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Arizona Public Service Company

PALO VERDE NUCLEAR GENERATING STATION
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

094-01279-EEL/HL

March 12, 1999

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-37
Washington, DC 20555-0001

Dear Sirs:

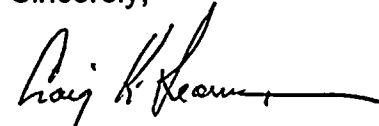
**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
Emergency Plan Implementing Procedure Update**

Enclosed are copies of revised PVNGS Emergency Plan Implementing Procedures (EIPs), which are being sent in accordance with 10 CFR 50, Appendix E.V. The EIPs included with this transmittal are indicated on the enclosed list. The effective date of these EIPs is March 1, 1999 (for 16DP-0EP15) and March 5, 1999 (for 16DP-0EP14 and 16DP-0EP17).

APS is forwarding two copies of the enclosure to the NRC Region IV Office, and a copy of the revised EIPs have been provided to the NRC Resident Inspector's Office as an update to the assigned controlled procedures.

If you have any questions, please contact me at (602) 393-2099.

Sincerely,



Craig Seaman
Director
Emergency Services.

9903230290 990312
PDR ADOCK 05000528
F PDR

230025

EEL/hl

Enclosure

cc: E. W. Merschoff (w/Enclosure - 2 copies)
M. B. Fields (w/o Enclosure)
G. M. Good (w/o Enclosure)
P. H. Harrell (w/o Enclosure)
J. H. Moorman (w/o Enclosure)

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ENCLOSURE

REVISED EMERGENCY PLAN IMPLEMENTING PROCEDURE LISTING

REVISED PVNGS EMERGENCY PLAN IMPLEMENTING PROCEDURES

**16DP-0EP14 Rev. 6
16DP-0EP15 Rev. 10
16DP-0EP17 Rev. 8**

REVISED EMERGENCY PLAN IMPLEMENTING PROCEDURES LISTING

EP NO.	CURRENT REVISION NO.	Page(s) Numbers Marked*
16DP-0EP14	6	None
16DP-0EP15	10	10
16DP-0EP17	8	None

*Certain EPIPs contain information considered private or proprietary (including names, home telephone numbers, and internal and external telephone numbers, which must remain available during an emergency). In accordance with Generic Letter No. 81-27, the specific information has been bracketed on the indicated pages. We request this information be considered confidential and withheld from public disclosure pursuant to 10 CFR 2.790(a) and 10 CFR 9.17(a).



Nuclear Information and Records Management Transmittal

Procedure Number

16DP-0EP14

Revision #

05

Effective Date

09-18-98

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16DP-0EP	00-000	NRC RIV ERC	USNRC REGION IV, ATTN.: E.W. MERSCHOFF, 611 RYAN PLAZA DRIVE, SUITE 400, ARLINGTON, TX 76011	PW	2	SEND CERTIFIED MAIL ONLY!
16DP-0EP	00-000	NRC RIV ERC	USNRC REGION IV, ATTN.: T.H. ANDREWS, 611 RYAN PLAZA DRIVE, SUITE 400, ARLINGTON, TX 76011	PW	2	SEND CERTIFIED MAIL ONLY!
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16DP-0EP	00-000	LINES,H	X/STA-7003	PW	1	
16DP-0EP	00-000	IDE,W	X/STA-7294	PW	1	
16DP-0EP	00-000	SONTAG, M	X/STA-7997	PW	1	
16DP-0EP	00-000	GOODWIN,A	Y/ARIZONA RADIATION REG AGENCY 4814 S 40TH ST PHX AZ 85040	PW	1	
16DP-0EP	00-000	LUTTON,J	Y/AZ RAD REG AGENCY 4814 S 40TH ST PHX AZ 85040	PW	1	
16DP-0EP	00-000	SPENCER,B	Y/MARICOPA CNTY DEPT OF EMERG MGMT 2035 N 52ND ST PHX AZ 85008	PW	1	

Remarks

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PW	13
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For Questions Contact NIRM

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 Supplemented by
 per letter to EPIC
 3/12/99
 50-528

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16DP-0EP14

05

09-18-98

Document #	Critical Area	Control	Custodian	Location	Paper	Quantity	Remarks
16DP-0EP		00-000	PORTER,J CAPTAIN	Y/MARICOPA CO SHERIFFS OFFICE 102 W MADISON PHX AZ 85003	PW	1	
16DP-0EP		00-000	ARPIAO,J SHERIFF	Y/MARICOPA COUNTY SHERIFFS OFFICE 102 W MADISON PHX AZ 85003	PW	1	
16DP-0EP		00-000	BORDER,H	Y/PLNS & OPS AZ DIV OF EMERGENCY MGMT 5636 E MCDOWELL RD PHX AZ 85008	PW	1	
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16DP-0EP		05-006		A/UI-RP	PW	1	
16DP-0EP		05-036	MGR	C/EOF-DW-EMER-PLAN	PW	1	
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16DP-0EP		12-003	WOLFE,B	X/STA-6050	PW	2	JENC
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Remarks

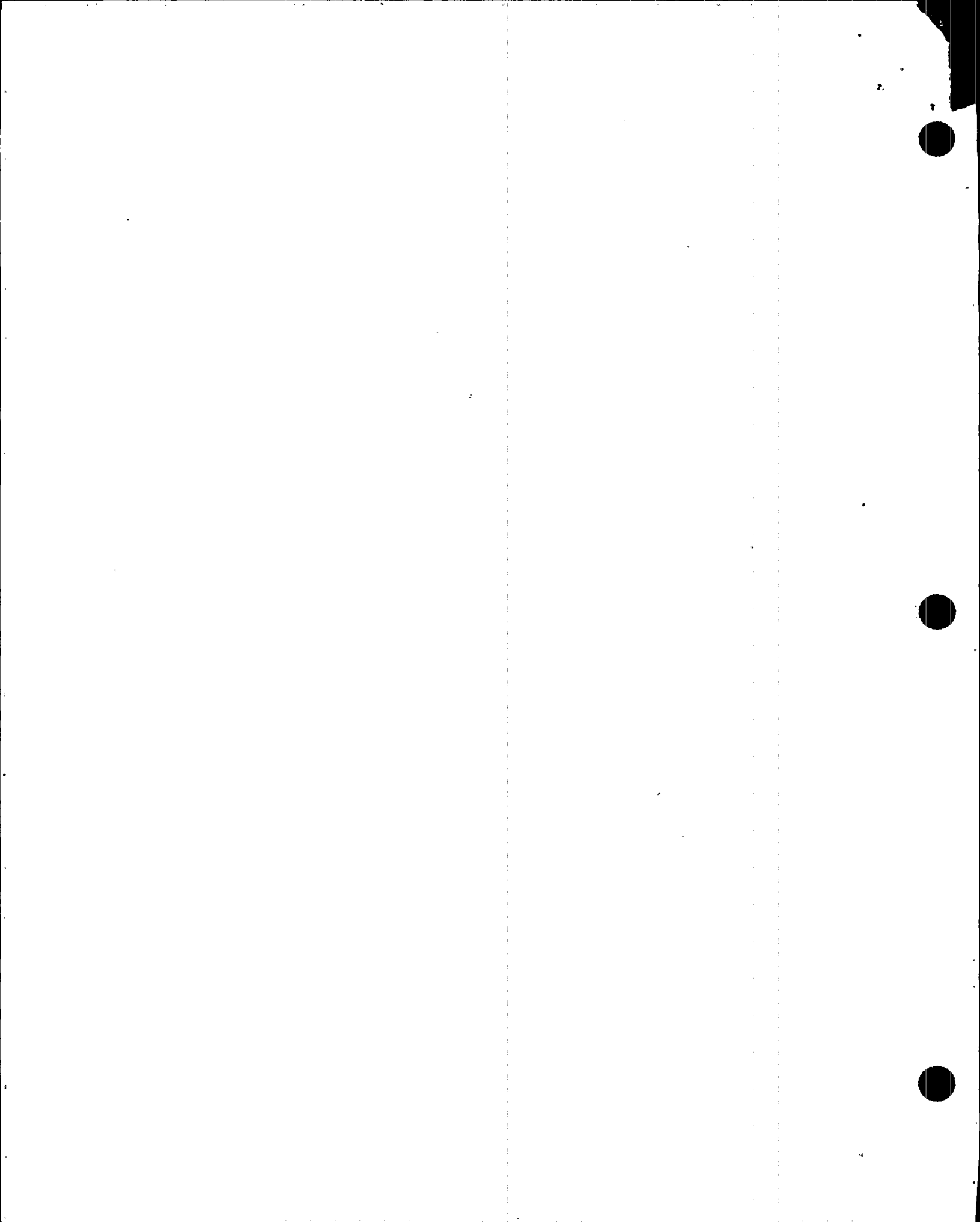
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Remarks

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09-18-98

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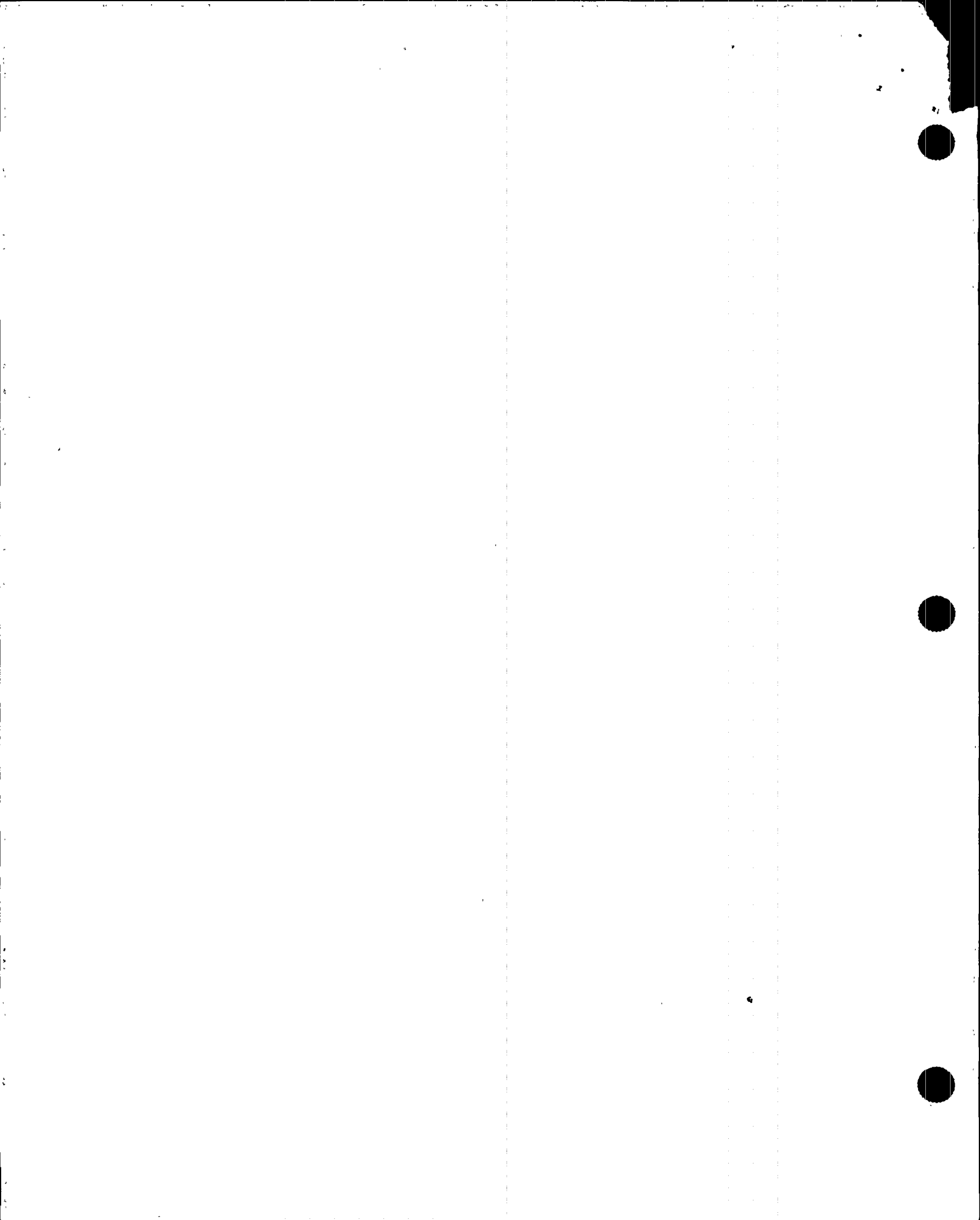
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16DP-0EP15		03-005E-1	TECH-ENG-ADVISOR	DTSC DATA CENTER	PW	1	
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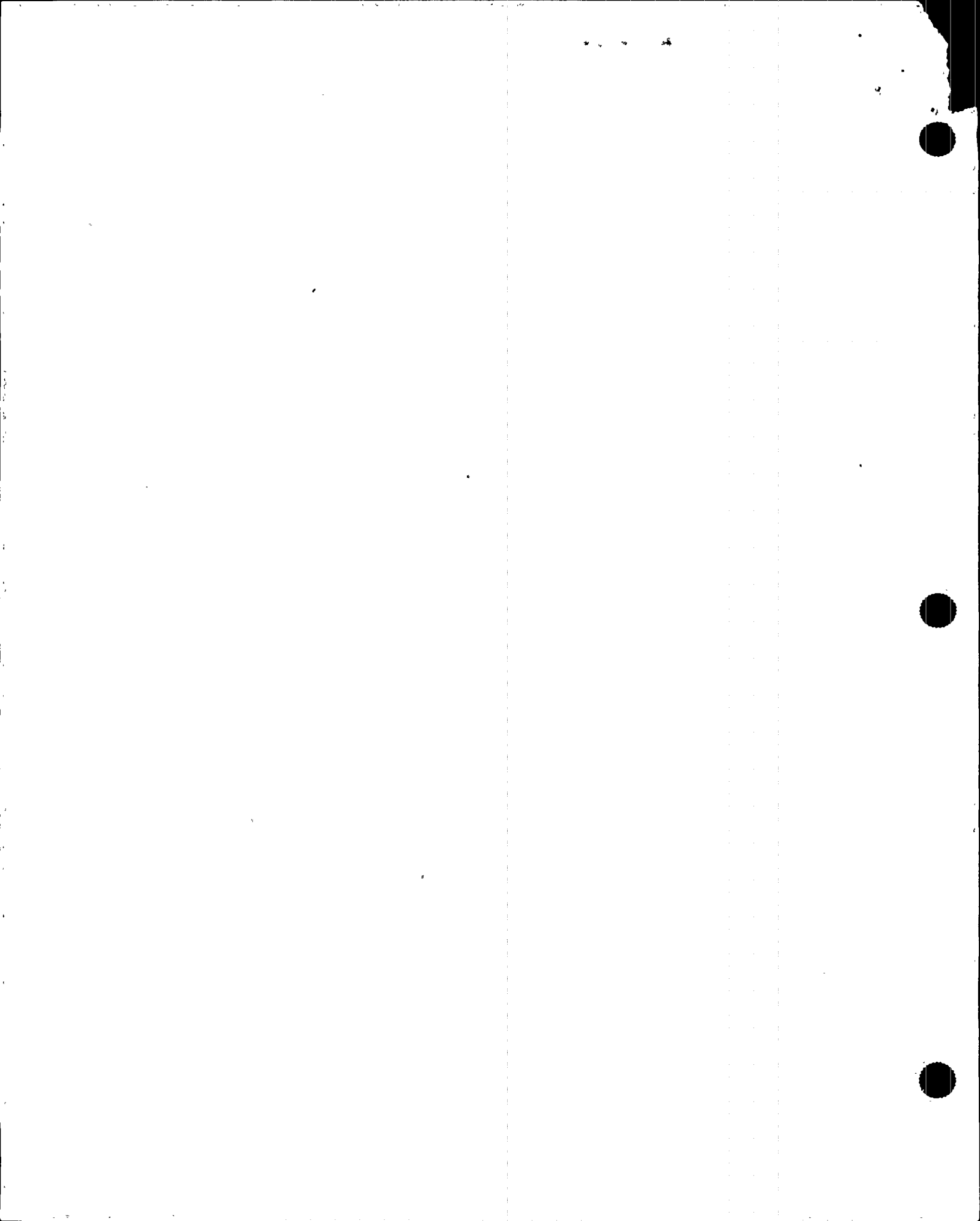
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PROCEDURE INTENT

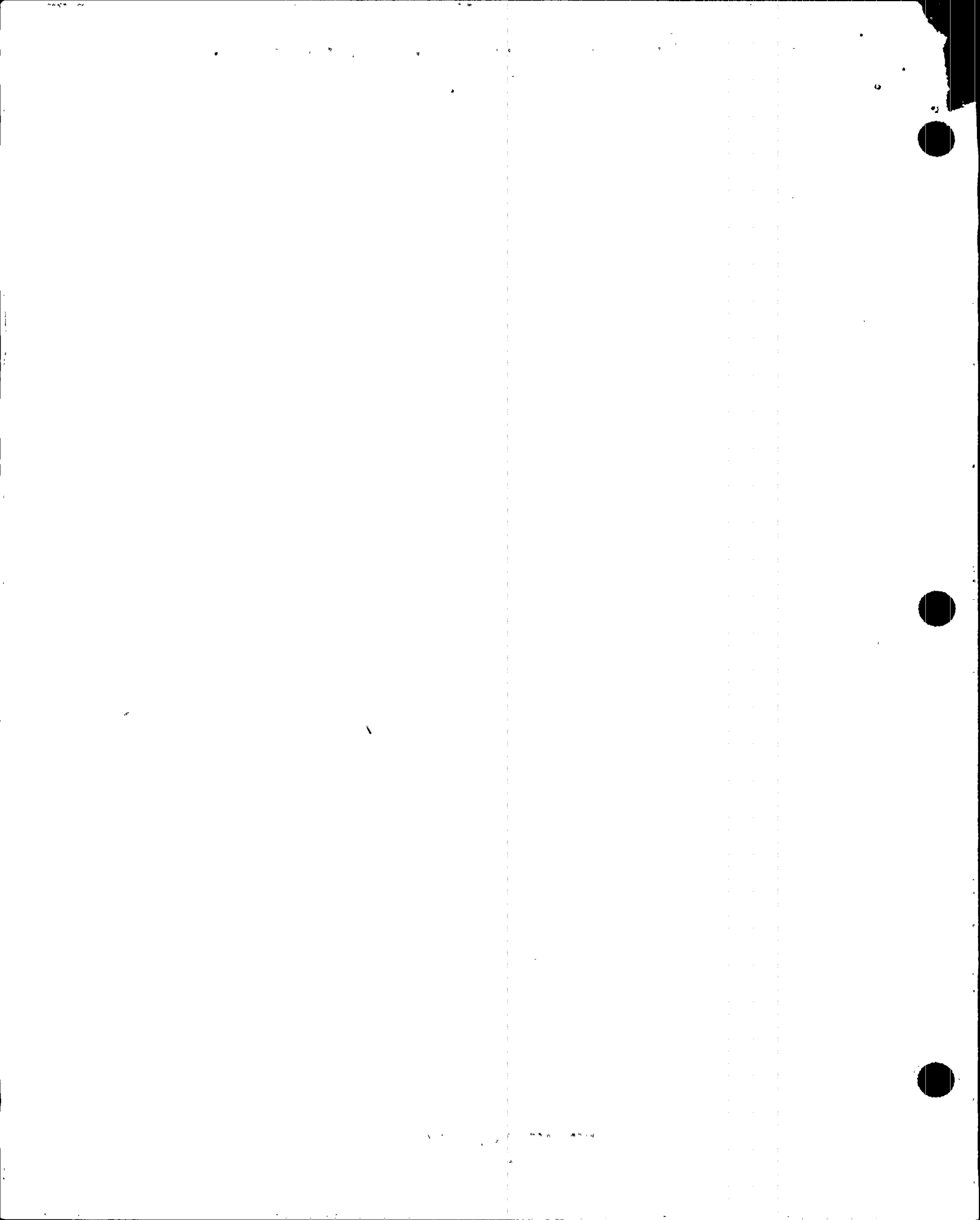
This procedure provides functional instruction for the activation and operation of the Satellite Technical Support Center.

SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 1.0 - INTRODUCTION		

1.0 - Introduction

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SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 1.0 - INTRODUCTION		

1.0 - Introduction *continued...*

Applicability This procedure provides functional instruction for the activation and operation of the Satellite Technical Support Center. It should be referenced by Emergency Response personnel when responding to that facility during any classified emergency event.

Content This Introduction Section of the procedure describes the following:

- ♦ Prerequisites
- ♦ Precautions
- ♦ Limitations

Prerequisites All of the following conditions have been satisfied:

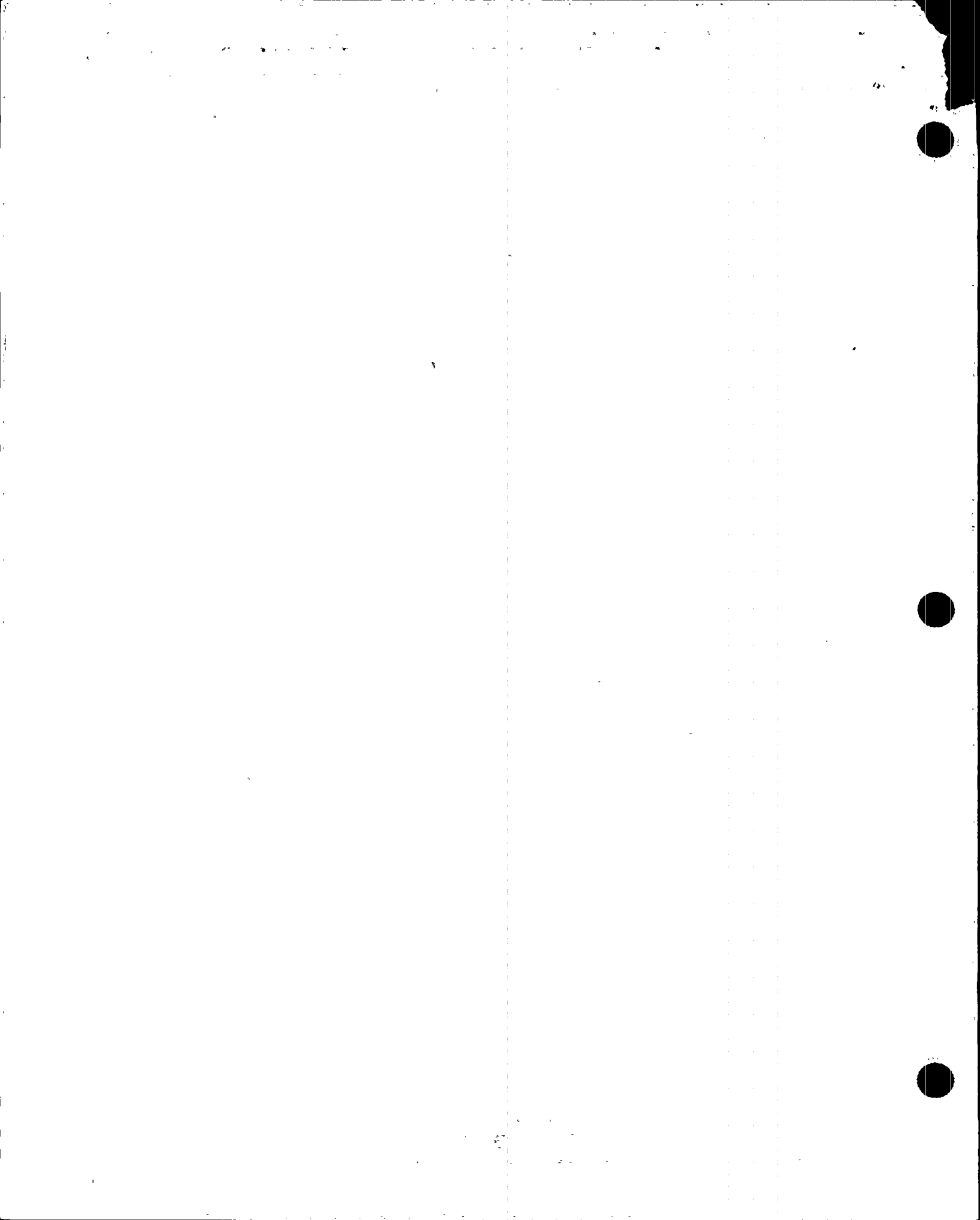
- ♦ An **NUE** or higher Emergency Classification has been declared.
- ♦ The Satellite Technical Support Center meets minimum activation staffing levels.

Precautions Emergencies should be classified with a goal of 15 minutes from the time conditions are available as specified in the NRC Position Paper of 01 AUG 95.

If the Satellite Technical Support Center becomes uninhabitable, an Unaffected Unit Satellite Technical Support Center should be selected as an alternate by the Emergency Coordinator. The Radiation Protection Monitor will aid in evaluating and formulating recommendations for relocation.

In the event of a Security Contingency, such as a direct armed attack, assign other personnel to perform the response actions which are normally performed by Security. If the event could endanger arriving personnel due to safety or security conditions, decide where emergency personnel should report and change the initial group pager and onsite Unit Evacuation System messages appropriately.

If ERFDADS is inoperable, meteorological information required by the Radiological Monitoring Technician can be obtained by dialing the National Weather Service in Phoenix per 16IG-0EP201, Telecommunications, Section 5, Government Agencies (*Federal*), and requesting current meteorological data at PVNGS. For this case, Delta -T will be derived by the Radiological Monitoring Technician. Ensure that the Emergency Coordinator is informed and that someone is sent to the Meteorological Tower for resolution of failure and to obtain local data, if possible.



SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 1.0 - INTRODUCTION		

1.0 - Introduction *continued...*

Limitations

The Satellite Technical Support Center shall be activated within the time augmentation goals set forth in the PVNGS Emergency *Plan (i.e., immediately following initial emergency declaration)*. It is preferred that those individuals required for activation have been briefed on the emergency prior to facility activation.

Notifications to State/County agencies per the Palo Verde NAN Emergency Message Form shall commence within 15 minutes following each initial, upgraded, or downgraded emergency declaration or any change to a Protective Action Recommendation. Notifications to State/County agencies per the Emergency Termination Message Form shall commence within 15 minutes following termination of the emergency declaration.

The NRC shall be contacted immediately following notification of State/County agencies and within 60 minutes following initial, upgraded, or downgraded emergency declarations. The NRC shall be contacted immediately following notification of State/County agencies for emergency declaration termination.

The NRC phone must be manned continuously at the NRC's request by a Senior Reactor Operator, Reactor Operator, or a Shift Technical Advisor.

An Unaffected Unit Shift Technical Advisor shall report to the Satellite Technical Support Center and address core thermohydraulic and engineering parameters within 30 minutes following emergency event declaration until relieved by the Reactor Analyst in the Technical Support Center.

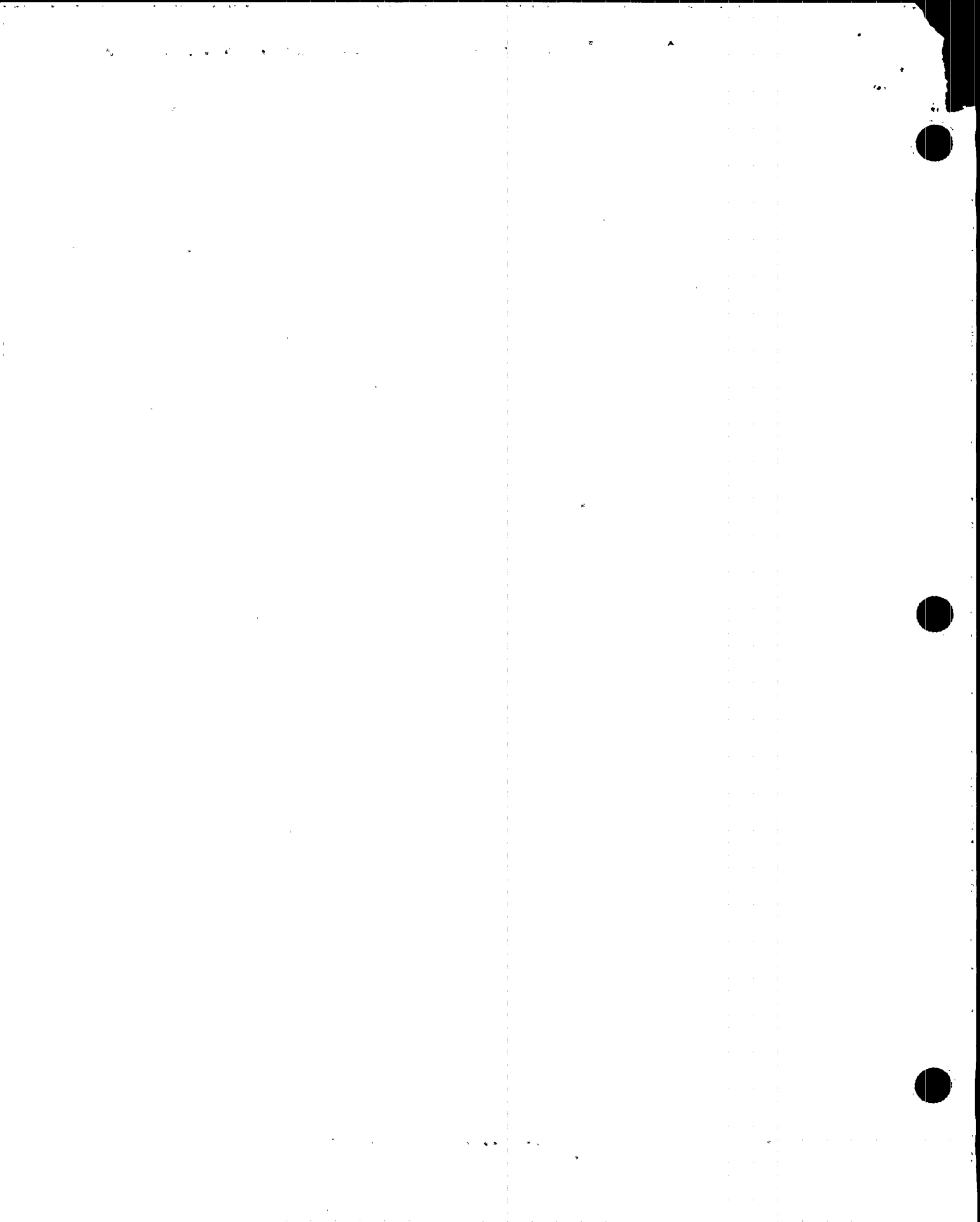
The Emergency Response Data System is required to be activated as soon as possible, but no later than 1 hour, following a declaration of an **Alert** or higher emergency classification.

Assembly is recommended at the **Alert** classification level unless the Emergency Coordinator is reasonably assured that the condition does not have the potential to further degrade. Accountability does not have to be performed immediately following the request for Assembly. In any case, Accountability is required for a **Site Area Emergency** or a **General Emergency** and must be completed within 30 minutes following the request for Accountability.

Although Site Evacuation is optional at the **Site Area Emergency** classification level, it is required at the **General Emergency** level.

continues...

NUCLEAR ADMINISTRATIVE AND TECHNICAL MANUAL	4 of 34
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SECTION 1.0 - INTRODUCTION

1.0 - Introduction *continued...***Limitations
(continued)**

The Radiation Protection Monitor shall deploy at least 1 offsite survey team within 30 minutes following emergency declaration of an **Alert** or higher classification when an effluent monitor indicates a higher-than-normal release of radioactive materials is occurring. As appropriate, the team may be dispatched for surveys, advised to stand by, or secured from activities if no radiation release is apparent.

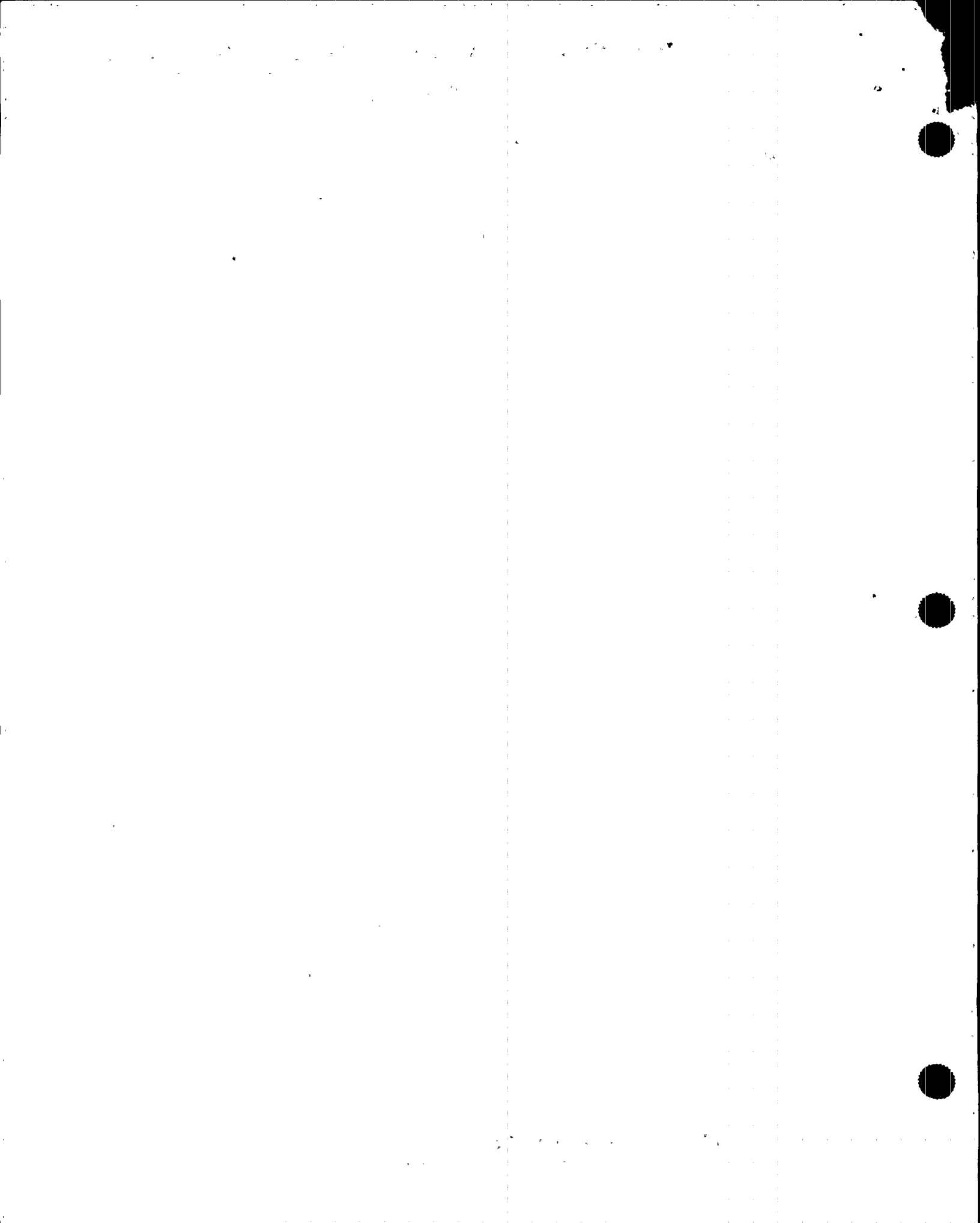
A currently licensed Senior Reactor Operator must approve any suspension of safeguards directed by the Emergency Coordinator prior to taking the action in accordance with the Code of Federal Regulations, Title 10, Part 50.54(y).

**Procedure
Layout**

- ◆ Each section in this procedure is associated with a position within the facility.
- ◆ Each section is organized into topic areas comprising tasks which are required for the individual to perform.
- ◆ Tasks are preceded by check-off lines the individual may use to denote performance of steps or topic areas.
- ◆ Certain areas of procedures may incorporate the use of flowcharts, whereby direction may be specified to proceed, or go to, other areas of the procedure. These other areas are annotated by block labels, such as the block label for this topic area cited by "Procedure Layout" in the immediate left margin scan column. Using this schema, the user should immediately proceed ahead in the document to the specified block label when directed by the flowchart and perform the actions associated with the given topic area.

**Procedure Use
and Adherence**

Some topic areas in this procedure may not require performance, may require performance more than one time, or may require performance out-of-sequence. The individual should address each, however, to ensure the health and safety of plant personnel and the public are maintained and that regulatory requirements are fulfilled. Technical Instructions (*Instructional Guides*) may be used in addition to this procedure for areas where detailed guidance is desired to accomplish a particular function. Document use and adherence is controlled by 01DP-0AP01, Procedure Process.



SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.0 - Onshift Emergency Coordinator Function

Duties and Responsibilities

The Onshift Emergency Coordinator assumes management control of the Onshift Emergency Organization upon classification of an emergency event. S/he is in charge of onshift emergency operations and is responsible for direction and coordination of the Onshift Emergency Organization. The Onshift Emergency Coordinator initially assumes the functions of the OSC Coordinator until relieved.

