehicle.

#### NOTE

Provide input to RP Leader due to changing conditions for the following items:

- Where to survey and sample
- To move to other survey/sampling locations
- Any observed changing radiological and/or meteorological conditions

Report any transportation or safety concerns.

### 2.0 IN FIELD ACTIONS

- 2.1 The Offsite Field Monitoring Team (Monitor) **PERFORM** the following:



- 2.1.1 **MAINTAIN** contact with the Radiation Protection Leader at least every 15 minutes.

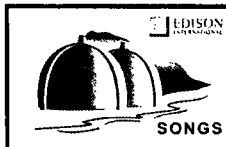


- 2.1.2 **MONITOR** dose rates and check dosimetry upon entering what is thought to be the radiological plume every 5 minutes.

#### NOTE

Air Samples should be taken for a total of 48 liters, which is 12 minutes for the default setting for Air Samplers used (running at 4LPM).

- 2.1.3 **TAKE** Air Samples as requested by RP Leader.
- 2.1.4 **USE** proper contamination controls to prevent cross contamination of samples, instruments, or other equipment.
- 2.1.5 **ENSURE** all appropriate survey and sampling information is recorded on EP(123) OFMT-3, Offsite Field Monitoring Team Survey/Sampling Log.
- 2.1.6 **TRANSMIT** all sample data recorded on EP(123) OFMT-3 to RP Leader.
- 2.1.7 **IF** the dose rate of a sample is greater than 5 mR/hr at 30 centimeters, THEN **STORE** the sample in back corner of the vehicle.



## Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 60 of 62

EOF Offsite Field Monitoring Team Checklist

Attachment 9

### NOTE

Low level contamination (background to 5,000 cpm above background by direct survey) of Offsite Field Team personnel or vehicle is **NOT** a reason for having them return to the EOF for decontamination.

2.2 **PERFORM** a cursory survey of all Offsite Field Monitoring Team members, equipment, and vehicle after exiting what was thought to be the radiological plume and when asked to return to the EOF.

2.2.1 **REPORT** back results to EOF Radiation Protection Leader.

2.2.2 Upon arrival at the EOF, **REMAIN** in vehicle until directed otherwise.

### 3.0 POST JOB-DEBRIEFING/TURNOVER

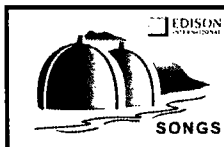
3.1 **PROVIDE** a post job briefing to the EOF RP Leader and the oncoming Offsite Field Monitoring Team(s), if available, concerning appropriate issues:

- Safety
- Traffic
- Gasoline Level
- Vehicle Contamination
- Equipment Contamination
- Vehicle Problems
- Equipment Problems
- Radiological status

### 4.0 REPLENISH SUPPLIES

4.1 **PERFORM** the following at the end of actual event or drill/exercise:

4.1.1 **PERFORM** an inventory of the PAKs using EP(123) OFMT-1, Offsite Field Monitoring Equipment Inventory, **AND REPLACE** any needed supplies or equipment.



# Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

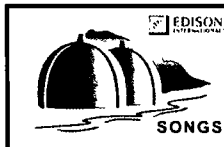
Page 61 of 62

Summary of Changes

Attachment 10

Author: Genschaw/Remick/Schmitt

NN, Order, or Other Action	Description of Change	Reviewer(s)	50.59	Step, Section Attachment or Page
Comments	Remove items not contained in CED position Notebook.  Add Note to ensure direct/timely communication with ODAC.  Revise Network User ID to receive JIC press releases.	Jump Sholler Genschaw Cleavenger	DNA	Attachment 1 Step 1.1  Attachment 1 Note at Step 1.16  Attachment 2 Step 1.4
202557982	Delete establishment of Brown Phone communication with TSC.  Delete Control Room decision making monitoring.  Revise terminology from update to inform for current plant conditions.  Delete steps that are performed by EAN.  Delete plant conditions not applicable to Spent Fuel Pool.  Delete step to print non-existent CFMS parameter information.  Move information to be provided via Ivory Phone (Changes in PARs and Major decisions made by CED) from Initial Actions to Continuing Actions.  Move participation in facility staff briefings from Initial Actions to Continuing Actions.	Jump Sholler Genschaw Cleavenger	DNA	Attachment 3 Step1.4  Attachment 3 Step 1.6  Attachment 3 Step 1.7  Attachment 3 Steps 1.10.1 and 1.10.2  Attachment 3 Step 2.1  Attachment 3 Step 2.2  Attachment 3 Step 2.2  Attachment 3 Step 2.5



# Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists

SO123-VIII-EOF  
REV: 1

Page 62 of 62

Summary of Changes

Attachment 10

NN, Order, or Other Action	Description of Change	Reviewer(s)	50-59	Step, Section, Attachment or Page
Comments	<p>Revised Administrative Leader Checklist as follows:</p> <ul style="list-style-type: none"> <li>Added TSC as area to provide support.</li> <li>Combined all steps regarding performance of recall or shift relief and moved to Section 2.4 for clarity of sequence timing.</li> <li>Add step to consult EPC with questions.</li> <li>Moved Step regarding receipt of bomb threat to Section 1.0</li> <li>Moved Steps in Section 2.1 for clarity of timing of sequence.</li> <li>Clarified CDM Support contact information.</li> <li>Removed step regarding Facsimile Instructions.</li> <li>Removed steps regarding centralized phone function.</li> <li>Revised step regarding determination of injury or fatality information for clarity.</li> <li>Revised step regarding phone problems to allow for generic phone issues.</li> <li>Add Note in Section 5.0 to alert Admin Leader of Site Assembly for Camp Mesa requirement.</li> <li>Add Note in Section 5.0 for CED's use of EP(123) EOF-17.</li> <li>Moved Steps in Section 5.0 for clarity of timing sequence.</li> <li>Add Step to ensure Assembly Area coordinators contact Admin Leader of evacuation completion.</li> <li>Delete duplicate steps and section from Supplemental Position Instruction section.</li> </ul>	Jump Sholler Genschaw Cleavenger	DNA	Attachment 5
				<ul style="list-style-type: none"> <li>Step 1.6.4</li> <li>Section 2.4</li> <li>Step 1.7</li> <li>Step 1.8</li> <li>Section 2.1</li> <li>Step 2.2.1</li> <li>Step 2.3.1</li> <li>Section 3.0</li> <li>Step 4.1</li> <li>Step 4.2</li> <li>Note 2</li> <li>Note 3</li> <li>Section 5.0</li> <li>Step 6.1.4</li> <li>Section 9.0 thru 12.0</li> </ul>
	<p>Add step to allow RP Leader to effectively use existing personnel resources.</p> <p>Correct typos and spelling errors.</p>			<p>Attachment 7 Step 1.13.1</p> <p>Throughout.</p>



