

Date Entered: Jan 08, 2004

TO: USNRC/WASHINGTON  
JMCKNIGHT

Copy Number: 145

TRANSMITTAL NUMBER: 256716

PROCEDURE NUMBER: EI-2.1

TITLE: SITE EMERGENCY DIRECTOR

TRANSMITTAL: LISTED BELOW ARE NEW/REVISED PROCEDURES WHICH MUST BE  
IMMEDIATELY INSERTED INTO OR DISCARDED FROM YOUR PROCEDURE  
MANUAL.

Action Required	Section or Description
REMOVE AND DESTROY	EI-2.1, R/23, ENTIRE PROCEDURE
REPLACE WITH	EI-2.1, R/24, ENTIRE PROCEDURE

*SIGN, DATE, AND RETURN THE ACKNOWLEDGEMENT FORM WITHIN 10 DAYS TO THE PALISADES  
PLANT DOCUMENT CONTROL.*

SIGNATURE OR INITIALS

DATE

\_\_\_\_\_

\_\_\_\_\_

**If applicable, REMOVE ALL travelers and marked up pages in  
front of this procedure.**

\_\_\_\_\_

1045

Procedure No EI-2.1  
Revision 24  
Effective Date 1/8/04

**PALISADES NUCLEAR PLANT**  
**EMERGENCY IMPLEMENTING PROCEDURE**

**TITLE: SITE EMERGENCY DIRECTOR**

Approved: NKBrott  
Procedure Sponsor

/

1/6/04  
Date

**New Procedure/Revision Summary:**

Revision 24

**Specific Changes**

Miscellaneous editorial changes revising titles.

6.12 Table 2-1 Added wording to clarify that a worker's year to date normal occupational dose shall not impact the dose an emergency worker may receive.

6.13 New section to require a worker's emergency exposure to be added to the worker's occupational dose to determine availability for Planned Special Exposures.

**TITLE: SITE EMERGENCY DIRECTOR**

---

**Table of Contents**

<b>1.0</b>	<b>PERSONNEL RESPONSIBILITIES .....</b>	<b>1</b>
<b>2.0</b>	<b>PURPOSE .....</b>	<b>1</b>
<b>3.0</b>	<b>REFERENCES .....</b>	<b>1</b>
<b>3.1</b>	<b>SOURCE DOCUMENTS .....</b>	<b>1</b>
<b>3.2</b>	<b>REFERENCE DOCUMENTS.....</b>	<b>1</b>
<b>4.0</b>	<b>INITIAL CONDITIONS AND/OR REQUIREMENTS .....</b>	<b>2</b>
<b>5.0</b>	<b>TURNOVER OF COMMAND AND CONTROL .....</b>	<b>2</b>
<b>6.0</b>	<b>RESPONSIBILITIES.....</b>	<b>3</b>
<b>7.0</b>	<b>ATTACHMENTS AND RECORDS .....</b>	<b>5</b>
<b>7.1</b>	<b>ATTACHMENTS .....</b>	<b>5</b>
<b>7.2</b>	<b>RECORDS.....</b>	<b>5</b>
<b>8.0</b>	<b>SPECIAL REVIEWS.....</b>	<b>5</b>

**ATTACHMENTS**

Attachment 1, "Authorization to Exceed Dose Control and 10CFR20 Dose Limits"

Attachment 2, "Turnover of Command and Control During an Emergency"

Attachment 3, "Considerations for Turnover of SED Responsibilities"

**TITLE: SITE EMERGENCY DIRECTOR**

---

**USER ALERT  
INFORMATION USE PROCEDURE**

The activities covered by this procedure may be performed from memory.

**1.0 PERSONNEL RESPONSIBILITIES**

The Site Emergency Director (SED) shall implement this procedure.

**2.0 PURPOSE**

To define the SED responsibilities in an emergency.

**3.0 REFERENCES**

**3.1 SOURCE DOCUMENTS**

- 3.1.1 Environmental Protection Agency Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, May 1992

**3.2 REFERENCE DOCUMENTS**

- 3.2.1 Emergency Implementing Procedure EI-1, "Emergency Classification and Actions"
- 3.2.2 Emergency Implementing Procedure EI-4.1, "Technical Support Center Activation"
- 3.2.3 Emergency Implementing Procedure EI-5, "Reentry"
- 3.2.4 Emergency Implementing Procedure EI-6.13, "Protective Action Recommendations for Offsite Populations"
- 3.2.5 Emergency Implementing Procedure EI-8, "Onsite Radiological Monitoring"
- 3.2.6 Emergency Implementing Procedure EI-9, "Offsite Radiological Monitoring"
- 3.2.7 Emergency Implementing Procedure EI-12.3, "Search and Rescue Team Responsibilities"
- 3.2.8 Emergency Implementing Procedure EI-13, "Evacuation/Reassembly"

**TITLE: SITE EMERGENCY DIRECTOR**

---

3.2.9 10CFR20

3.2.10 Severe Accident Management Guidelines

3.2.11 Palisades Administrative Procedure 10.46, "Plant Records"

3.2.12 Palisades Administrative Procedure 10.41, "Procedure and Policy Processes"

**4.0 INITIAL CONDITIONS AND/OR REQUIREMENTS**

This procedure should be used each time the Site Emergency Plan is activated.