The following non-delegable duties are assumed by the Emergency Coordinator upon classification of an emergency event:

- ♦ notification of offsite emergency response agencies and organizations
- ♦ provision of Protective Action Recommendations to offsite emergency management agencies
- ♦ subsequent reclassification of emergency events
- ♦ determination of the necessity for site evacuation
- ♦ authorization for emergency workers to exceed 10 CFR 20 exposure limits
- ♦ activation of onsite and offsite emergency response organizations for an *Alert* or higher emergency classification level

SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR		

2.1 - Initial Actions

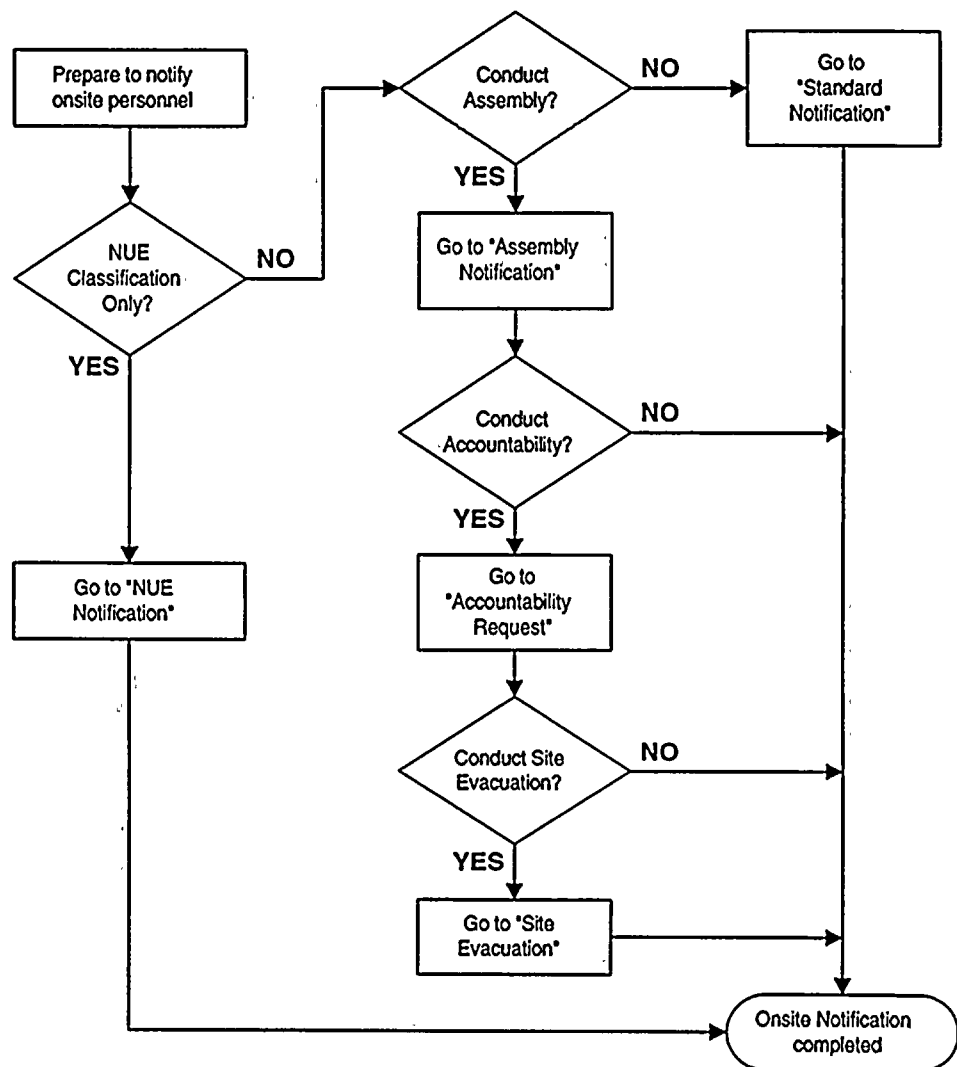
Facility Activation

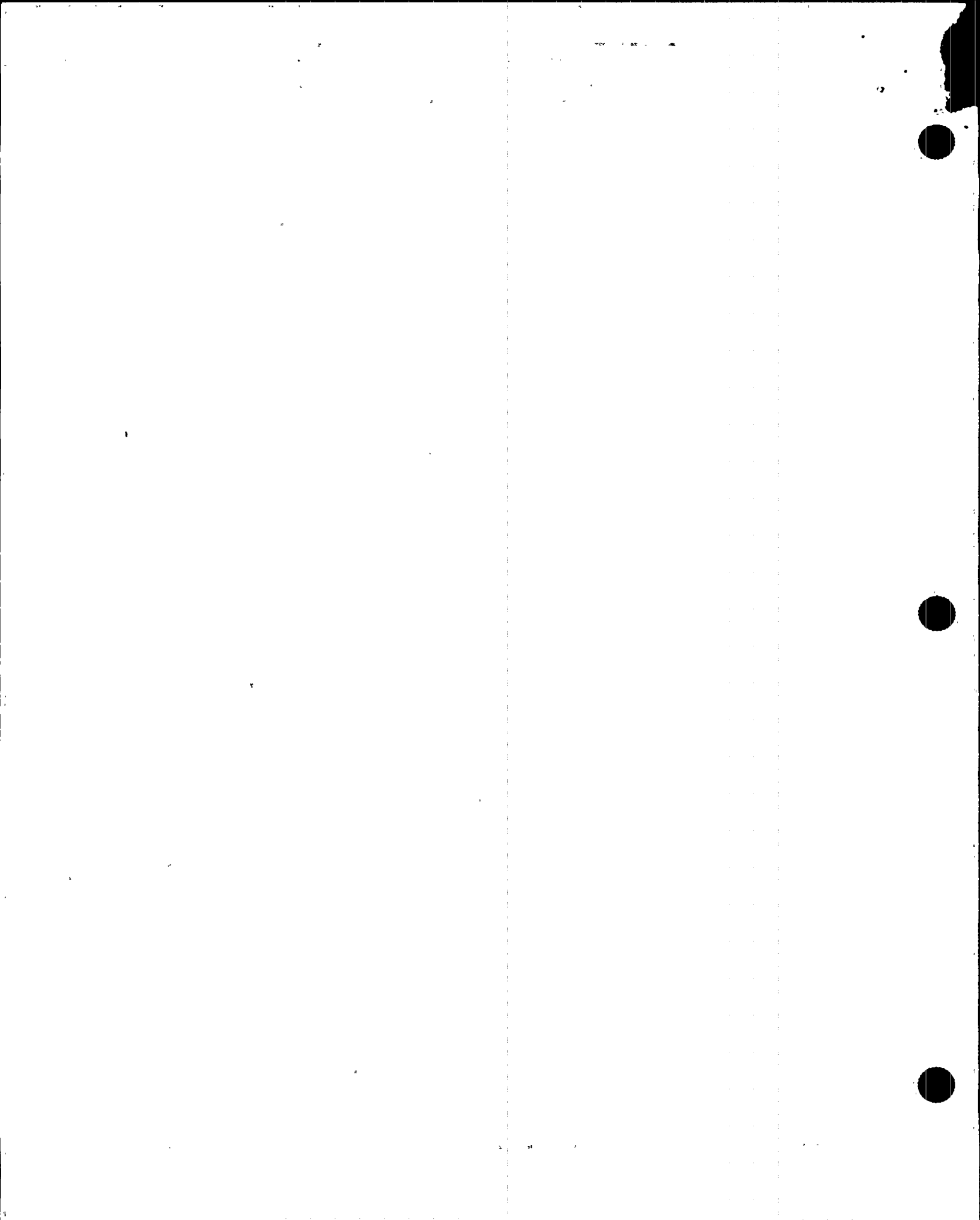
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- Notify the Site Manager of the emergency situation and direct him/her to report to the Affected Unit Control Room and, upon arrival, conduct transfer of Emergency Coordinator responsibilities.
 - Record the time and activate the Satellite Technical Support Center with the following required onshift facility personnel support:
 - ♦ Radiation Protection Monitor
 - ♦ Satellite Technical Support Center Communicator
 - ♦ Shift Technical Advisor
 - During off hours when there is no OSC Coordinator present, assume the following duties:
 - ♦ Direct the RP Monitor to brief personnel in the OSC on plant conditions.
 - ♦ Direct formation and dispatch of response teams.
 - Direct the Satellite Technical Support Center Communicator to complete and transmit Form EP-0541, Palo Verde NAN Emergency Message, to offsite agencies within 15 minutes of emergency event declaration. *(16IG-0EP053, Emergency Message Forms, may be used for guidance.)*
 - Determine the appropriate Protective Action Recommendations. *(16TD-0EP161, Protective Actions, may be used for guidance.)*
 - For off-hour events, instruct the Security Director to initiate call-out actions by activating the Autodialer.
-

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.1 - Initial Actions *continued...*Onsite
Notification
Process
Flowchart

Conduct an onsite notification using the appropriate action as determined by the following flowchart:





SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR		

2.1 - Initial Actions *continued...*

NUE Notification

____ If the event in progress is currently classified as a Notification of Unusual Event, transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. An emergency situation classified as a Notification of Unusual Event exists in Unit _____. All emergency response personnel stand by until further notice."

(Repeat message once. This responsibility can be delegated.)

____ Direct the Security Director to complete supplemental onsite notifications.

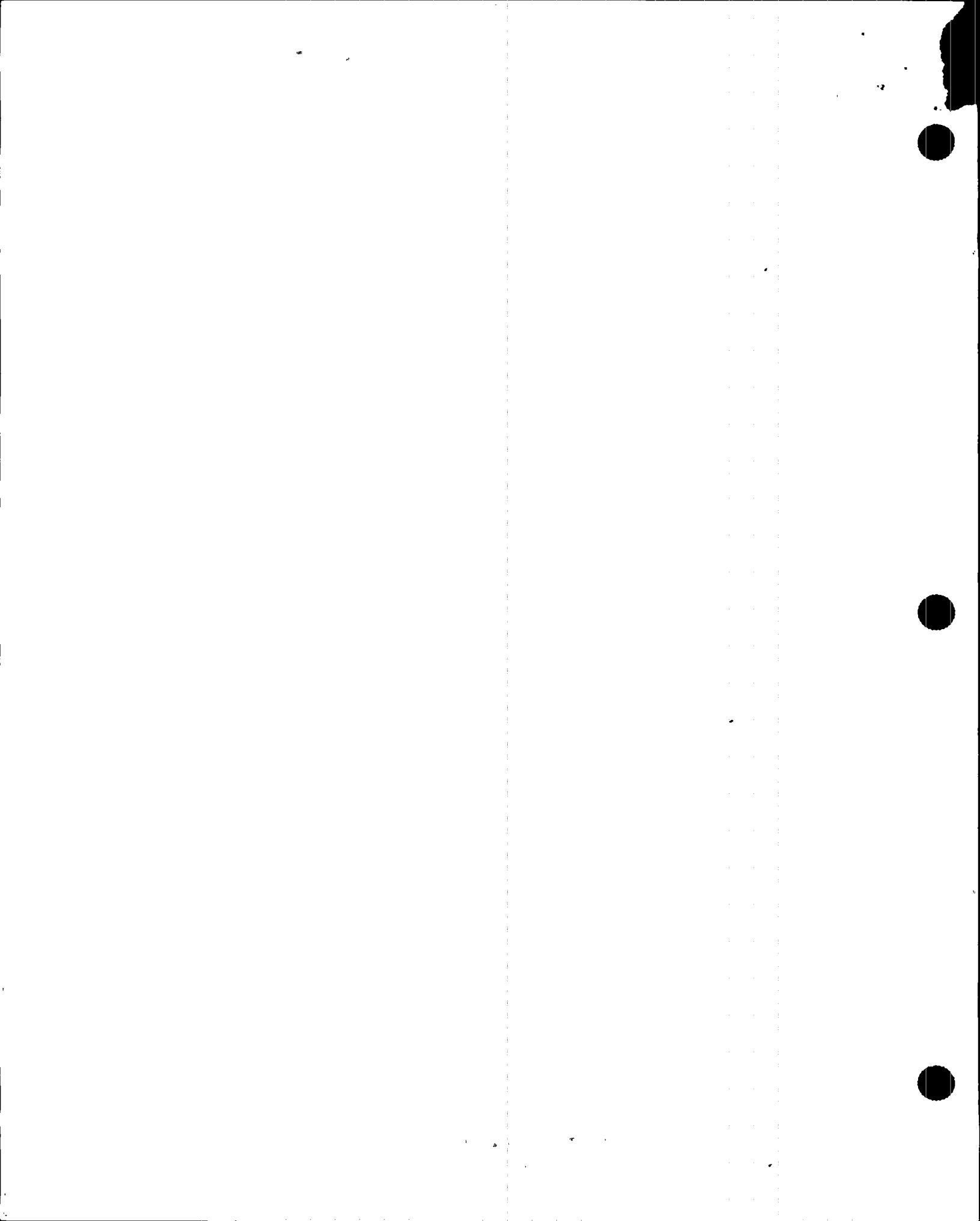
Standard Notification

____ If Assembly is not to be conducted, transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. An emergency situation classified as a _____ exists in Unit _____. All emergency response personnel report to your emergency location. All other personnel stand by until further notice."

(Provide instructions on areas to avoid as appropriate. Repeat message once. This responsibility can be delegated.)

____ Direct the Security Director to complete supplemental onsite notifications.



SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR		

2.1 - Initial Actions *continued...*

Assembly Notification

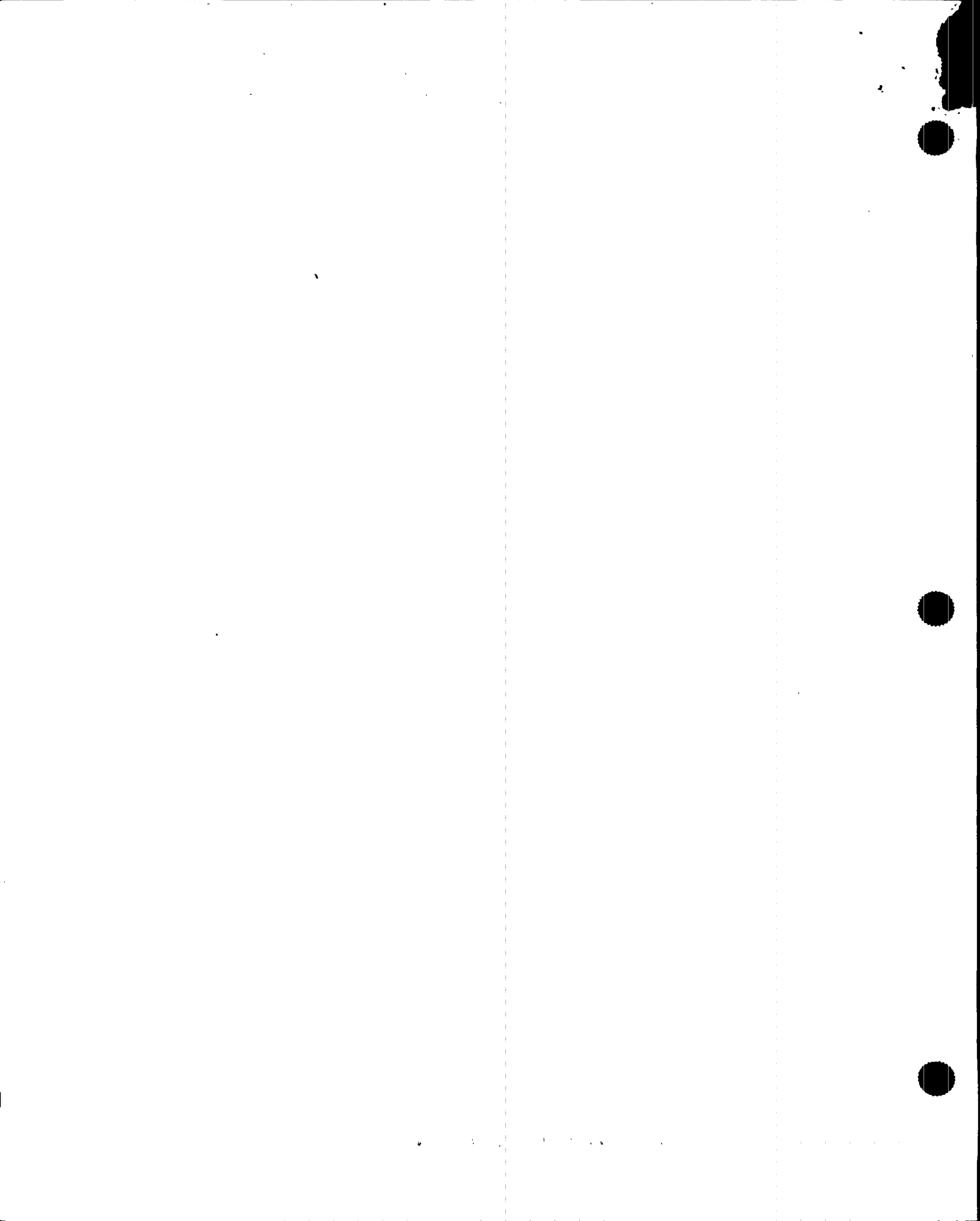
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- ___ If Assembly is to be conducted, perform the following:
- ♦ Sound the Unit Assembly Signal for approximately 30 seconds.
 - ♦ Transmit the following message over the Unit Evacuation System:

“Attention all plant personnel. Attention all plant personnel. An emergency situation classified as a _____ exists in Unit _____. Assembly is required. All personnel report to your designated Assembly Area.”

(Provide instructions on areas to avoid as appropriate. Repeat sounding the Unit Assembly Signal and the message once.)
- ___ Direct the Security Director to complete supplemental onsite notifications.
- ___ Return to the Onsite Notification Process Flowchart, if appropriate.
-

Accountability Request

-
- ___ If Accountability is to be conducted after Assembly, perform the following:
- ♦ Request CAS Security personnel (*verbally or via telephone*) to perform Accountability and to provide the report within 30 minutes.
 - ♦ Advise the Security Director to locate any unaccounted individuals.
- ___ Return to the Onsite Notification Process Flowchart, if appropriate.
-



SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

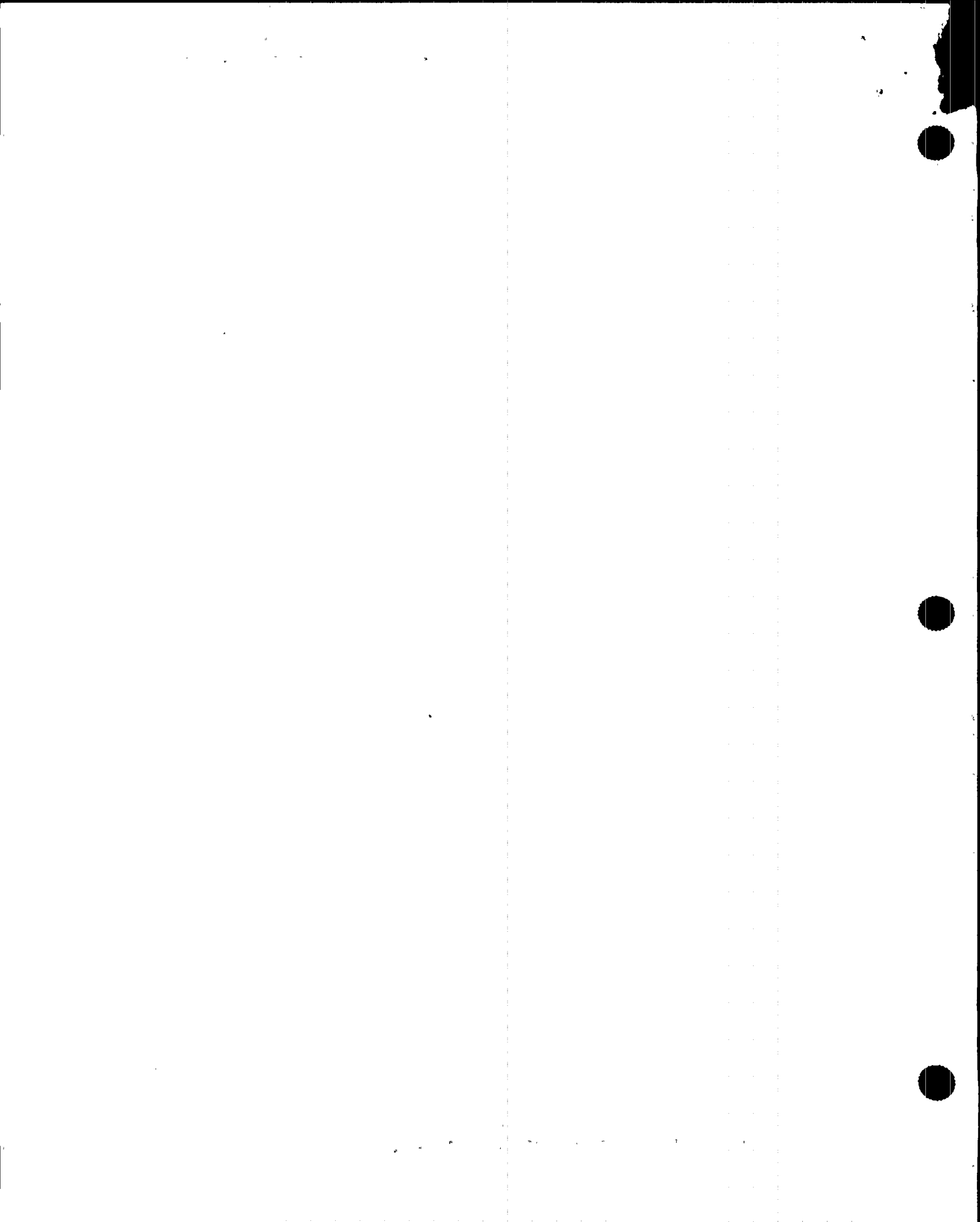
2.1 - Initial Actions *continued...*Site
Evacuation

-
- If Site Evacuation is to be conducted, determine the evacuation route / site egress point (*with input from the Radiation Protection Monitor*).
 - Instruct the Security Director to complete both the supplemental onsite notifications and the organization / security actions for a Site Evacuation.
 - When actions to organize the evacuation have been completed and security measures have been established, transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. Site evacuation for non-essential personnel is required. Proceed to your own vehicles and follow the instructions from Security."

— Sound the Site Evacuation Signal for approximately 30 seconds.

(Repeat the message once.)
-



SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.2 - Subsequent Actions

Follow-up

Perform the following actions as required:

IF...	THEN...
the Shift Technical Advisor time required actions need to be addressed	Direct the Shift Technical Advisor(s) to assess core damage within 30 minutes, to notify the USNRC within 1 hour, and to activate the Emergency Response Data System within 1 hour, if appropriate.
dose projection requirements need to be addressed	Direct the Radiation Protection Monitor to deploy at least 1 offsite survey team within 30 minutes and obtain the dose assessment data necessary to complete a dose projection.
the other Units need to be informed of the event	Notify the Unaffected Units' Shift Managers of the emergency.

Status

Perform the following actions as required:

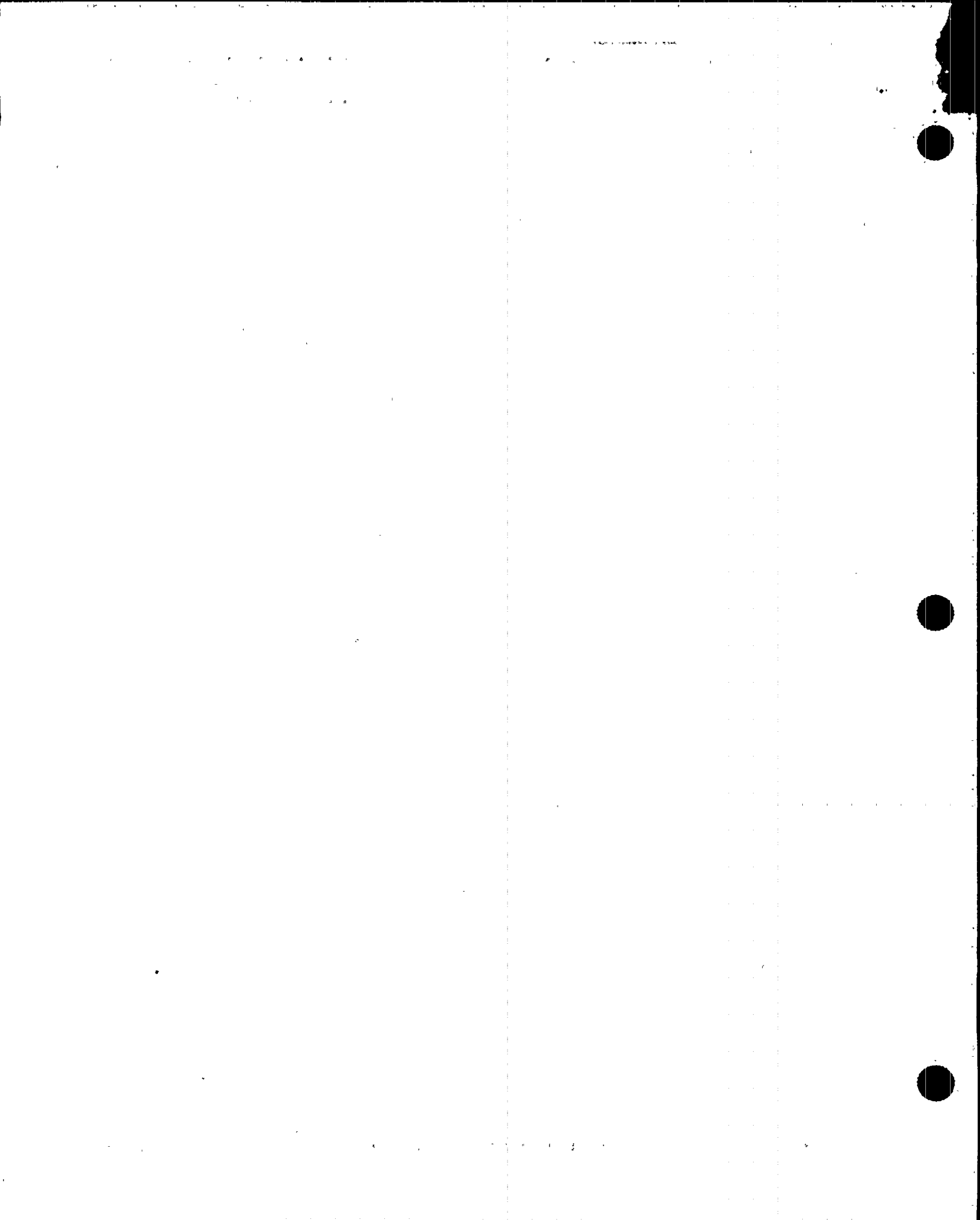
IF...	THEN...
reclassification of the emergency is required	Implement 16DP-0EP13, Emergency Classification.
you need a plant status update from Control Room personnel	Review initiating event, plant status, emergency classification, EOP in use, and corrective actions with Control Room personnel.
a briefing to Satellite Technical Support Center staff is indicated	Conduct Satellite Technical Support Center briefings based on plant conditions and other problems.
emergency teams need to be dispatched	Prior to OSC activation, assist RPM in team briefing and dispatch. After OSC activation, direct OSC staff to perform this function
additional information to the Arizona Radiation Regulatory Agency is necessary	Direct the Satellite Technical Support Center Communicator to prepare Form EP-0542, Follow-up Emergency Message. (16IG-0EP053, Emergency Message Forms, may be used for guidance.)

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.2 - Subsequent Actions *continued...*Protective
Measures

Perform the following actions as required:

IF...	THEN...
a change to the emergency classification or Protective Action Recommendation is indicated	Direct the Satellite Technical Support Center Communicator to complete and transmit Form EP-0541, Palo Verde NAN Emergency Message, to offsite agencies within 15 minutes of emergency classification. <i>(16IG-0EP053, Emergency Message Forms, may be used for guidance.)</i>
the Satellite Technical Support Center is deemed uninhabitable	Authorize emergency exposures as necessary. Adjust stay times of Satellite Technical Support Center personnel to minimize exposure. Relocate personnel to an Unaffected Unit Satellite Technical Support Center, if necessary.
use of Potassium Iodide is indicated	Consult with the Radiation Protection Monitor regarding the use of Potassium Iodide and authorize administration of Potassium Iodide to personnel. <i>(16IG-0EP051, Emergency Exposures and KI, may be used for guidance.)</i>
the Operations Support Center is deemed uninhabitable	Direct the relocation of staff, equipment, and supplies to an Alternate Operations Support Center in a designated Unaffected Unit. Ensure that radiological precautions are observed.
a fire response is indicated	Implement 14DP-0FP32, Emergency Notification and Response, and dispatch the Fire Team / Fire Team Advisor. If required, instruct the Security Director to contact the alternate offsite fire department for assistance.
a medical response is indicated	Implement 14DP-0FP32, Emergency Notification and Response, and 14DP-0FP11, Emergency Medical Response. Contact x4444 and advise. If necessary, dispatch an Emergency Medical Team and coordinate any required offsite assistance.



SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR		

2.2 - Subsequent Actions *continued...*

Security

Perform the following actions as required:

IF...	THEN...
offsite assistance is required	Request the Security Director to call the appropriate organizations and arrange for access when assistance arrives. <i>(16IG-0EP201, Telecommunications, may be used for number reference.)</i>
site access needs to be restricted	Instruct the Security Director to limit access to PVNGS and to contact the Local Law Enforcement Agency for assistance, if required.
site access is required for offsite assistance personnel	Instruct the Security Director to arrange access for personnel not registered on the Emergency Response Personnel Access List and/or those individuals without Protected Area access.

Repairs

Perform the following actions as required:

IF...	THEN...
in-plant status information is required	Determine the scope of emergency repairs, radiological surveys, etc. Authorize team dispatch per 16DP-0EP16, Operations Support Center Actions.
an accident sample is required	Direct Chemistry to initiate the actions necessary to obtain accident sampling and analysis per 16DP-0EP18, Accident Sampling.
the disposition of contaminated water in secondary systems is required	Implement 74DP-9ZZ14, Contaminated Water Management Program.

continues...

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.2 - Subsequent Actions *continued...*Repairs
(continued)

Perform the following actions as required:

IF...	THEN...
an alternate source of Spray Pond inventory is required	<p>Direct Maintenance and Engineering to implement actions necessary to restore Spray Pond inventory, with particular respect to the following items:</p> <ul style="list-style-type: none">♦ ensuring these actions are initiated within 6 days following a seismic event / SSE that results in irreparable damage to the 3 onsite wells which supply makeup water to SP♦ securing a dependable water supply capable of delivering 1200 gpm within 21 days of an SSE or other accident which eliminates or restricts normal water supply to an inadequate level♦ ensuring that the following 2 items have been performed:<ol style="list-style-type: none">1. the Environmental Department shall file a Notice of Intent to Drill with the Arizona Department of Water Resources before new well drilling commences, and2. as soon as practical, the Environmental Department shall apply for a temporary permit to withdraw groundwater in excess of our grandfathered right by submitting evidence that an emergency exists to the Director of the Arizona Department of Water Resources♦ assurance that Spare Well Water Pump (MLIS ID #45750074) and 200 HP, 3-phase, 1800 rpm Electric Motor (MLIS ID #44670001) have been adequately maintained under PM Task 054390 <p style="text-align: right;">(continues...)</p>

continues...

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.2 - Subsequent Actions *continued...*

Repairs
(*continued*)

Perform the following actions as required:

IF...	THEN...
an alternate source of Spray Pond inventory is required (<i>continued</i>)	<p>(<i>continued</i>)</p> <ul style="list-style-type: none">♦ assurance for an accurate assessment of current water inventory, normal water supply system status, time estimates for restoration of normal systems, identification of alternate supplies, and technically sound solutions to any outstanding water supply problems♦ mobilizing a well drilling company capable of constructing a well within 15 days♦ mobilizing a supply company capable of delivering temporary piping♦ identification of alternate routes to the site from Phoenix or possible equipment air lifts♦ referencing the Section 8.0 ERTEC Drawing in this procedure for well site selections♦ determination of the extent of damage to the 2 normal production wells 34abb and 27ddc and the standby well 27cbc with work initiated to restore the normal production wells and the standby well to service

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.2 - Subsequent Actions *continued...*Turnover of
Duties

When consulted by the Onsite Emergency Coordinator, OSC Coordinator, or Repairs Coordinator in an *Alert* or higher emergency classification, provide a briefing on the following items:

- ♦ initiating event
- ♦ emergency classification(s)
- ♦ current plant status
- ♦ procedures in use
- ♦ corrective actions applied thus far

When both the Satellite Technical Support Center Communicator and the Radiation Protection Monitor have been relieved of their duties, transfer EC duties and responsibilities to the Onsite Emergency Coordinator, and transfer OSC duties and responsibilities to the OSC Coordinator and the Repairs Coordinator.

Ensure that the USNRC Liaison in the Technical Support Center has assumed continuous communications capabilities with the USNRC.

2.3 - Terminal Actions

Event
Downgrade

Address the following items prior to downgrading the event:

- ♦ Conditions requiring the current emergency classification level no longer exist.
- ♦ The anticipated plant response is such that there should be no degradation to any fission product barriers or increase in radiation releases.
- ♦ Present plant conditions are such that there is no possibility of an adverse impact on the health and safety of the public and plant personnel due to actions associated with event downgrade.
- ♦ Consultation with government agencies and the Emergency Operations Director, if appropriate, has taken place.

Transmit the following message over the Unit Evacuation System:

"Attention all plant personnel. Attention all plant personnel. The emergency situation declared in Unit ____ has now been downgraded to a ____."

(Provide special instructions as necessary. Repeat the message once.)

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

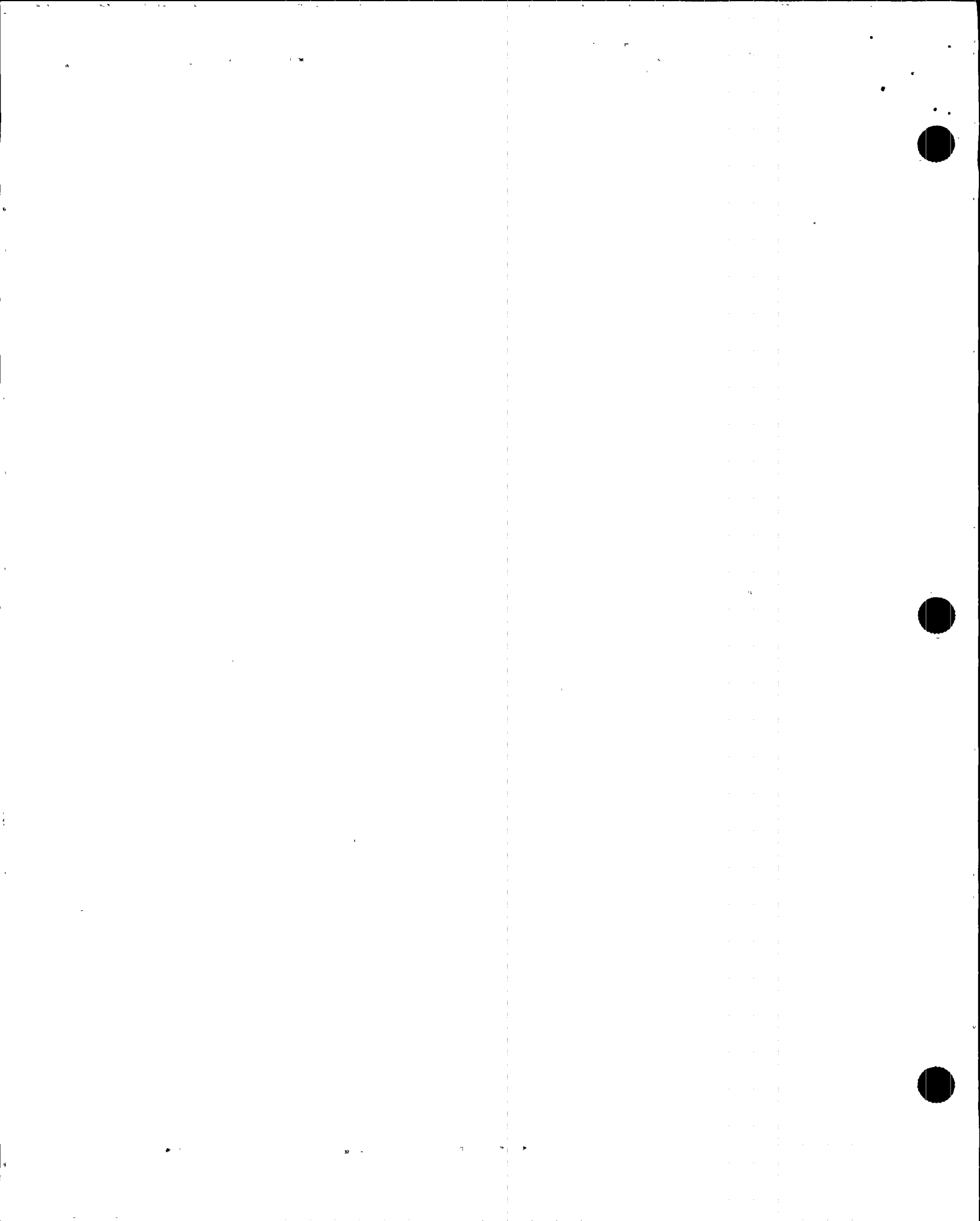
2.3 - Terminal Actions *continued...*Event
Termination

-
- Address the following items prior to terminating the event:
- ♦ The anticipated plant response is such that there should be no challenge to any fission product barriers or radiation releases in excess of Technical Specifications.
 - ♦ Present plant conditions offer no possibility of an adverse impact on the health and safety of the public and plant personnel.
 - ♦ Consultation with government agencies and the Emergency Operations Director, if appropriate, has taken place.
- If Assembly had been initiated, sound the "All Clear" Signal for approximately 30 seconds.
- Transmit the following message over the Unit Evacuation System:
- "Attention all plant personnel. Attention all plant personnel. The emergency situation declared in Unit ____ has now been terminated."**
- (Provide special instructions as necessary. As appropriate, repeat sounding the "All Clear" Signal and the message once.)*
- Direct the Satellite Technical Support Center Communicator to complete Form EP-0543, Emergency Termination Message, and transmit it to those government agencies listed on the form. *(16IG-0EP053, Emergency Message Forms, may be used for guidance.)*
- Direct the Shift Technical Advisor to notify the USNRC as soon as possible of emergency termination.
- Notify the Unaffected Units' Shift Managers of emergency termination.
- At termination of the emergency classification, notify the PVNGS Nuclear Regulatory Affairs Department or the respective Unit Duty Engineer and request a written summary be provided to state / county offsite authorities within 8 hours *(5 days if terminated from a Notification of Unusual Event)*.
- (Provide copies of required materials, as requested by the Nuclear Regulatory Affairs Department, for preparation of the report.)*
-

SECTION 2.0 - ONSHIFT EMERGENCY COORDINATOR

2.3 - Terminal Actions *continued...*Record
Retention

Transfer copies of all associated paperwork to the Emergency Planning Department. Forward all original paperwork to the Unit Operations Department for sorting, collating, and transfer to Nuclear Information Records Management.



SECTION 3.0 - OPERATIONS ADVISOR

3.0 - Operations Advisor Function

Duties and Responsibilities

The Operations Advisor is the management liaison in the Satellite Technical Support Center / Control Room and, as such, performs continuing analyses of plant conditions and maintains the Shift Manager and Emergency Coordinator advised of technical / operational information. The Operations Advisor is responsible to maintain a flow of information between the Technical Support Center and the Control Room. S/he ensures accurate data is provided to the Operations Coordinator in the Technical Support Center and may assist in the development of specialized procedures for the conduct of emergency operations.

This position is activated and reportable to the Satellite Technical Support Center upon notification and reports to the Emergency Coordinator through subsequent relief of that position.

