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## Document Update Notification

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*COPYHOLDER NO:* 103

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*ADDRESS:* DOC CNTRL DESK MAIL STOP OP1-17  
WASHINGTON DC 20555

*DOCUMENT NO:* OP-1903.043

*TITLE:* DUTIES OF THE EMERGENCY  
RADIATION TEAM

*REVISION NO:* 018-00-0

*CHANGE NO:* AP-18

*SUBJECT:* NEW REVISION



*If this box is checked, please sign, date, and return transmittal  
in envelope provided.*

*ANO-1 Docket 50-313*

*ANO-2 Docket 50-368*

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Signature

Date

A045

**ENTERGY OPERATIONS INCORPORATED  
ARKANSAS NUCLEAR ONE**

57 of 68

**TITLE: DUTIES OF THE EMERGENCY RADIATION  
TEAM**

**PROC/WORK PLAN NO.  
1903.043**

**CHANGE NO.  
018-00-0**

**WORK PLAN EXP. DATE  
N/A**

**TC EXP. DATE  
N/A**

**SET # 103**

**SAFETY-RELATED  
 YES  NO**

**IPTE  
 YES  NO**

**TEMP ALT  
 YES  NO**

**When you see the TRAP**

**use the TOOLS!!**

- Time Pressure**
- Distraction/Interruption**
- Multiple Tasks**
- Over Confidence**
- Vague or Interpretive Guidance**
- First Shift/Last Shift**
- Peer Pressure**
- Change/Off Normal**
- Physical Environment**
- Mental Stress (Home or Work)**

- Self Check**
- Peer Check**
- 3-Part Communication**
- Pre-Evolution Briefs**
- Knowledge**
- Placekeeping**
- STAR**
- Procedures**

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**FORM TITLE:**

**VERIFICATION COVER SHEET**

**FORM NO.  
1000.006A**

**CHANGE NO.  
047-04-0**

**ENTERGY OPERATIONS INCORPORATED  
ARKANSAS NUCLEAR ONE**

59 of 68

**TITLE: DUTIES OF THE EMERGENCY RADIATION  
TEAM**

**PROC/WORK PLAN NO.  
1903.043**

**CHANGE NO.  
018-00-0**

**PROCEDURE**

**WORK PLAN, EXP. DATE** N/A

**PAGE** 1 **OF** 1

**TYPE OF CHANGE:**

**NEW**

**REVISION**

**PC**

**TC**

**DELETION**

**Procedure or Work Plan**

**EZ**

**EXP. DATE:** N/A

**AFFECTED SECTION:  
(Include step # if  
applicable)**

**DESCRIPTION OF CHANGE: (For each change made, include sufficient detail to describe  
reason for the change.)**

**3.4**

**Added Table of Contents**

**5.2.1.A**

**Added commitment number**

**Attachment 1**

**Bold and brackets due to commitment**

**Title bold and brackets due to commitment**

**FORM TITLE:**

**DESCRIPTION OF CHANGE**

**FORM NO.  
1000.006C**

**CHANGE NO.  
047-04-0**

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|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br><b>1903.043</b> | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE: 1 of 9</b><br><b>CHANGE: 018-00-0</b> |
|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

| <u>SECTIONS</u>                                                          | <u>PAGE NO.</u> |
|--------------------------------------------------------------------------|-----------------|
| 1.0 Purpose.....                                                         | 2               |
| 2.0 Scope.....                                                           | 2               |
| 3.0 References.....                                                      | 2               |
| 4.0 Definitions.....                                                     | 3               |
| 5.0 Responsibility and Authority.....                                    | 4               |
| 6.0 Notifications .....                                                  | 5               |
| 7.0 Radiological Response Instructions.....                              | 6               |
| 8.0 Attachments                                                          |                 |
| 8.1 Attachment 1 - Control Room Radiological Monitoring Guidelines ..... | 9               |

|                                               |                                                                                    |                                                |
|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br><b>1903.043</b> | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE:</b> 2 of 9<br><b>CHANGE:</b> 018-00-0 |
|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

1.0 PURPOSE

The purpose of this procedure is to provide guidance on the responsibilities and duties of the Emergency Radiation Team for emergency situations.