**Attachment 2**

**SONGS EMERGENCY PLAN IMPLEMENTING PROCEDURES (EIPs) INDEX**

## SONGS EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPs) INDEX

<u>DOCUMENT</u>	<u>REV. #</u>	<u>EC</u>	<u>TITLE</u>
SO123-VIII-0.100	17		MAINTENANCE AND CONTROL OF EMERGENCY PLANNING DOCUMENTS
SO123-VIII-0.101	0		EMERGENCY RESPONSE EQUIPMENT MANAGEMENT
SO123-VIII-0.200	17		EMERGENCY PLAN DRILLS AND EXERCISES
SO123-VIII-0.201	27		EMERGENCY PLAN EQUIPMENT SURVEILLANCE PROGRAM (EPESP)
SO123-VIII-0.202	11	1	ASSIGNMENT OF EMERGENCY RESPONSE PERSONNEL
SO123-VIII-0.301	16		EMERGENCY TELECOMMUNICATIONS TESTING
SO123-VIII-0.302	7		ONSITE EMERGENCY SIREN SYSTEM TEST
SO123-VIII-0.303	5		PERIMETER PUBLIC ADDRESS SYSTEM (PPAS) ROUTINE TEST
SO123-VIII-1	37		RECOGNITION AND CLASSIFICATION OF EMERGENCIES
SO123-VIII-10	32	1	EMERGENCY COORDINATOR DUTIES
SO123-VIII-10.3	16		PROTECTIVE ACTION RECOMMENDATIONS
SO123-VIII-10.5	5		EVENT CLOSE OUT AND RECOVERY
SO123-VIII-10.6	7		EMERGENCY RESPONSE ACTIONS FOR A DECLARED SECURITY EVENT
SO123-VIII-30.7	17		EMERGENCY NOTIFICATIONS
SO123-VIII-40.100	19		DOSE ASSESSMENT
SO123-VIII-40.200	7		RADDOSE-V DOSE ASSESSMENT
SO23-VIII-50.3	11		CORE DAMAGE ASSESSMENT
SO123-VIII-CR	0	1	EMERGENCY RESPONSE ORGANIZATION (ERO) CONTROL ROOM POSITION CHECKLISTS

## SONGS EMERGENCY PLAN IMPLEMENTING PROCEDURES (EPIPs) INDEX

<u>DOCUMENT</u>	<u>REV. #</u>	<u>EC</u>	<u>TITLE</u>
SO123-VIII-EOF	1		EMERGENCY RESPONSE ORGANIZATION (ERO) EMERGENCY OPERATIONS FACILITY POSITION CHECKLISTS
SO123-VIII-JIC	0		EMERGENCY RESPONSE ORGANIZATION (ERO) JOINT INFORMATION CENTER (JIC) POSITION CHECKLIST
SO123-VIII-OSC	0		EMERGENCY RESPONSE ORGANIZATION (ERO) OPERATIONS SUPPORT CENTER POSITION CHECKLISTS
SO123-VIII-TSC	0		EMERGENCY RESPONSE ORGANIZATION (ERO) TECHNICAL SUPPORT CENTER POSITION CHECKLISTS

**Attachment 3**

**SONGS EMERGENCY PLAN REFERENCED MANUALS,  
ORDERS AND TRAINING PROCEDURES INDEX**

**SONGS EMERGENCY PLAN REFERENCED MANUALS,  
ORDERS AND TRAINING PROCEDURES INDEX**

<b><u>DOCUMENT</u></b>	<b><u>REV. #</u></b>	<b><u>TITLE</u></b>
SO123-EP-1	9	SONGS EMERGENCY PLAN IMPLEMENTATION
SO123-XXI-1.11.3	29	EMERGENCY PLAN TRAINING PROGRAM DESCRIPTION
EPSPD-1	6	EMERGENCY ACTION LEVEL TECHNICAL BASES
EPSPD-1 1.0	2	SECTION 1.0 - PURPOSE
EPSPD-1 2.0	3	SECTION 2.0 - DISCUSSION
EPSPD-1 3.0	3	SECTION 3.0 - REFERENCES
EPSPD-1 4.0	5	SECTION 4.0 - DEFINITIONS, ACRONYMS AND ABBREVIATIONS
EPSPD-1 5.0	2	SECTION 5.0 - EAL TECHNICAL BASES
EPSPD-1 5.1	4	SECTION 5.1 - CATEGORY A -ABNORMAL RAD LEVELS / RADIOLOGICAL EFFLUENT
EPSPD-1 5.2	4	SECTION 5.2 - CATEGORY C - COLD SHUTDOWN / REFUELING SYSTEM MALFUNCTION
EPSPD-1 5.3	3	SECTION 5.3 - CATEGORY E - EVENTS RELATED TO INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS
EPSPD-1 5.4	5	SECTION 5.4 - CATEGORY F - FISSION PRODUCT BARRIER DEGRADATION
EPSPD-1 5.5	5	SECTION 5.5 - CATEGORY H - HAZARDS AND OTHER CONDITIONS AFFECTING PLANT SAFETY
EPSPD-1 5.6	6	SECTION 5.6 - CATEGORY S - SYSTEM MALFUNCTION