3.1 - Initial Actions

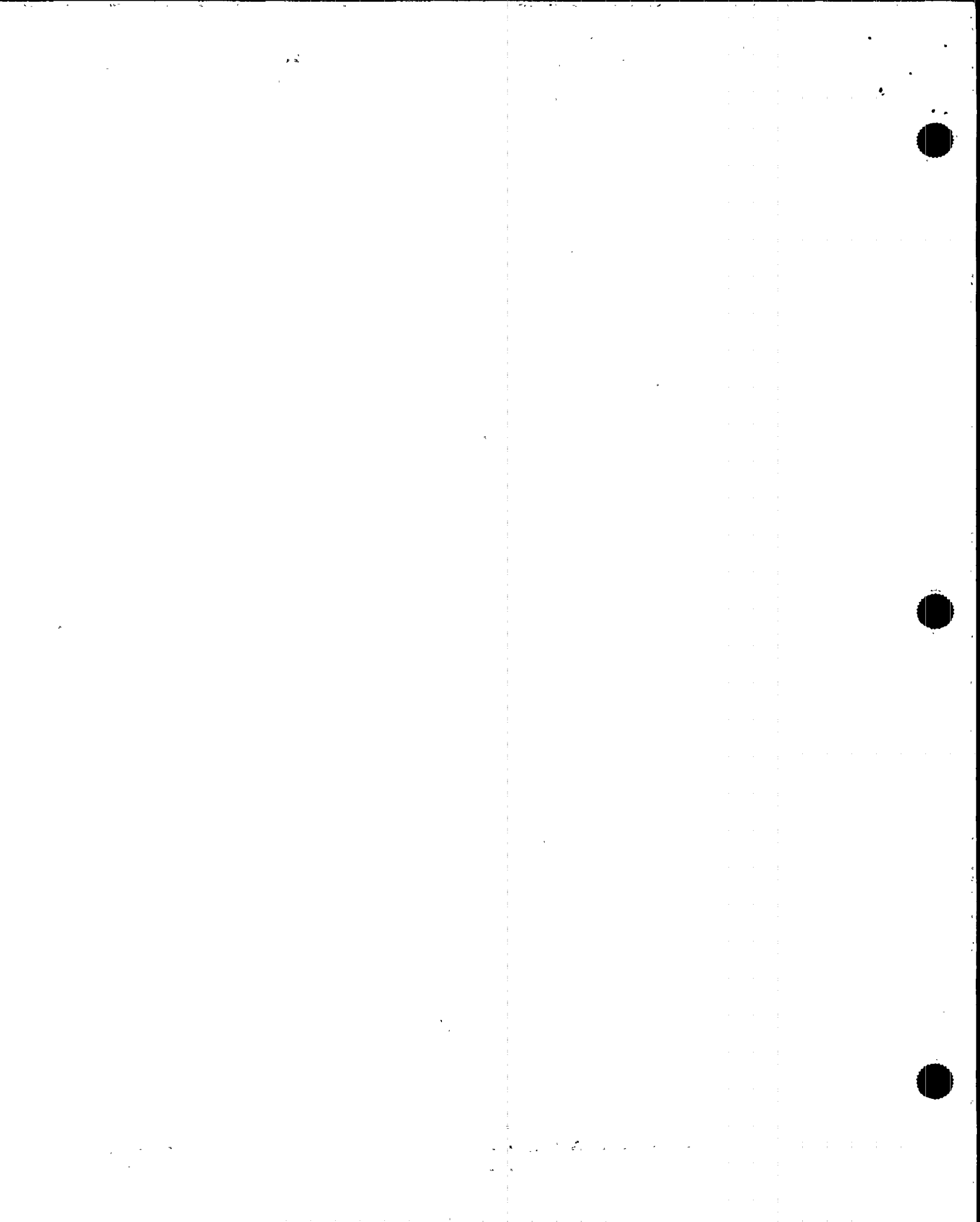
Facility Activation

— When duties have been assumed and an informational briefing has been received, consult with the Control Room Shift Manager and determine the technical / operational aspects of the event(s) in progress.

3.2 - Subsequent Actions

Status

- When contacted by the Operations Coordinator in the Technical Support Center, provide the technical and operational aspects of the event(s) in progress to the Operations Coordinator, when appropriate.
- As required, provide technical and operational guidance to the Emergency Coordinator and Operations personnel.
- Assist, as necessary, in reclassification of the emergency and in any development of procedures for emergency operations.
- Provide analysis of containment conditions prior to entry per 02AC-9ZZ01, Containment Entry in Modes 1 Through 4.

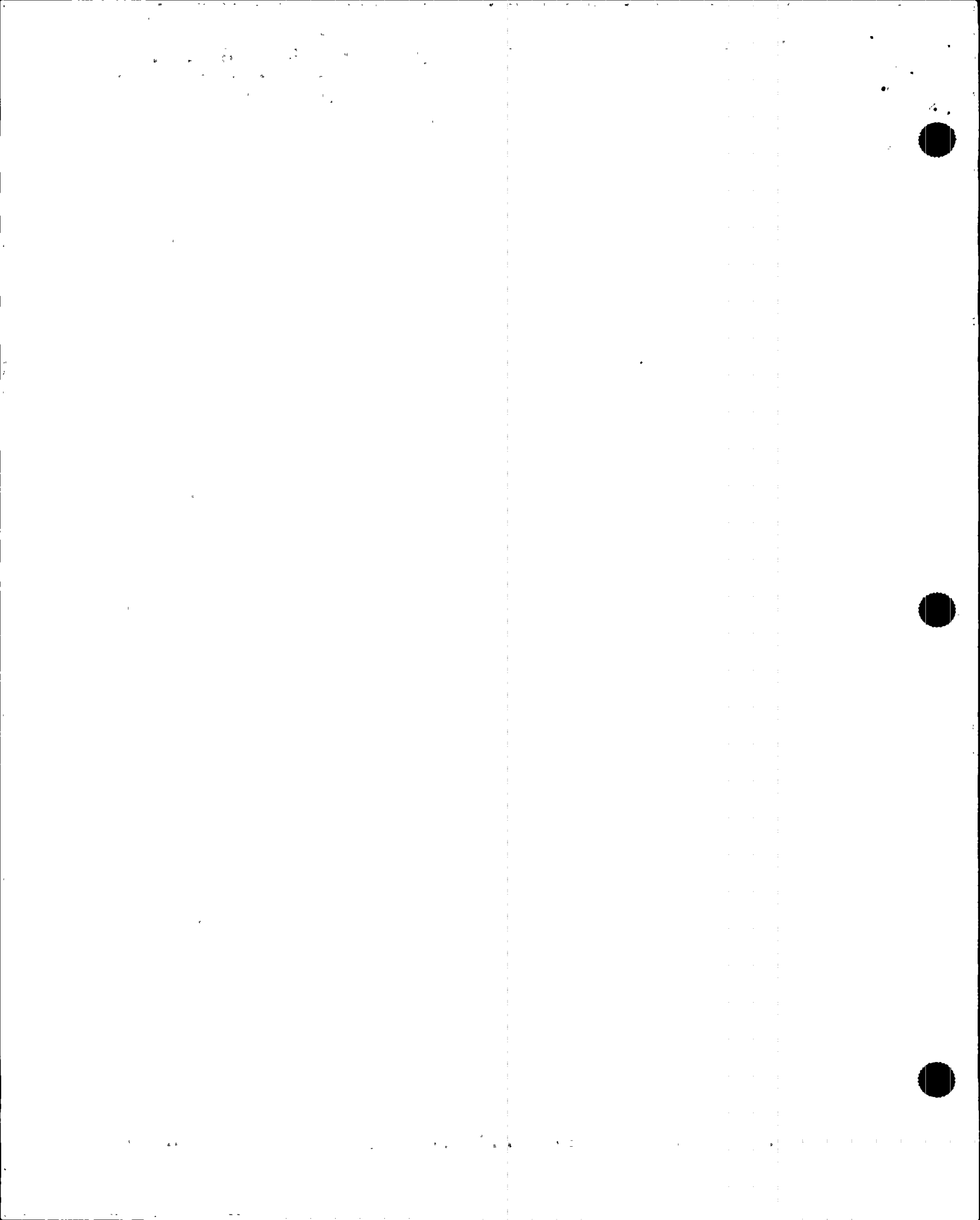


SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 3.0 - OPERATIONS ADVISOR		

3.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Shift Manager after event termination.



SECTION 4.0 - RADIATION PROTECTION MONITOR

4.0 - Radiation Protection Monitor Function

Duties and Responsibilities

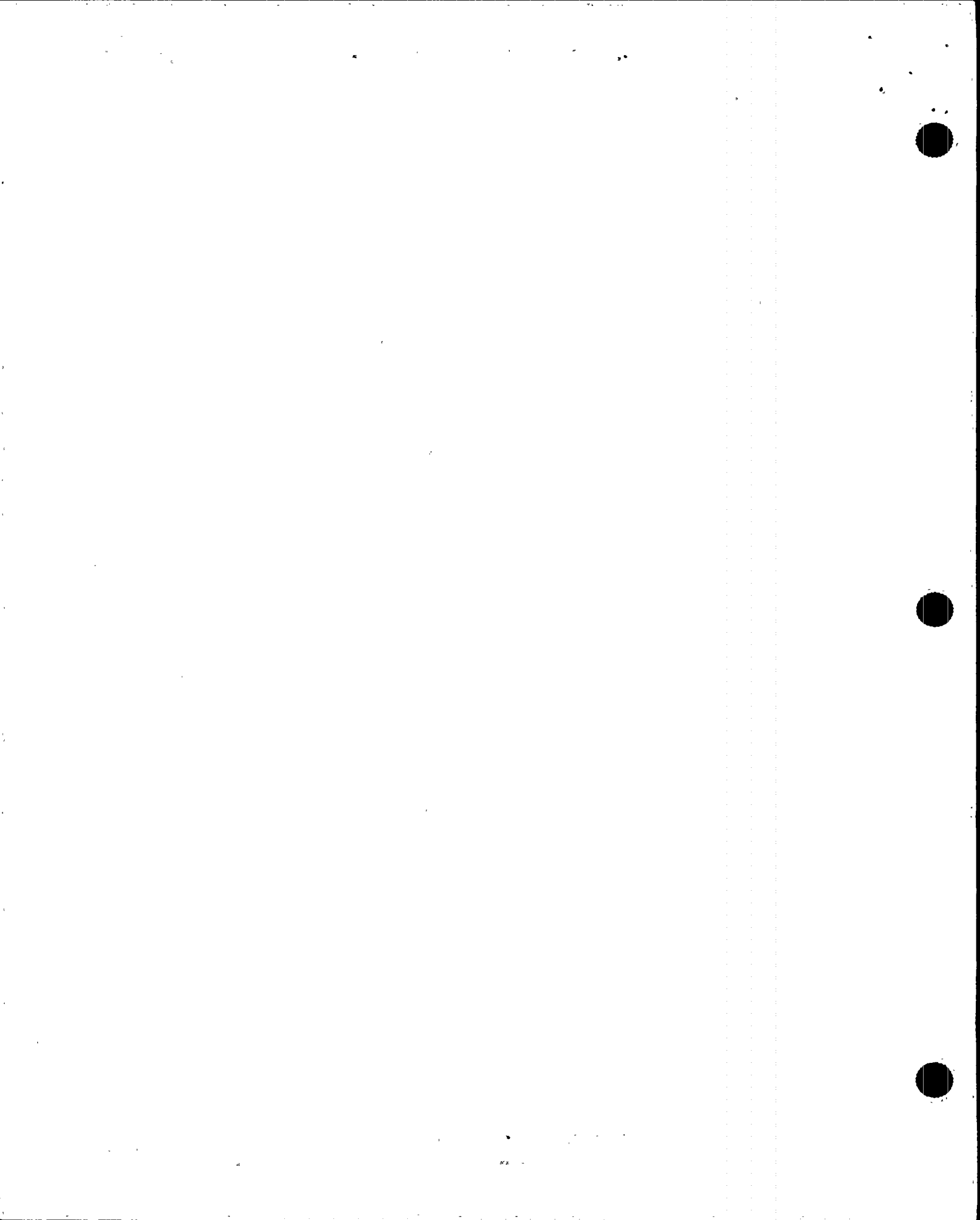
The Radiation Protection Monitor oversees the initial radiological response to the emergency condition until relieved by the Radiological Protection Coordinator in the Technical Support Center and the Radiological Assessment Coordinator in the Emergency Operations Facility. S/he provides technical advice to the Emergency Coordinator regarding radiological conditions and Protective Action Recommendations and is responsible to ensure that habitability surveys and contamination control measures are maintained in the Protected Area. Other duties include the authorization of personnel radiation exposures in excess of PVNGS Administrative Exposure Hold Points and advising the Emergency Coordinator on the use of Potassium Iodide. S/he is responsible for deployment of offsite radiological field assessment teams following declaration of an *Alert* or higher classification. Initially assumes the functions of the Repairs Coordinator and assists in briefing and deployment of emergency teams until relieved by activation of the Operations Support Center.

The Radiation Protection Monitor reports to the Onshift Emergency Coordinator in the Satellite Technical Support Center.

4.1 - Initial Actions

Facility Activation

- When duties have been assumed and an informational briefing has been received, deploy at least 1 offsite survey team within 30 minutes following emergency declaration of an *Alert* or higher classification when an effluent monitor indicates that a higher-than-normal release of radioactive materials is occurring. *(The team may be dispatched for surveys, advised to stand by, or secured from activities if no radiation release is apparent.)*
- Ensure that radiological dose projection actions are performed. *(16IG-0EP041, Dose Projection, may be used for guidance.)*
- Based upon completed dose projections, advise the Emergency Coordinator on the need and level of protective actions required. *(16TD-0EP161, Protective Actions, may be used for guidance.)*



SECTION 4.0 - RADIATION PROTECTION MONITOR

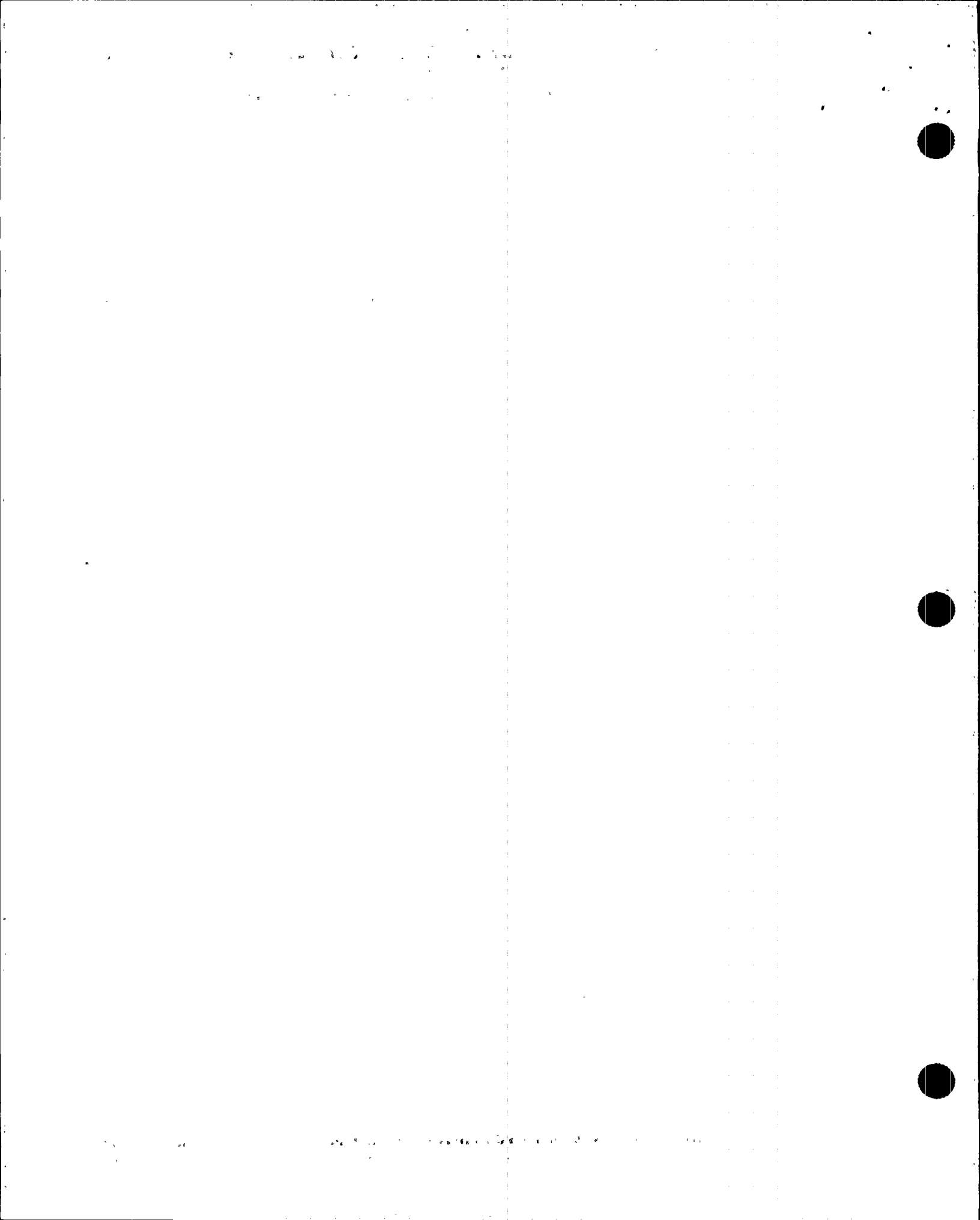
4.2 - Subsequent Actions

Onsite Protective Measures

Perform the following actions as required:

IF...	THEN...
knowledge of in-plant radiological conditions is required	Direct habitability surveys and contamination control measures as necessary.
the status of 140' Auxiliary Building RP and Chemistry equipment and supplies is required	Determine the availability of the following: <ul style="list-style-type: none"> ♦ Emergency supplies ♦ Multi-channel analyzer ♦ Sample counting capabilities
knowledge of personnel locations in the Protected Area is required	Determine the following: <ul style="list-style-type: none"> ♦ Personnel traffic routes / areas ♦ Entry and exit routes ♦ Personnel protection requirements
Protected Area radiological conditions could impact personnel and/or emergency teams are dispatched	Ensure the following items are addressed: <ul style="list-style-type: none"> ♦ Operations and support personnel are briefed ♦ Security is informed of current conditions ♦ Direct an RP Technician to perform section 8.0 duties of 16DP-0EP16 ♦ Survey / repair teams are briefed ♦ Team stay times have been calculated ♦ Ensure briefing form EP-0131 is used for team briefing and tracking
the potential for airborne Iodine exists	Issue EDE / TEDE SID limits to affected teams. (Refer to the Dose Projection Technical Bases for further guidance.)
an impact to Satellite Technical Support Center habitability exists	Advise the Emergency Coordinator of the need to relocate Satellite Technical Support Center functions to an Unaffected Unit Satellite Technical Support Center.
Emergency Exposure Guide-lines or KI distribution must be authorized	16IG-0EP051, Emergency Exposures and KI, may be used as guidance.

continues...



SECTION 4.0 - RADIATION PROTECTION MONITOR

4.2 - Subsequent Actions *continued...*Onsite Protective
Measures
(continued)

Perform the following actions as required:

IF...	THEN...
Assembly has been directed by the Emergency Coordinator	Evaluate Protected Area Assembly Areas for potential radiological impact.
additional personnel and/or materials are required	Contact Radiation Protection in the Unaffected Units for additional personnel and/or materials.

Offsite Protective
Measures

Perform the following actions as required:

IF...	THEN...
the Radiological Monitoring Technician requests radiological and/or meteorological data	retrieve radiological and/or meteorological data from ERFDADS using the P&ID DISPLAYS. <i>(If ERFDADS is unavailable, consider contacting the National Weather Service in Phoenix per 16IG-0EP201, Telecommunications, Section 5, Government Agencies (Federal), for current meteorological data at PVNGS.)</i>
a parameter affecting the current Protective Action Recommendation has changed	Inform the Emergency Coordinator that a change to the current Protective Action Recommendation may be required. Discuss options for site evacuation or onsite sheltering as required.
knowledge of personnel locations beyond the Protected Area is required	Determine personnel traffic areas, entry and exit routes, and personnel protection requirements. Maintain status of offsite survey teams and record data to aid in plume tracking.
Site Evacuation and/or Potassium Iodide administration is indicated	16IG-0EP191, Site Evacuation, and 16IG-0EP051, Emergency Exposures and KI, may be used as guidance.

SECTION 4.0 - RADIATION PROTECTION MONITOR

4.3 - Terminal Actions

Turnover of Duties

- Transfer onsite responsibilities to the Radiological Protection Coordinator in the Technical Support Center except for habitability survey and contamination control of the Satellite Technical Support Center / Control Room.
- Provide information to the Radiological Protection Coordinator in the Technical Support Center of the location and status for all Protected Area survey teams.
- Transfer responsibilities and provide information to the Radiological Assessment Coordinator in the Emergency Operations Facility of the location, status, deployment times, and data obtained for all offsite survey teams.
- Discontinue providing data to the Radiological Monitoring Technician.
- Provide analysis of containment conditions based on ALARA prior to entry per 02AC-9ZZ01, Containment Entry in Modes 1 Through 4.

Radiation Instrumentation

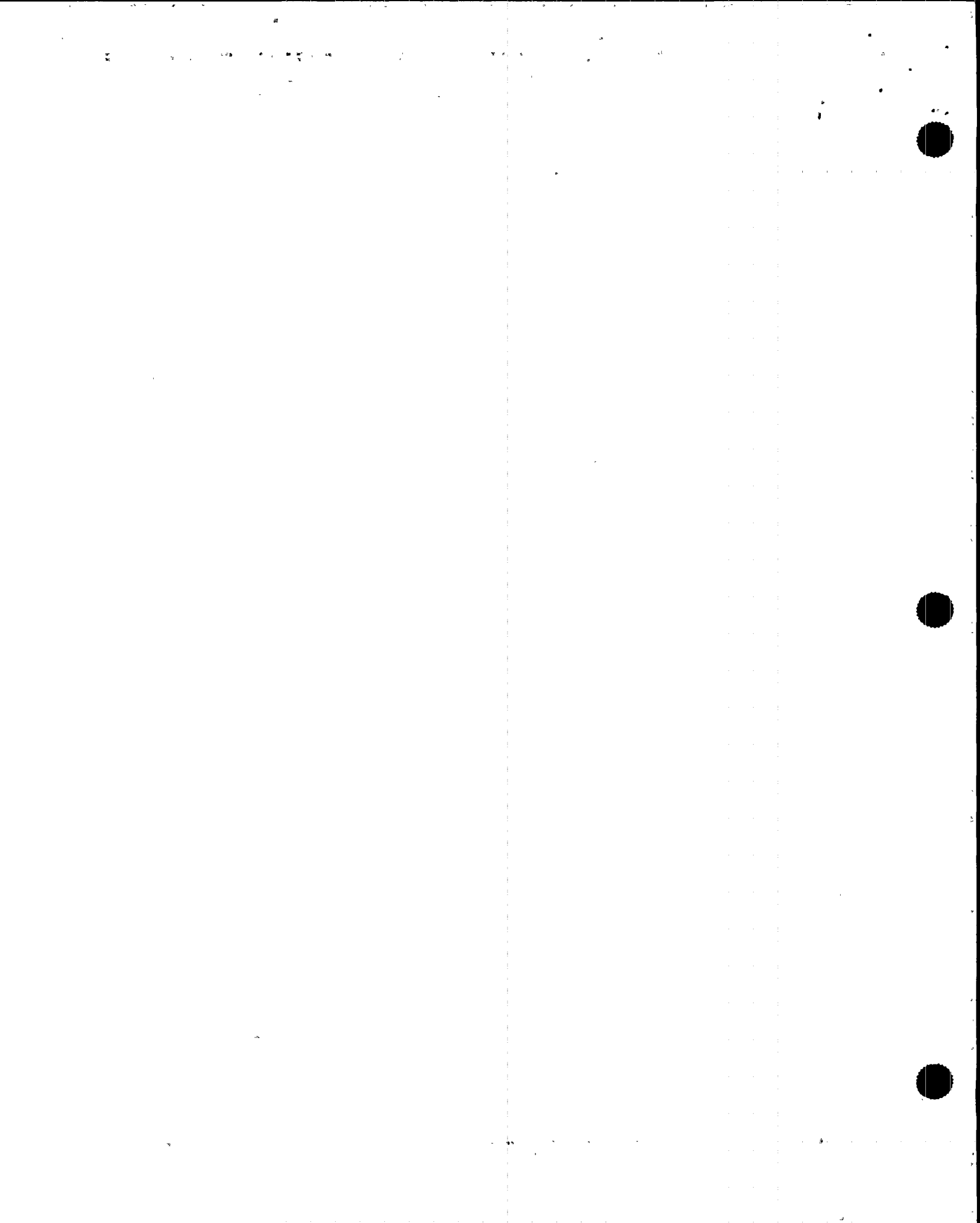
- Ensure that dose rate meters from the emergency kit are transmitted to the calibration facility for calibration and required maintenance.

Recovery

- If decontamination is necessary, contact the Radiological Services Manager for disposition. *(16IG-0EP182, Recovery Organization, may be used for guidance.)*

Record Retention

- Submit logs, data, and other documentation to the Emergency Coordinator or Shift Manager after event termination.



SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 5.0 - SATELLITE TECHNICAL SUPPORT CENTER COMMUNICATOR		

5.0 - Satellite Technical Support Center Communicator Function

Duties and Responsibilities

The Satellite Technical Support Center Communicator is responsible for performing initial and subsequent offsite management agency notifications upon declaration of an emergency event. S/he is relieved of this responsibility by the Government Liaison in the Emergency Operations Facility upon that facility's activation, after which s/he may serve as the communicator and log keeper for the facility. The Satellite Technical Support Center Communicator position is assumed by a Nuclear Operator or an Operations Technician upon notification.

The Satellite Technical Support Center Communicator reports to the Emergency Coordinator in the Satellite Technical Support Center.

5.1 - Initial Actions

Facility Activation

- When notified to report to the Control Room / Satellite Technical Support Center, report to the facility for an Emergency Coordinator briefing.
- As directed, perform the actions associated with offsite agency notifications. (16IG-0EP053, *Emergency Message Forms*, may be used for guidance.)

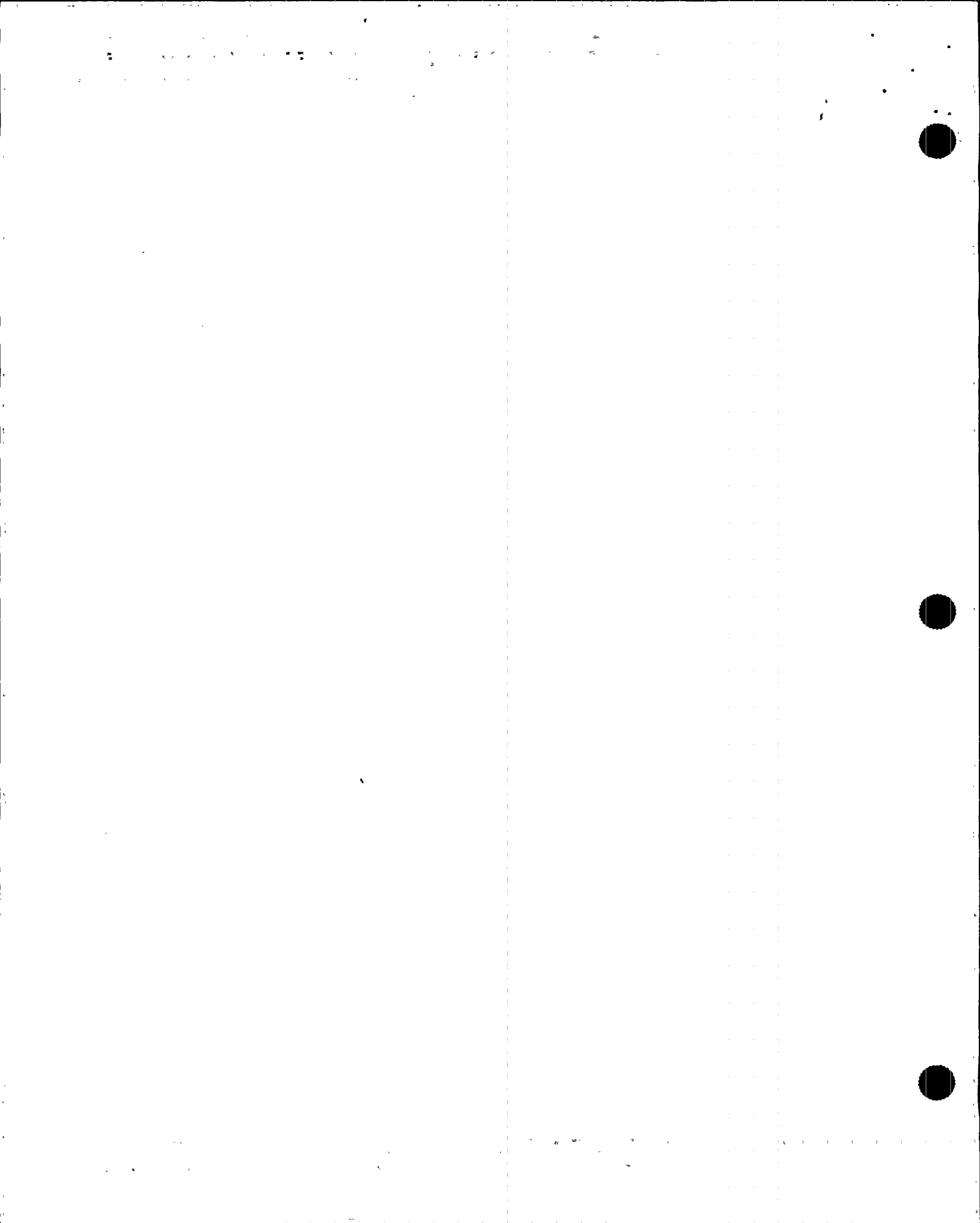
5.2 - Subsequent Actions

Status

- Maintain the Emergency Coordinator advised of issues or potential problems regarding the notification process.

Turnover of Duties

- Transfer duties and responsibilities for offsite notifications to the Government Liaison in the Emergency Operations Facility when contacted.
- If requested, transmit a copy of the current Form EP-0541, Palo Verde NAN Emergency Message, by facsimile (FAX) to the Emergency Operations Facility.
- Maintain communications and logs for the facility as required.

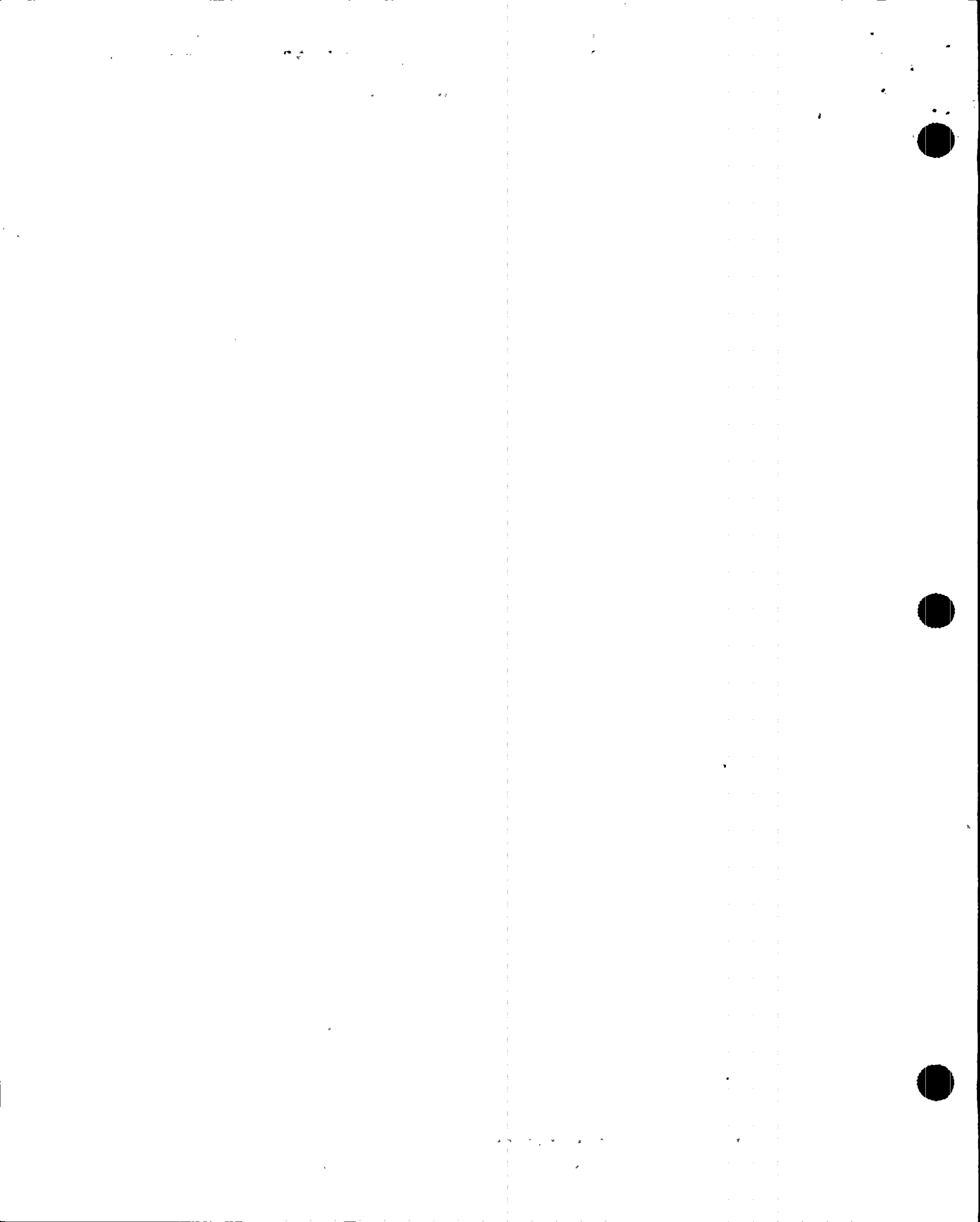


SECTION 5.0 - SATELLITE TECHNICAL SUPPORT CENTER COMMUNICATOR

5.3 - Terminal Actions

Record
Retention

Submit logs, data, and other documentation to the Emergency Coordinator after event termination.



SECTION 6.0 - SECURITY DIRECTOR

6.0 - Security Director Function**Duties and Responsibilities**

The Security Director provides direction and control of the Onsite Security Force for areas of personnel accountability, access control, site security, evacuation, medical transportation, and personnel / equipment security control. S/he is responsible for notification to the Emergency Response Organization of the emergency event as directed by the Emergency Coordinator.

The Security Director position is assumed by the Security Section Leader and is reportable to the Emergency Coordinator in the Satellite Technical Support Center, but is not required to report to the facility.

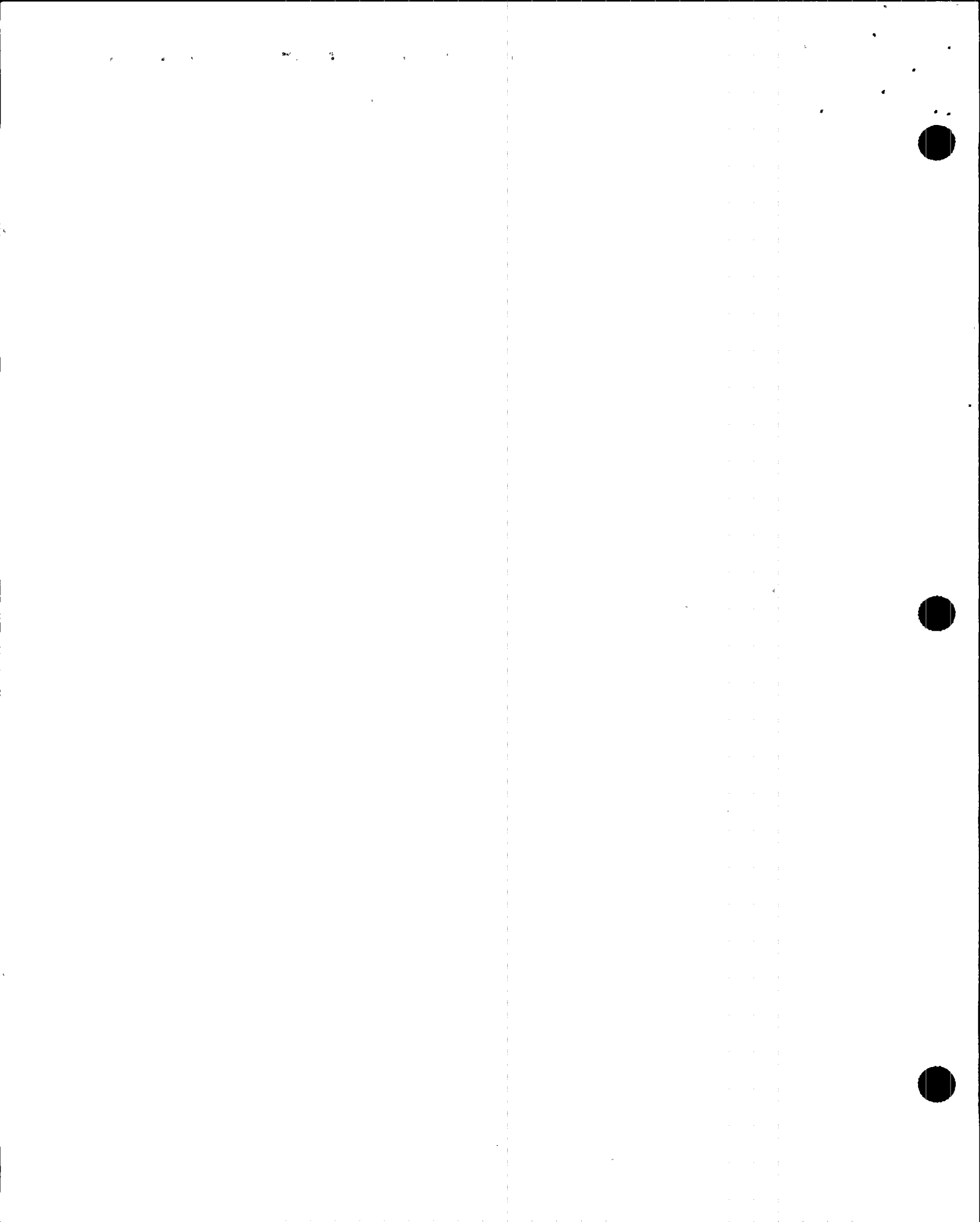
6.1 - Initial Actions**Autodialer
Emergency
Notification**

- ___ If necessary, refill any vacated Security supervisory positions.
- ___ Within 30 minutes of emergency declaration, verify proper system lineup of the Technical Support Center emergency ventilation (*16TD-0EP055, Emergency Ventilation, may be used as guidance*).
- ___ For off-normal shift hours only, activate the Autodialer as directed. (*16IG-0EP013, Autodialer Activation, may be used as guidance.*)
- ___ When emergency notifications have been completed, inform the Emergency Coordinator of any unaffirmed Emergency Response Organization positions.

6.2 - Subsequent Actions**Status**

- ___ As necessary, inform the Emergency Coordinator of any potential impacts or projected consequences to security by the events in progress.

continues...



6.2 - Subsequent Actions *continued...*

Status
(continued)

Perform the following actions as required:

FOR...	THEN...
Assembly	<ul style="list-style-type: none"> ♦ Conduct area searches in all Units (16IG-0EP012, Assembly, may be referenced for further guidance). ♦ Lock down the Protected Area. ♦ Notify the Water Reclamation Facility Control Room of the Assembly directive to ensure WRF personnel are notified to assemble. ♦ Support the Emergency Coordinator with post-Assembly activities.
Accountability	<ul style="list-style-type: none"> ♦ Ensure that the Emergency Coordinator receives a detailed Accountability report within 30 minutes following the request. ♦ Using the Unit Evacuation System and/or the site-wide page, locate any unaccounted individuals identified on the detailed Accountability Report. ♦ If necessary, coordinate with Fire Protection personnel to locate and assist unaccounted individuals identified on the detailed Accountability Report.
vehicle control	<ul style="list-style-type: none"> ♦ Coordinate with Radiation Protection to establish air and surface routes for arriving or departing traffic under radiological conditions. ♦ Obtain arriving vehicle / personnel information and transmit to Security personnel. ♦ Dispatch Security personnel to inspect and escort arriving vehicles and personnel.