2.0 SCOPE

This procedure is applicable to emergency situations involving Unit One and/or Unit Two.

3.0 REFERENCES

3.1 References used in procedure preparation:

3.1.1 Emergency Plan

3.2 References used in conjunction with this procedure:

3.2.1 1903.010, "Emergency Action Level Classification"

3.2.2 1903.011, "Emergency Response/Notifications"

3.2.3 1903.030, "Evacuation"

3.2.4 1903.033, "Protective Action Guidelines for Rescue/Repair and Damage Control Teams"

3.2.5 1903.066, "Emergency Response Facility-Operational Support Center (OSC)"

3.2.6 1903.067, "Emergency Response Facility-Emergency Operations Facility (EOF)"

3.2.7 1905.001, "Emergency Radiological Controls"

3.2.8 1905.002, "Offsite Emergency Monitoring"

3.2.9 1905.003, "Radiological Protection Requirements for Post-Accident Sampling of Reactor Coolant"

3.2.10 1905.004, "EOF Radiological Controls"

3.2.11 1905.030, "Airborne I-131 Determination Using MS-2/SPA-3"

3.2.12 1905.031, "Airborne I-131 Determination Using RM-14/HP-210"

3.2.13 1905.032, "Use of ND-60 Multichannel Analyzer"

3.3 Related ANO procedures:

3.3.1 1903.030, "Evacuation"

|                                        |                                                                                    |                                                |
|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br>1903.043 | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE:</b> 3 of 9<br><b>CHANGE:</b> 018-00-0 |
|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

- 3.3.2 1903.033, "Protective Action Guidelines for Rescue/Repair and Damage Control Teams"
- 3.3.3 1903.060, "Emergency Supplies and Equipment"
- 3.3.4 1904.002, "Offsite Dose Projections - RDACS Computer Method"
- 3.4 Regulatory correspondence containing NRC commitments which are implemented in this procedure: **[BOLD]** Denotes commitments
  - 3.4.1 OCAN108605 (P-1874) Section 5.2.1.A, Attachment 1

#### 4.0 DEFINITIONS

- 4.1 Operational Support Center (OSC) - Emergency response center within the ANO Maintenance Facility where support is coordinated for the following functions:
  - Onsite Radiological Monitoring
  - Maintenance
  - Nuclear Chemistry
  - Emergency Medical Support
  - Fire Fighting Support

The OSC serves as the assembly point and briefing area for repair and damage control teams and is located in the Maintenance Facility.
- 4.2 Emergency Operations Facility (EOF) - A near-site emergency response facility located approximately 0.65 miles northeast of the reactor buildings (the ANO Training Center).
- 4.3 Emergency Kit - A compilation of supplies and equipment for determination of radiological hazards; these kits are located in the general vicinity of the: (1) Unit 1 Control Room, (2) Operational Support Center (Maintenance Facility) (3) Emergency Operations Facility (1st Floor Mechanical Equipment Room), and (4) St. Mary's Hospital (Emergency Room).
- 4.4 Health Physics Network (HPN) Telephone - Dedicated telephone system established by the NRC during its standby or initial activation mode of operations after the licensee's TSC/EOF has been activated and is operational. The HPN is the primary means of communicating radiological data (onsite and offsite measurements and dose assessment information) from the licensee to the NRC.

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|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br><b>1903.043</b> | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE:</b> 4 of 9<br><b>CHANGE:</b> 018-00-0 |
|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

5.0 RESPONSIBILITY AND AUTHORITY

5.1 Health Physics Supervisor

- 5.1.1 Responsible for implementing appropriate actions to prevent and/or mitigate radiological hazards as directed by the Radiation Protection and Radwaste Manager.
- 5.1.2 Responsible for coordinating the efforts to determine onsite radiological hazards (i.e., areas within the security fence).
- 5.1.3 Responsible for recommending actions to prevent and/or mitigate radiological hazards to the Radiation Protection and Radwaste Manager.
- 5.1.4 Responsible for the initial and continued accountability of Onsite Radiation Monitoring Team personnel. This responsibility may be delegated to a specific team member.
- 5.1.5 Responsible for providing periodic updates to the Radiation Protection and Radwaste Manager.