**5.0 TURNOVER OF COMMAND AND CONTROL**

**USER ALERT  
INFORMATION USE PROCEDURE**

The activities covered by this procedure may be performed from memory.

5.1 The Shift Manager shall turn over command and control of the emergency as soon as possible above an Unusual Event. Turnover may occur before this time at the option of the Shift Manager or potential SED.

5.1.1 Attachment 3 to this procedure provides a checklist of items that should be considered during the turnover process.

5.2 At a minimum, turnover of command and control shall include assumption of responsibility for emergency classification, protective action recommendations, dose assessment, and notifications to offsite authorities. Attachment 2 of this procedure provides a flowchart of turnover of command and control during an emergency.

5.3 Turnover of command and control from the SED to the Emergency Operations Facility (EOF) Director shall occur as soon as the EOF has resources available to assume responsibility for emergency classification, protective action recommendations, dose assessment, and offsite notifications.

**TITLE: SITE EMERGENCY DIRECTOR**

---

**6.0 RESPONSIBILITIES**

**NOTE:** An asterisk (\*) indicates a responsibility that shall not be delegated.

- \*6.1 Declare the appropriate classification for the incident and ensure that actions listed in Attachment 1 of Emergency Implementing Procedure EI-1, "Emergency Classification and Actions," are performed.
- 6.2 Direct the Technical Support Center per Emergency Implementing Procedure EI-4.1, "Technical Support Center Activation."
- \*6.3 Approve recommendations to local or state agencies regarding protective actions for the public. Refer to Emergency Implementing Procedure EI-6.13, "Protective Action Recommendations for Offsite Populations." Declaration of a General Emergency classification and the associated Protective Action Recommendation shall be provided personally by the SED/EOF Director (Attachment 2) to the State Director if the State EOC is activated.
- \*6.4 Approve decisions regarding site evacuation. Refer to Emergency Implementing Procedure EI-13, "Evacuation/Reassembly."
- 6.5 Request federal assistance, as necessary.
- 6.6 Ensure PA announcements regarding emergency conditions are made at regular intervals or when significant changes occur.
- 6.7 Ensure that search and rescue is performed for personnel missing following accountability. Refer to Emergency Implementing Procedure EI-12.3, "Search and Rescue Team Responsibilities."
- 6.8 Authorize Potassium Iodine (KI) distribution per Emergency Implementing Procedure EI-8, "Onsite Radiological Monitoring," and Emergency Implementing Procedure EI-9, "Offsite Radiological Monitoring."
- 6.9 Consider and then approve implementation of Severe Accident Guideline recommendations of the Operations Support Group.
- 6.10 Direct the reentry phase of emergency response per Emergency Implementing Procedure EI-5, "Reentry."

TITLE: SITE EMERGENCY DIRECTOR

- \*6.11 Approve establishment of Dose Control Levels  $>2.0$  rem, but  $<5.0$  rem using Attachment 1.

The SED may also provide verbal approval to prevent/mitigate damage to vital equipment when such activities are of immediate nature. In this instance, Attachment 1 shall be completed as soon as practical.

Completed Attachment 1 should be forwarded to the OSC Health Physics Supervisor.

- \*6.12 Authorize exceeding the 10CFR20 dose limits for emergency workers. Table 2-1 below should be used to establish emergency worker dose limits.

Table 2-1

Guidance on Dose Limits for Workers Performing Emergency Services

Dose Limit <sup>a</sup> (rem)	Activity	Condition
5	all	
10	protecting valuable property	lower dose not practicable
25	lifesaving <sup>b</sup> or protection of large populations	lower dose not practicable
$>25$	lifesaving <sup>b</sup> or protection of large populations	only on a <u>voluntary</u> basis to persons fully aware of the risks involved (see Attachment 1, Tables 2-2 and 2-3)

a: Sum of external effective dose equivalent and committed effective dose equivalent to nonpregnant adults from exposure and intake during an emergency situation. Workers performing services during emergencies should limit dose to the lens of the eye to three times the listed value, and doses to any other organ (including skin and body extremities) to ten times the listed value. A radiation worker's year to date normal occupational dose shall not impact the dose that an emergency worker can receive (Limits from United States Environmental Protection Agency Manual of Protective Action Guides and Protective Actions for Nuclear Incidents - EPA 400-R-92-001).

b: For immediate life saving, Health Physics qualified personnel (ie, Health Physics Technician, or Health Physics Supervisor) may make the decision to exceed 10CFR20 dose limits if prior notification is made to the OSC Health Physics Supervisor.