## **Attachment 4**

### **Report and Analysis Summary**

San Onofre Nuclear Generating Station  
Report and Analysis Summary  
10 CFR 50.54(q)(iv)(5)

<b>Document Number:</b> SO123-VIII-40.100 Rev. 19 <b>Title: Dose Assessment</b> <b>SONGS Nuclear Notification (NN) 202596380-1</b>	
Section and Change Description	Analysis Summary
<p>Change 1 Throughout procedure added additional guidance on source term calculation.</p> <p>Change 2 Added additional guidance on source term assessment from field readings to Section 6.3 and Attachment 1.</p>	<p>The following information identifies the technical basis for optimizing the procedure;</p> <ul style="list-style-type: none"> <li>Nuclear fuel has been permanently offloaded on both units and SONGS is no longer authorized to replace fuel in either reactor.</li> <li>Following the termination of reactor operations at SONGS and the permanent removal of the fuel from the reactor vessel, classifiable events involving the reactor coolant system (RCS) or secondary system are no longer possible.</li> </ul> <p>Additionally, APPENDIX 15G of the SONGS Final Safety Analysis Report (FSAR) was recently revised and identifies the following postulated accidents that are applicable in a permanently defuel condition:</p> <ul style="list-style-type: none"> <li>- Fuel handling accident inside the fuel handling building (FHA-FHB)</li> <li>- Spent fuel cask drop accident</li> <li>- Spent fuel pool boiling</li> <li>- Waste gas system failure (release to atmosphere)</li> <li>- Radioactive liquid waste system leak or failure (release to atmosphere)</li> </ul> <p>Additionally 15G identifies that for all following postulated accidents iodine releases are not applicable twenty months after reactor operation.</p> <p>Based on the above, the remaining credible release scenarios involve a release from a Fuel Handling Building, and an unmonitored release. The revisions to the procedure improve the ability of the SONGS Emergency Response Organization to assess and accurately calculate the impact of radiological releases.</p> <p>This assessment determines that the changes noted in the Summary of Changes do not decrease the effectiveness of the Emergency Plan.</p>

PREPARED BY: Richard Garcia	REVIEWED BY: Dan Cleavenger
DATE: 9/30/13	DATE: 10/6/13

Refer to SO123-XV-109.1, Processing Procedures and Instructions for the types of allowed editorial corrections.

San Onofre Nuclear Generating Station  
Report and Analysis Summary  
10 CFR 50.54(q)(iv)(5)

**Document Number: SO123-VIII-40.200 Revision 7**

**Title: RADDSE-V Dose Assessment**

**SONGS Nuclear Notification (NN) 202596380-4**

Section and Change Description	Analysis Summary
<p>Change 1 Throughout procedure removed references to SGTR, LOCA, and Thyroid dose as they are no longer applicable at SONGS.</p> <p>Change 2 Throughout procedure added additional guidance on entering Iodine release rates as Iodine releases are no longer possible at SONGS.</p>	<p>The following information identifies the technical basis for optimizing the procedure;</p> <ul style="list-style-type: none"> <li>Nuclear fuel has been permanently offloaded on both units and SONGS is no longer authorized to replace fuel in either reactor.</li> <li>Following the termination of reactor operations at SONGS and the permanent removal of the fuel from the reactor vessel, classifiable events involving the reactor coolant system (RCS) or secondary system are no longer possible.</li> </ul> <p>Additionally, APPENDIX 15G of the SONGS Final Safety Analysis Report (FSAR) was recently revised and identifies the following postulated accidents that are applicable in a permanently defuel condition:</p> <ul style="list-style-type: none"> <li>- Fuel handling accident inside the fuel handling building (FHA-FHB)</li> <li>- Spent fuel cask drop accident</li> <li>- Spent fuel pool boiling</li> <li>- Waste gas system failure (release to atmosphere)</li> <li>- Radioactive liquid waste system leak or failure (release to atmosphere)</li> </ul> <p>Additionally 15G identifies that for all following postulated accidents iodine releases are not applicable twenty months after reactor operation.</p> <p>Based on the above, the remaining credible release scenarios involve a release from a Fuel Handling Building, and an unmonitored release. The revisions to the procedure improve the ability of the SONGS Emergency Response Organization to assess and accurately calculate the impact of radiological releases.</p> <p>This assessment determines that the changes noted in the Summary of Changes do not decrease the effectiveness of the Emergency Plan.</p>