5.2 Emergency Radiation Team (Onsite Radiological Monitoring Section)

- 5.2.1 Responsible for determining onsite radiological hazards, conducting radiological surveys, monitoring, and sampling as directed by the Health Physics Supervisor.
  - A. **[Emergency Radiation Team members who are assigned responsibility for Control Room monitoring shall report results to the Shift Superintendent. Guidance for control room monitoring is provided in Attachment 1.]**
- 5.2.2 Responsible for performing decontamination and onsite rescue operations in conjunction with the Emergency Medical Team.
- 5.2.3 Responsible for making initial and subsequent re-entries into plant areas that present a radiological hazard.
- 5.2.4 Responsible for staffing the Onsite Monitoring base radio and Health Physics Network (HPN) telephone located in the OSC.

5.3 Offsite Monitoring Supervisor

- 5.3.1 Responsible for coordinating the efforts to determine offsite radiological hazards (i.e., areas outside of the security fence) per procedure 1905.002, "Offsite Emergency Monitoring" under the direction of the Dose Assessment Supervisor.

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|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br>1903.043 | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE:</b> 5 of 9<br><b>CHANGE:</b> 018-00-0 |
|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

5.3.2 Responsible for the initial and continued accountability of offsite team personnel. This responsibility may be delegated to a specific team member.

5.3.3 Responsible for providing periodic updates to the Dose Assessment Supervisor.

5.4 Emergency Radiation Team (Offsite Radiological Monitoring Section)

5.4.1 Responsible for determining offsite radiological hazards.

5.4.2 Responsible for conducting required offsite surveys, monitoring, and sampling.

5.4.3 Responsible for reporting information to Offsite Monitoring Supervisor.

5.4.4 Responsible for staffing the Offsite Monitoring base radio and Health Physics Network (HPN) telephone located at the EOF.

5.5 Shift Superintendent

5.5.1 Responsible for decisions pertaining to Control Room habitability based upon radiological information obtained from the Control Room HP Techs and plant status information from the Operations staff.

6.0 NOTIFICATIONS

6.1 During routine work hours, the Emergency Radiation Team personnel onsite will be contacted either by the plant paging system or telephone.

6.2 After routine work hours, the Emergency Radiation Team personnel will be contacted via the duty HP Supervisor.

6.3 The following information should be provided to the notified Radiation Team personnel as indicated:

6.3.1 If team personnel are to respond to an Emergency Class that may or may not involve a radiological emergency, they should be provided the following information, as known:

- A. Affected unit.
- B. Emergency Class declared.
- C. What immediate response is required.
- D. Other information, as the situation dictates.



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|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br>1903.043 | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE:</b> 6 of 9<br><b>CHANGE:</b> 018-00-0 |
|----------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

