

Monday, November 12, 2001

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## Document Update Notification

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**COPYHOLDER NO:** 103

**TO:** NRC - WASHINGTON

**ADDRESS:** OS-DOC CNTRL DESK MAIL STOP OP1-  
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**DOCUMENT NO:** OP-1903.043

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

**REVISION NO:** 019-00-0

**CHANGE NO:** AP-19

**SUBJECT:** NEW REVISION



← If this box is checked, please sign, date, and return within 5 days.



ANO-1 Docket 50-313



ANO-2 Docket 50-368

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Signature

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Date

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**RETURN TO:**

**ATTN: DOCUMENT CONTROL  
ARKANSAS NUCLEAR ONE  
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AD43

ENTERGY OPERATIONS INCORPORATED  
ARKANSAS NUCLEAR ONE

TITLE: DUTIES OF THE EMERGENCY RADIATION  
TEAM

DOCUMENT NO.  
1903.043

CHANGE NO.  
019-00-0

WORK PLAN EXP. DATE  
N/A

TC EXP. DATE  
N/A

SAFETY-RELATED  
☒ YES ☐ NO

IPTE  
☐ YES ☒ NO

TEMP ALT  
☐ YES ☒ NO

SET # 103

When you see these TRAPS

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

Get these TOOLS

Effective Communication  
Questioning Attitude  
Placekeeping  
Self Check  
Peer Check  
Knowledge  
Procedures  
Job Briefing  
Coaching  
Turnover

VERIFIED BY

DATE

TIME


FORM TITLE:

VERIFICATION COVER SHEET

FORM NO.  
1000.006A

CHANGE NO.  
050-00-0

# ENTERGY OPERATIONS INCORPORATED ARKANSAS NUCLEAR ONE

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<b>TITLE: DUTIES OF THE EMERGENCY RADIATION TEAM</b>	<b>DOCUMENT NO.</b> 1903.043	<b>CHANGE NO.</b> 019-00-0
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<b>AFFECTED UNIT:</b> <input checked="" type="checkbox"/> UNIT 1 <input checked="" type="checkbox"/> UNIT 2	<input checked="" type="checkbox"/> PROCEDURE <input type="checkbox"/> ELECTRONIC DOCUMENT <input type="checkbox"/> WORK PLAN,    EXP. DATE <u>N/A</u>	<b>SAFETY-RELATED</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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<b>TYPE OF CHANGE:</b> <input type="checkbox"/> NEW <input checked="" type="checkbox"/> REVISION	<input type="checkbox"/> PC <input type="checkbox"/> EZ	<input type="checkbox"/> TC <input type="checkbox"/> DELETION EXP. DATE: <u>N/A</u>
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**DOES THIS DOCUMENT:**

1. Supersede or replace another procedure? (If YES, complete 1000.006B for deleted procedure.) (OCAN058107)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
2. Alter or delete an existing regulatory commitment? (If YES, coordinate with Licensing before implementing.) (OCNA128509)(OCAN049803)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
3. Require a 50.59 review per LI-101? (See also 1000.006, Attachment 15) (If 50.59 evaluation, OSRC review required.)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
4. Cause the MTCL to be untrue? (See Step 8.5 for details.) (If YES, complete 1000.009A) (1CAN108904, 0CAN099001, 0CNA128509, 0CAN049803)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
5. Create an Intent Change? (If YES, Standard Approval Process required.)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
6. Implement or change IPTE requirements? (If YES, complete 1000.143A. OSRC review required.)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
7. Implement or change a Temporary Alteration? (If YES, then OSRC review required.)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