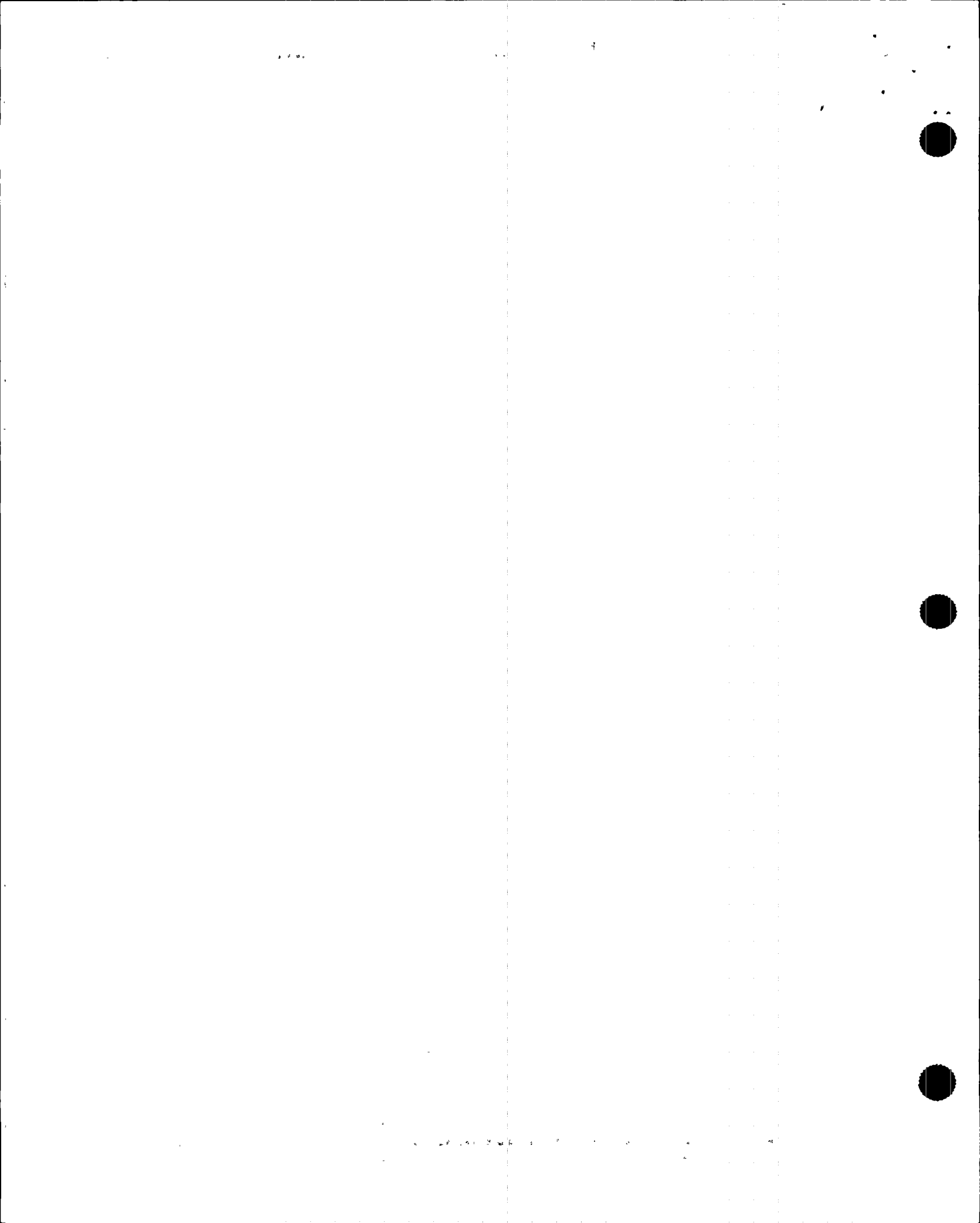
continues...

SECTION 6.0 - SECURITY DIRECTOR

6.2 - Subsequent Actions *continued...*Status
(continued)

Perform the following actions as required:

FOR...	THEN...
Security deployment.	<ul style="list-style-type: none">♦ Coordinate with the Radiation Protection Monitor for areas to avoid under radiological conditions.
offsite assistance	<ul style="list-style-type: none">♦ As directed, restrict access to PVNGS using Local Law Enforcement Agency assistance.♦ Request offsite emergency assistance as directed and advise the Emergency Coordinator on status.♦ Authorize Protected Area access.♦ Control access to vital areas when the Security Computer is unavailable or as requested.♦ Refer all media inquiries to Strategic Communications or the Joint Emergency News Center, as applicable.
suspension of Safeguards	Ensure Senior Reactor Operator approval is obtained prior to deferment of any required safeguards or security actions. <i>(Examples include search and identification of personnel, search of packages and vehicles, and use of ACADs within the Protected Area.)</i>
site evacuation	<ul style="list-style-type: none">♦ Initiate the actions for evacuation organization and security measures <i>(16IG-0EP191, Site Evacuation, may be used as guidance)</i>.♦ When the site has been evacuated, direct Security to conduct searches of all buildings and areas outside the Protected Area for non-essential personnel.



SECTION 6.0 - SECURITY DIRECTOR

6.3 - Terminal Actions

Record
Retention

Submit logs, data, and other documentation to the Emergency
Coordinator after event termination.

SATELLITE TECHNICAL SUPPORT CENTER ACTIONS	16DP-0EP14	Revision: 5
SECTION 7.0 - SHIFT TECHNICAL ADVISOR		

7.0 - Shift Technical Advisor Function

Duties and Responsibilities

The Onshift Shift Technical Advisor consults with the Shift Manager on activities that impact safe operation of the Unit. S/he monitors various data displays throughout the course of the emergency and provides electrical and mechanical technical support to Control Room personnel. Duties of the Unaffected Shift Technical Advisors include monitoring core thermohydraulic parameters, interfacing with the Emergency Coordinator and Radiation Protection Monitor, communicating plant system status updates, fulfilling responsibilities associated with USNRC communications, and supporting the Onshift Shift Technical Advisor.

The Shift Technical Advisors report to the Shift Manager in the Control Room. The Unaffected Shift Technical Advisors are relieved by the Reactor Analyst in the Technical Support Center upon that facility's activation.

7.1 - Initial Actions

Facility Activation

The Onshift Shift Technical Advisor will perform the following actions:

- ___ Independently verify the current emergency classification, assess the status of plant systems and critical plant parameters as directed, and communicate the findings to the Shift Manager.
- ___ For an **Alert** or higher Emergency Classification, activate the Emergency Response Data System. *(16IG-0EP054, Emergency Response Data System, may be used for guidance.)*
- ___ Contact technical support personnel as required.

The Unaffected Shift Technical Advisors will perform the following actions:

- ___ When duties have been assumed and an informational briefing has been received, assess the status of plant systems and core thermohydraulic parameters.
- ___ Establish contact with the Plant Status Technicians in the Technical Support Center and Emergency Operations Facility, if activated, and arrange a 3-way conference call for communicating 15-minute plant system status updates.

SECTION 7.0 - SHIFT TECHNICAL ADVISOR

7.2 - Subsequent Actions

Status

The Onshift Shift Technical Advisor will perform the following actions as required:

- Continue independent verification of any changes to emergency classifications and communicate the findings to the SS/EC.
- Continue assessments and assist Control Room personnel.
- Periodically brief the Shift Manager concerning plant status, availability of support personnel, and corrective action recommendations.

The Unaffected Shift Technical Advisors will perform the following actions:

- Continue assessments of plant systems and core thermohydraulic parameters.
- Provide a status of plant conditions to the Emergency Coordinator and Radiation Protection Monitor on a periodic basis.
- Obtain an Event Notification Worksheet from the Event Reporting Manual and complete the form fields as completely as possible.
- Using the Event Notification Worksheet and within 1 hour of initial, upgraded, or downgraded emergency classification, notify the USNRC Operations Center via the FTS-2000 (ENS) NRC telephone.
- Maintain contact with the USNRC until relieved by the USNRC Liaison Operations in the Technical Support Center.
- Maintain assessments of plant systems and core thermohydraulic parameters until relieved by the Reactor Analyst in the Technical Support Center.
- Provide support to the Onshift Shift Technical Advisor as required.

7.3 - Terminal Actions

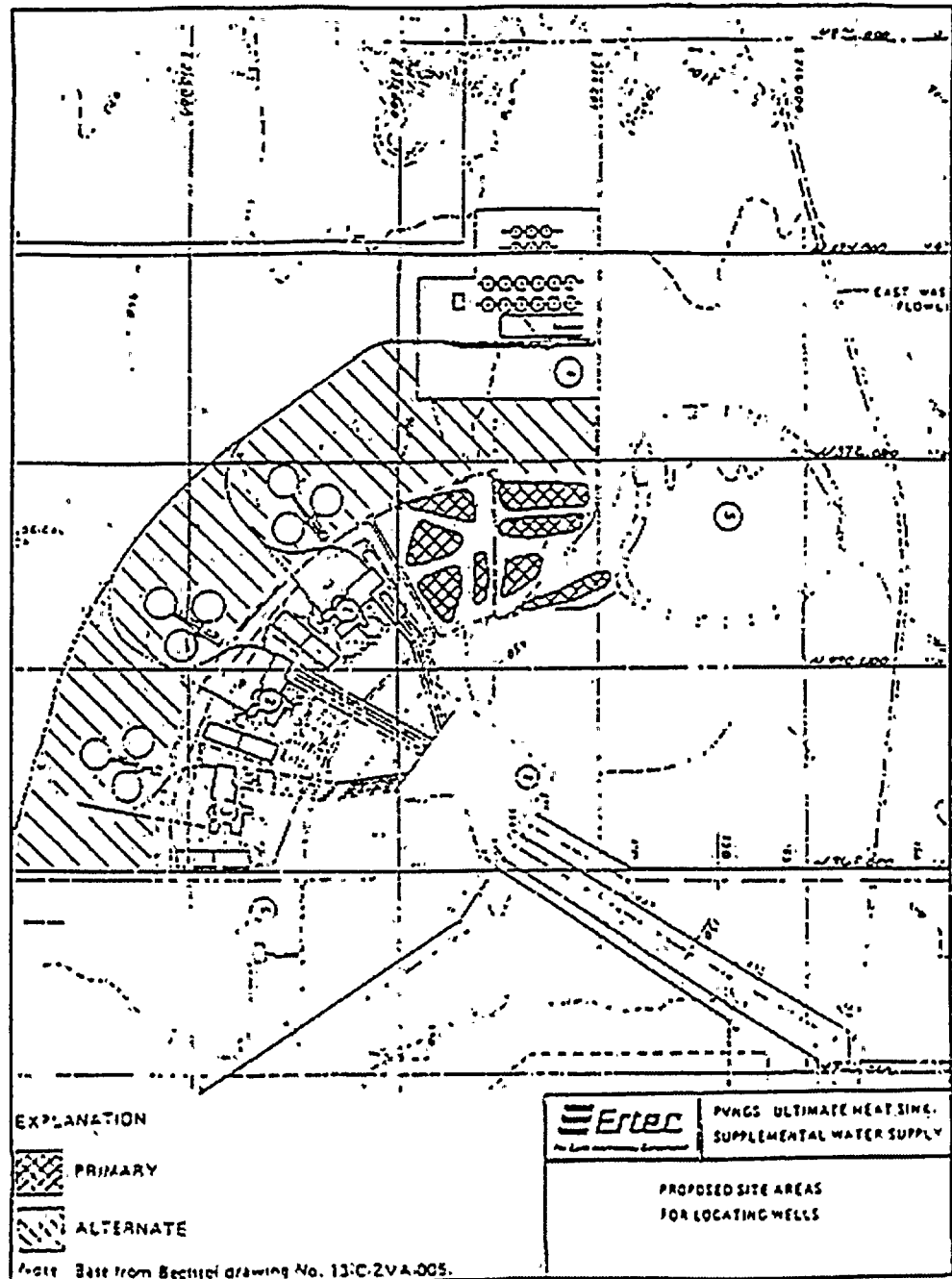
Record
Retention

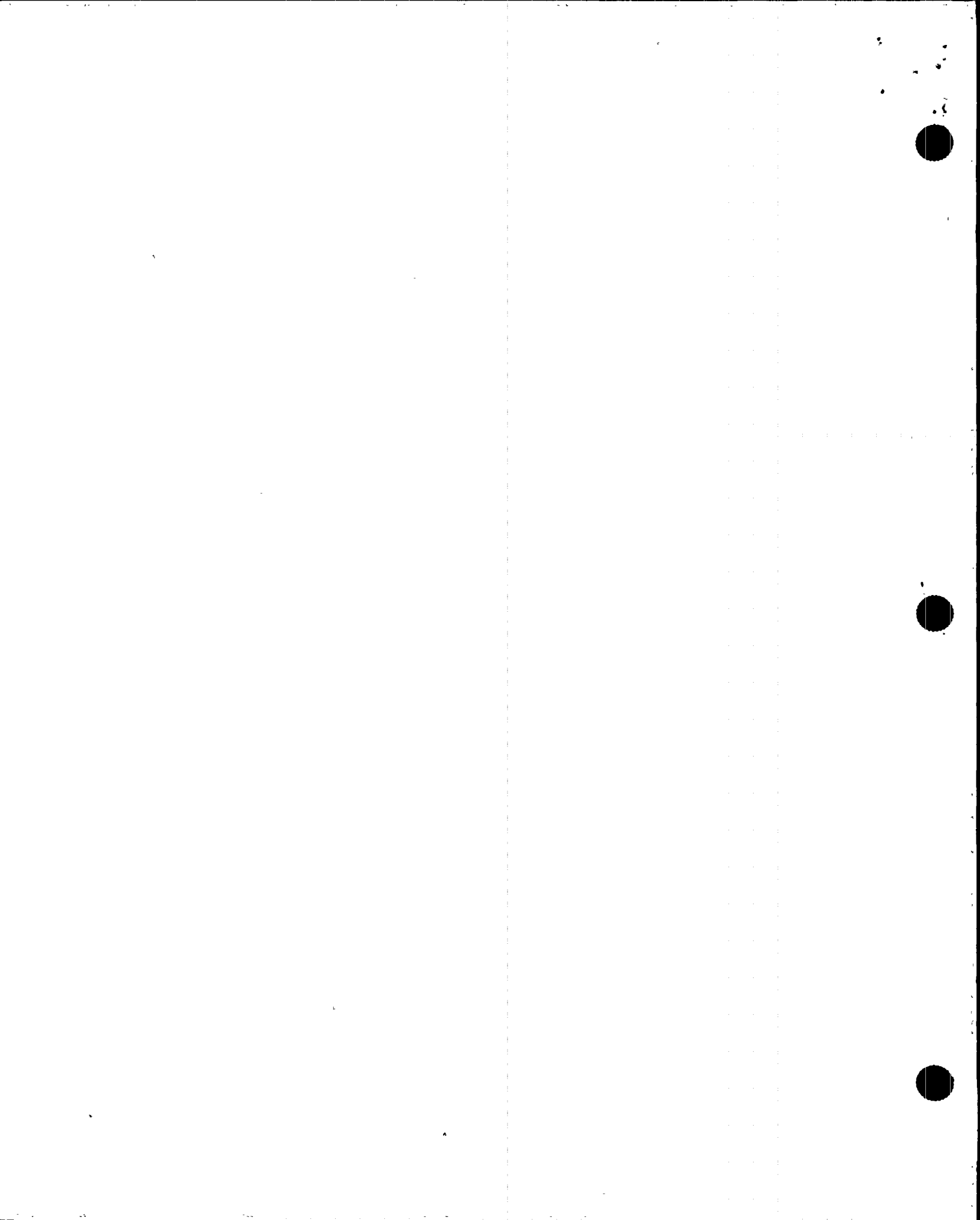
- Submit logs, data, and other documentation to the Shift Manager after event termination.

SECTION 8.0 - WELL SITE SELECTIONS

8.0 - Well Site Selections

ERTEC Drawing





Nuclear Information and Records Management Transmittal

Procedure Number

Revision #

Effective Date

16DP-0EP17

07

12-30-98

Document #	Critical Area	Control	Custodian	Location	Paper	Quantity	Remarks
16DP-0EP		00-000	NRC DOCUMENT CONTROL DESK	DOCUMENT CONTROL DESK, US NUCLEAR REGULATORY COMMISSION, MAIL STATION PI-37, WASHINGTON, DC 20555-0001	PW	1	SEND CERTIFIED MAIL ONLY!
16DP-0EP		00-000	NRC RIV ERC	USNRC REGION IV, ATTN.: E.W. MERSCHOFF, 611 RYAN PLAZA DRIVE, SUITE 400, ARLINGTON, TX 76011	PW	2	SEND CERTIFIED MAIL ONLY!
16DP-0EP		00-000	NRC RIV ERC	USNRC REGION IV, ATTN.: T.H. ANDREWS, 611 RYAN PLAZA DRIVE, SUITE 400, ARLINGTON, TX 76011	PW	2	SEND CERTIFIED MAIL ONLY!
16DP-0EP		00-000	DUNCAN,R	X/STA-6050	PW	1	
16DP-0EP		00-000	WOLFE,W	X/STA-6050	PW	1	
16DP-0EP		00-000	LINES,H	X/STA-7003	PW	1	
16DP-0EP		00-000	SMITH,D	X/STA-7294	PW	1	
16DP-0EP		00-000	IDE,W	X/STA-7605	PW	1	
16DP-0EP		00-000	SONTAG, M	X/STA-7997	PW	1	
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16DP-0EP		00-000	LUTTON,J	Y/AZ RAD REG AGENCY 4814 S 40TH ST PHX AZ 85040	PW	1	
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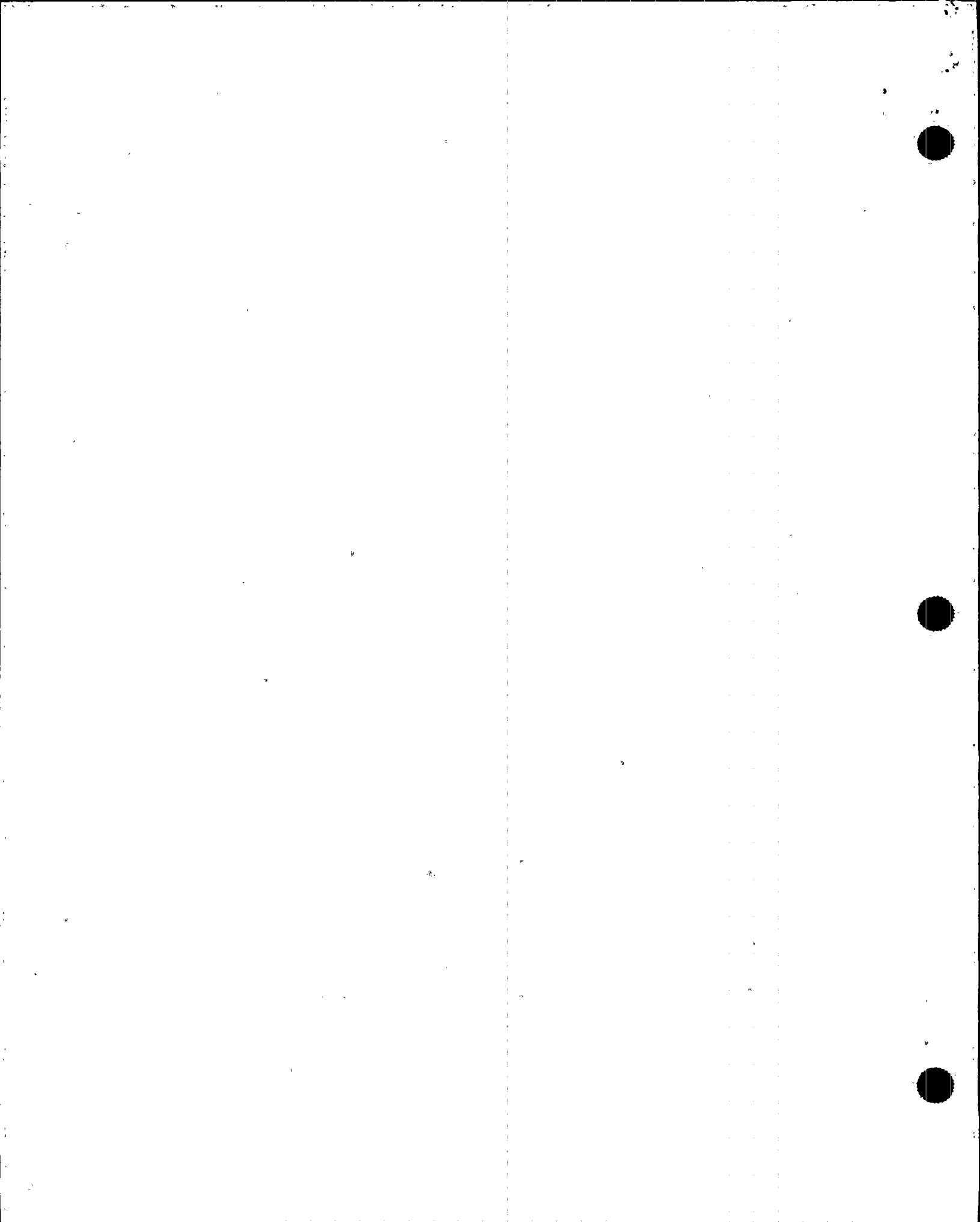
Remarks

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For Questions Contact NIRM

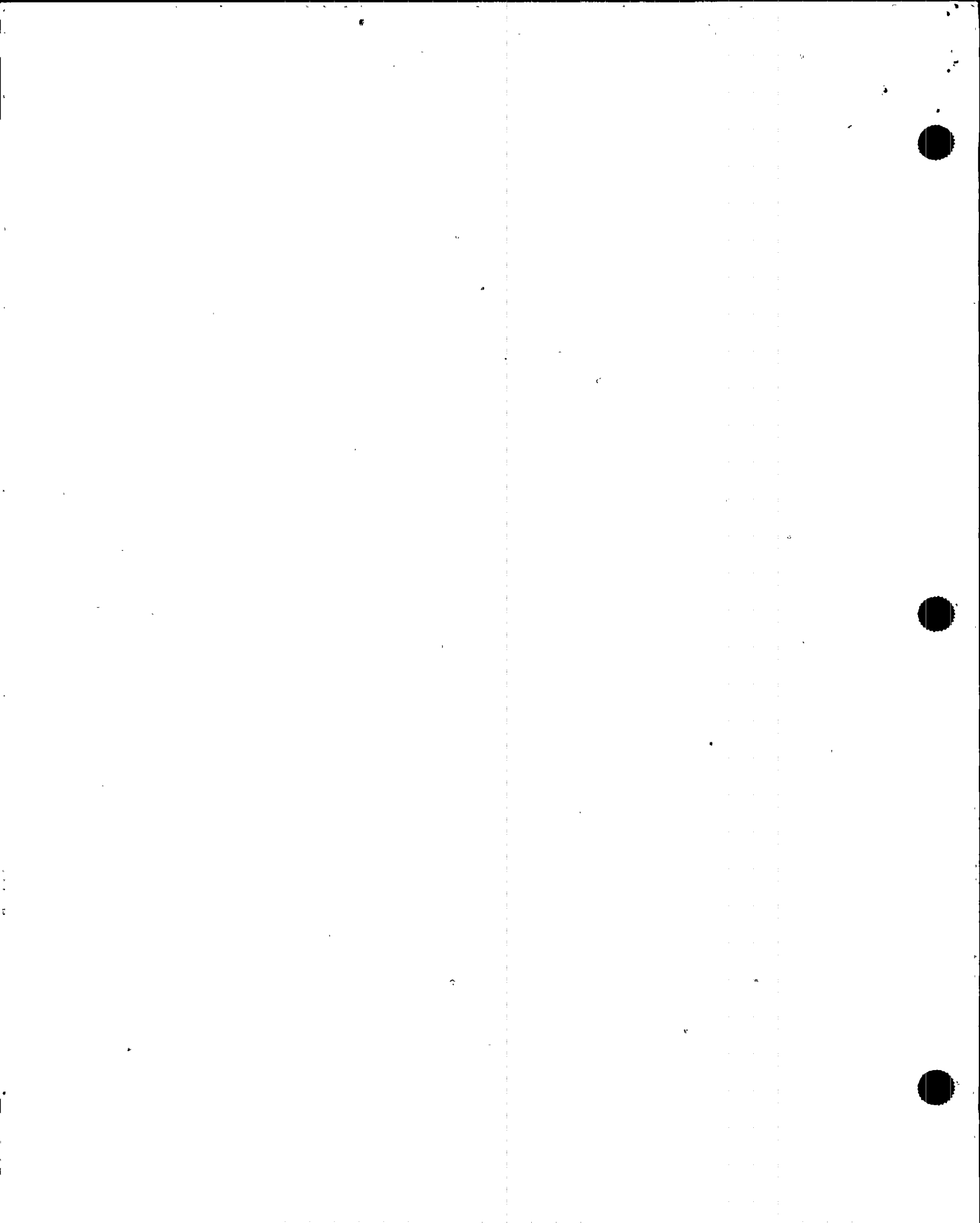
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PROCEDURE INTENT

This procedure provides functional instruction for the activation and operation of the Emergency Operations Facility.



SECTION 1.0 - INTRODUCTION

1.0 - Introduction

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SECTION 1.0 - INTRODUCTION

1.0 - Introduction *continued...*

- Applicability** This procedure provides functional instruction for the activation and operation of the Emergency Operations Facility. It should be referenced by Emergency Response personnel when responding to that facility during any event classified at an **Alert** or higher emergency classification.
- Content** This Introduction Section of the procedure describes the following:
- Prerequisites
 - Precautions
 - Limitations
- Prerequisites** All of the following conditions have been satisfied:
- An **Alert** or higher Emergency Classification has been declared.
 - The Emergency Operations Facility meets minimum activation staffing levels.
- Precautions** The Emergency Operations Facility serves as the focal point for coordination of onsite and offsite emergency response activities. Facility staff members are responsible for Protective Action Recommendations, liaison to offsite government officials / organizations, and management of the PVNGS response organization.
- If the Emergency Operations Facility becomes uninhabitable, the APS Buckeye Office may be selected as a backup by the Emergency Operations Director. The Radiological Assessment Coordinator will aid in evaluating and formulating recommendations for relocation.
- Notifications of downgrade to an emergency classification or protective actions recommended to state authorities by PVNGS **shall not** be transmitted to the Joint Emergency News Center.
- Limitations** The Emergency Operations Facility shall be activated within the time augmentation goals set forth in the PVNGS Emergency Plan (*i.e., 1 hour during normal work hours and 1-2 hours during off-normal work hours*). It is preferred that those individuals required for activation have been briefed on the emergency prior to facility activation.

continues...

SECTION 1.0 - INTRODUCTION

1.0 - Introduction *continued...***Limitations
(continued)**

Notifications to State/County agencies shall commence, via the NAN, within 15 minutes following each change in the emergency classification or following termination of the emergency declaration.

Notifications to State/County agencies shall commence, via the NAN, within 15 minutes following each change in the current Protective Action Recommendation.

The NRC shall be contacted immediately following notification of State/County agencies and within 60 minutes following initial, upgraded, or downgraded emergency declarations. The NRC shall be contacted immediately following notification of State/County agencies for emergency declaration termination.

Assembly is recommended at the **Alert** classification level unless the Emergency Coordinator is reasonably assured that the condition does not have the potential to further degrade. Accountability does not have to be performed immediately following the request for Assembly. In any case, Accountability is required for a **Site Area Emergency** or a **General Emergency** and must be completed within 30 minutes following the request for Accountability.

Although Site Evacuation is optional at the **Site Area Emergency** classification level, it is required at the **General Emergency** level.

A currently licensed Senior Reactor Operator must approve any suspension of safeguards directed by the Emergency Coordinator prior to taking the action in accordance with the Code of Federal Regulations, Title 10, Part 50.54(y).

Emergency Response Organization support personnel shall be questioned on alcohol use when contacted offsite for duty onsite and their response shall be recorded as specified in the Code of Federal Regulations, Title 10, Part 26.20(e).

**Procedure
Layout**

- Each section in this procedure is associated with a position within the facility.
- Each section is organized into topic areas comprising tasks which are required for the individual to perform.
- Tasks are preceded by check-off lines the individual may use to denote performance of steps or topic areas.

continues...

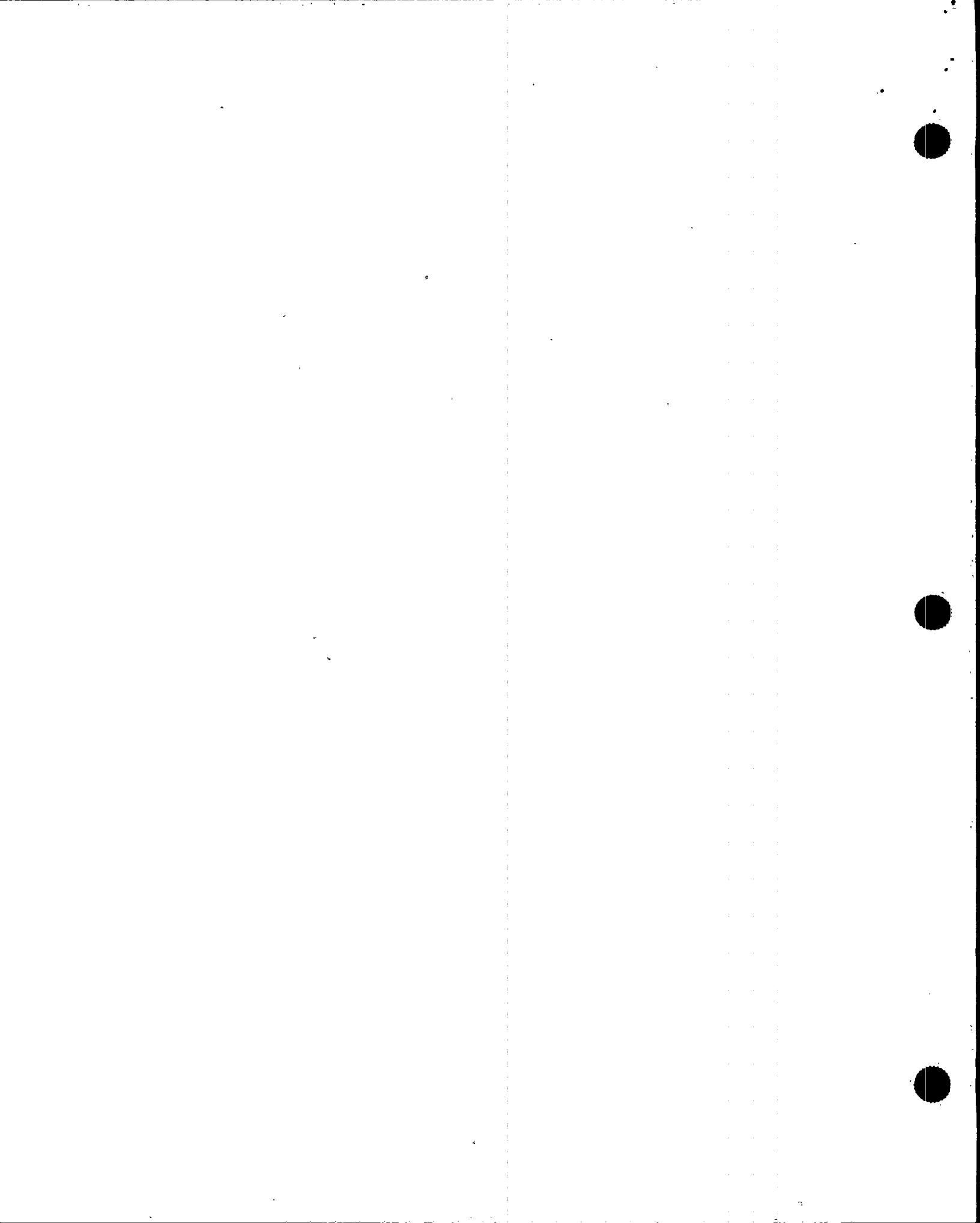
SECTION 1.0 - INTRODUCTION

1.0 - Introduction *continued...***Procedure
Layout
(continued)**

- Certain areas of procedures may incorporate the use of flowcharts, whereby direction may be specified to proceed, or go to, other areas of the procedure. These other areas are annotated by block labels, such as the block label for this topic area cited by **Procedure Layout** in the immediate left margin scan column. Using this schema, the user should immediately proceed ahead in the document to the specified block label when directed by the flowchart and perform the actions associated with the given topic area.

**Procedure Use
and Adherence**

Some topic areas in this procedure may not require performance, may require performance more than one time, or may require performance out-of-sequence. The individual should address each, however, to ensure the health and safety of plant personnel and the public are maintained and that regulatory requirements are fulfilled. Technical Instructions (*Instructional Guides*) may be used in addition to this procedure for areas where detailed guidance is desired to accomplish a particular function. Document use and adherence is controlled by 01DP-0AP01, Procedure Process.



SECTION 2.0 - EMERGENCY OPERATIONS DIRECTOR

2.0 - Emergency Operations Director Function

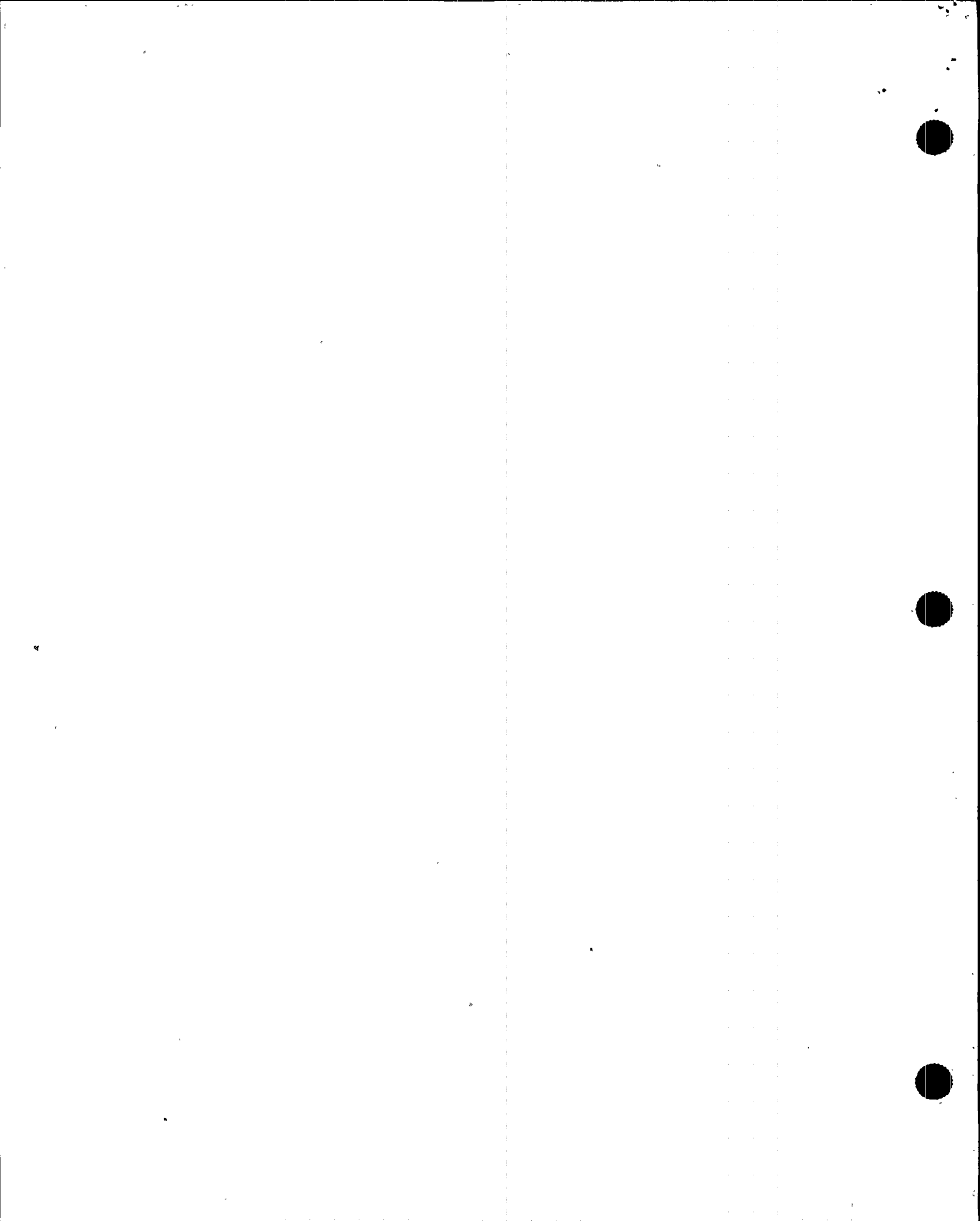
Duties and Responsibilities

The Emergency Operations Director assumes command of PVNGS emergency operations and is responsible for the following duties:

- Overall coordination of PVNGS onsite and offsite emergency functions
- Interface between PVNGS and federal, state, and county emergency response agencies
- Communication of plant status updates and radiological release data to USNRC, state and county Emergency Operations Center, Technical Operations Center, and Joint Emergency News Center personnel
- Notification to state and county agencies regarding recommended protective actions
- Provision of administrative, technical, and logistical support to station emergency operations
- Ensuring continuity of emergency organization resources
- Take appropriate exceptions to QA/QC and plant administrative procedures
- Approve draft information pertaining to plant conditions for transmittal to Joint Emergency News Center personnel

The following non-delegable responsibilities of the Emergency Coordinator are assumed by the Emergency Operations Director upon Emergency Operations Facility activation:

- Notification to offsite emergency management agencies
- Communicating Protective Action Recommendations to offsite emergency management agencies



SECTION 2.0 - EMERGENCY OPERATIONS DIRECTOR

2.1 - Initial Actions

Facility
Activation

- If, at any time during the event, relocation of facility staff to the Backup Emergency Operations Facility is indicated, direct the Administrative and Logistics Coordinator to form provisions for relocation of facility operations to the Backup Emergency Operations Facility.
- Contact the Onsite Emergency Coordinator at the Technical Support Center and review the following items:
 - Basis for the current emergency classification
 - Current plant status
 - Corrective action implementation
- Record the time and activate the Emergency Operations Facility when the following required facility personnel have arrived:
 - Dose Assessment Health Physicist
 - Government Liaison
 - Radiological Assessment Coordinator
 - Security Coordinator
 - Technical Analysis Manager
- When facility emergency response personnel have assumed their duties and responsibilities, notify the Emergency Coordinator, the Vice President - Nuclear, and the Arizona Division of Emergency Management - Technical Operations Center of the following items:
 - The Emergency Operations Facility has been activated
 - Current emergency classification / plant status
 - Recommended protective actions
- Direct the Government Liaison to prepare follow-up emergency information in anticipation of Arizona Radiation Regulatory Agency request. *(Form EP-0542, Followup Emergency Message, may be used as guidance.)*
- Review pertinent protective actions for appropriateness to the current emergency classification and plant conditions. *(16TD-0EP161, Protective Actions, may be used as guidance for review.)*

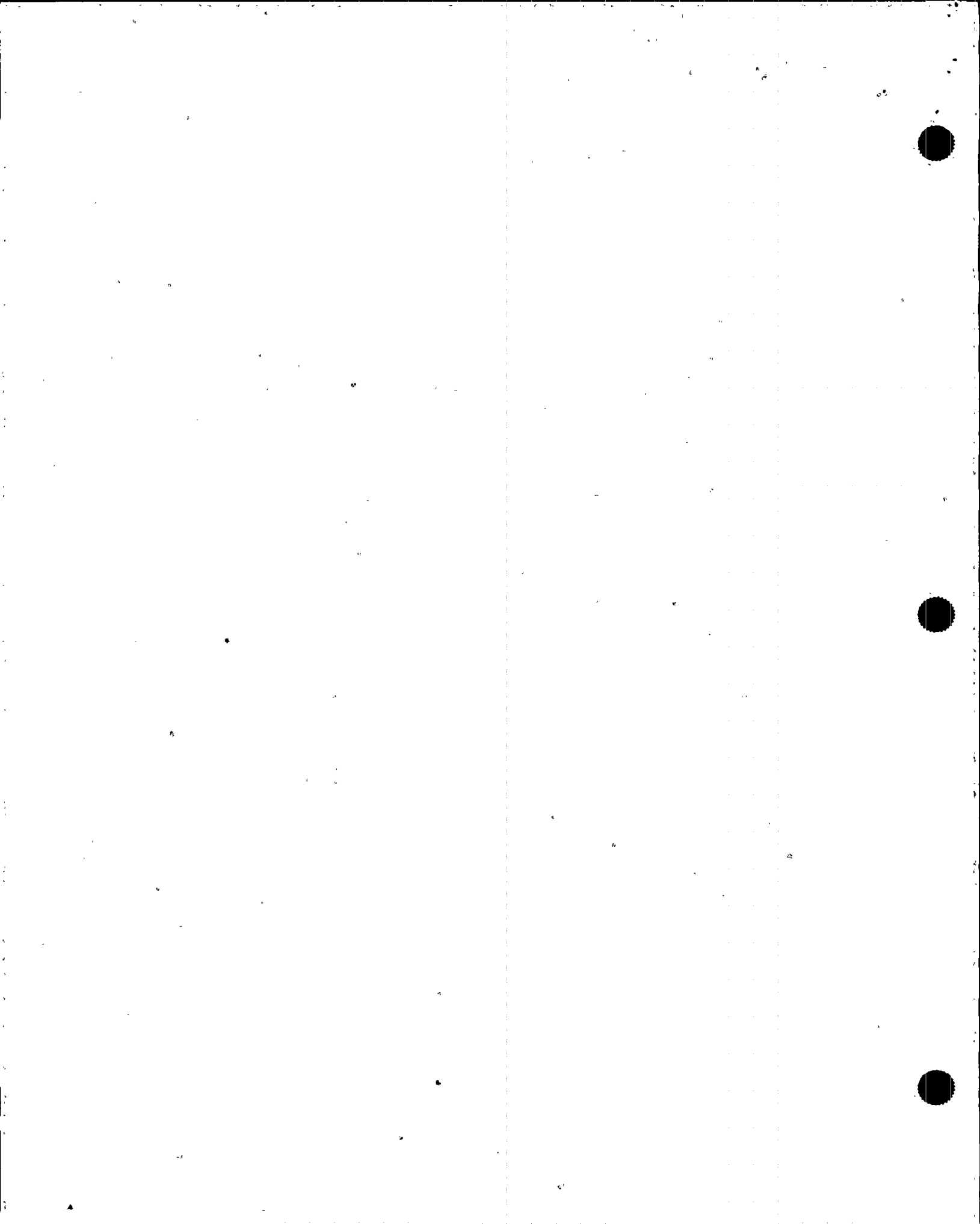
SECTION 2.0 - EMERGENCY OPERATIONS DIRECTOR

2.2 - Subsequent Actions

Status

Perform the following actions as required:

IF...	THEN...
the emergency classification has changed	Direct the Government Liaison to notify offsite agencies within 15 minutes of the change in classification.
a change to the Protective Action Recommendation is indicated	Direct the Government Liaison to notify offsite agencies within 15 minutes of the change in Protective Action Recommendation.
you need a plant status update from the Technical Support Center	Review plant status, emergency classification, and corrective actions with the Emergency Coordinator.
a site evacuation has been directed by the Emergency Coordinator	Assist the Emergency Coordinator with activities supporting the site evacuation.
administrative procedures do not support current activities	Take exceptions, as necessary, to QA/QC and plant administrative procedures.
additional administrative support or resources is indicated	Authorize the Administrative and Logistics Coordinator to provide support and resources, as necessary.
a briefing to offsite agencies is indicated	Brief offsite agency personnel periodically, as necessary, on plant status, emergency classification, and corrective actions taken.
a briefing to your staff is indicated	Conduct Emergency Operations Facility briefings based on plant conditions / other problems.
offsite assistance is required	Advise the Administrative and Logistics Coordinator to call the required organizations as needed. Request the Emergency Coordinator to arrange for access when assistance arrives.
draft information for the JENC requires approval	Review / approve draft information compiled by the Information Coordinator as necessary.
event termination or down-grade is currently indicated	Consult with the Emergency Coordinator and proceed to Step 2.3 - Terminal Actions.
Severe Accident Management Guidelines may warrant implementation	Assist the Emergency Coordinator with activities supporting implementation of the Severe Accident Management Guidelines.