7.0 RADIOLOGICAL RESPONSE INSTRUCTIONS

- 7.1 Notified team personnel should report to their designated initial assembly area in the Operational Support Center.
- 7.2 The Health Physics Supervisor shall assign personnel to the following sections (including designation of section leaders, as needed) to perform the following actions:
  - 7.2.1 Onsite Radiological Monitoring Section - performs initial surveys, sampling, and posting of applicable onsite areas and accompanies other emergency response teams during initial entry and subsequent reentries, as required. Also, staffs the Onsite Monitoring base radio and the Health Physics Network (HPN) telephone located in the OSC.
    - A. Immediately following activation, assign one HP Technician to report to the affected units Control Room, ensure that the Control Room Emergency Kit equipment is available/operable and conduct any necessary Health Physics Activities as directed by the Shift Superintendent. Guidelines for control room monitoring are provided in Attachment 1. Control Room survey results shall be reported to the Shift Superintendent. When possible, the technicians should report to or notify the Onsite Monitoring Supervisor of their status.
  - 7.2.2 Offsite Radiological Monitoring Section performs initial surveys, sampling, and posting of applicable offsite areas, and assists in collection of appropriate environmental samples. Also, staffs the Offsite Monitoring base radio and the Health Physics Network (HPN) telephone located at the EOF.
- 7.3 The Health Physics Supervisor shall account for Onsite Radiological Monitoring personnel.
- 7.4 Once assigned, the Offsite Radiological Monitoring Section should report to their designated assembly area (as indicated in Attachment 1) to make ready the appropriate emergency kit equipment.
  - 7.4.1 The following vehicles are available for use by the Offsite Monitoring Section (Keys are available in the OSC Emergency Kit and in the office of Emergency Planning (Room #302), located in the Training Center.

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|----------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------|
| PROC./WORK PLAN NO.<br><b>1903.043</b> | PROCEDURE/WORK PLAN TITLE:<br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | PAGE: <b>7 of 9</b><br><br>CHANGE: <b>018-00-0</b> |
|----------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------|

- A. One vehicle is dedicated for initial offsite response. This vehicle is typically the 4-wheel drive and normally restricted to being within 15 minutes of the site and subject to radio recall.
- B. Any ANO vehicle onsite is available for use. Hand held radios are available for the vehicles which are not radio equipped.

- 7.5 Emergency hand held radios are located in the Emergency Communication Equipment locker outside the OSC. See Security personnel in Main Guard Station for key. These radios are reserved for use by Onsite Monitoring Personnel, Emergency Medical Team Personnel and other Recovery Personnel.
- 7.6 If not previously done, the Health Physics Supervisor should consult the Radiation Protection and Radwaste Manager to determine the current radiological response needs.
- 7.7 The Onsite/Offsite Monitoring Sections should respond, as directed, to radiological incidents in accordance with the following emergency procedures, as appropriate:

**NOTE**

Activation of the Emergency Plan does not supersede the use of routine Health Physics procedures unless it is specifically stated so. Therefore, the guidance contained in the 1600 series procedures should be followed.

- 7.7.1 1903.030, "Evacuation"
- 7.7.2 1903.033, "Protective Action Guidelines for Rescue/Repair and Damage Control Teams"
- 7.7.3 1903.066, "Emergency Response Facility-Operational Support Center (OSC)"
- 7.7.4 1903.067, "Emergency Response Facility-Emergency Operations Facility (EOF)"
- 7.7.5 1905.001, "Emergency Radiological Controls"
- 7.7.6 1905.002, "Offsite Emergency Monitoring"
- 7.7.7 1905.003, "Radiological Protection Requirements for Post-Accident Sampling of Reactor Coolant"
- 7.7.8 1905.004, "EOF Radiological Controls"

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|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|
| <b>PROC./WORK PLAN NO.</b><br><b>1903.043</b> | <b>PROCEDURE/WORK PLAN TITLE:</b><br><b>DUTIES OF THE EMERGENCY RADIATION TEAM</b> | <b>PAGE: 8 of 9</b><br><b>CHANGE: 018-00-0</b> |
|-----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------|

- 7.7.9 1905.030, "Airborne I-131 Determination Using MS-2/SPA-3"
- 7.7.10 1905.031, "Airborne I-131 Determination Using RM-14/HP-210"
- 7.7.11 1905.032, "Use of ND-60 Multichannel Analyzer"

7.8 The Health Physics Supervisor should provide a periodic update of the onsite section's status to the Radiation Protection and Radwaste Manager.

7.9 The Offsite Monitoring Supervisor should provide a periodic update of the offsite section's status to the Dose Assessment Supervisor.

8.0 ATTACHMENTS AND FORMS

8.1 Attachment 1 - Control Room Radiological Monitoring Guidelines