Was the Master Electronic File used as the source document? ☒ YES    ☐ NO

INTERIM APPROVAL PROCESS	STANDARD APPROVAL PROCESS
<b>ORIGINATOR SIGNATURE:</b> (Includes review of Att. 13) DATE: _____ Print and Sign name: _____ PHONE #: _____ <b>SUPERVISOR APPROVAL:</b> * <i>[Signature]</i> DATE: _____ <b>SRO UNIT ONE:**</b> <i>A</i> DATE: _____ <b>SRO UNIT TWO:**</b> _____ DATE: _____ Interim approval allowed for non-intent changes requiring no 50.59 evaluation that are stopping work in progress. Standard Approval required for intent changes or changes requiring a 50.59 evaluation. *If change not required to support work in progress, Department Head must sign. **If both units are affected by change, both SRO signatures are required. (SRO signature required for safety related procedures only.)	<b>ORIGINATOR SIGNATURE:</b> (Includes review of Att. 13) DATE: <u>10/31/01</u> Print and Sign name: <u>Robert L. Fowler</u> PHONE #: <u>4993</u> <b>INDEPENDENT REVIEWER:</b> DATE: <u>10/31/01</u> <i>[Signature]</i> <b>ENGINEERING:</b> <u>N/A</u> DATE: _____ <b>QUALITY:</b> <u>N/A</u> DATE: _____ <b>UNIT SURVEILLANCE COORDINATOR (OCNA049803):</b> DATE: <u>N/A</u> <b>SECTION LEADER:</b> <u>R. Fuller</u> DATE: <u>11-1-01</u> <b>QUALITY ASSURANCE:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>[Signature]</u> DATE: <u>10/31/01</u> <b>OTHER SECTION LEADERS:</b> <u>[Signature]</u> DATE: <u>10/31/01</u> <b>OTHER SECTION LEADERS:</b> <u>[Signature]</u> DATE: <u>10/31/01</u> <b>OTHER SECTION LEADERS:</b> <u>[Signature]</u> DATE: <u>11/1/01</u> <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____
<b>OSRC CHAIRMAN/TECHNICAL REVIEWER:</b> (OCNA049312) DATE: <u>10/31/01</u> <b>FINAL APPROVAL:</b> <i>[Signature]</i> Date: <u>11/5/2001</u> <b>REQUIRED EFFECTIVE DATE:</b> <u>11/12/01</u>	<b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____ <b>OTHER SECTION LEADERS:</b> <u>N/A</u> DATE: _____

<b>FORM TITLE:</b> PROCEDURE/WORK PLAN APPROVAL REQUEST	<b>FORM NO.</b> 1000.006B	<b>CHANGE NO.</b> 051-00-0
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# ENTERGY OPERATIONS INCORPORATED ARKANSAS NUCLEAR ONE

TITLE: DUTIES OF THE EMERGENCY RADIATION TEAM		DOCUMENT NO. 1903.043	CHANGE NO. 019-00-0
<input checked="" type="checkbox"/> PROCEDURE <input type="checkbox"/> WORK PLAN, EXP. DATE <u>N/A</u>		PAGE <u>1</u> OF <u>1</u>	
<input type="checkbox"/> ELECTRONIC DOCUMENT			
TYPE OF CHANGE: <input type="checkbox"/> NEW <input type="checkbox"/> PC <input type="checkbox"/> TC <input type="checkbox"/> DELETION <input checked="" type="checkbox"/> REVISION <input type="checkbox"/> EZ                      EXP. DATE: <u>N/A</u>			
AFFECTED SECTION: (Include step # if applicable)	DESCRIPTION OF CHANGE: (For each change made, include sufficient detail to describe reason for the change.)		
3.2.11	Deleted reference to 1905.030. Procedure no longer exists.		
3.2.12	Re-numbered to 3.2.11. Changed title from "... RM-14/HP-210" to "... a Frisker".		
3.2.13	Deleted reference to 1905.032. Procedure no longer exists.		
5.2.1.A	Changed "Shift Superintendent" to "Shift Manager".		
5.5	Changed "Shift Superintendent" to "Shift Manager".		
6.2	Changed method of notification from "duty HP Supervisor" to "Computerized Notification System".		
7.2.1.A	Changed "Shift Superintendent" to "Shift Manager".		
7.4	Deleted reference to Attachment 1.		
7.4.1	Changed location of Emergency Planning offices from Training Center to 3rd floor, Administration Building.		
7.5	Changed location of handheld radios and deleted reference to obtaining keys from Security.		
7.7 NOTE	Changed reference to "1600 series procedures" to "routine HP procedures".		
7.7.9	Deleted reference to 1905.030. Procedure no longer exists.		
7.7.10	Re-numbered to 7.7.9 and changed title from "... RM-14/HP-210" to "... a Frisker".		
7.7.11	Deleted reference to 1905.032. Procedure no longer exists.		
Attachment 1	Re-formatted flowchart and added action steps for issuance of KI and use of SCBAs.		
FORM TITLE:  DESCRIPTION OF CHANGE		FORM NO. 1000.006C	CHANGE NO. 050-00-0

<b>PROC./WORK PLAN NO.</b> <b>1903.043</b>	<b>PROCEDURE/WORK PLAN TITLE:</b> <b>DUTIES OF THE EMERGENCY RADIATION TEAM</b>	<b>PAGE:</b> 1 of 9 <b>CHANGE:</b> 019-00-0
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# 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 1905.031, "Airborne I-131 Determination Using a Frisker"

## 3.3 Related ANO procedures:

3.3.1 1903.030, "Evacuation"

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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 0CAN108605 (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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## 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 Manager. 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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- 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 Manager
  - 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 Computerized Notification System.
  - 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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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 unit's 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 Manager. Guidelines for control room monitoring are provided in Attachment 1. Control Room survey results shall be reported to the Shift Manager. 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 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 offices of Emergency Planning (3rd floor, Administration Building)).