SECTION 2.0 - EMERGENCY OPERATIONS DIRECTOR

2.3 - Terminal Actions

Event
Termination or
Downgrade

- Address the following items with the Emergency Coordinator:
 - The anticipated plant response is such that there should be no challenge to any fission product barriers or radiation releases in excess of Technical Specifications.
 - Present plant conditions offer no possibility of an adverse impact on the health and safety of the public and plant personnel.
 - Measures have been successfully instituted to correct or compensate for malfunctioning equipment.
- Consult with USNRC representatives in the Emergency Operations Facility (*if present*), personnel at the State Technical Operations Center, and personnel with the Arizona Radiation Regulatory Agency prior to emergency event downgrade or termination.
- Direct all coordination for the release of information through the State Emergency Operations Center / Technical Operations Center so that Protective Action Recommendations can be considered.

(Do not inform the JENC of event downgrading or termination.)
- Upon emergency event termination, direct the Government Liaison to notify offsite agencies within 15 minutes of event termination and to notify PVNGS Emergency Response Organization personnel.
- If appropriate, establish the Recovery Organization (16IG-0EP182, *Recovery Organization, may be referenced for guidance*).

Record
Retention

- Collect all Emergency Operations Facility personnel documentation and logs and forward associated paperwork to the Emergency Planning Department.

SECTION 3.0 - ADMINISTRATIVE AND LOGISTICS COORDINATOR

3.0 - Administrative and Logistics Coordinator Function

Duties and Responsibilities

Administrative and Logistics Coordinator mobilizes offsite resources and plans and obtains logistical support for the Onsite Emergency Organization. Support includes provision of needed technical documents, additional communications and analytical equipment, additional security support, manpower support, transportation, housing and food needs, and relocation to a backup Emergency Operations Facility, if necessary. S/he functions as liaison to reporting support personnel.

The Administrative and Logistics Coordinator reports to the Emergency Operations Director in the Emergency Operations Facility.

3.1 - Initial Actions

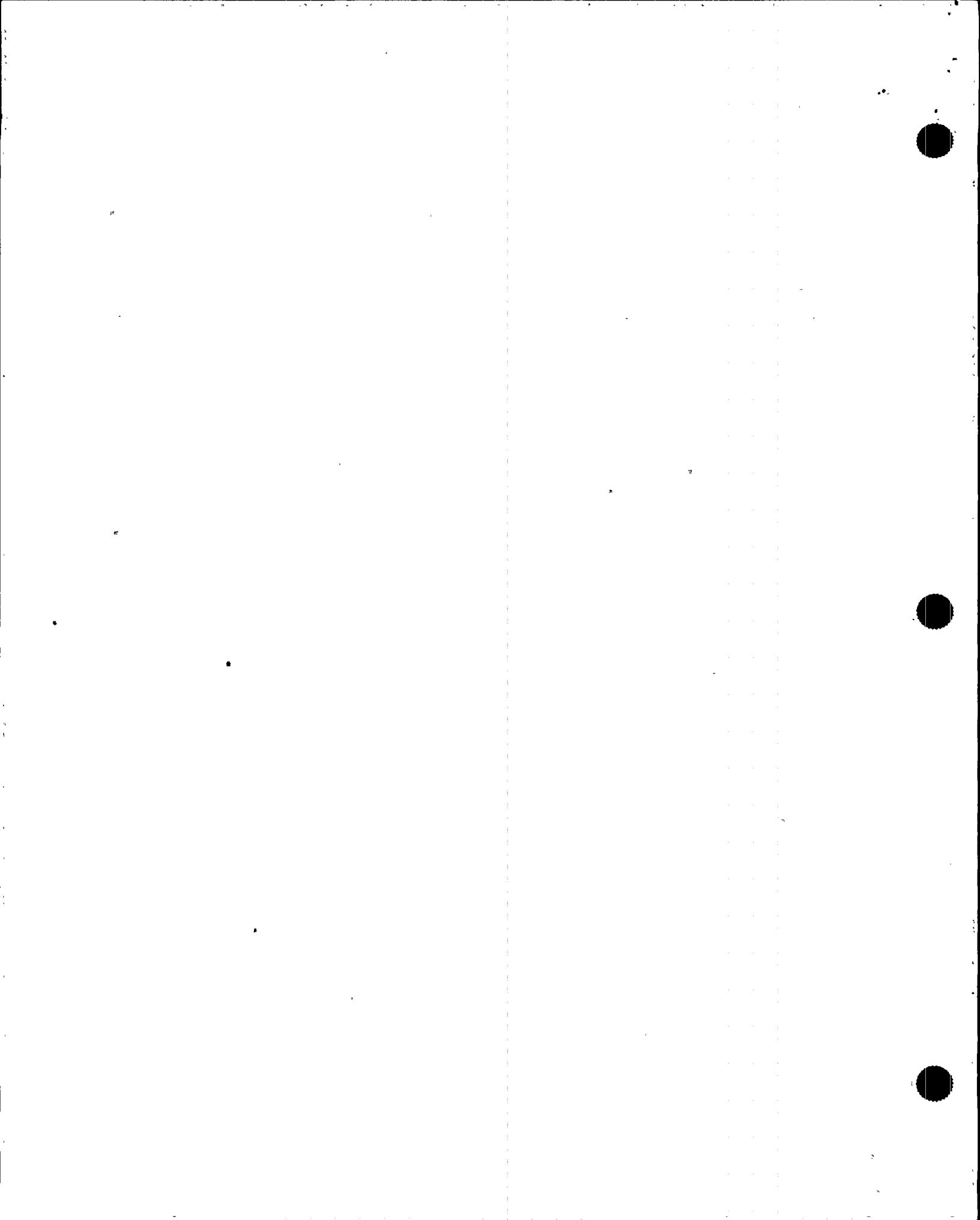
Facility Activation

- When duties have been assumed and an informational briefing has been received, ensure that the facility ERFDADS terminals are functioning properly and that all communications equipment is operational. *(As necessary, refer to 16IG-0EP056, ERFDADS Application, for guidance.)*
- Brief the Security Coordinator on required facility security measures and Administrative Support personnel on necessary job duties.
- Synchronize all clocks in the facility with that of the Affected Unit.

3.2 - Subsequent Actions

Contingency

- If directed, at any time during the event, to form provisions for relocation of facility staff, relocate facility operations to the Backup Emergency Operations Facility. *(16IG-0EP021, Backup Emergency Operations Facility, may be referenced for further guidance:)*



SECTION 3.0 - ADMINISTRATIVE AND LOGISTICS COORDINATOR

3.2 - Subsequent Actions *continued...*

Status

- Contact the Operations Advisor in the Satellite Technical Support Center, the Security Director in the Technical Support Center, and the Operations Support Center Coordinator in the Operations Support Center and request each to perform the following:
 - provide a summary of staffing requirements / rotation schedule for their facilities to you as time permits
 - ensure personnel in their facilities will not exceed overtime limitations per Technical Specifications
- Request that Costs and Budgets personnel establish a Work Breakdown Structure (WBS) Number for event / insurance tracking purposes.
- As directed, contact offsite support organizations to obtain the necessary technical and/or additional personnel support. (16TD-0EP201, *Telecommunications, may be referenced as necessary.*)
- When the Operations Advisor in the Satellite Technical Support Center, the Security Director in the Technical Support Center, and the Operations Support Center Coordinator in the Operations Support Center have each provided shift staffing requirements for their facility, record Personnel Shift Staffing for all onsite facilities and submit to the Emergency Operations Director. (Form EP-0011; *Personnel Shift Staffing, may be used as guidance.*)
- If necessary, contact Fire Protection personnel to obtain additional respiratory protection equipment from inventories maintained by Fire Protection.
- If directed, contact additional Emergency Response Organization support personnel for duty, ensuring that 10 CFR 26.20(e) FFD requirements are maintained. (Form EP-0013, *Duty Contact Register, may be used for guidance.*)

continues...

SECTION 3.0 - ADMINISTRATIVE AND LOGISTICS COORDINATOR

3.3 - Terminal Actions

Status
(continued)

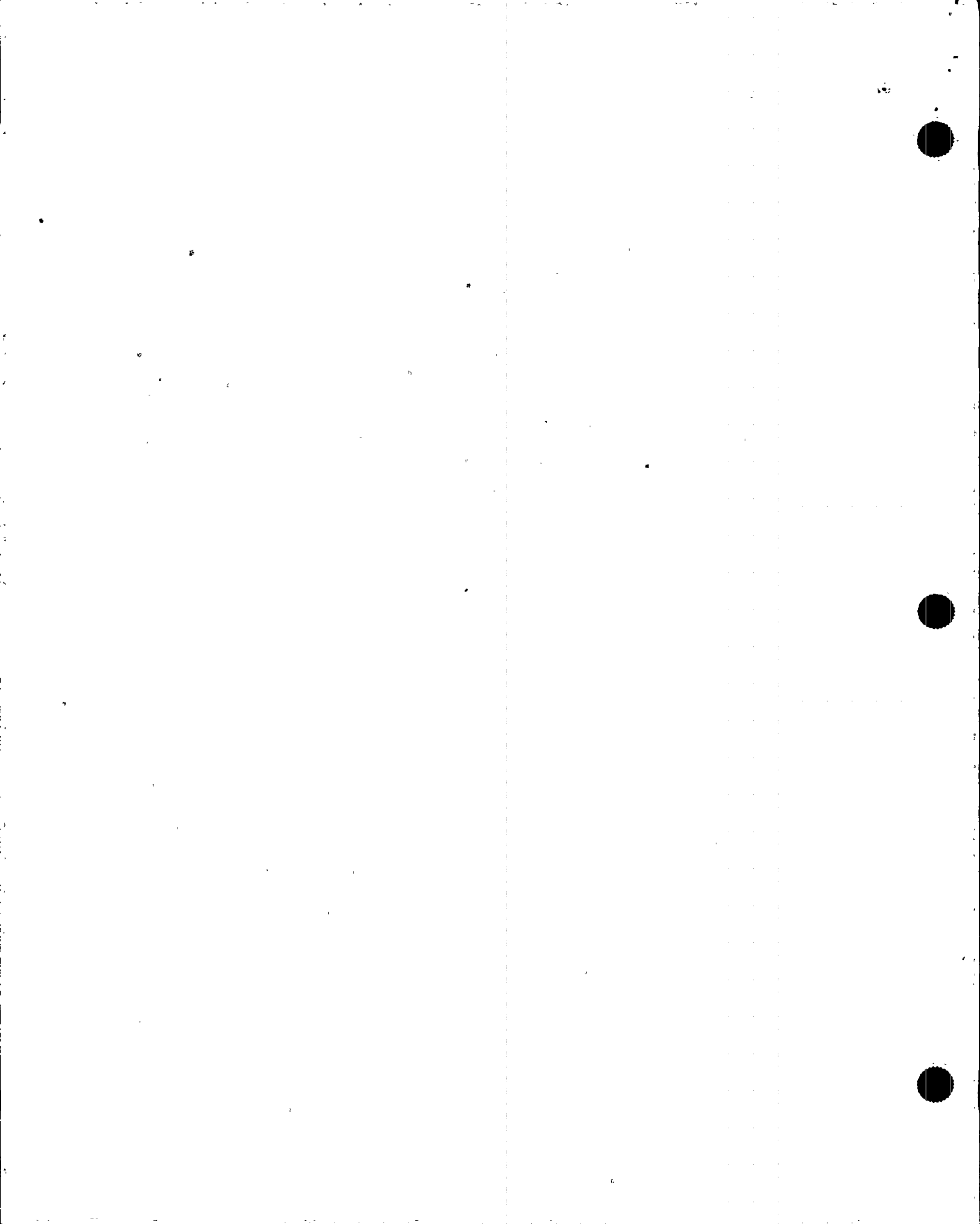
— As required, maintain support in the following areas for the onsite facilities:

- administrative support
- technical documentation / manuals
- communications equipment
- analytical equipment
- additional personnel
- transportation
- housing / food (*staff support*)

Record
Retention

— Collect all documentation and associated logs from the Security Coordinator and Administrative Support personnel at event termination.

— Submit logs, data, and other documentation to the Emergency Operations Director after event termination.



SECTION 4.0 - ADMINISTRATIVE SUPPORT

4.0 - Administrative Support Function

Duties and
Responsibilities

Administrative Support personnel render assistance to the Onsite Emergency Organization in all matters requiring clerical support. Duties related to this function include information dissemination, the use and/or transmission of facsimile materials, document duplication and retrieval, telecommunications assistance, log-keeping, site-wide announcements, etc.

Administrative Support personnel report to the Administrative and Logistics Coordinator in the Emergency Operations Facility.

4.1 - Initial Actions

Facility
Activation

— Consult with the Administrative and Logistics Coordinator to determine and initiate immediate support functions required to aid activation of the facility.

4.2 - Subsequent Actions

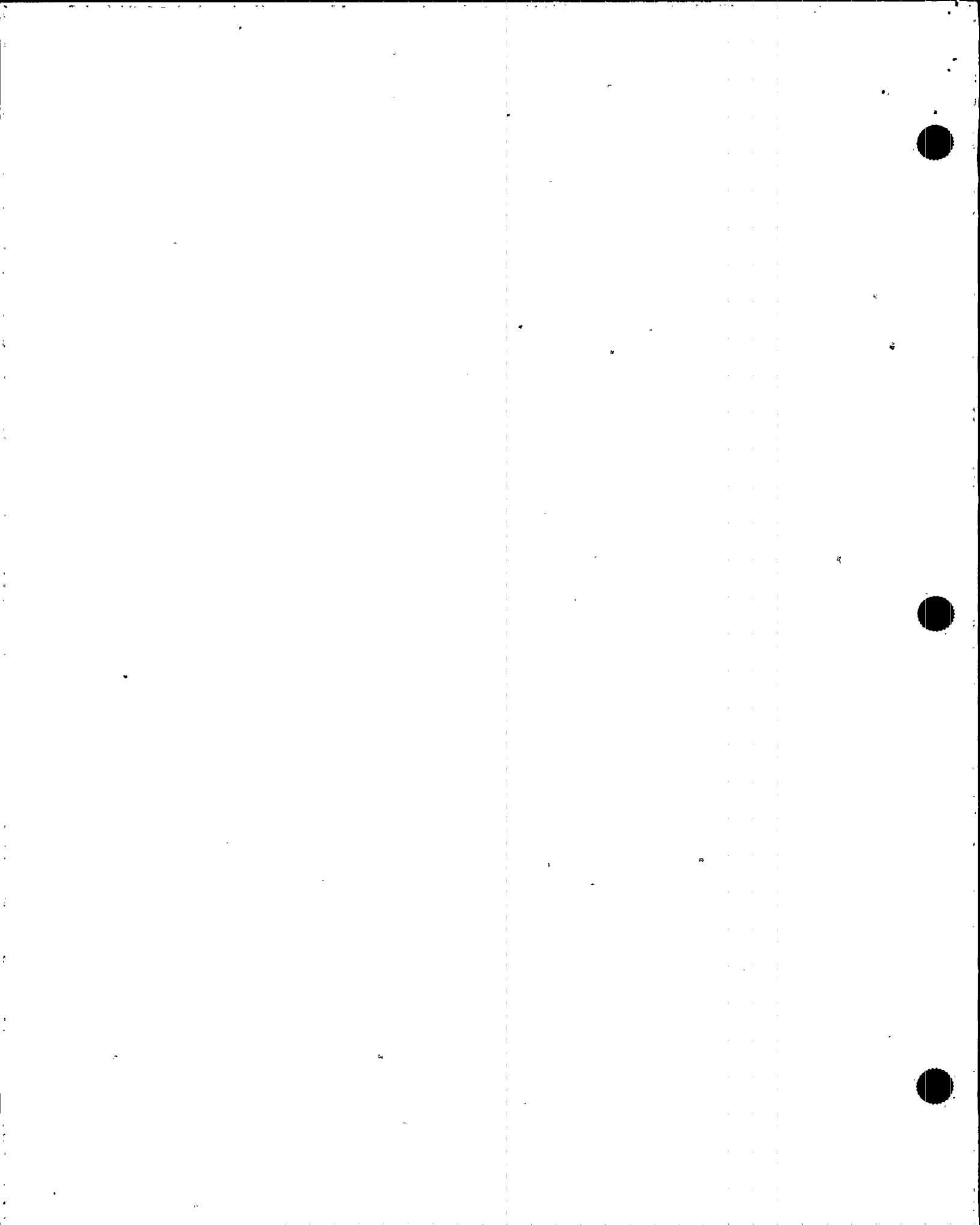
Status

— Render assistance and support for various duties as assigned.

4.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Administrative and Logistics Coordinator after event termination.



SECTION 5.0 - ASSISTANT EMERGENCY OPERATIONS DIRECTOR

5.0 - Assistant Emergency Operations Director Function

Duties and
Responsibilities

The Assistant Emergency Operations Director, if stationed, assists the Emergency Operations Director with his/her duties.

The Assistant Emergency Operations Director reports to the Emergency Operations Director in the Emergency Operations Facility.

5.1 - Initial Actions

Facility
Activation

— Consult with the Emergency Operations Director and assist with support functions required to aid activation of the facility.

5.2 - Subsequent Actions

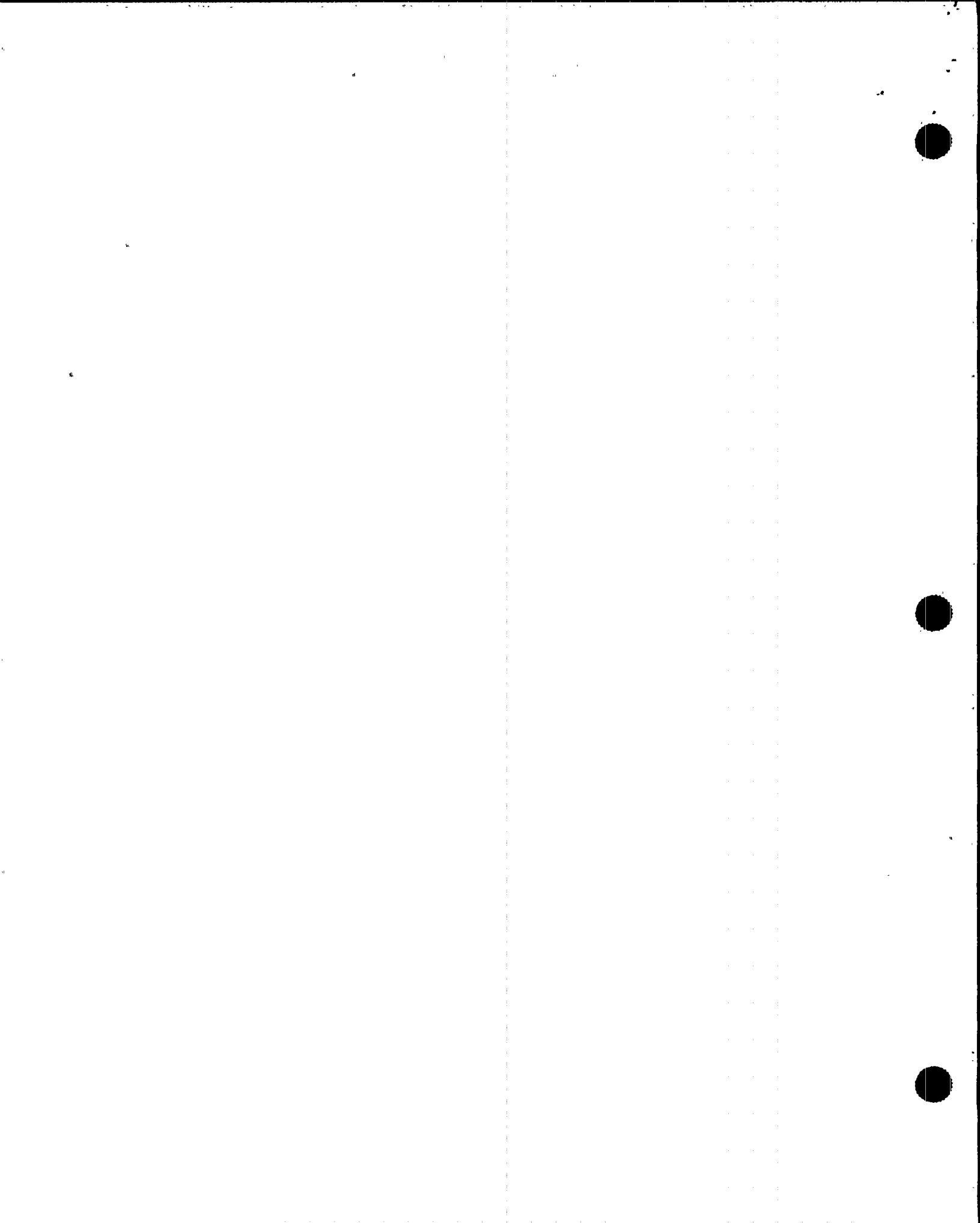
Status

— Render assistance and support for various duties as assigned.

5.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Emergency Operations Director after event termination.



SECTION 6.0 - DOSE ASSESSMENT HEALTH PHYSICIST

6.0 - Dose Assessment Health Physicist Function

Duties and
Responsibilities

The Dose Assessment Health Physicist performs radiological dose projections and other calculations or evaluations as directed.

The Dose Assessment Health Physicist reports to the Radiological Assessment Coordinator in the Emergency Operations Facility. S/he assumes similar duties from the Radiological Monitoring Technician in the Satellite Technical Support Center upon Emergency Operations Facility activation.

6.1 - Initial Actions

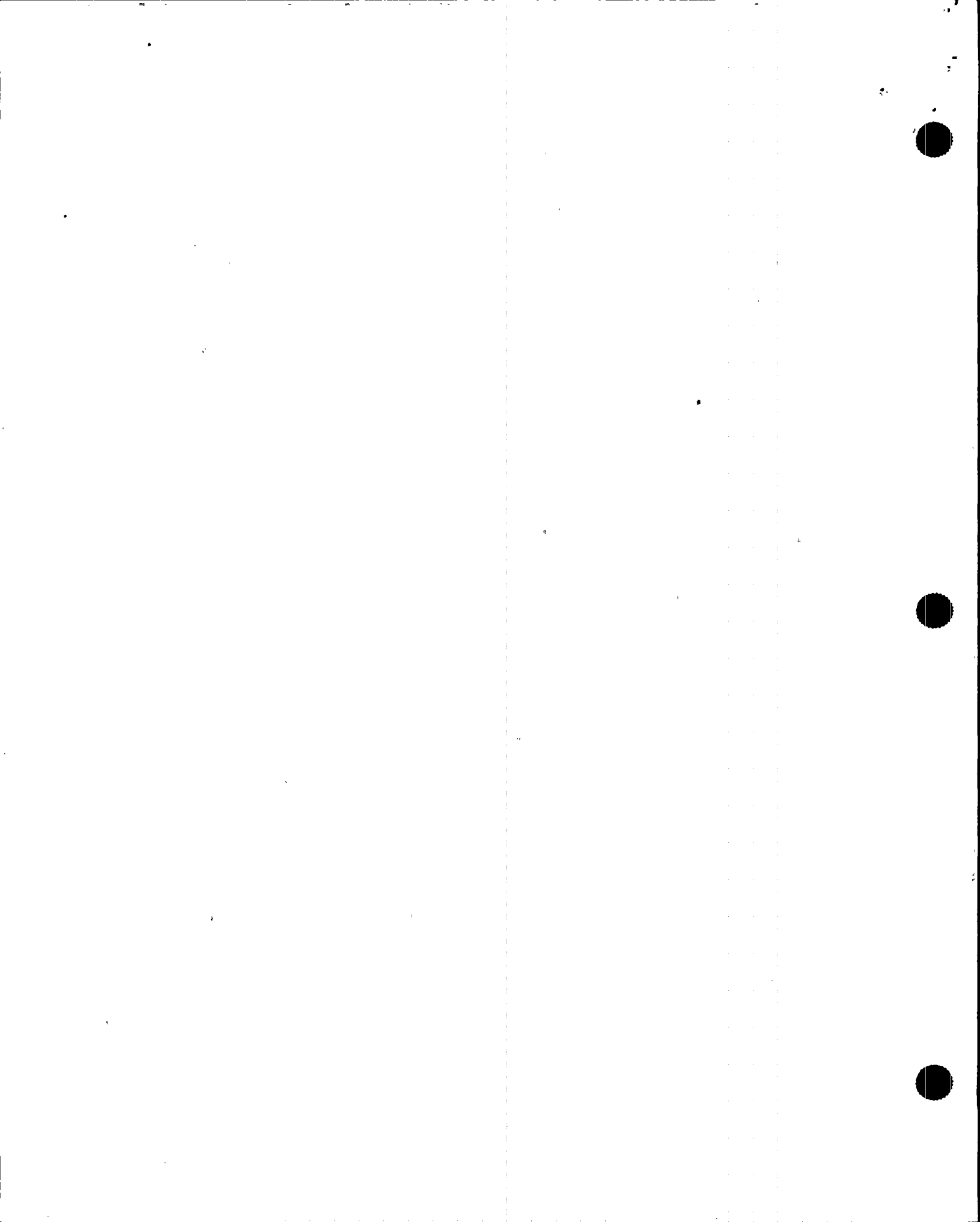
Facility
Activation

— When duties have been assumed and an informational briefing has been received, access ERFDADS and determine the status of current meteorological conditions.

6.2 - Subsequent Actions

Status

- Review current dose projections and Protective Action Recommendations issued by PVNGS for accuracy and applicability to current conditions.
- Consult with the Technical Analysis Manager to determine the most probable effluent release pathways and release duration.
- If conditions have changed or bounding parameters have been requested, perform dose projections, with emphasis placed on source term, meteorological data, and radiological field assessment data.
(16IG-0EP041, *Dose Projection*, may be used for guidance.)
- Based on best fit dose projections, advise the Radiological Assessment Coordinator on recommended protective actions and bounding value expectations. (16TD-0EP161, *Protective Actions*, may be referenced as necessary.)



SECTION 6.0 - DOSE ASSESSMENT HEALTH PHYSICIST

6.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Radiological
Assessment Coordinator after event termination.

SECTION 7.0 - GOVERNMENT LIAISON

7.0 - Government Liaison Function

Duties and Responsibilities

The Government Liaison performs all subsequent notifications to offsite agencies upon Emergency Operations Facility activation. Duties include providing assistance to the Technical Analysis Manager, briefing government staff at the facility, reporting significant changes in the emergency to the Joint Emergency News Center Technical Advisor, and maintaining communications with the Offsite Technical Representative.

The Government Liaison reports to the Technical Analysis Manager in the Emergency Operations Facility. S/he relieves the Satellite Technical Support Center Communicator upon Emergency Operations Facility activation.

7.1 - Initial Actions

Facility Activation

— When duties have been assumed and an informational briefing has been received, establish contact with the Satellite Technical Support Center Communicator in the Affected Unit, relieve that individual of duties and responsibilities, and request a transmitted copy of the current Palo Verde NAN Emergency Message.

NOTE

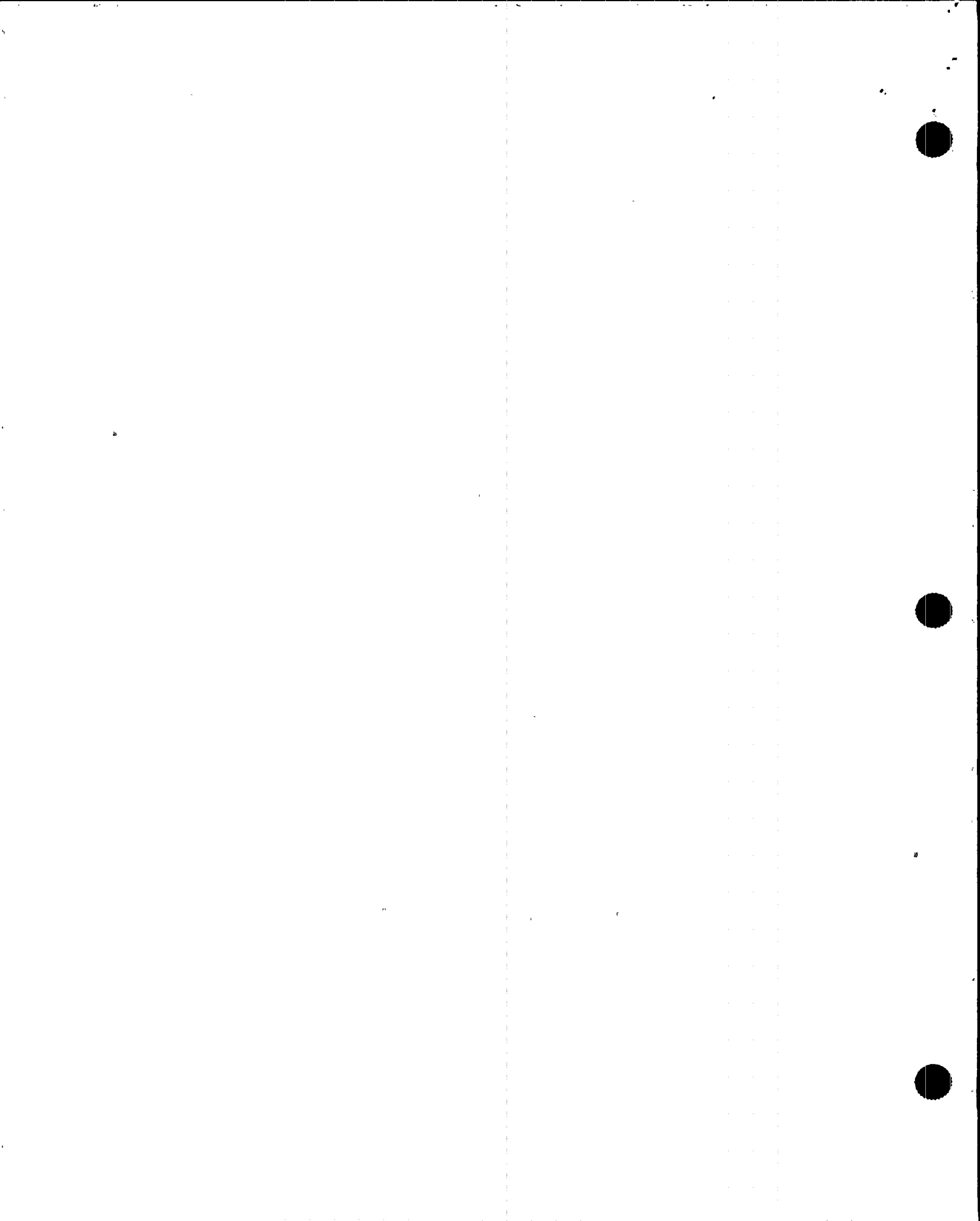
Notifications of downgrade to an emergency classification or protective actions recommended to state authorities by PVNGS *shall not* be transmitted to the Joint Emergency News Center.

— If requested by the Emergency Operations Director, contact the following agencies and inform them of Emergency Operations Facility activation:

- Joint Emergency News Center (*JENC Technical Advisor*)
- State Technical Operations Center (*Offsite Technical Representative*)

— Notify the following agencies of radioactive plume travel direction / speed. (*16TD-0EP201, Telecommunications, may be referenced as necessary*):

- Federal Aviation Administration
- National Transportation Safety Board



SECTION 7.0 - GOVERNMENT LIAISON

7.2 - Subsequent Actions

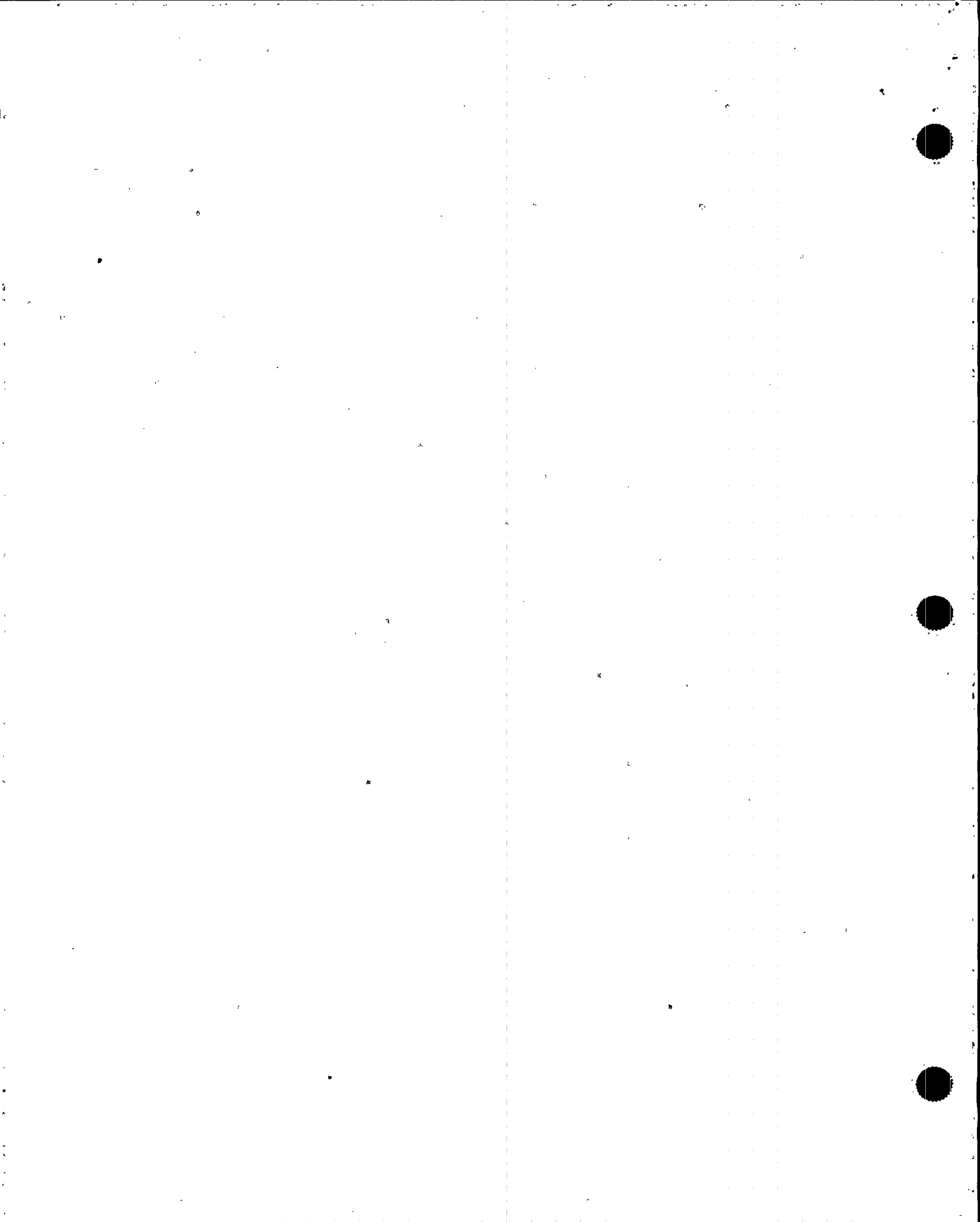
Status _____ Notify the Institute of Nuclear Power Operations (INPO) of the emergency.