**TITLE: SITE EMERGENCY DIRECTOR**

---

- 6.13 After the emergency, the dose received during the emergency shall be added to the radiation worker's occupational dose to determine availability for additional exposure. Doses received during an emergency shall be deducted from the radiation worker's available dose for Planned Special Exposure. During the recovery phase of an emergency, consideration shall be given to the use of the Planned Special Exposure.

**7.0 ATTACHMENTS AND RECORDS**

**7.1 ATTACHMENTS**

- 7.1.1 Attachment 1, "Authorization to Exceed Dose Control and 10CFR20 Dose Limits"
- 7.1.2 Attachment 2, "Turnover of Command and Control During an Emergency"
- 7.1.3 Attachment 3, "Considerations for Turnover of SED Responsibilities"

**7.2 RECORDS**

Records generated by this procedure shall be filed in accordance with Palisades Administrative Procedure 10.46, "Plant Records." Refer to the record matrix attached to Admin 10.46 for information needed to complete Record Indexing Form (Form 104).

**8.0 SPECIAL REVIEWS**

The scope of this procedure does not include activities that require a 50.59 review per Palisades Administrative Procedure 10.41, "Procedure and Policy Processes." Therefore, changes to this procedure do not require a 50.59 review.



## **AUTHORIZATION TO EXCEED DOSE CONTROL AND 10CFR20 DOSE LIMITS**

1. SED permission granted to establish dose control level  $> 2.0$  rem, but  $< 5.0$  rem for all radiation workers (unless individuals are identified in the justification section below).

\_\_\_\_\_ rem Dose Control Level (TEDE)

Justification: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approved: \_\_\_\_\_ / \_\_\_\_\_  
Site Emergency Director Date/ Time

Return To Normal: \_\_\_\_\_ / \_\_\_\_\_  
Site Emergency Director Date/ Time

1. Team assignment requiring permission to exceed 10CFR20 dose limit is: ( )

Search/Rescue \_\_\_\_\_ Equipment Maintenance \_\_\_\_\_ Other \_\_\_\_\_

2. SED permission requested to exceed 10CFR20 dose limits:

\_\_\_\_\_  $> 5$  rem, not to exceed 10 rem TEDE  
\_\_\_\_\_  $> 10$  rem, not to exceed 25 rem TEDE  
\_\_\_\_\_  $> 25$  rem TEDE

Justification: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Personnel Involved: Acknowledgment by team members that they have been briefed, understand the briefing and their new dose limits, and if briefed to exceed 25 rem, they are voluntary members of the team.

Name	SS#	Current Dose	Remaining Dose	Signature	Date/ Time
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Approved: \_\_\_\_\_ / \_\_\_\_\_  
Site Emergency Director Date/ Time

Briefed By: \_\_\_\_\_ / \_\_\_\_\_  
Health Physics Supervisor Date/ Time

**AUTHORIZATION TO EXCEED DOSE CONTROL AND 10CFR20 DOSE LIMITS**

Table 2-2

Health Effects Associated with Whole-Body Absorbed Doses Received Within a Few Hours<sup>a</sup>

Whole Body Absorbed dose (rad)	Early Fatalities <sup>b</sup> (percent)	Whole Body Absorbed dose (rad)	Prodromal Effects <sup>c</sup> (percent affected)
140	5	50	2
200	15	100	15
300	50	150	50
400	85	200	85
460	95	250	98

<sup>a</sup> Risks will be lower for protracted exposure periods.

<sup>b</sup> Supportive medical treatment may increase the dose at which these frequencies occur by approximately 50 percent.

<sup>c</sup> Forewarning symptoms of more serious health effects associated with large doses of radiation.