PREPARED BY: Richard Garcia

REVIEWED BY: Dan Cleavenger

DATE: 9/30/13

DATE: 10/06/13

Refer to SO123-XV-109.1, Processing Procedures and Instructions for the types of allowed editorial corrections.



San Onofre Nuclear Generating Station  
Report and Analysis Summary  
10 CFR 50.54(q)(iv)(5)

<b>Document Number: SO123-VIII-0.200 Revision 17</b> <b>Title: Emergency Plan Drills and Exercises</b> <b>SONGS Nuclear Notification (NN) #: 202405588-8</b>	
<b>Section and Change Description</b>	<b>Analysis Summary</b>
<p><b>Section 1</b> Deleted reference to SO123-VIII-0.401, Emergency Preparedness Performance Indicators Added reference to SO123-VIII-0.210, Emergency Planning Drill Objectives and Demonstration Criteria</p> <p><b>Section 2</b> Updated revision date for FEMA REP Manual</p> <p><b>Section 5</b> Renamed section from Checklists to Responsibilities Added responsibilities for: Manager, Emergency Preparedness Planning (EPM): Manager, Safety, Human Performance and Performance Improvement Site Management team Drill/Exercise Coordinator Scenario Development Team Emergency Planning Department staff</p> <p><b>Section 6.1</b> Combined the following Steps into new Section 6.1 EP Drill/Exercise Schedule 6.1.1 Exercise Scheduling 6.1.2 Drill Scheduling 6.1.3 Simulator Activity Scheduling</p> <p><b>Section 6.2</b> Moved Step 6.2.1 Objectives into new Section 6.2 SELECTION OF DRILL/EXERCISE OBJECTIVES</p> <p><b>Step 6.2.5</b> Combined Steps 6.2.1.1 through 6.2.1.14 for filling out Attachment 2 into one step (6.2.5) to update Attachment 2.</p> <p><b>Section 6.3</b> Moved Step 6.2.2 Scenario Development into new Section 6.3 SCENARIO DEVELOPMENT</p> <p><b>Step 6.3.1</b> Added section to describe acceptable drill/exercise scenarios</p> <p><b>Step 6.3.4</b> Added requirement to assemble a Scenario Development Team</p> <p><b>Section 6.4</b></p>	<p>During the 2013 INPO EP Review, the team presented a Recommendation for Improvement for weaknesses in drill preparation resulted in an inadequate drill scenario and controller performance issues. It was noted that these weaknesses may adversely impact the ERO's ability to respond to real events and also adversely impact Emergency Planning's ability to accurately assess gaps in ERO performance.</p> <p>The changes to Revision 17 of SO123-VIII-0.200, Emergency Plans Drills and Exercises were implemented as a result of the findings by the 2013 INPO EP Review team.</p> <p>A review of the revised document indicates that no information contained in the previous revision was deleted from the procedure. As noted in the Summary of Changes the revision moved sections of the procedure to other locations for better understanding and clarity. The revision also added additional information that better assists the Emergency Planning organization in conducting drills and exercises.</p> <p>This revision complies with the requirements of 10CFR50 Appendix E, 10CFR50.47b, NUREG 0654 and does not reduce the effectiveness of the SONGS Emergency Plan.</p>