Perform the following actions as required:

IF...	THEN...
directed to notify offsite agencies within 15 minutes of a change in emergency classification	Notify offsite agencies within 15 minutes of emergency classification. (16IG-0EP053, <i>Emergency Message Forms</i> , may be used for guidance.)
directed to complete information for a follow-up emergency message	Collect information for a follow-up emergency message. (16IG-0EP053, <i>Emergency Message Forms</i> , may be used for guidance.)
plant information is requested by Joint Emergency News Center or State Technical Operations Center staff	Provide information only to the JENC Technical Advisor, the JENC Facility Coordinator, or State Technical Operations Center staff members. (Reference NOTE Step 7.1 - Initial Actions)
assistance is required to brief government staff at the facility	Provide briefing assistance to the Technical Analysis Manager as necessary.
directed to notify offsite agencies within 15 minutes of an emergency classification termination	Notify offsite agencies within 15 minutes of the emergency classification termination. (16IG-0EP053, <i>Emergency Message Forms</i> , may be used for guidance.)

7.3 - Terminal Actions

Record Retention _____ Submit logs, data, and other documentation to the Technical Analysis Manager after event termination.



SECTION 8.0 - INFORMATION COORDINATOR

8.0 - Information Coordinator Function

Duties and Responsibilities

The Information Coordinator gathers and drafts information for use by Joint Emergency News Center personnel once approved by the Emergency Operations Director. S/he functions as liaison to American Nuclear Insurers representatives.

Information Coordinator personnel report to the Emergency Operations Director in the Emergency Operations Facility.

8.1 - Initial Actions

Facility Activation

— When duties have been assumed and an informational briefing has been received, establish communications with the Joint Emergency News Center Technical Advisor or Facility Coordinator.

8.2 - Subsequent Actions

Status

NOTE

Notifications of downgrade to an emergency classification or protective actions recommended to state authorities by PVNGS **shall not** be transmitted to the Joint Emergency News Center.

— Gather appropriate information and draft materials. (*Ensure accurate emergency classification dates and times are retrieved from Block 3 of Form EP-0541, Palo Verde NAN Emergency Message Form.*)

— Unless relieved by corporate financial personnel, notify American Nuclear Insurers of the emergency and advise with updates as the need arises.

— Prepare draft information for approval by the Emergency Operations Director and transmit the approved draft information to the Joint Emergency News Center.

SECTION 8.0 - INFORMATION COORDINATOR

8.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Emergency Operations Director after event termination.

SECTION 9.0 - PLANT STATUS TECHNICIAN

9.0 - Plant Status Technician Function

Duties and Responsibilities

The Plant Status Technician maintains communications monitoring capability with the Unaffected Shift Technical Advisor in the Satellite Technical Support Center / Control Room and the Plant Status Technician in the Technical Support Center when ERFDADS is unavailable. S/he is responsible for maintaining a concise knowledge level regarding technical and operational status of plant parameters and equipment functionality. Duties include the maintenance of accurate, current data on the facility plant status boards via guidance of Systems Engineering.

If staffed, the Plant Status Technician reports to the Technical Analysis Manager in the Emergency Operations Facility.

9.1 - Initial Actions

Facility Activation

— When duties have been assumed and an informational briefing has been received, establish communications monitoring capability with the Unaffected Shift Technical Advisor in the Satellite Technical Support Center / Control Room and the Plant Status Technician in the Technical Support Center.

— Record an initial set of current plant data on the facility plant status boards using the approved color code scheme.

9.2 - Subsequent Actions

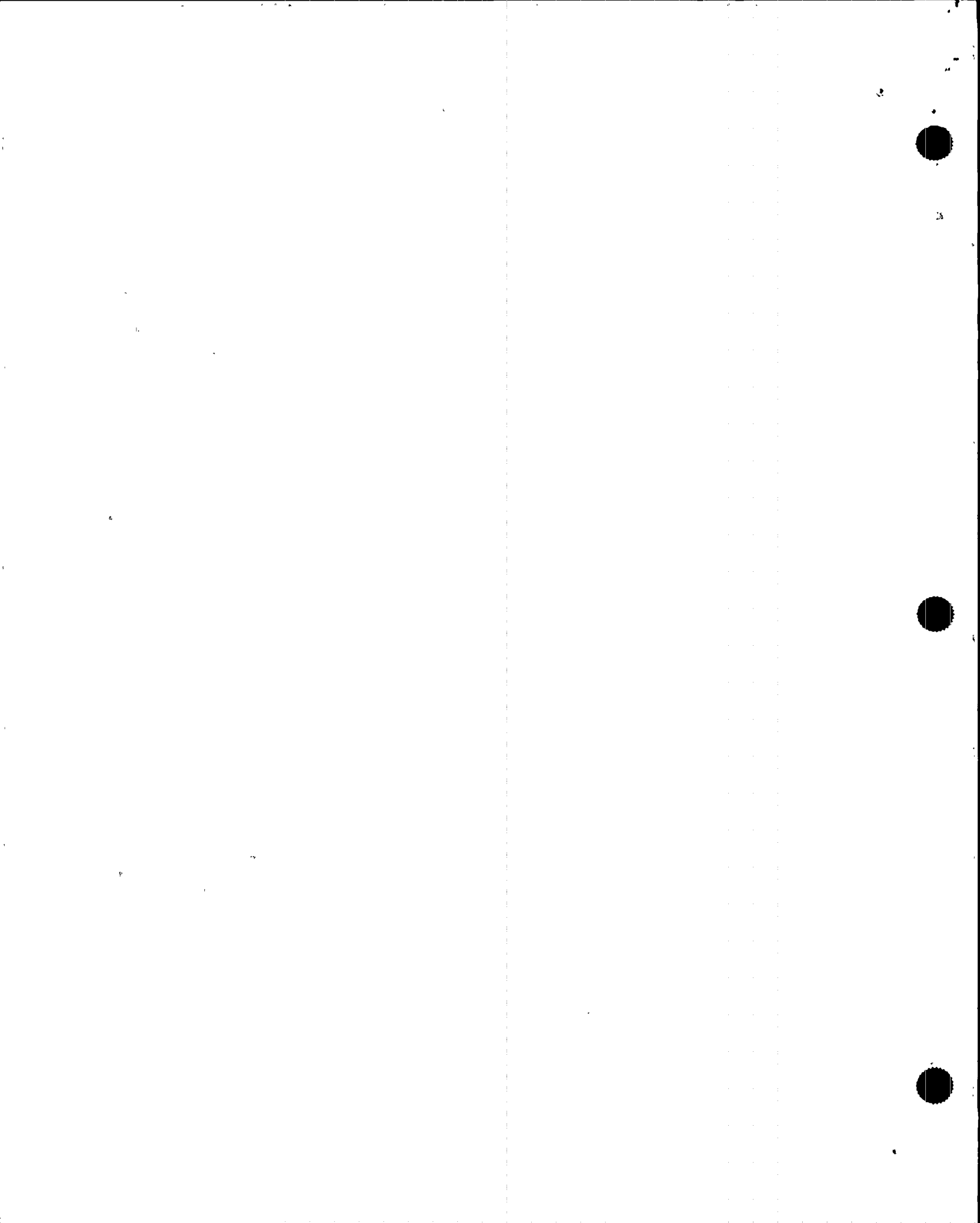
Status

— Maintaining open communications capability previously established, record accurate, current plant data on the facility plant status boards on a continuing basis using the approved color code scheme.

9.3 - Terminal Actions

Record Retention

— Submit logs, data, and other documentation to the Technical Analysis Manager after event termination.



SECTION 10.0 - RADIATION PROTECTION SUPPORT TECHNICIAN

10.0 - Radiation Protection Support Technician Function

Duties and Responsibilities

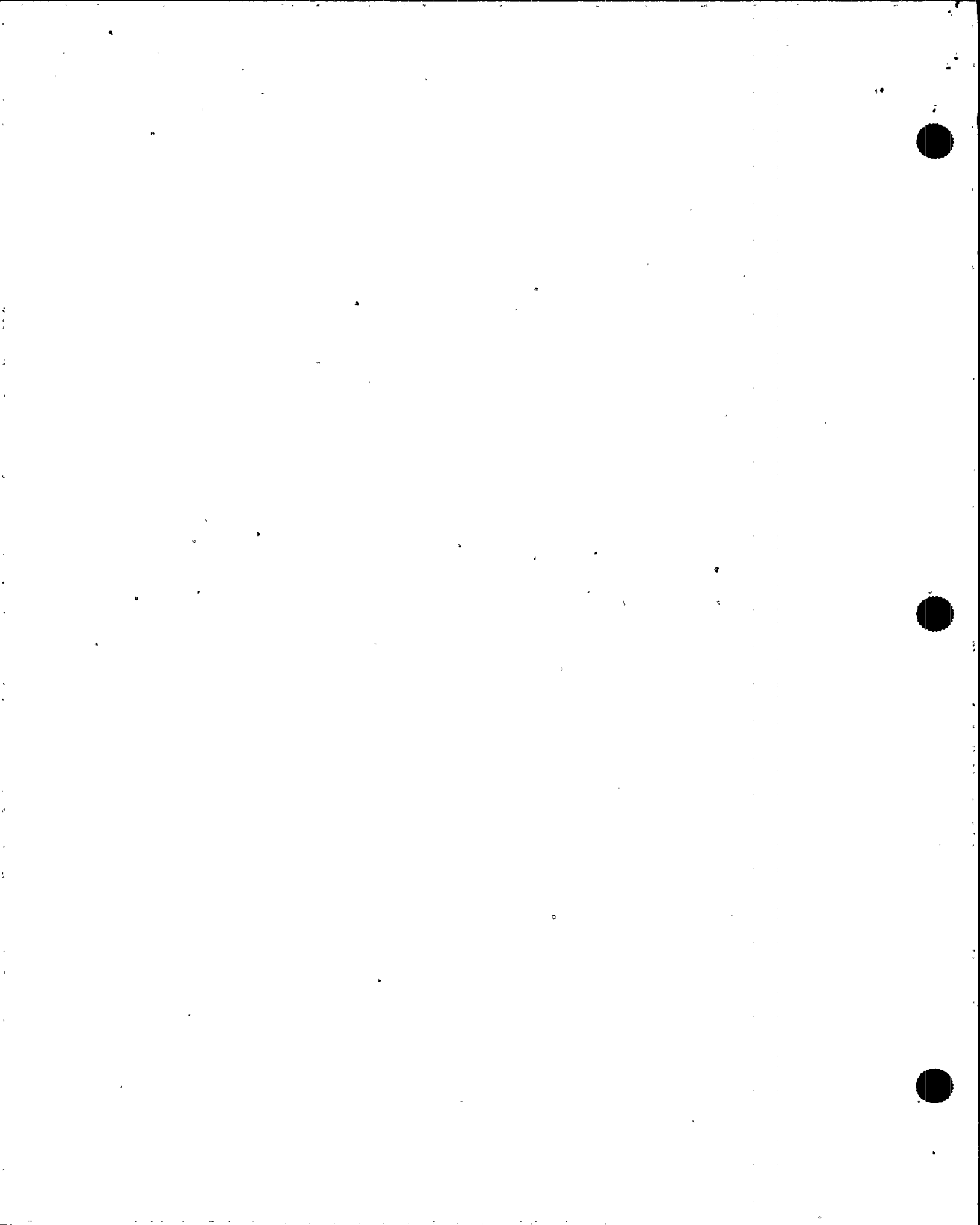
The Radiation Protection Support Technician performs facility habitability surveys for the Emergency Operations Facility and monitors the facility Radiation Monitoring System monitor RU-13B for airborne activity. S/he also provides radiological status board updates, issues and maintains dosimetry, and assists the Radiological Assessment Coordinator with miscellaneous administrative functions.

The Radiation Protection Support Technician reports to the Radiological Assessment Coordinator in the Emergency Operations Facility.

10.1 - Initial Actions

Facility Activation

- When duties have been assumed and an informational briefing has been received, place the Emergency Operations Facility Radiation Monitoring System monitor RU-13B into operation in the Emergency Mode in accordance with the posted monitor instructions.
- Remove the Area Radiation Monitor from the emergency locker and place it into operation in the Emergency Operations Facility.



SECTION 10.0 - RADIATION PROTECTION SUPPORT TECHNICIAN

10.2 - Subsequent Actions

Status

Perform the following actions as required:

IF...	THEN...
contamination control for the Emergency Operations Facility is warranted	Establish a contamination control point at the Emergency Operations Facility Stairway #1 airlock entrance as required.
habitability surveys are warranted	Perform the following actions: <ul style="list-style-type: none"> Periodically ensure no upscale trends exist on RU-13B for gaseous, particulate, and Iodine activity. Perform facility air sampling in accordance with 75RP-9RP07, Radiation Surveys (<i>10 cubic feet air samples may be taken for ALARA considerations</i>). (Form EP-0481, Air Sample Data, may be used for calculations.)
dosimetry functions need to be addressed	Maintain dosimetry requirements as necessary.
EOF RMS Monitor RU-13B alarms	Investigate / resolve annunciator alarms and evaluate the impact on facility filtration.
administrative functions need to be addressed	Assist the Radiological Assessment Coordinator with administrative functions.

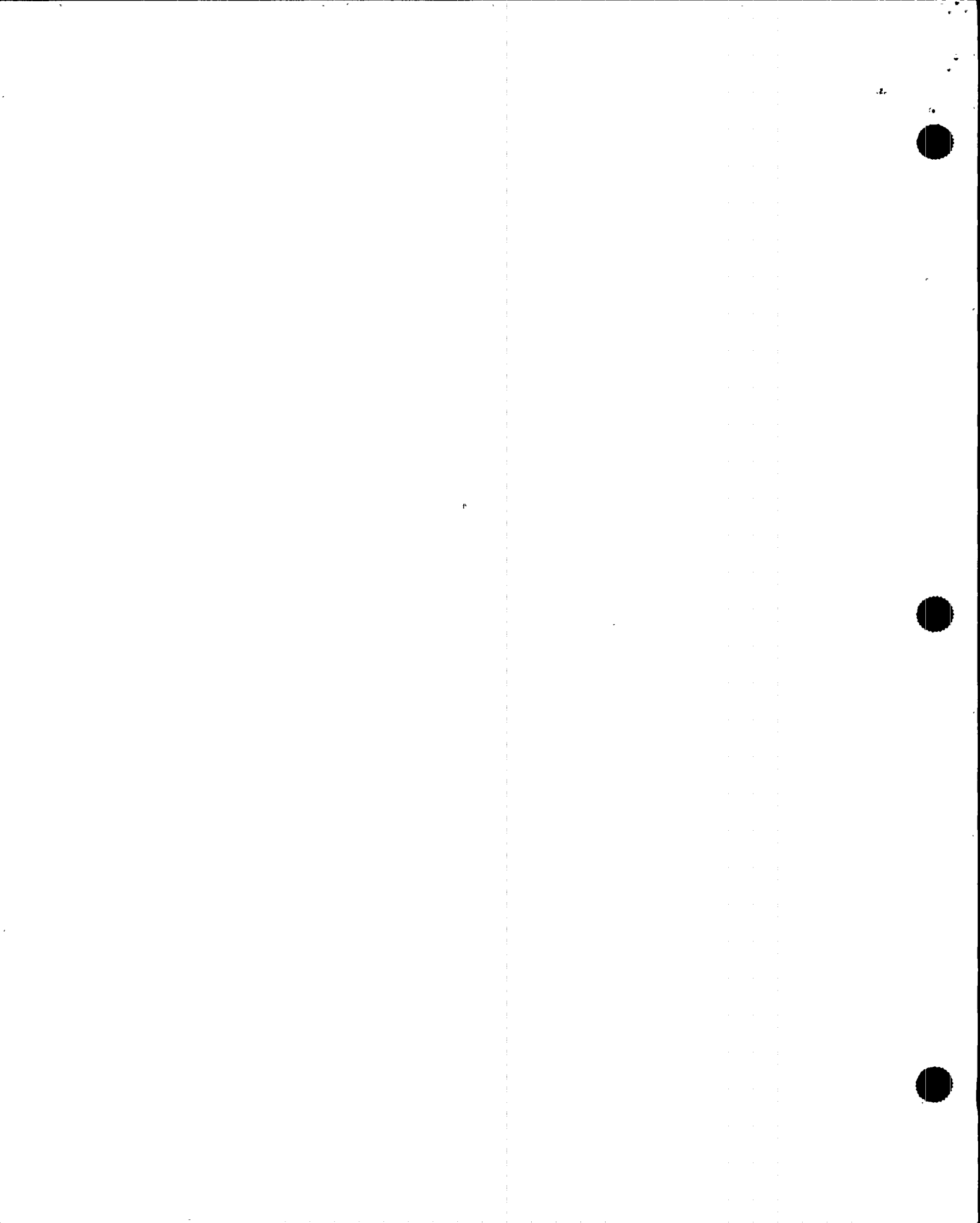
10.3 - Terminal Actions

Radiation
Monitoring

- Place the Emergency Operations Facility Radiation Monitoring System monitor RU-13B into operation in the Normal Mode in accordance with the posted monitor instructions.

Record
Retention

- Submit logs, data, and other documentation to the Radiological Assessment Coordinator after event termination.



SECTION 11.0 - RADIOLOGICAL ASSESSMENT COMMUNICATOR

11.0 - Radiological Assessment Communicator Function

Duties and Responsibilities

The Radiological Assessment Communicator positions and controls both onsite and offsite survey teams in coordination with other facility radiological assessment personnel as directed by the Radiological Assessment Coordinator. S/he also maintains communications with radiological assessment personnel at the Technical Support Center and the Affected Unit Satellite Technical Support Center.

The Radiological Assessment Communicator reports to the Radiological Assessment Coordinator in the Emergency Operations Facility.

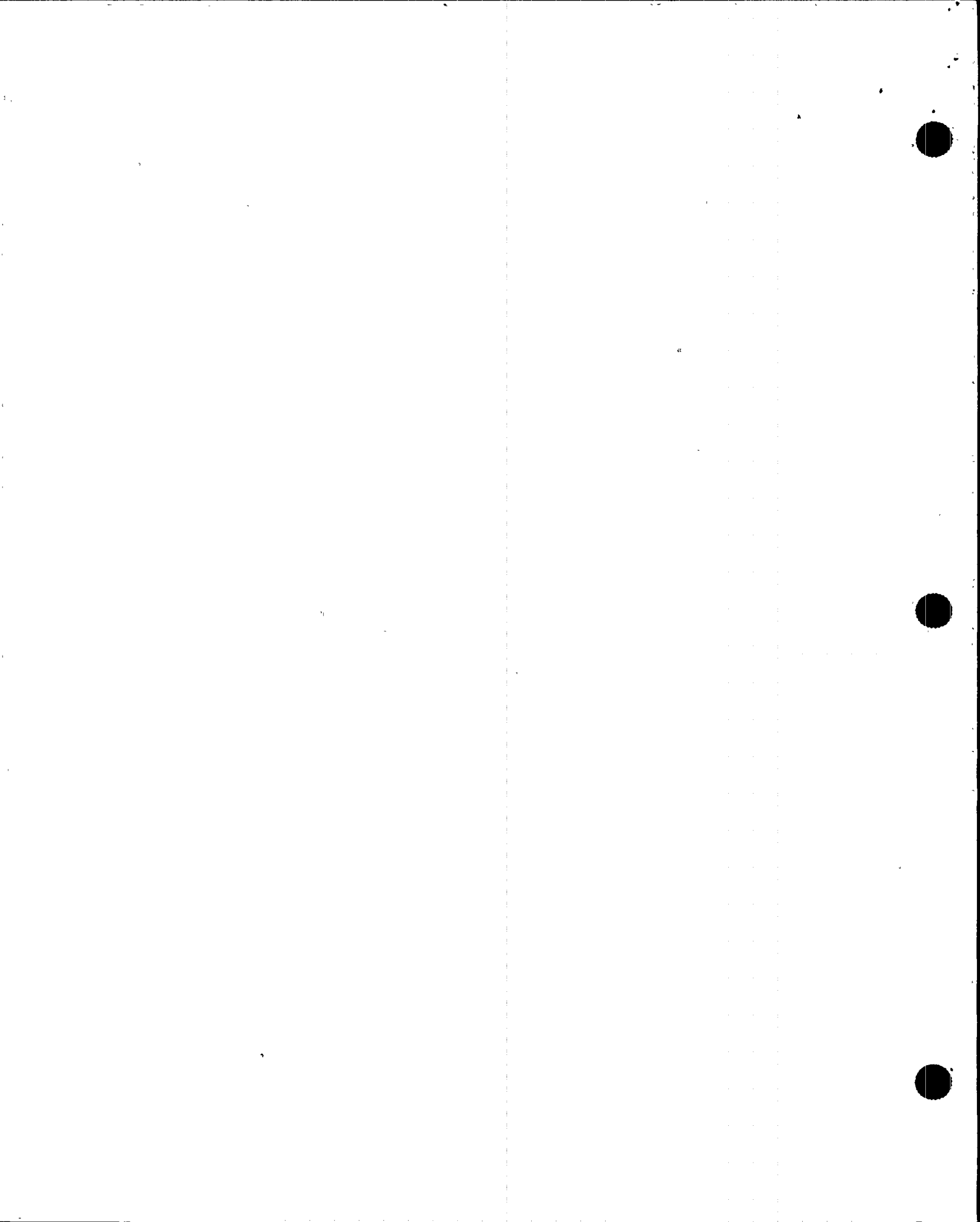
11.1 - Initial Actions

Facility Activation

— When duties have been assumed and an informational briefing has been received, determine and report the operability status of the following communications circuits to the Radiological Assessment Coordinator and the Administrative and Logistics Coordinator:

- normal telephone systems
- dedicated voice systems
- Environmental Assessment Line
- Base station radio

— Establish communications capabilities with radiological assessment personnel in the Technical Support Center and the Affected Unit Satellite Technical Support Center using the normal telephone system.



SECTION 11.0 - RADIOLOGICAL ASSESSMENT COMMUNICATOR

11.2 - Subsequent Actions

Radiological
Assessment

Perform the following actions as required:

IF...	THEN...
the Radiological Assessment Coordinator requests Radiological Field Assessment Team positioning	Direct the teams as requested and coordinate team movement with offsite agency teams. Consideration should be given for the following: <ul style="list-style-type: none">• 2 teams at the Site Boundary - 1 at each plume edge• 1 team at the leading edge of the plume• teams alternated for plume centerlinesampling (ALARA)
a team / plume tracking mechanism is desired	Plot reported dose rates and team locations to aid in plume tracking.
an accurate record of team / plume tracking is desired	Maintain communications logs regarding radiological assessment.
field team internal / external dose limits may be exceeded	Initiate a tracking mechanism of EDE / TEDE ratios for individual team member exposures and consider implementation of Potassium Iodide administration. (16IG-0EP051, <i>Emergency Exposures and KI, may be used for guidance.</i>)
the Radiological Assessment Coordinator requires status updates to plume speed and direction of travel	Inform the Radiological Assessment Coordinator of all changes in radiological status.

11.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Radiological Assessment Coordinator after event termination.

SECTION 12.0 - RADIOLOGICAL ASSESSMENT COORDINATOR

12.0 - Radiological Assessment Coordinator Function

**Duties and
Responsibilities**

The Radiological Assessment Coordinator provides direction and control of offsite and onsite radiological controls beyond the Protected Area. S/he evaluates dose projection data obtained by facility radiological assessment staff and provides technical advice to the Emergency Operations Director regarding Protective Action Recommendations. Duties of the Radiological Assessment Coordinator include coordination of offsite monitoring efforts, direction for dose projection iteration, and overall responsibility for Radiation Protection actions. S/he serves as principal liaison of the PVNGS Emergency Response Organization to state radiological organization directors. The Radiological Assessment Coordinator maintains an open line of communications with Radiation Protection personnel in the Technical Support Center and the Affected Unit Satellite Technical Support Center / Control Room.

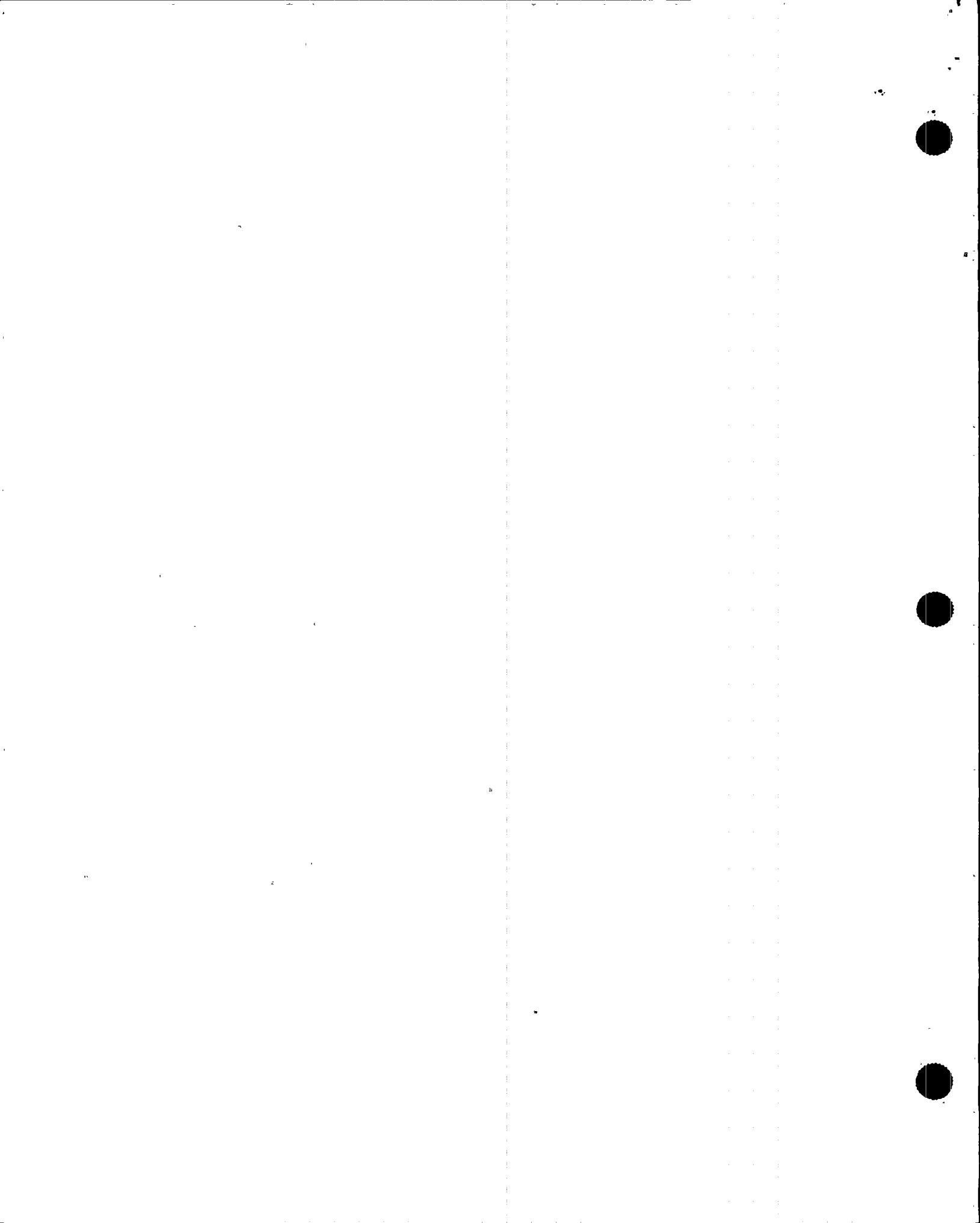
The Radiological Assessment Coordinator reports to the Emergency Operations Director in the Emergency Operations Facility.

12.1 - Initial Actions

**Facility
Activation**

- When duties have been assumed and an informational briefing has been received, ensure that the following personnel are fully briefed:
 - Dose Assessment Health Physicist
 - Radiation Protection Support Technician
 - Radiological Assessment Communicator
 - USNRC Liaison Health Physics
- Verify that facility ventilation is aligned to the Emergency Mode of operation and is functioning properly.
- If appropriate, ensure that a facility contamination control point is properly established and that local area thermoluminescent dosimetry has been placed in each facility airlock.

continues...



SECTION 12.0 - RADIOLOGICAL ASSESSMENT COORDINATOR

12.1 - Initial Actions *continued...*Facility
Activation
(continued)

- Ensure that the following radiological components are available:
 - procedures, etc.
 - dose assessment software / hardware or contingencies
 - ERFDADS / Radiation Monitoring System information or contingencies
- Contact the Radiological Protection Coordinator in the Technical Support Center and determine:
 - extent and consequences of radiological releases / plant conditions
 - potential for subsequent radiological releases
 - actions that the Radiological Protection Coordinator has taken
- Contact the Radiation Protection Monitor in the Satellite Technical Support Center and determine:
 - dose projections / Protective Action Recommendations made thus far
 - status / location of offsite survey teams dispatched thus far
 - extent and consequences of radiological releases / plant conditions
- Relieve the Radiation Protection Monitor of responsibility for control of offsite survey teams.
- Relieve the Radiological Monitoring Technician of responsibility for the performance of dose projections.

12.2 - Subsequent Actions

Dose Projection Perform the following actions as required:

IF...	THEN...
assurance is required regarding dose projection data accuracy	Analyze source term, meteorological, and survey team data to determine consistency in bases for Protective Action Recommendations.
radiological status boards reflect inaccurate data	Direct the Radiation Protection Support Technician to update the status board data.

SECTION 12.0 - RADIOLOGICAL ASSESSMENT COORDINATOR

12.2 - Subsequent Actions *continued...*Protective
Measures

Perform the following actions as required:

IF...	THEN...
a parameter affecting the current Protective Action Recommendation has changed	Consult with the Emergency Operations Director to determine if a change to the current Protective Action Recommendation is required. Discuss options for site evacuation or onsite sheltering as required.
an impact to Emergency Operations Facility habitability exists	Advise the Emergency Operations Director of the need to relocate Emergency Operations Facility personnel to a backup facility.
an Emergency Operations Facility relocation has been directed by the Emergency Operations Director	Perform the following actions: <ol style="list-style-type: none"> 1) evaluate the necessity to go to the Buckeye Airport to decontaminate EOF staff prior to relocating to the Backup EOF 2) contact the Radiological Monitoring Technician and assign responsibility for performance of dose projection to him/her 3) contact the Radiation Protection Monitor and assign responsibility for control of offsite survey teams to him/her 4) upon arrival at a backup facility, relieve those individuals of the responsibilities previously assigned
knowledge of personnel locations beyond the Protected Area is required	Determine personnel traffic areas, entry and exit routes, and personnel protection requirements.
a site evacuation has been directed by the Emergency Coordinator	Provide radiological support and input on radiological conditions to the Emergency Operations Director during the evacuation and discuss the possibility of Potassium Iodide administration. Advise the Radiological Protection Coordinator, the Reassembly Team Leader, and the Security Coordinator accordingly.
a briefing with state representatives in the facility is indicated	Brief the state representatives as required on radiological aspects of the emergency.

SECTION 12.0 - RADIOLOGICAL ASSESSMENT COORDINATOR

12.2 - Subsequent Actions *continued...*

Offsite Surveys Perform the following actions as required:

IF...	THEN...
the Radiological Assessment Communicator requests input on survey team location	Evaluate meteorological data, plant radiological release points, and dose projection data. Provide direction for survey teams and issue EDE / TEDE SID limits if required. <i>(The Dose Projection Technical Bases may be used for guidance.)</i>
state survey data has been transmitted to the facility	Ensure that the Radiological Assessment Communicator receives the state survey team data.
Assembly has been directed by the Emergency Coordinator	Evaluate Assembly Areas beyond the Protected Area for potential of radiological hazards and dispatch survey teams, if required.

12.3 - Terminal Actions

Radiation
Instrumentation

— Ensure that dose rate meters from the emergency kit are transmitted to the calibration facility for calibration and required maintenance.

Recovery

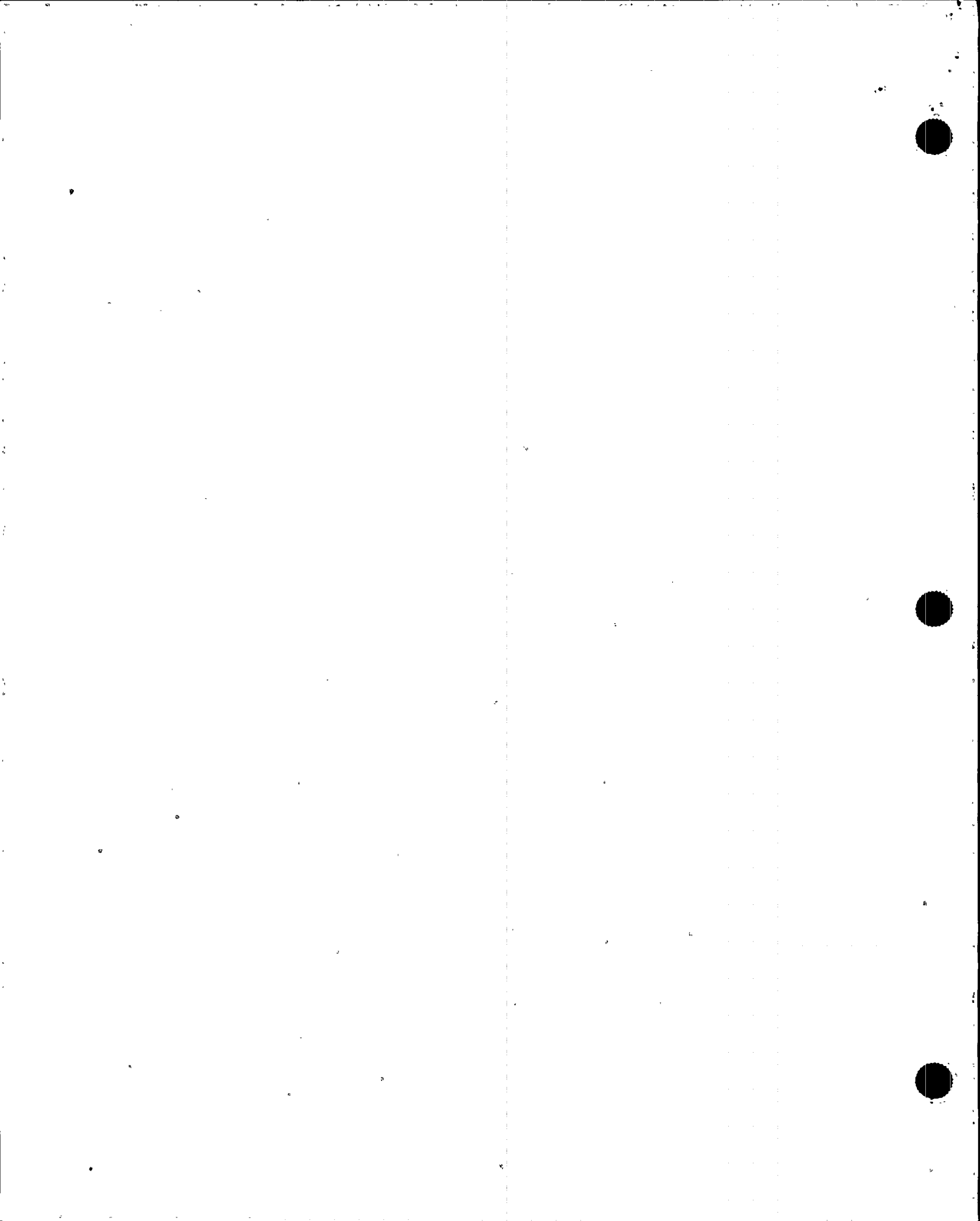
— If implementation of a recovery effort is appropriate, consult with the Emergency Operations Director regarding Radiation Protection support.

Record
Retention

— Collect all documentation and associated logs from the following support personnel:

- Dose Assessment Health Physicist
- Radiation Protection Support Technician
- Radiological Assessment Communicator
- USNRC Liaison Health Physics

— Submit logs, data, and other documentation to the Emergency Operations Director after event termination.



SECTION 13.0 - SECURITY COORDINATOR

13.0 - Security Coordinator Function

Duties and Responsibilities

The Security Coordinator processes personnel necessary for site support prior to site entry and maintains communications with the Security Director in the Technical Support Center to aid in determining personnel site access requirements. S/he is also responsible for security of the Emergency Operations Facility.

The Security Coordinator reports to the Administrative and Logistics Coordinator and resides in the Emergency Operations Facility.

13.1 - Initial Actions

Facility Activation

— When duties have been assumed and an informational briefing has been received, contact the Security Director in the Technical Support Center to determine the current site access restrictions and inform the Administrative and Logistics Coordinator.

13.2 - Subsequent Actions

Site Access

— Inform the Security Director in the Technical Support Center of any offsite personnel that are required onsite and request pertinent information for those granted access.

— Prior to site entry, process those personnel which are necessary for site support per the Security procedures.

Facility Access Control

— Verify proper system lineup of the Emergency Operations Facility emergency ventilation. (16TD-0EP055, *Emergency Ventilation*, may be used for guidance.)

— Report Emergency Operations Facility readiness to Security.

continues...

SECTION 13.0 - SECURITY COORDINATOR

13.2 - Subsequent Actions *continued...*Facility Access
Control
(continued)

- Perform periodic tours of the facility to maintain facility access control.
- Ensure that 10 CFR 26.20(e) FFD requirements have been maintained.
(Form EP-0013 may be used for guidance.)

