

**NEI 10-05, Rev. 0**  
**NEI 99-01, Rev. 6**



NUCLEAR  
ENERGY  
INSTITUTE

# NEI 10-05, Rev. 0

## ■ Interim Staff Guidance

- NSIR/DPR-ISG-01 R0 dated 9/30/10

## ■ Regulatory Language

### – 10CFR50.47(b)(2)

- On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times...

### – 10CFR50.47(b)(2)

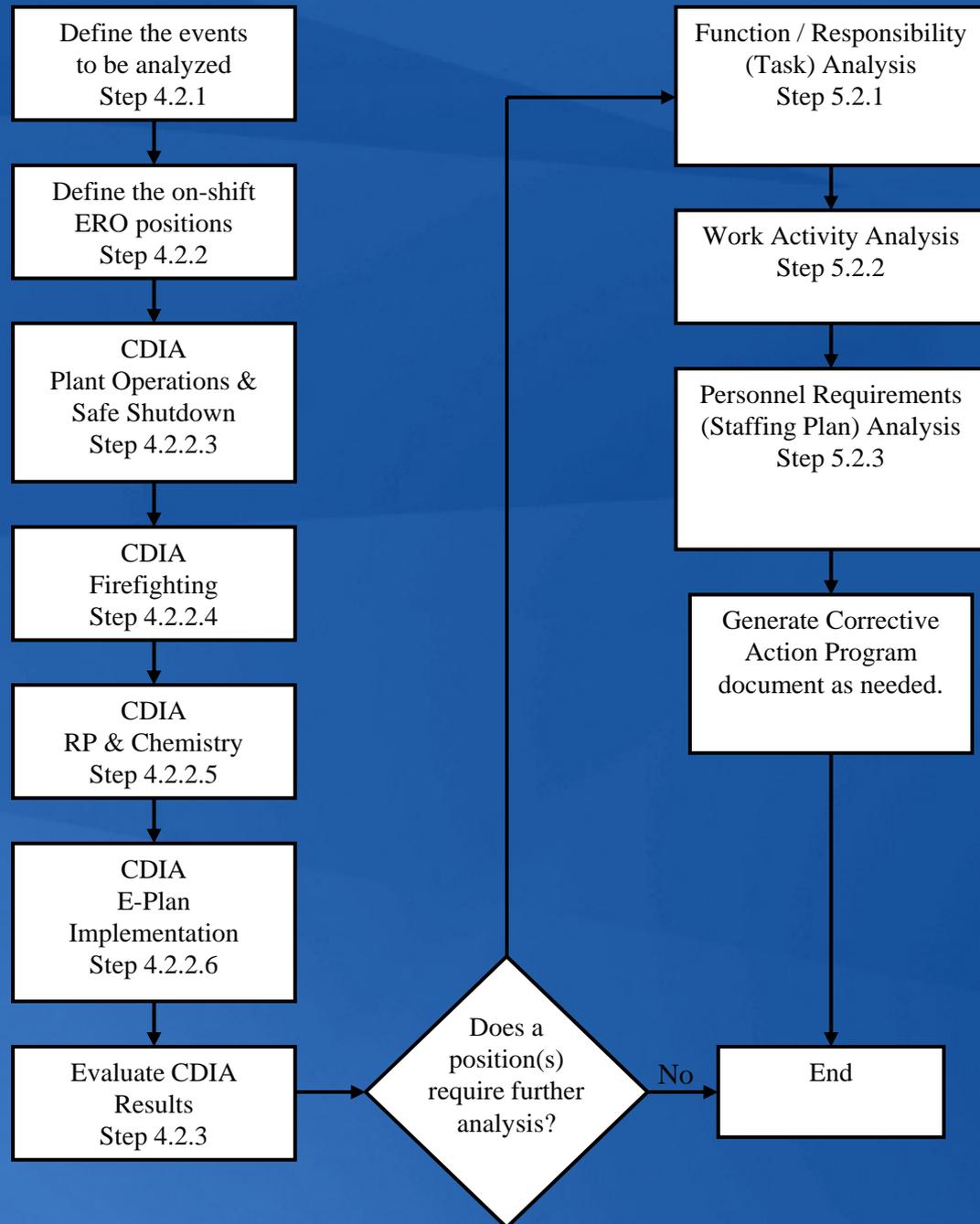
- Nuclear power reactor licensees shall perform a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.

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- **NEI 10-05 analysis methodology:**
  - **Fully compliant with EP Rule & guidance**
  - **Identifies events to be analyzed (DBA/DBT)**
  - **Determines which on-shift positions have a potential collateral duty issue**
  - **Directs further analysis of positions with a potential collateral duty issue to determine if changes are necessary**
  - **Provides accurate, consistent results**

## Process Overview

- Identify events
- Define staffing
- Collateral Duty Identification Analysis (CDIA)
- Time Task Analysis, if needed
- Corrective Action Program document, if needed



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## Step 1

- Define the events that require a staffing analysis. These events include the DBAs presented in the FSAR, as updated, and which would result in an emergency declaration. Also includes the DBT.

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**APPENDIX A**  
**DBT and DBA Events**

Event #	Event Type	Summary Description of Event	Plant Mode	Reference Document(s)	Event ECL	Analysis Required?
1	DBT	Land and/or waterborne HOSTILE ACTION directed against the Protected Area by a HOSTILE FORCE. Assume adversary characteristics defined by the Design Basis Threat (DBT).	1		Site Area Emergency	Yes
2	DBA					
3	DBA					
4	DBA					
5	DBA					
6	DBA					
7	DBA					
8	DBA					
9	DBA					
10	DBA					

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## Step 2

- For DBT and each DBA, list all personnel required to be on-shift for the given initial conditions (Mode, plant conditions, etc.).
- Requirements may be in licensing basis (e.g., Tech Specs, E-Plan, etc.), or station programs and procedures.