Moved scenario condition and events instructions from Step 6.2.2.5 to Section

#### 6.4, SCENARIO PACKAGE

Deleted Step 6.2.7 as each controller receives a full scenario package as described in Section

#### 6.4, SCENARIO PACKAGE

##### Step 6.4.1

Guidelines for Drill/Exercise Conduct moved from Step 6.2.2.5.5 into Step 6.4.1 and Attachments:

10 Controller / Evaluator Guidelines

11 Observer Guidelines

13 Participant Briefing

Moved instructions from Step 6.2.2.5.6 through 6.2.2.5.7 to Step 6.4.1

Moved instructions from Step 6.2.2.5.8 to Step 6.4.1 and Attachment 3

#### Section 6.6

Deleted Steps 6.2.11 through 6.2.15 and moved the instructions to Section 6.6, CONDUCT OF DRILLS AND EXERCISES

#### Section 6.7

Deleted Steps 6.2.16 through 6.2.20 and moved the instructions to Section 6.7, Drill and Exercise Evaluation

Moved instructions from Section 6.4 Corrective Actions/Event Trending to Section 6.7, Drill and Exercise Evaluation

#### Attachment 3

New Attachment describing Scenario Development Team process

Moved instructions from Step 6.2.3.1 through 6.2.3.4 into Attachment 3, SCENARIO

DEVELOPMENT TEAM AND RESPONSIBILITIES

#### Attachment 4

New Attachment providing a Drill Planning Checklist

Deleted Step 6.2.2.4 as this information is captured in Attachment 4, Drill Planning Checklist

Step 6.2.9, Notifications and Announcements deleted as the instructions are provided in Attachment 4, Drill Planning Checklist

Attachment 5 New Attachment providing a CONTROLLER/EVALUATOR ORGANIZATION instructions

Moved Steps 6.2.4 Controller Organization and 6.2.5 Controller Requirements/Assignments, into Attachment 5, CONTROLLER/EVALUATOR ORGANIZATION

#### Attachment 6

Added new attachment providing DRILL PREPARATION

<p>FLOWCHART</p> <p>Attachment 7 Added new attachment providing EXERCISE PREPARATION FLOWCHART</p> <p>Attachment 8 Added CONTROLLER AND EVALUATOR BRIEFING instructions</p> <p>Attachment 9 Added new attachment providing CONTROLLER TRAINING guidelines</p> <p>Moved Step 6.2.6, Controller training into Attachment 9 CONTROLLER TRAINING</p> <p>Attachment 10 Added new attachment providing CONTROLLER/EVALUATOR guidelines</p> <p>Attachment 11 Added new attachment providing OBSERVER guidelines</p> <p>Attachment 12 Added new attachment providing an example SECURITY/CONFIDENTIALITY AGREEMENT</p> <p>Attachment 13 Added PARTICIPANT BRIEFING instructions</p> <p>Attachment 14 Added attachment providing a DRILL REPORT template</p> <p>Moved instructions from Section 6.5, Written Critique Report to Attachment 15, DRILL REPORT</p> <p>Attachment 15 Added new attachment for EAL TRACKING</p> <p>Attachment 16 Added new attachment providing DEFINITIONS</p> <p>Attachment 17 Renumbered old Attachment 3</p>	
--	--

<p>PREPARED BY: Richard Garcia</p> <p>DATE: 10/1/13</p>	<p>REVIEWED BY: Dan Cleavenger</p> <p>DATE: 10/28/13</p>
---	--

Refer to SO123-XV-109.1, Processing Procedures and Instructions for the types of allowed editorial corrections.