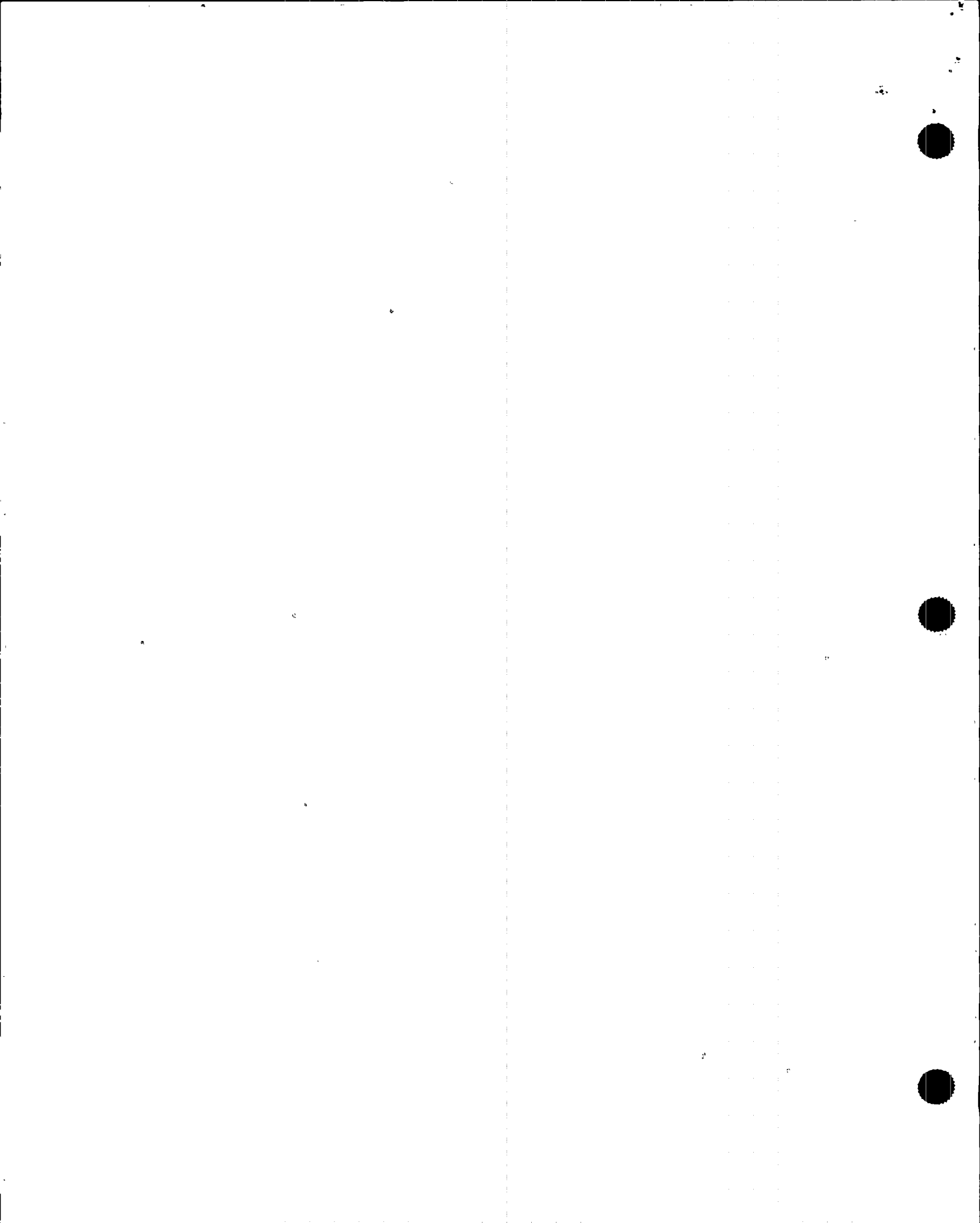
Site
Evacuation

- If a site evacuation has been directed by the Emergency Coordinator, advise the Emergency Operations Director of the evacuation directive and the request for Emergency Operations Facility support.
- Advise the Radiological Assessment Coordinator of the evacuation directive and request radiological monitoring team support.
- With recommendations from the Radiological Assessment Coordinator, assign personnel as Reassembly Team Leaders and brief them on acceptable evacuation route(s) to use and on the Reassembly Area.
(16TD-0EP191, Site Evacuation, may be used for guidance.)
- Contact the Water Reclamation Facility Shift Supervisor and direct the distribution of emergency van keys, if necessary.
- Contact local law enforcement agencies and advise them of the site evacuation and request assistance with traffic control, if required.
- If the EOF is to be relocated to the Backup EOF, get a portable radio from the EOF Storage Room. Contact CAS and direct them to reprogram the radio to the Security talk group channel configuration.

13.3 - Terminal Actions

Record
Retention

- Submit logs, data, and other documentation to the Administrative and Logistics Coordinator after event termination.



SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.0 - Shift Technical Advisor Function

Duties and Responsibilities

The Shift Technical Advisor monitors plant system data from the facility via ERFDADS, maintaining liaison with the Shift Technical Advisor in the Technical Support Center. Duties include assessments of plant conditions and evaluations of projected occurrences and corrective actions. The STA also operates the EOF diesel generator in case of loss of power to the EOF.

The Shift Technical Advisor reports to the Technical Analysis Manager in the Emergency Operations Facility.

14.1 - Initial Actions

Facility Activation

- When duties have been assumed and an informational briefing has been received, access ERFDADS and assess the status of plant systems and critical plant parameters.
- Contact technical support personnel as directed.

14.2 - Subsequent Actions

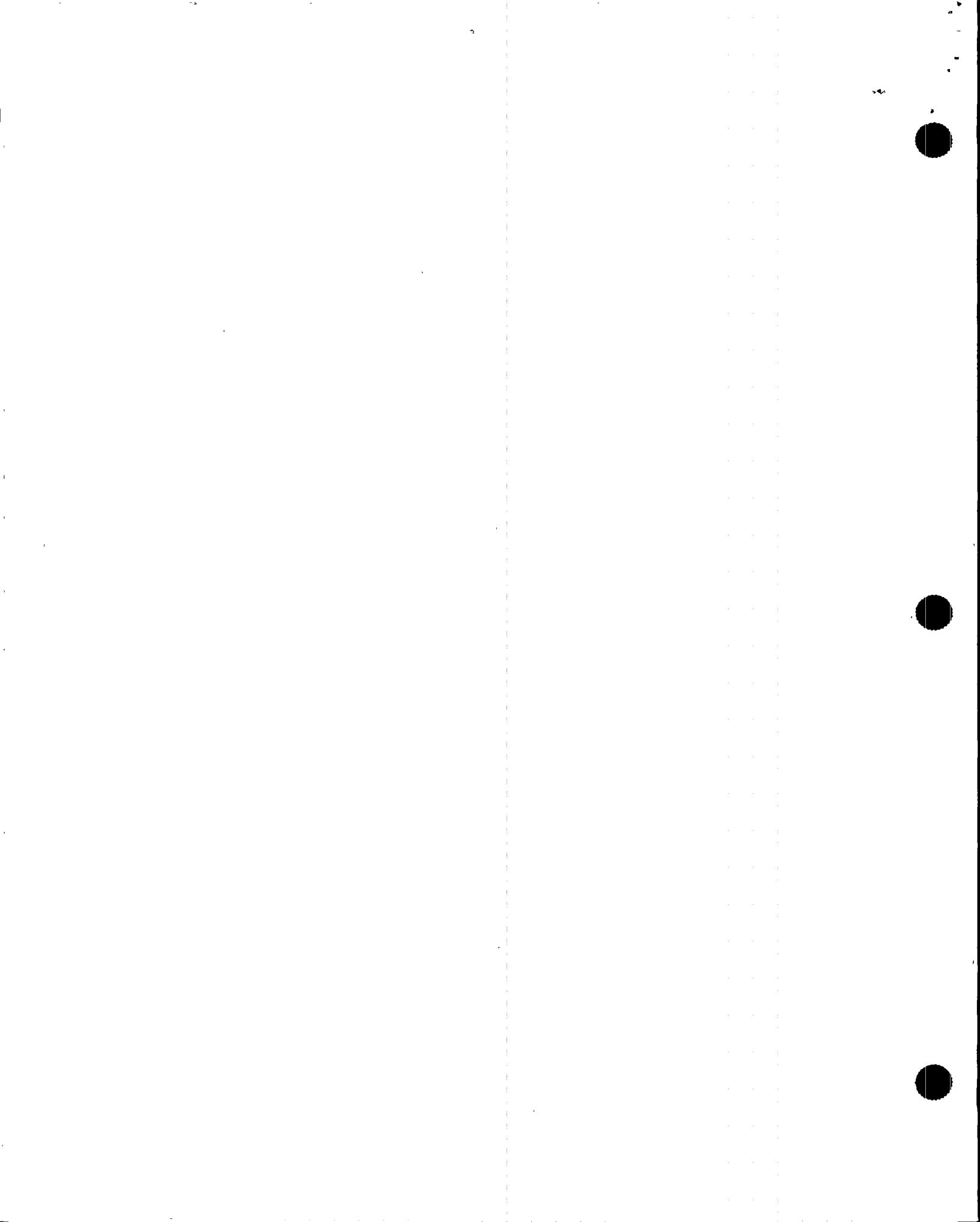
Status

- Maintain communications with technical support personnel and with the Shift Technical Advisor in the Technical Support Center regarding technical status, proposed recommendations, and corrective actions.
- Advise the Plant Status Technician of any significant changes to plant status and the Technical Analysis Manager of proposed recommendations and any significant changes to plant status.

Diesel Generator Startup

- On loss of power to the EOF, verify that both normal (1E-NAN-S06 source) and emergency (1E-NAN-S05) AC power is not available, by communicating with the Control Room of an unaffected Unit (there should be an LOP or Trouble on both the 1E-NAN-S05 and S06 buses). If power is verified to be out and it has been decided not to evacuate to the Backup EOF, then continue with this procedure.

continues...



SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

Diesel
Generator
Startup
(continued)

NOTE

Immediately notify the Administrative & Logistics Coordinator if any problems are encountered in the conduct of this procedure. It may become necessary to evacuate the EOF.

- Verify installation of the 4/0 (minimum) ground conductor between the generator breaker box and the ground lug provided beneath receptacle AE-NZN-I01.
- Verify installation of the secondary trailer ground conductor between the trailer frame (tongue end) and the grounding conductor of transformer A-E-NGN-L51X.
- Verify installation of the generator power cable plug to receptacle AE-NZN-I01. The keyway in the plug receptacle assembly ensures proper circuit phasing is maintained. Secure the plug to the receptacle using the integral receptacle fasteners.

CAUTION

The following step is critical to personnel safety and equipment protection. **THIS STEP SHALL BE COMPLETED PRIOR TO THE APPLICATION OF GENERATOR POWER.** This action isolates AEZYND0X20 (PDP-E) panel loads from the building electrical distribution system, allowing alignment to the diesel generator.

- With concurrent verification, at panel A-E-NZN-D0X-08 (EDP), open the circuit breaker marked "PDP-E MAIN BKR AEZYND0X20" - "Main Panel PDPE" (this is the bottom breaker in this panel). All other breakers in this panel are to remain closed.
- With concurrent verification, open all circuit breakers at distribution panel AEZYND0X20 (PDP-E).
- With concurrent verification, unlock and close Safety Switch AE-NZN-U0X-02. [lock combination is 1796].
- With concurrent verification, place the Safety Switch padlock upon door handle pin of panel A-E-NZN-D0X-08 (EDP) to secure and lock the door in the closed position.

continues...

SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

Diesel
Generator
Startup
(continued)

Start the diesel generator as described below. The mechanical controls are located on the left side of the engine-generator trailer, on the engine itself.

NOTE

If the diesel will not start or run acceptably, notify the Administrative & Logistics Coordinator. It may be necessary to prepare to evacuate the EOF.

1. Locate the Engine Start switch. This switch is a push-to-turn, spring return to normal type, marked HEAT-OFF-START, that controls both the diesel glow plug pre-heating and the engine starter.
2. Push in, turn the switch to the left (CCW, to the HEAT position), and hold the switch in this position to preheat the diesel cylinders. Approximate preheat time requirements are described below:

Outside temperature

above 60 degrees F
below 60 degrees F to 32 degrees F
below 32 degrees F

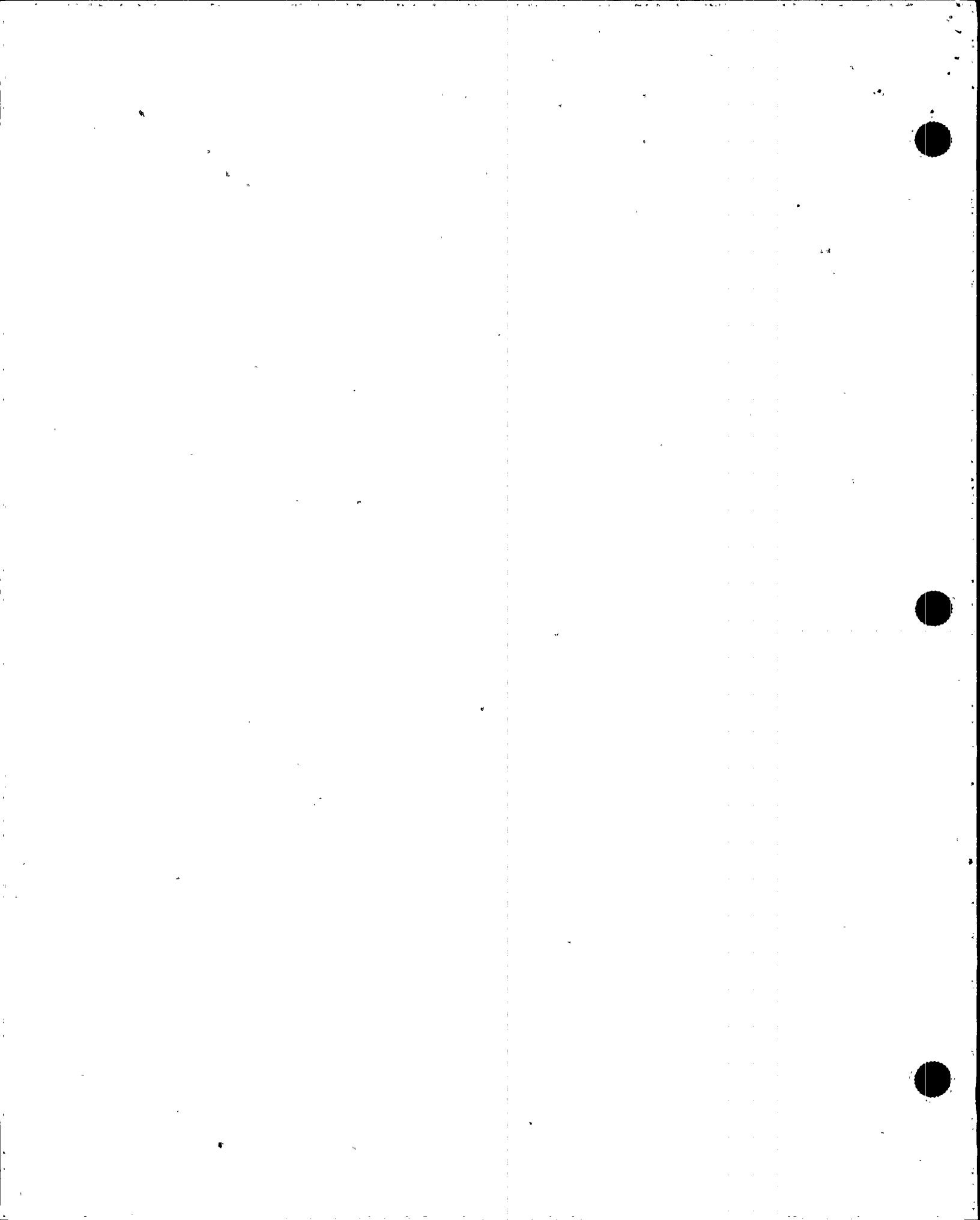
Pre-Heat Time

none
1 minute
2 minutes

3. Release the switch, then push-turn to the right (CW, to the START position) to start the engine. Release the switch when the engine commences to run.
4. Adjust the throttle (CW) adjacent to the starting switch as required to bring the engine to running speed, as indicated by the Voltage (490-500 VAC) and Frequency (61-63 Hz) Meters on the Generator Output Breaker Control Panel. This panel is located on the rear right side of the engine-generator trailer.
5. If radiological conditions permit, allow two minutes of unloaded run time before closing the generator output breaker and loading the generator.

— With concurrent verification, close the generator AC output breaker (open the electrical box and push the breaker handle upward).

— With concurrent verification, at Distribution Panel AEZYND0X20 (PDP-E), close the following breakers: Air Compressor CHC-1, Air Handler AO-1, Filter RFU-1, LPB Panel EOF, Mech. Equip. Rm Exhaust Fan EF-11, Pump No. 5 P-5, Chiller No. 2 C-2.



SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

EOF HVAC
System RestartNOTE

These steps assume that the EOF ventilation system is operating in the filtration mode and the cooling tower CT-1 is operating or available.

- With concurrent verification, locate the Cooling Tower CT-1. Filter Isolation Valves V103 and V104. Verify they are in the open position (with handles parallel to the piping).
 - With concurrent verification, at Cooling Tower Control Panel AJZYNE05, verify the selector switch to (or set it to) position CT-1.
 - With concurrent verification, at Panel AEZYND0X20 (PDP-E) close the circuit breakers for pump P-2 and cooling tower CT-1.
 - With concurrent verification, at the control panel on Main Chiller #1, AMZYNE0X1, press the selector (rocker type) switch to STOP/RESET.
 - With concurrent verification, at the Control Panel for Back-up Chiller #2, AMZYNE0X2, turn the selector switch CCW to the STOP-EMERGENCY-RESET position.
 - With concurrent verification, return the Selector Switch CW to the AUTO OPERATION position. The chiller should restart within 5 minutes.
 - Check generator voltage and frequency at Control Panel; adjust throttle as required to maintain frequency above 60 Hz.
 - Return to EOF and report to Administrative and Logistics Coordinator that power has been restored.
- OPTIONAL - Operational performance of the Air Handling Unit AEZYNA0X01 can be determined by observing the temperature differential between temperature indicators TI-0024 (chilled water return) and TI0025 (chilled water supply). After 5 minutes of chiller operation, the temperature of TI-0024 should be greater than TI-0025. The thermometer-type temperature indicators are mounted at eye level on the respective chilled water lines indicated above. See the "Building Arrangement" sketch 2 of 2 in this procedure for their approximate physical location in the room.

SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

EOF Overload:
Supplemental
Load Shed
Instructions

BROWN-OUT

In the event that a diesel generator overload condition is detected (generator output current approaching 300 Amperes, or if brown-out conditions are detected in the EOF, perform the following steps:

- ___ Obtain the master key from the key box in EOF room #7.
- ___ Inside the EOF pump room (Room #14 - left wall) locate distribution panel LPB (AEZYND0X14), and open the panel. Open breakers #31 through 42. This sheds the EOF duct heaters from the generator load.
- ___ If necessary, locate panel RBA (AEZYND0X12) inside the telephone equipment room on the left side of the EOF Command Center (left wall). Open breakers #24, 26, 28, and 30. The master key will also open the room door if locked.
- ___ Re-check the generator load current at the engine panel to confirm the load demand is within acceptable limits.
- ___ Return the master key to the key box in Room #7.

BROWN-OUT RESTORATION

To restore the original conditions before the load-shed was accomplished:

- ___ Obtain the master key from key box in EOF Room #7.
- ___ Locate distribution panel LPB; re-close breakers #31 through 42.
- ___ Locate distribution panel RBA; re-close breakers #24, 26, 28, and 30.
- ___ Return the master key to the key box in room #7.

SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

Diesel
Generator
Shutdown and
Restoration of
PowerNOTE

If available, Electrical Maintenance may be requested to perform the power restoration described below.

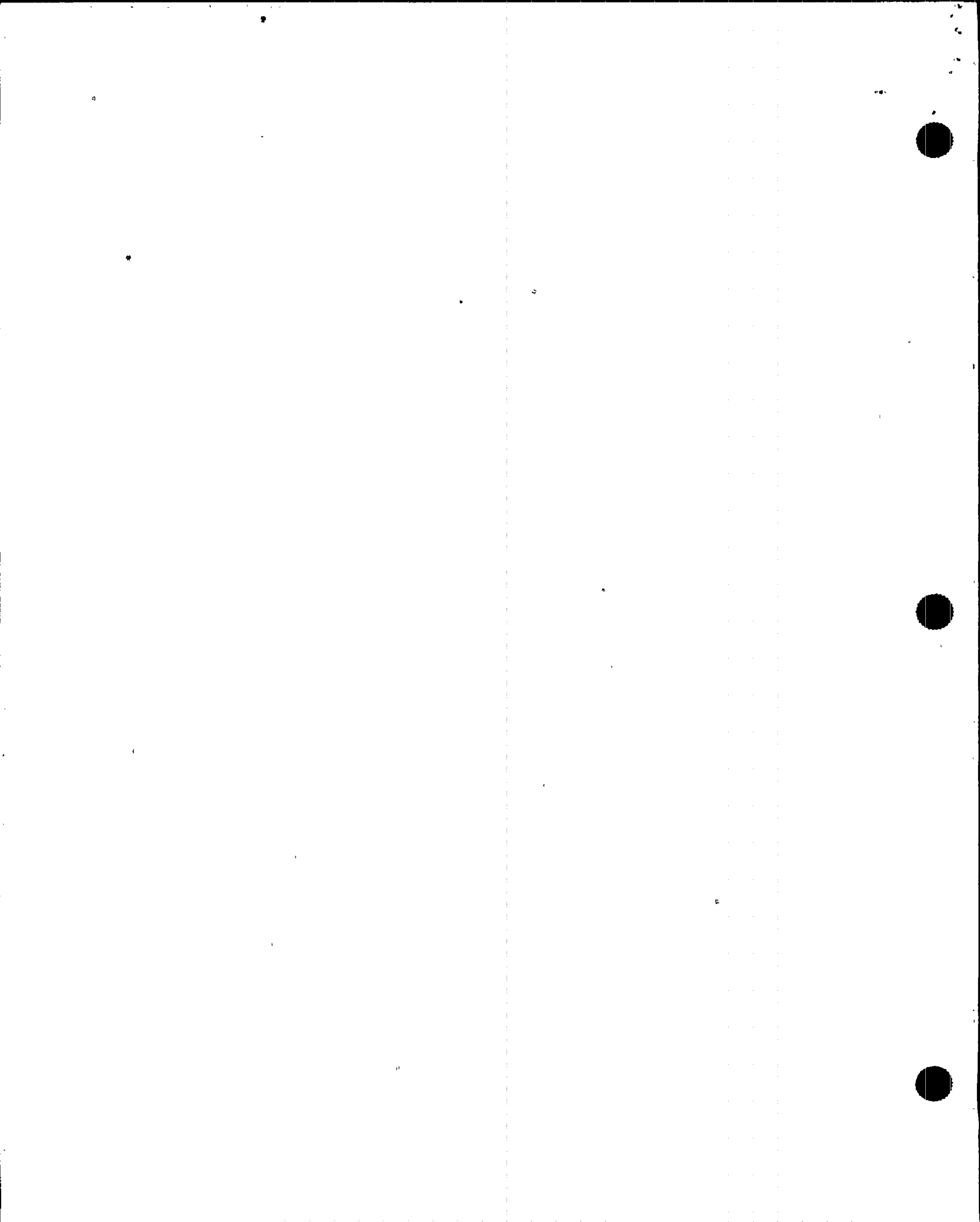
- ___ Notify the Administrative & Logistics Coordinator before diesel shutdown and power restoration. A short duration power outage of the EOF is required to perform realignment of the feeder circuit.
- ___ Verify that offsite power is available and has remained stable for 15 minutes minimum, and that normal and/or emergency AC power is available at the transfer switch A-E-NZN-U0X-01.
- ___ With concurrent verification, open all circuit breakers on the distribution panel AEZYND0X20 (PDP-E).

CAUTION

The following step is critical to personnel safety and equipment protection. *This step shall be completed prior to the restoration of normal power.*

- ___ With concurrent verification, remove the lock from the door handle of panel A-E-NZN-D0X-08;
- ___ With concurrent verification, open and LOCK safety switch AE-NZN-U0X-02. This isolates the diesel generator from the building power distribution system.
- ___ With concurrent verification, in the EDP panel [A-E-NZN-D0X-08], close the breaker feeding the PDP-E panel. This breaker is located at the bottom of the EDP panel
- ___ With concurrent verification, close all the breakers in distribution panel AEZYND0X20 (PDP-E), including those of the elevator and the water heater.
- ___ With concurrent verification, at the Control Panel for Back-up Chiller #2, AMZYNE0X2, turn the selector switch CCW to the STOP-EMERGENCY-RESET position.
- ___ With concurrent verification, return the Selector Switch CW to the AUTO OPERATION position. The chiller should restart within 5 minutes.

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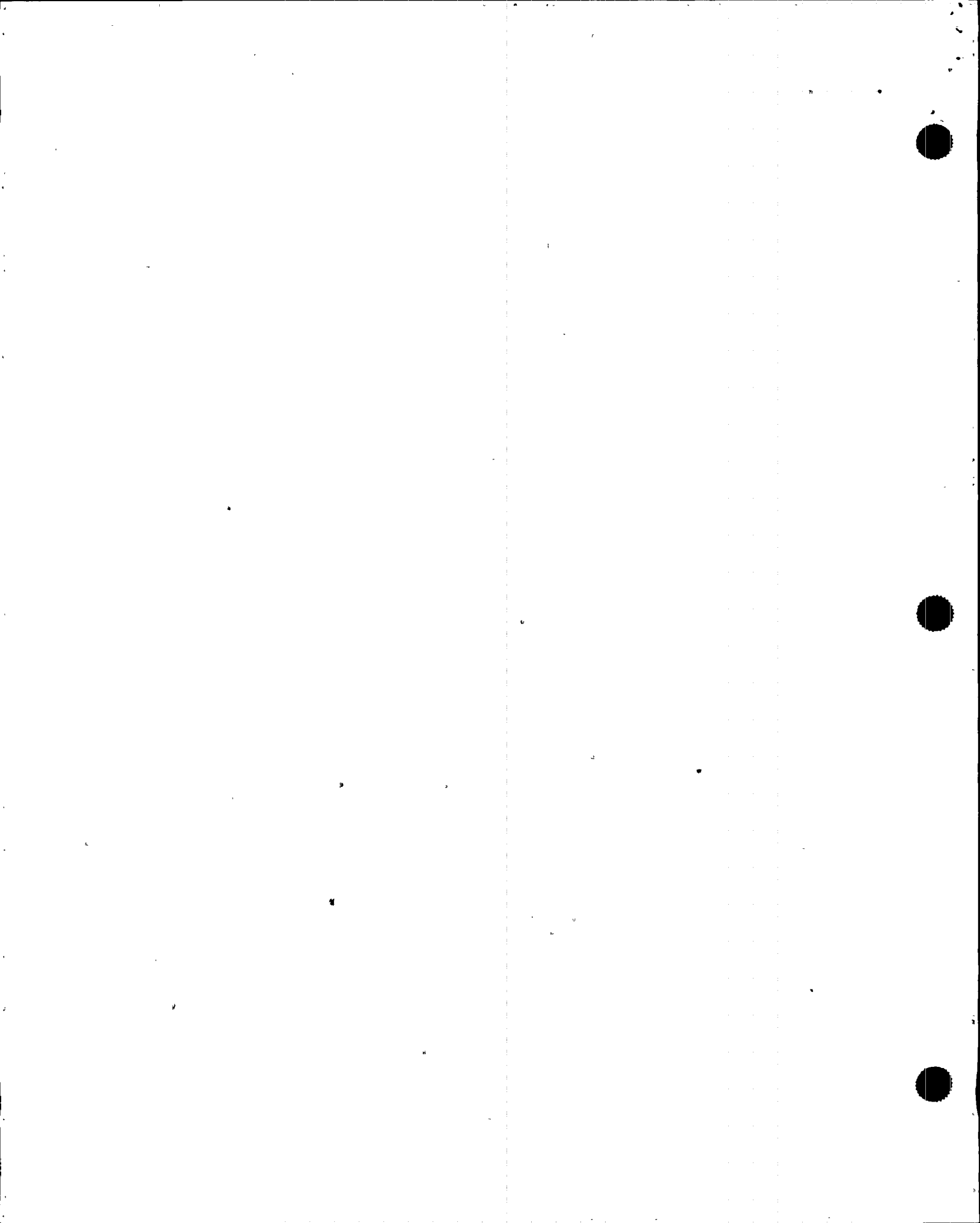


SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

**Diesel
Generator
Shutdown and
Restoration of
Power**

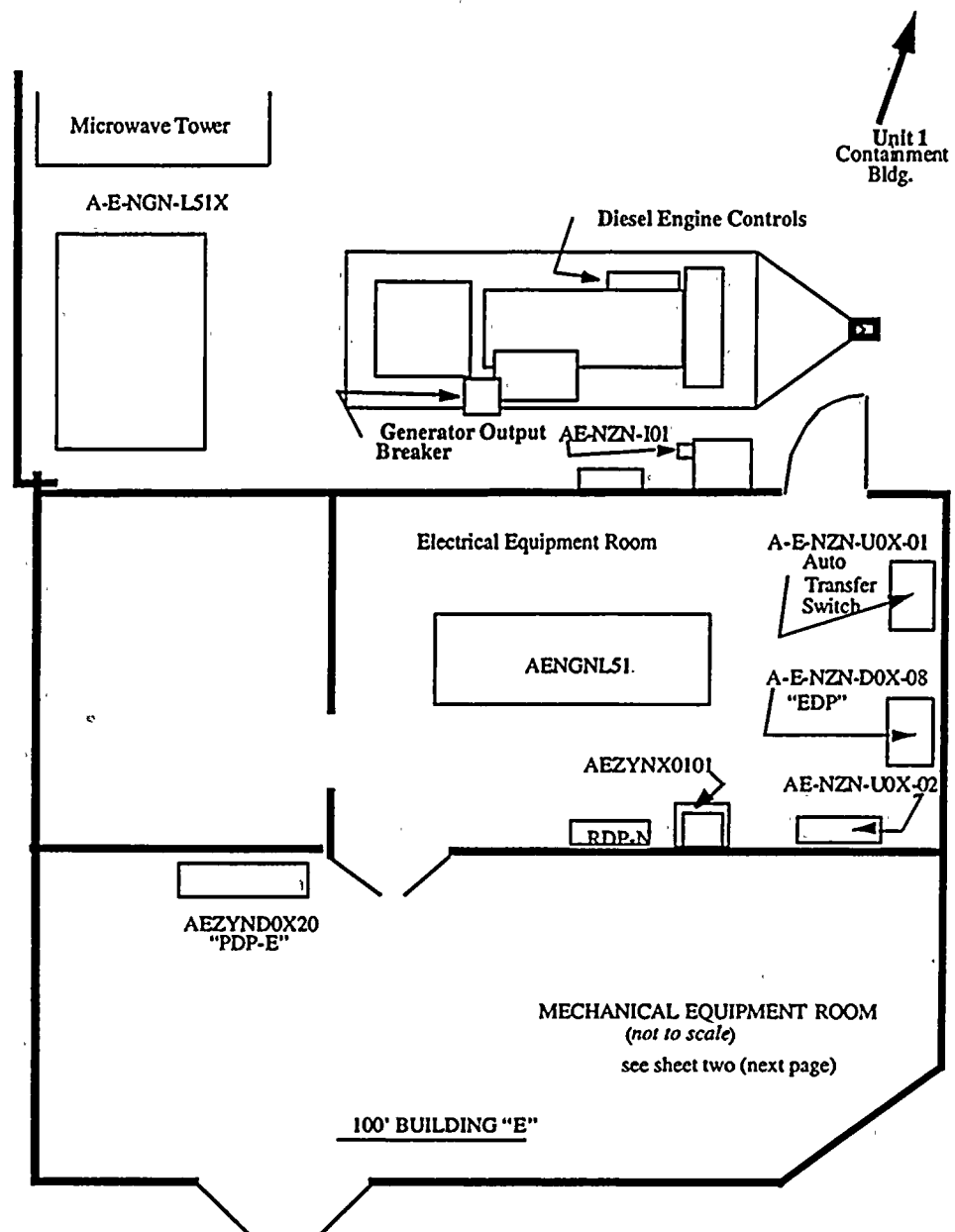
- ___ Shut down the diesel engine:
- ___ Confirm that the EOF has been reconnected to the normal/emergency source(s) of off-site power.
- ___ Return the throttle to the idle (approximately vertical) position.
- ___ Locate the STOP lever on the left side of the engine generator trailer (physical location is to the left of the starting switch). Rotate the lever approximately 30 degrees CW; this shuts off the fuel supply to the engine. Hold the lever in place until the engine is fully stopped, then release the stop lever.
- ___ With concurrent verification, open the diesel generator AC output circuit breaker.
- ___ Notify the Administrative & Logistics Coordinator that power transfer has been completed.



SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

Building
Arrangement &
Equipment
Location (1 of 2)

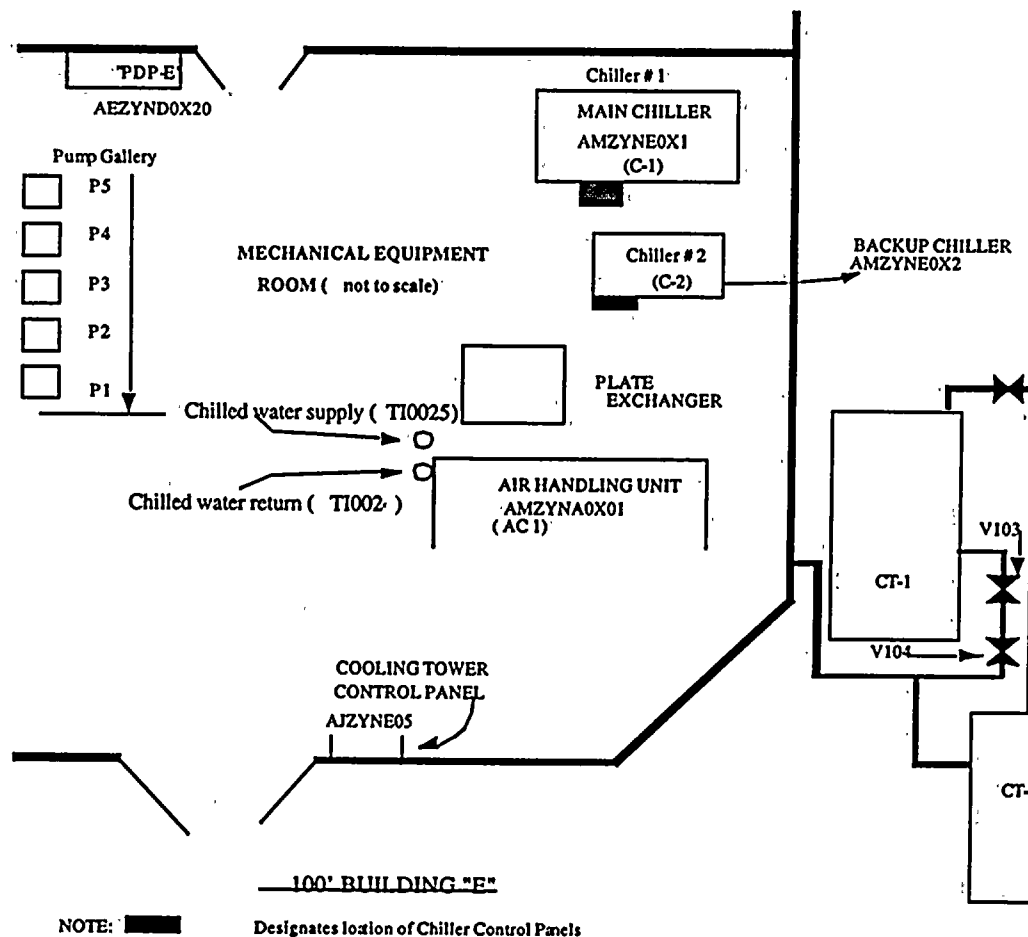


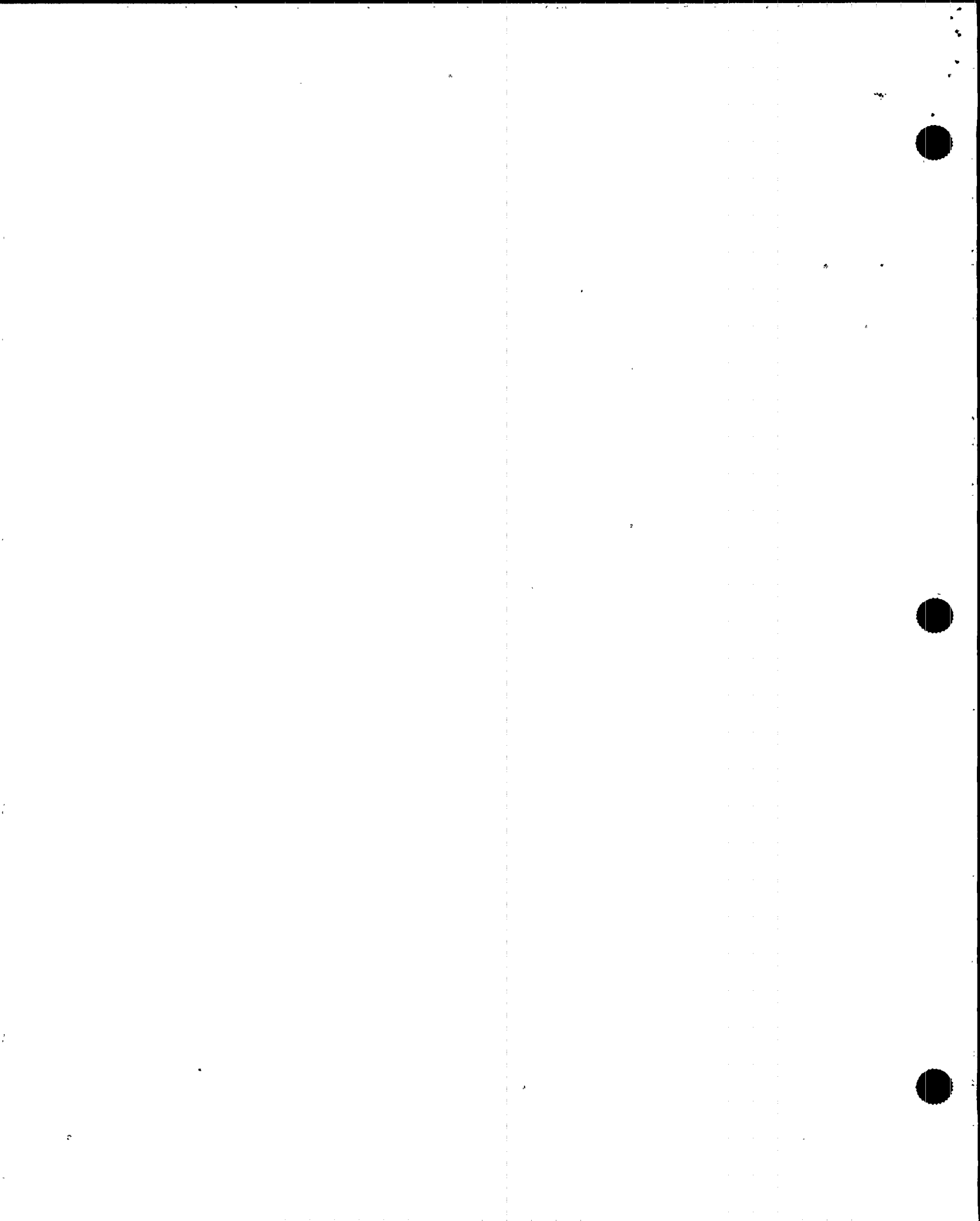
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SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