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**APPENDIX B**  
**Collateral Duty Identification Analysis**  
(Page 1 of 7)

*Complete this appendix by following the instructions in section 4.2.2.*

This CDIA is applicable to Event # \_\_\_\_\_ as identified in Appendix 1.

**TABLE 1 – On-shift Positions**

Line	On-shift Position	Basis Document	Augmentation Elapsed Time (min)	Role in Table# / Line#	TTA Required?
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

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## Step 3

- Complete Tables for the 4 major response areas
  - Plant Operations & Safe Shutdown
  - Firefighting
  - Radiation Protection & Chemistry
  - Emergency Plan Implementation
- Assign staff to each item

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**Collateral Duty Identification Analysis**  
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**TABLE 2 – Plant Operations & Safe Shutdown**      Event # \_\_\_\_\_

**One Unit - One Control Room**      Applicable to site unit(s) # \_\_\_\_\_

Line	Generic Title/Role	On-Shift Position
1	Shift Manager	
2	Unit Supervisor	
3	Shift Technical Advisor	
4	Reactor Operator #1	

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**TABLE 5 – Emergency Plan Implementation**      Event # \_\_\_\_\_

Line	Function/Task	On-Shift Position
1	Declare the Emergency Classification Level (ECL)*	Shift Manager
2	Approve Offsite Protective Action Recommendations*	Shift Manager
3	Approve content of State/local notifications*	Shift Manager
4	Approve extension to allowable dose limits*	Shift Manager

\* Shift Manager non-delegable duty

Line	Function/Task	On-Shift Position
5	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	
6	ERO Notification	
7	Complete State/local notification form	
8	Perform State/local notifications	
9	Complete NRC event notification form	
10	Activate ERDS	
11	Offsite radiological assessment	No entry required if entered on Table 4

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## Step 3 (cont.)

- Tables 2, 3, 4 and 5 of Attachment B were developed using:
  - Major Functional Areas and Major Tasks listed in NUREG-0654, Table B-1,
  - Additional actions identified by a review of related operating experience and regulatory documents.

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Event # \_\_\_\_\_

TABLE 4 – Radiation Protection & Chemistry

Line	Position Performing Function/Task	Performance Time Period After Emergency Declaration (minutes)																	
		0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90
1	In-Plant Survey On-Shift Position:																		
2	On-Site Survey On-Shift Position:																		
3	Personnel Monitoring On-Shift Position:																		
4	Job Coverage On-Shift Position:																		
5	Offsite Radiological Assessment On-Shift Position:																		
6	Other Site-Specific RP – Describe: On-Shift Position:																		
7	Chemistry function task #1 – Describe: On-Shift Position:																		
8	Chemistry function task #2 – Describe: On-Shift Position:																		

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## Step 4

- Review **Table 1** to identify on-shift positions with two or more functions.
- **Examples:**
  - Individual assigned only as RO; no TTA required.
  - Individual assigned as RO and activates ERO pagers; TTA required.

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**APPENDIX B**  
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## Step 4 (con.)

- **More Examples:**
  - **RP Tech has overlapping duties; TTA required.**
  - **Individual has multiple sequential E-Plan duties; no TTA required.**
  - **Results credit performance-based assessments from licensed operator and firefighting training programs.**

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**APPENDIX B**  
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(Page 1 of 7)

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## Step 5

- On-shift positions with unacceptable collateral duties
- Perform a time task analysis

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### APPENDIX D

#### Function / Responsibility (Task) Analysis Template

Event: \_\_\_\_\_ Position: \_\_\_\_\_ Line #: \_\_\_\_\_

Function	Responsibility (Task)	Action Step	Duration
1.	1.1	1.1.1	
		1.1.2	
		1.1.3	
	1.2	1.2.1	
		1.2.2	
		1.2.3	
	1.3	1.3.1	
		1.3.2	
		1.3.3	
2.	2.1	2.1.1	
		2.1.2	
		2.1.3	
	2.2	2.2.1	
		2.2.2	
		2.2.3	
	2.3	2.3.1	
		2.3.2	
		2.3.3	

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# NEI 10-05

- **Analyses performed per NEI 10-05 will demonstrate that on-shift facility licensee responsibilities for emergency response are unambiguously defined and adequate staffing is provided for initial facility accident response in key functional areas**
- **Understand that NRC wants Mode 5 and 6 events included.**
- **Specific questions on template?**

# NEI 99-01, Rev. 6

- **Development Basis for Revision 6**
  - **Industry OE with emergency classifications**
  - **Improvements in Guidance**
    - **Revised IC/EAL wording to improve readability**
    - **Revised ICs/EALs such that classifications better match the effects, consequences and risk implicit in each ECL definition.**
    - **An ECL attribute is now listed for each IC in the Developer Notes (e.g., why IC HA2 is an Alert)**
    - **Incorporate many recent EAL FAQs**

# NEI 99-01, Rev. 6

- **Development Basis for Revision 6 (cont.)**
  - **Improvements in Guidance (cont.)**
    - **Split-out Developer Notes from Basis section**
    - **Improved Developer Note guidance to promote more consistent application of methodology**
    - **Incorporate new/recent regulatory language and references**
  - **Address related COLA EAL issues**

# NEI 99-01, Rev. 6

- **NRC revision list**
- **Anticipated Schedule**
  - This is a significant revision
  - NEI working goal - submit to NRC by year-end
  - Will factor in NRC comments provided
  - Request NRC endorsement by **12/31/11**
- **Industry would expect a revision to Reg Guide 1.101 with endorsement**
- **Timeframe allows for incorporation of insights from risk-informed EAL study**