San Onofre Nuclear Generating Station  
Report and Analysis Summary  
10 CFR 50.54(q)(iv)(5)

<b>Document Number: SO123-VIII-EOF Revision 1</b> <b>Title: Emergency Response Organization (ERO) Emergency Operations Facility Position Checklists</b> <b>SONGS Nuclear Notification (NN) #: 202557982</b>	
<b>Change Descriptions</b>	<b>Analysis Summary</b>
<p>Revision 1 of this Emergency Plan Implementing Procedure makes the following changes:</p> <ul style="list-style-type: none"> <li>• Multiple editorial changes</li> <li>• Re-ordering of actions</li> <li>• Clarifications</li> <li>• Removal of duplicate information</li> <li>• Deletion of actions that reflect changes in responsibilities following transition to a shutdown Emergency Response Organization</li> <li>• Deletion of actions that reflect conditions for an operating plant</li> <li>• Deletion of an action that is obsolete given the permanently shutdown condition of SONGS Units 2 and 3</li> </ul>	<p>Editorial changes do not result in a reduction in effectiveness in the SONGS Emergency Plan.</p> <p>Certain procedural actions have been re-ordered. Procedural information is not lost and therefore these changes do not cause a reduction in effectiveness in the SONGS Emergency Plan.</p> <p>Several changes were made to add information for clarity and improved task performance, and therefore these changes do not cause a reduction in effectiveness SONGS Emergency Plan.</p> <p>Changes were made that remove duplicate information contained in the procedure. Procedural information is not lost, and therefore these changes do not cause a reduction in effectiveness SONGS Emergency Plan.</p> <p>An action for the EOF Technical Leader to establish Brown Phone communications with TSC was deleted. With the optimized ERO, Attachment 3 of this procedure has an action for the EOF Technical Leader to establish communication with the TSC via the Ivory Phone. In addition this change does not delete the Brown Phone Communication System required by the SONGS Emergency Plan. Therefore this change does not cause a reduction in effectiveness SONGS Emergency Plan.</p> <p>One change deletes plant conditions that are not applicable to the permanently defueled condition of SONGS Units 2 and 3.</p> <p>This is based on the following information; Nuclear fuel has been permanently offloaded on both units and SONGS is no longer authorized to replace fuel in either reactor.</p> <p>Following the termination of reactor operations at SONGS and the permanent removal of the fuel from the reactor vessel, classifiable events involving the reactor coolant system (RCS) or secondary system are no longer possible.</p> <p>Additionally, APPENDIX 15G of the SONGS Final Safety Analysis Report (FSAR) was recently revised and identifies the following postulated accidents that are applicable in a permanently defuel condition:</p> <ul style="list-style-type: none"> <li>- Fuel handling accident inside the fuel handling building (FHA-FHB)</li> <li>- Spent fuel cask drop accident</li> <li>- Spent fuel pool boiling</li> <li>- Waste gas system failure (release to atmosphere)</li> </ul>

	<p>- Radioactive liquid waste system leak or failure (release to atmosphere) Additionally 15G identifies that for all following postulated accidents iodine releases are not applicable twenty months after reactor operation.</p> <p>Based on the above, the remaining credible release scenarios involve a release from a Fuel Handling Building, and an unmonitored release. This revision to the procedure improves the ability of EOF Technical Leader to assess and respond to credible accident scenarios and does not result in a reduction in effectiveness of the SONGS Emergency Plan.</p> <p>One Change deletes the action to print plant parameter information from CFMS. The information available on CFMS for a permanently defueled facility is extremely limited. This revision to the procedure improves the ability of EOF Technical Leader to assess and respond to credible accident scenarios by removing an obsolete action. Therefore, this change does not result in a reduction in effectiveness of the SONGS Emergency Plan.</p> <p>This assessment determines this revision does not reduce the effectiveness of the SONGS Emergency Plan.</p>
--	--

PREPARED BY: Richard Garcia	REVIEWED BY: Dan Cleavenger
DATE: 10/7/13	DATE: 10-28-13

Refer to SO123-XV-109.1, Processing Procedures and Instructions for the types of allowed editorial corrections.