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- 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 OSC. 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 routine HP 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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7.7.9 1905.031, "Airborne I-131 Determination Using a Frisker"

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.

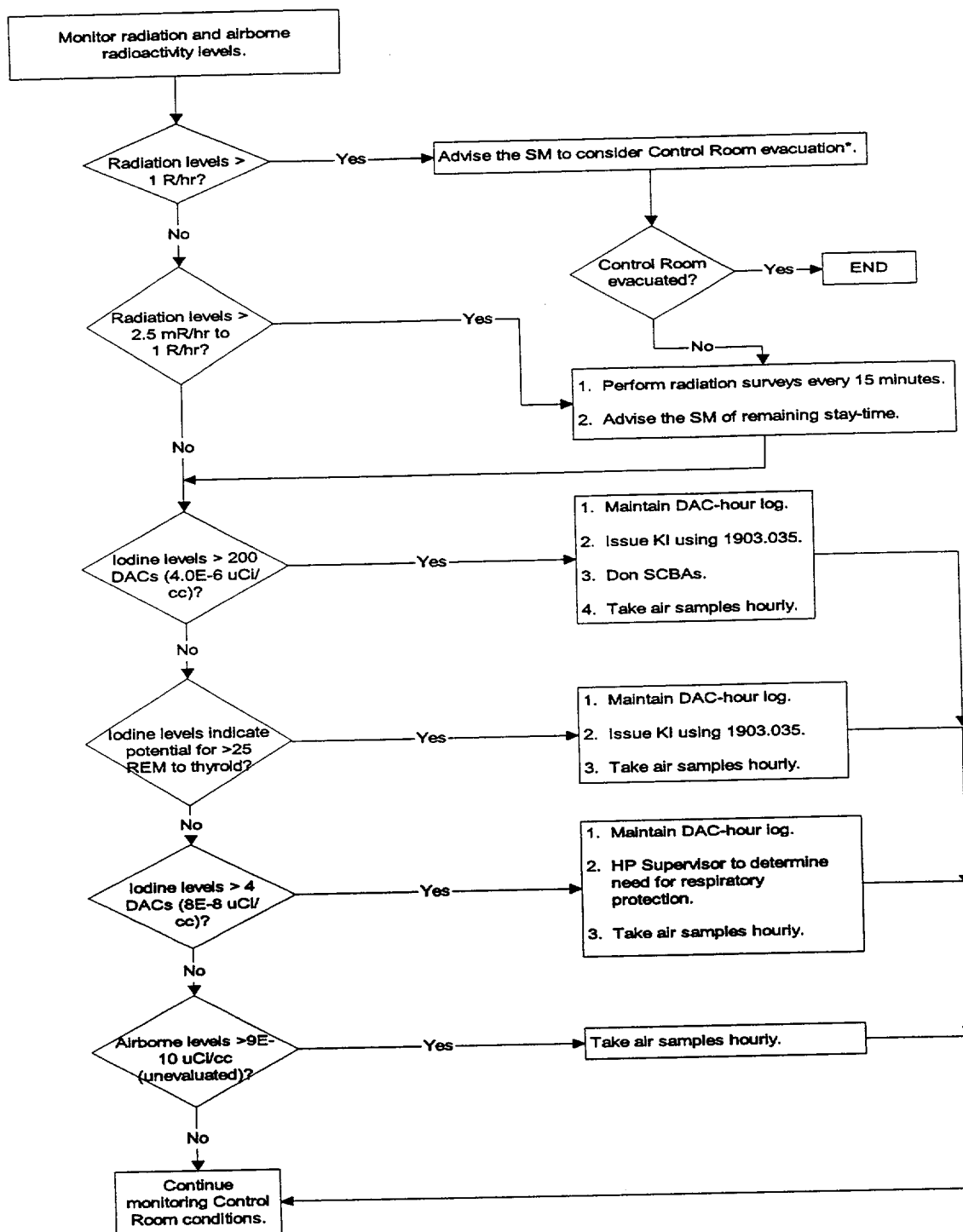
#### 8.0 ATTACHMENTS AND FORMS

8.1 Attachment 1 - Control Room Radiological Monitoring Guidelines

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[ATTACHMENT 1]

CONTROL ROOM RADIOLOGICAL MONITORING GUIDELINES



\* The Shift Manager will make the final decision concerning control room evacuation based on plant status and radiological conditions.