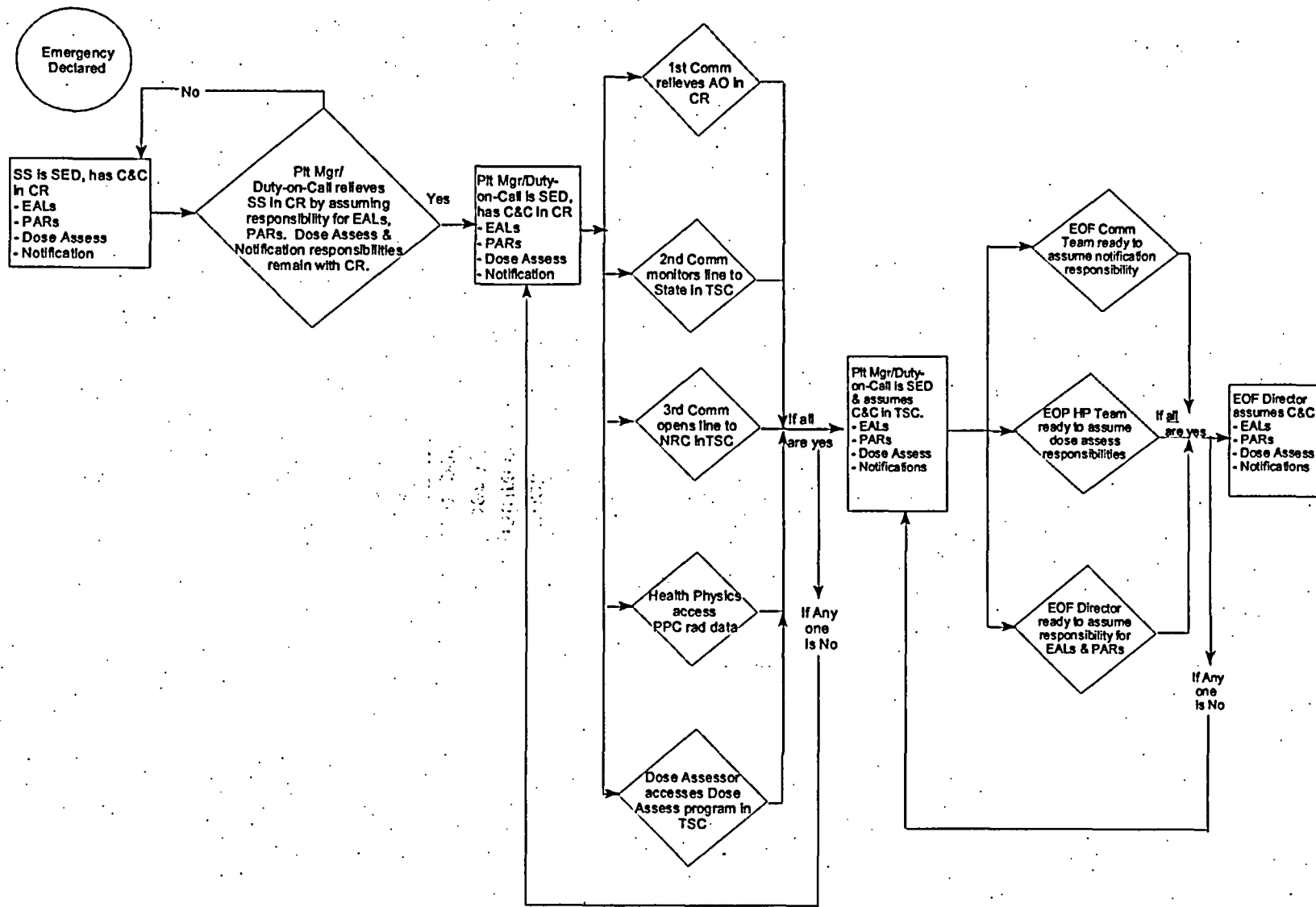
Table 2-3

Approximate Cancer Risk to Average Individuals from 25 Rem Effective Dose Equivalent Delivered Promptly

Age at exposure (years)	Appropriate risk of premature death (death per 1,000 persons exposed)	Average years of life lost if premature death occurs (years)
20 to 30	9.1	24
30 to 40	7.2	19
40 to 50	5.3	15
50 to 60	3.5	11

# **TURNOVER OF COMMAND AND CONTROL DURING AN EMERGENCY**

Proc No EI-2.1  
Attachment 2  
Revision 24  
Page 1 of 1



**CONSIDERATIONS FOR TURNOVER OF SED RESPONSIBILITIES**

\_\_\_\_\_ Plant Status

\_\_\_\_\_ Current emergency classification

          - prognosis for classification change

\_\_\_\_\_ Status of offsite notifications

          - time next Message is due

          - collect completed Messages

\_\_\_\_\_ Dose Assessment responsibility (Site Area and General Emergency)

\_\_\_\_\_ Protective Action Recommendations (General Emergency)

\_\_\_\_\_ Status of Accountability

\_\_\_\_\_ Status of Staff Augmentation

\_\_\_\_\_ Status of completion of Mandatory, Subsequent and As Needed actions (EI-1, Att 2)

\_\_\_\_\_ Additional Control Room needs

\_\_\_\_\_ Consensus that Duty & Call has assumed SED responsibilities

\_\_\_\_\_ PA announcement that Duty & Call is the SED in the Control Room or TSC, as appropriate