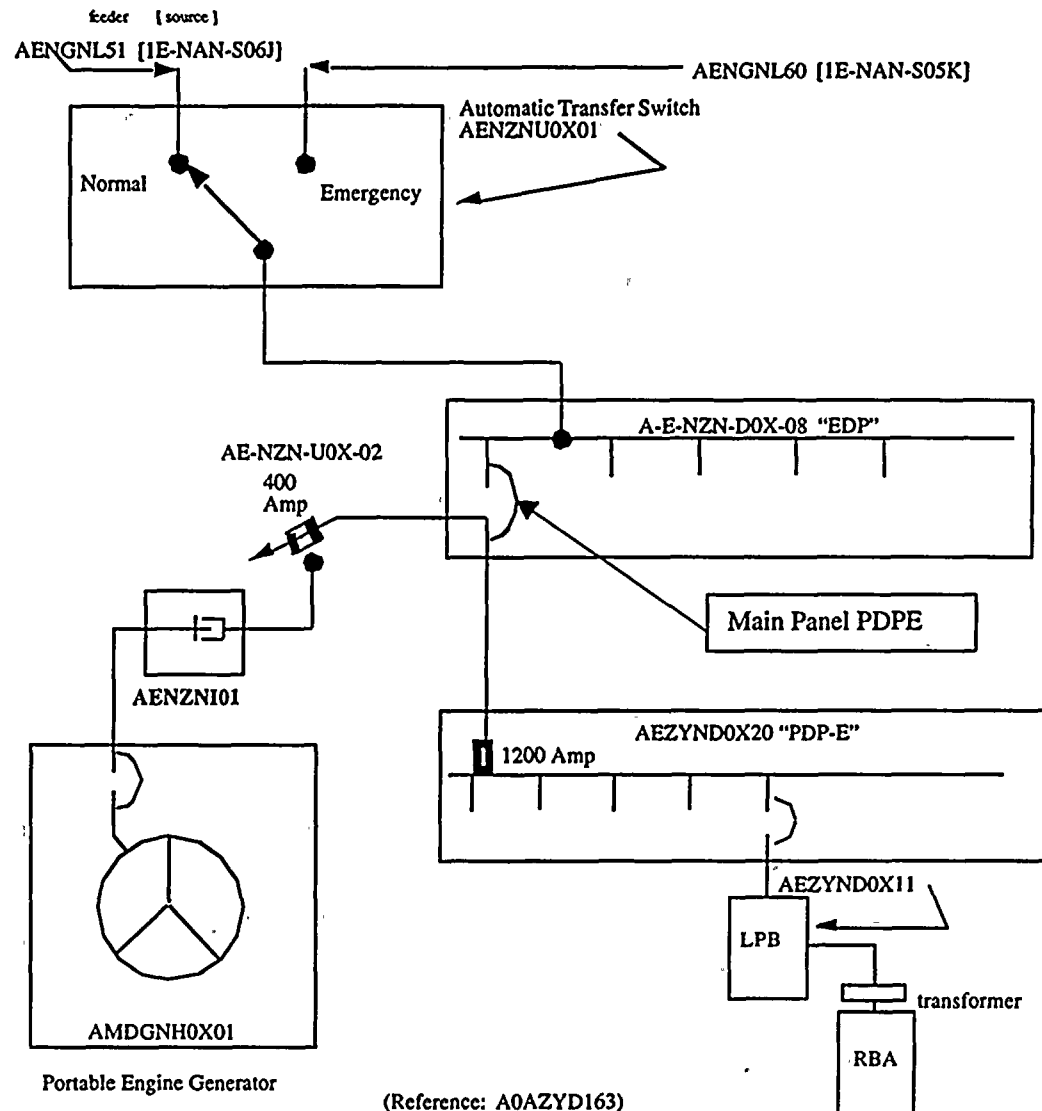
Building
Arrangement &
Equipment
Location (2 of 2)



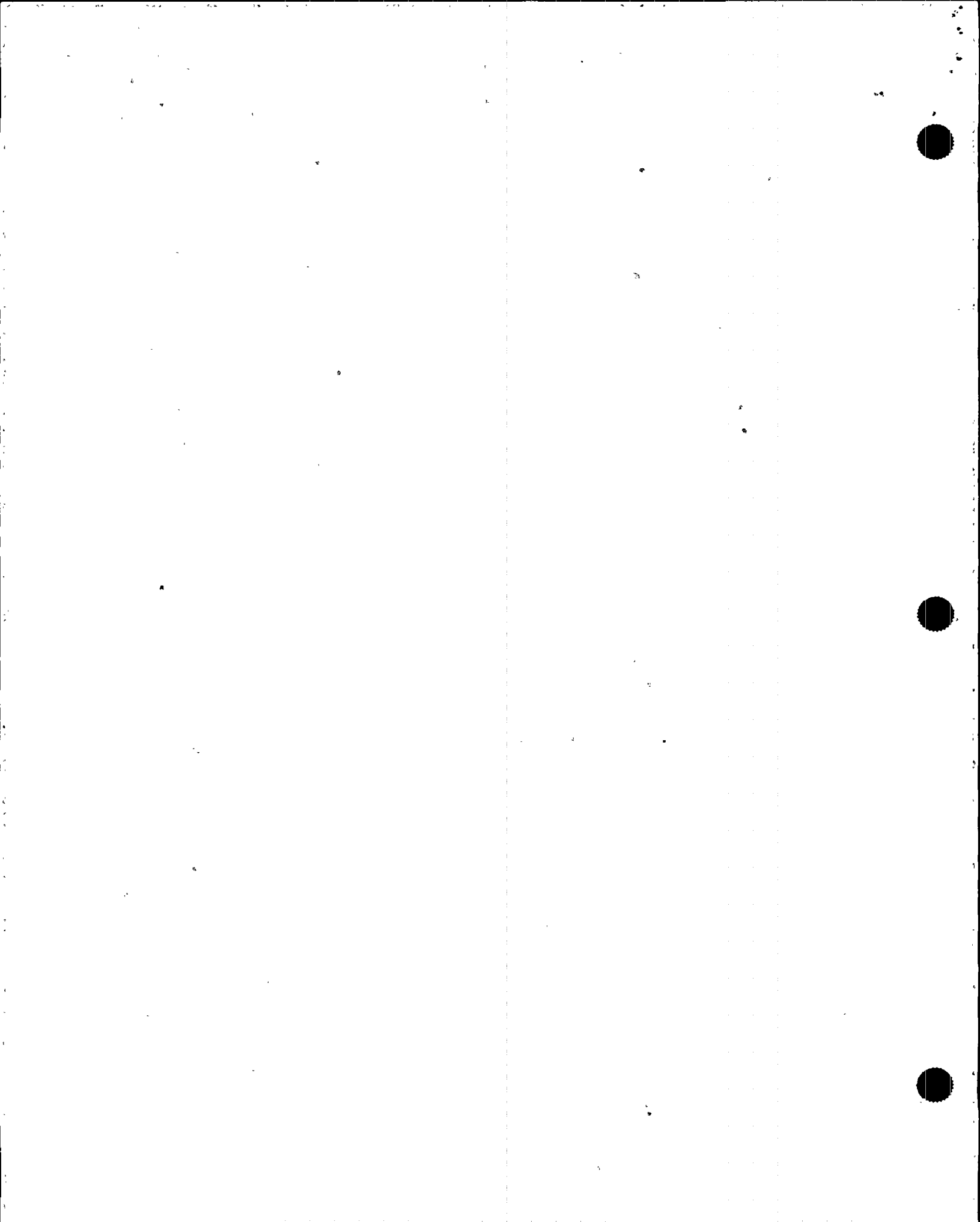


SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

Wiring
Schematic

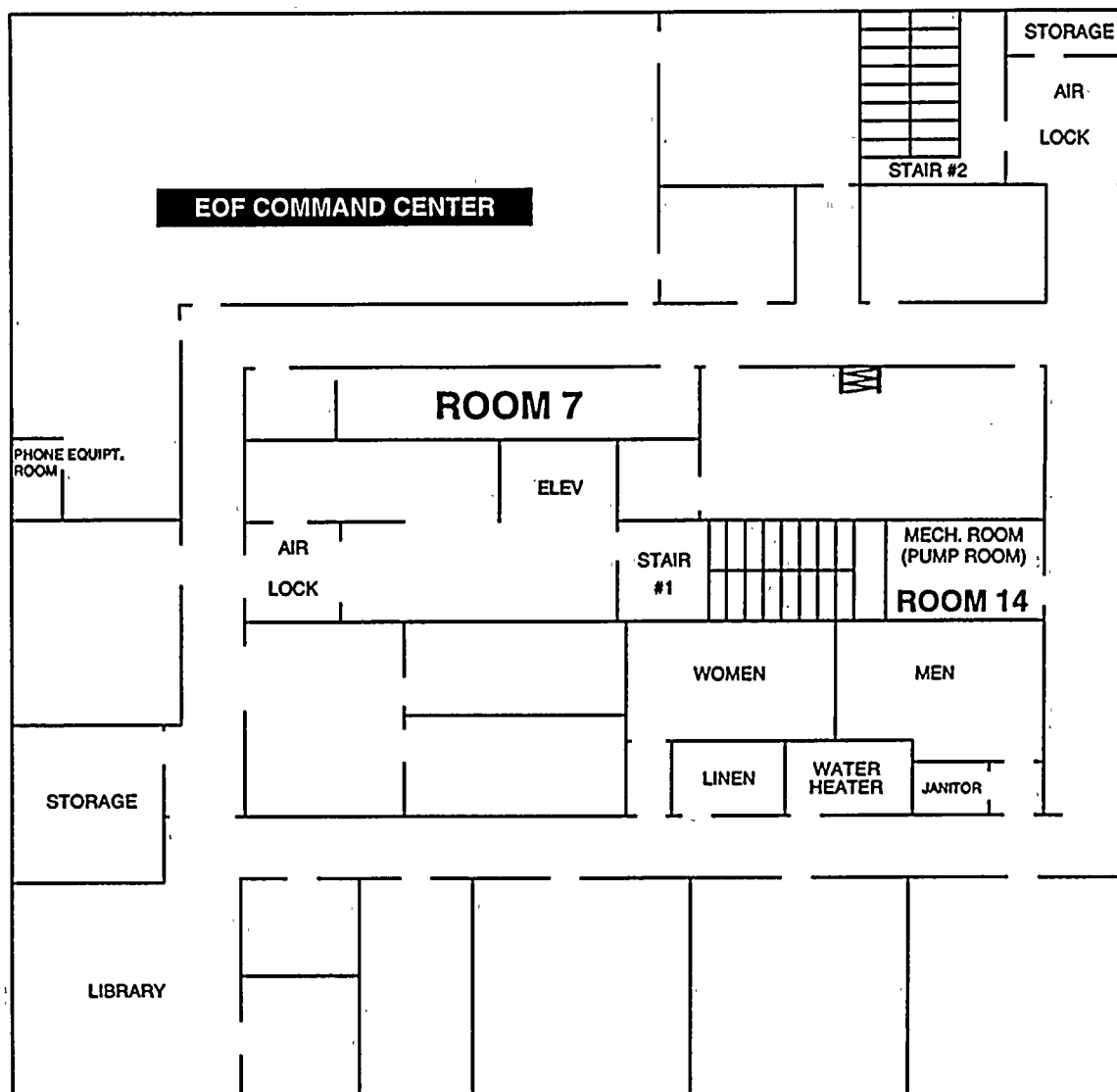
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SECTION 14.0 - SHIFT TECHNICAL ADVISOR

14.2 - Subsequent Actions

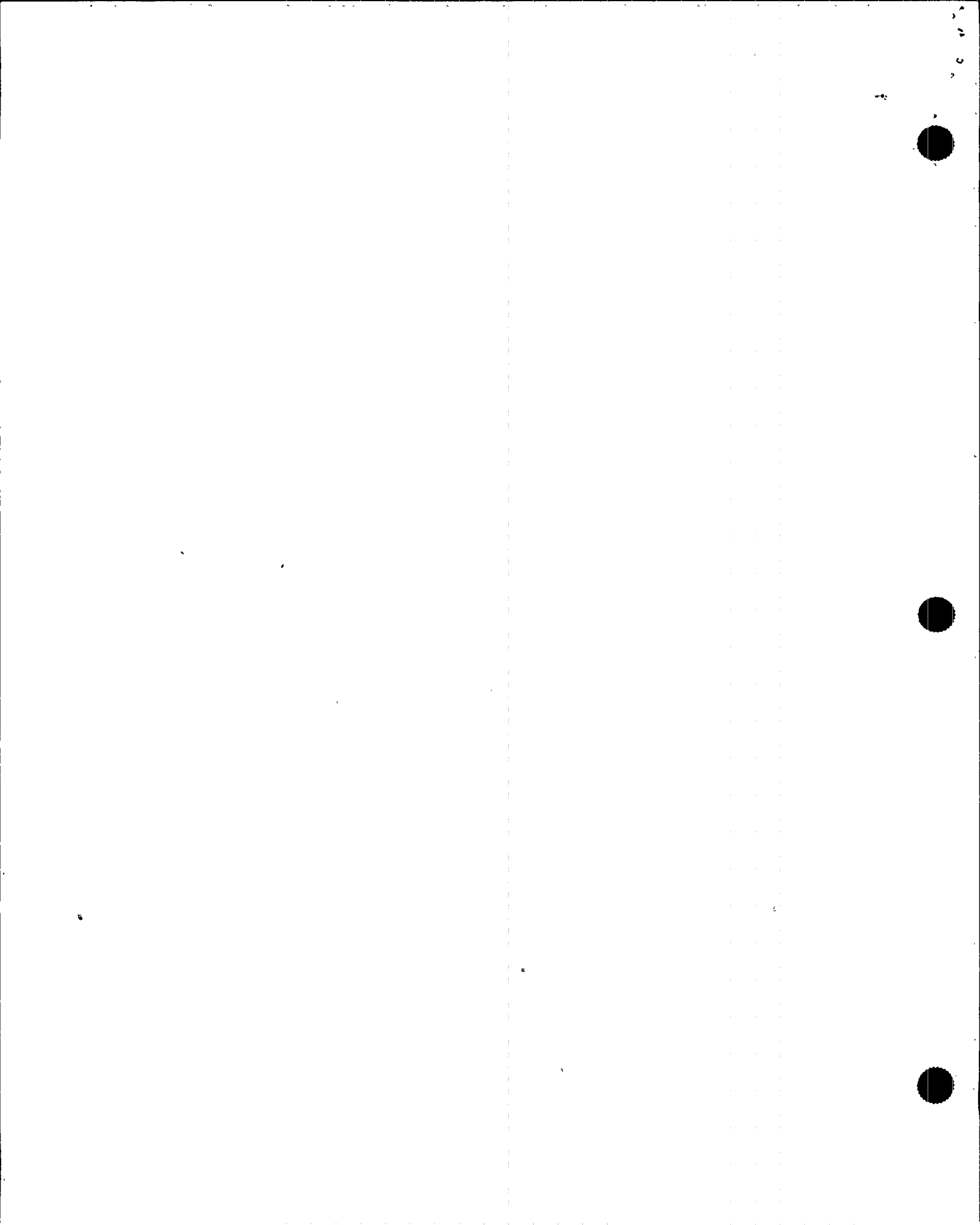
EOF Floor Plan



14.3 - Terminal Actions

Record
Retention

— Submit logs, data, and other documentation to the Technical Analysis Manager after event termination.



SECTION 15.0 - SYSTEMS ENGINEERING

15.0 - Systems Engineering Function**Duties and Responsibilities**

The Systems Engineer performs engineering analyses as required. S/he collaborates closely with the Plant Status Technician and Technical Analysis Manager to assure accurate and timely updates to facility technical information.

The Systems Engineer reports to the Technical Analysis Manager in the Emergency Operations Facility.

15.1 - Initial Actions**Facility Activation**

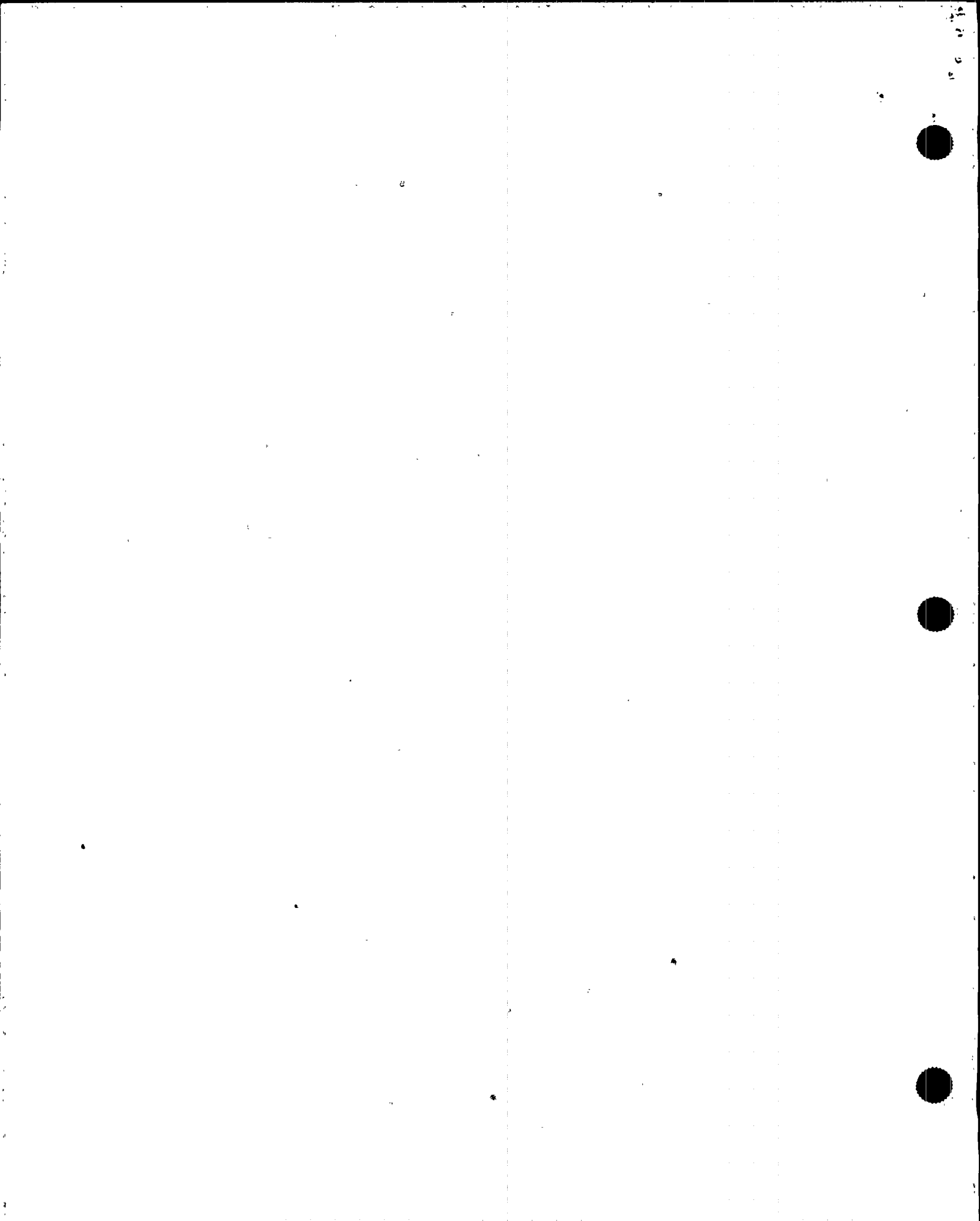
- When duties have been assumed and an informational briefing has been received, contact the Engineering Section in the Technical Support Center for analyses requirements.
- Access ERFDADS and ensure an accurate baseline data set is conveyed appropriately to the Plant Status Technician.

15.2 - Subsequent Actions**Status**

- Maintain ERFDADS data analyses and ensure critical data is relayed to the Plant Status Technician as required.
- Provide recommendations to the Technical Analysis Manager as required.

15.3 - Terminal Actions**Record Retention**

- Submit logs, data, and other documentation to the Technical Analysis Manager after event termination.



SECTION 16.0 - TECHNICAL ANALYSIS MANAGER

16.0 - Technical Analysis Manager Function

Duties and Responsibilities

The Technical Analysis Manager directs evaluations of projected occurrences and their corrective actions and is responsible to provide a periodic assessment of the evaluations to the Emergency Operations Director. S/he maintains communications with the Technical Engineering Manager in the Technical Support Center and other technical support groups as required. The Technical Analysis Manager functions as the primary interface with offsite agency representatives stationed in the facility.

The Technical Analysis Manager reports to the Emergency Operations Director in the Emergency Operations Facility.

16.1 - Initial Actions

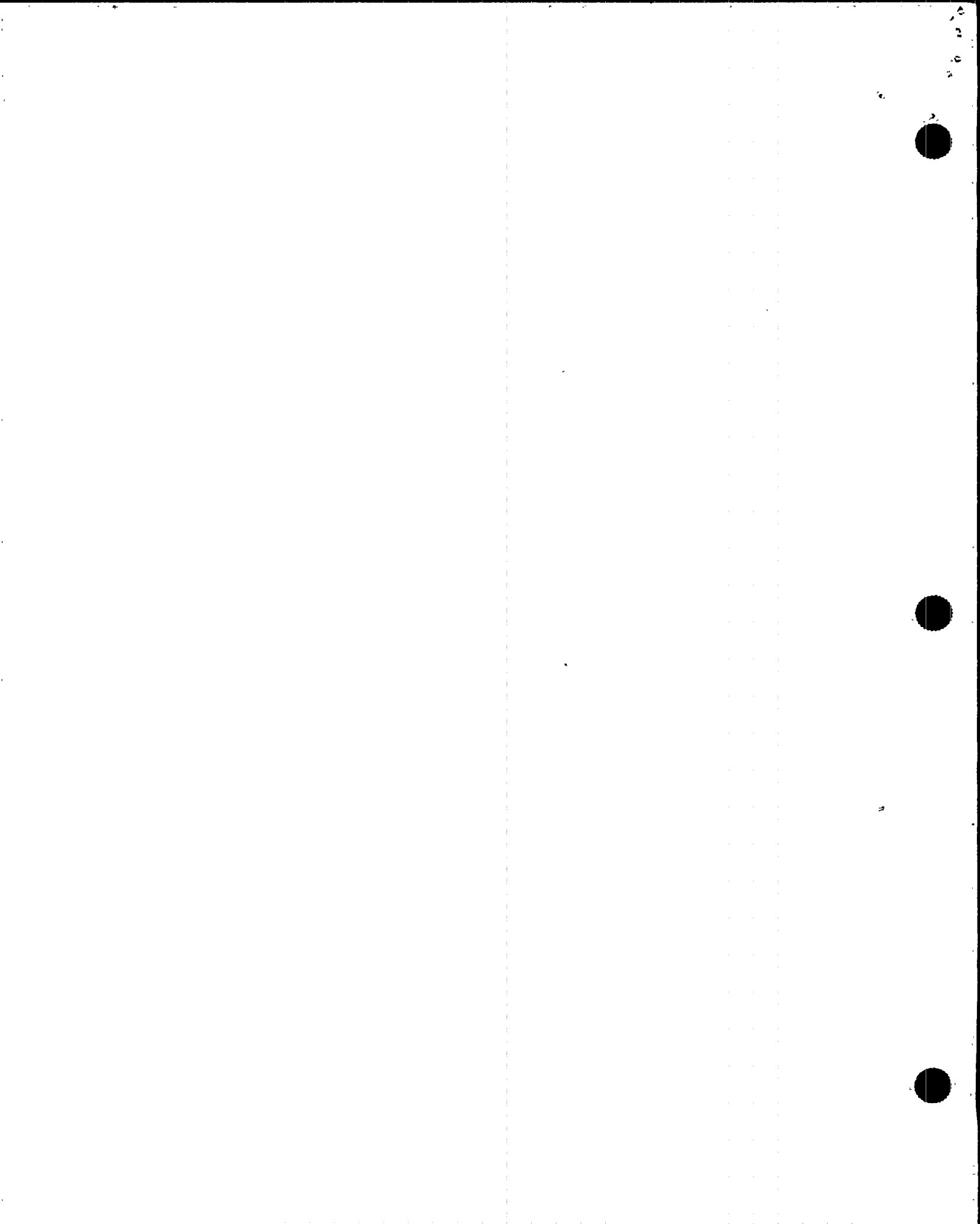
Facility Activation

— When duties have been assumed and an informational briefing has been received, provide a status briefing to the following personnel:

- Government Liaison
- Offsite Technical Representative at the State Technical Operations Center (*located in the State Emergency Operations Center*)
- Plant Status Technician
- Shift Technical Advisor
- Systems Engineering

— Contact the Technical Engineering Manager in the Technical Support Center and request an assessment of plant conditions.

— Determine the need for and contact any additional engineering and technical support personnel as required.



SECTION 16.0 - TECHNICAL ANALYSIS MANAGER

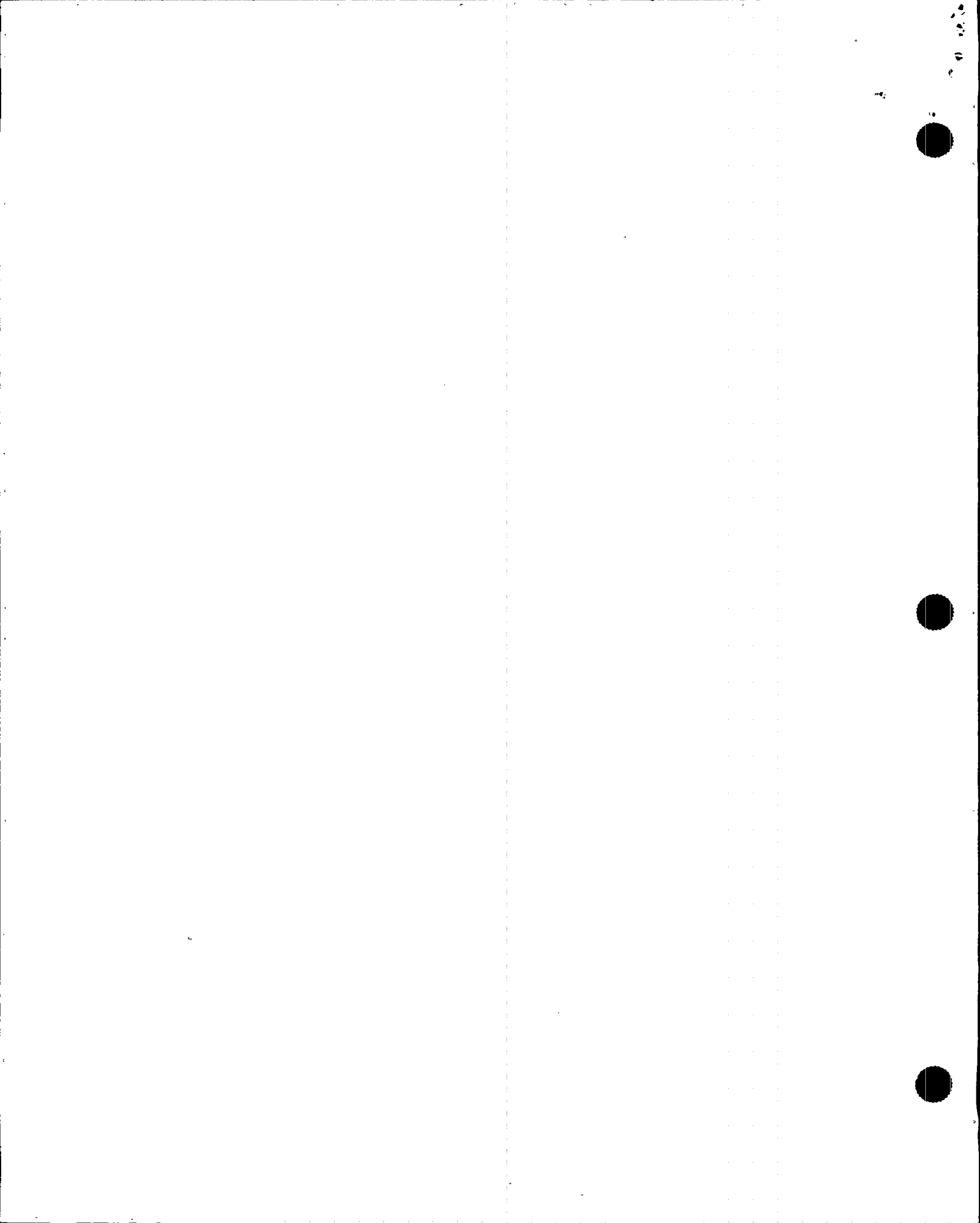
16.2 - Subsequent Actions

Contingency

- Coordinate with Engineering personnel and, based on an assessment of plant conditions, evaluate the projected occurrences and their corrective actions, noting the following considerations:
 - recommended strategy to reduce or eliminate the effects of the projected occurrence
 - recommended strategy to reduce or eliminate source terms and the subsequent offsite release (*requires Radiological Assessment Coordinator consultation*)
 - projected time remaining to uncover or melt the reactor core
 - functional status of plant safety systems
- Consult with the Technical Engineering Manager in the Technical Support Center to determine any technical changes in plant conditions which may have occurred, recommendations, and the need to modify the current Engineering evaluations, if necessary.
- With assistance from the Government Liaison, maintain offsite agency representatives stationed in the facility advised of current Engineering evaluations and contingencies.

Status

- As necessary, continue with assessment, analyses, and evaluations of projected occurrences and their corrective actions.
- Maintain the Dose Assessment Health Physicist advised of changing plant conditions which may affect the magnitude or duration of any potential radiological release.
- Maintain the Plant Status Technician advised of any technical change in plant conditions which may affect the accuracy of plant status board data.
- Verify the accuracy and adequacy of any technical information prior to its release for public dissemination by the Information Coordinator.
- Consult with the Technical Engineering Manager in the Technical Support Center and the Emergency Operations Director regarding current plant status and recommendations for additional resources required for plant stabilization and recovery.

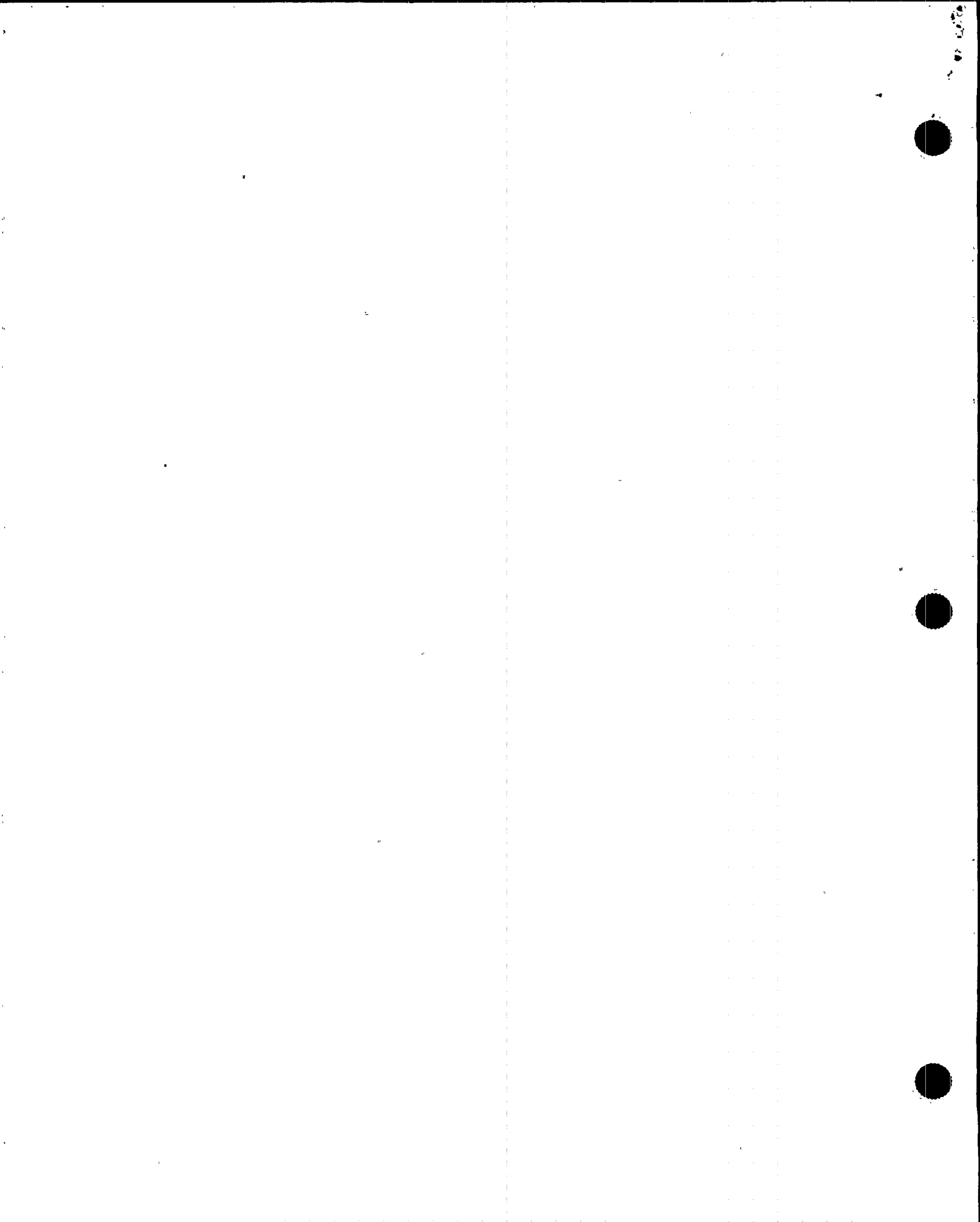


SECTION 16.0 - TECHNICAL ANALYSIS MANAGER

16.3 - Terminal Actions

Record
Retention

- Collect all documentation and associated logs from the following support personnel:
 - Government Liaison
 - Plant Status Technician
 - Shift Technical Advisor
 - Systems Engineering
- Submit logs, data, and other documentation to the Emergency Operations Director after event termination.



SECTION 17.0 - USNRC LIAISON HEALTH PHYSICS

17.0 - USNRC Liaison Health Physics Function**Duties and Responsibilities**

Upon Emergency Operations Facility activation, the USNRC Liaison Health Physics assumes responsibility for continuous communications with the USNRC regarding radiological aspects of the emergency event. S/he may be relieved of duties by a representative of the USNRC Emergency Response Team upon their arrival.

The USNRC Liaison Health Physics reports to the Radiological Assessment Coordinator in the Emergency Operations Facility.

17.1 - Initial Actions**Facility Activation**

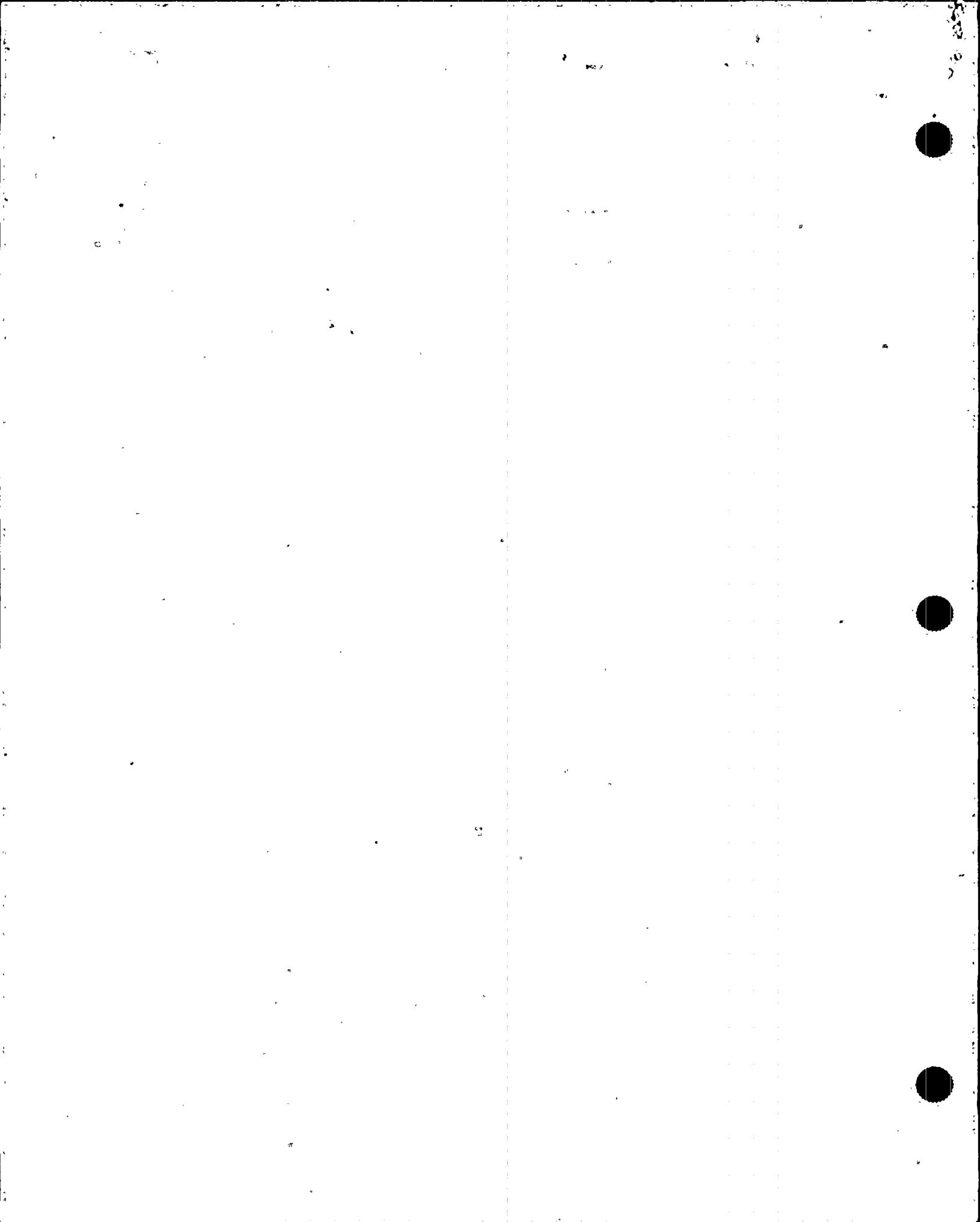
- When duties have been assumed and an informational briefing has been received, contact the USNRC using the Health Physics Network telephone.
- When contact with the USNRC has been established, identify yourself as the HPN Communicator at Palo Verde and request connection to the HPN Teleconference Bridge.
- When connection to the HPN Teleconference Bridge has been established, provide the initial radiological conditions for the event.

17.2 - Subsequent Actions**Status**

- Maintain continuous communications with the USNRC until relieved by a representative of the USNRC Emergency Response Team.

17.3 - Terminal Actions**Record Retention**

- Submit logs, data, and other documentation to the Radiological Assessment Coordinator after event termination.



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12-30-98

Document #	Critical Area	Control	Custodian	Location	Paper	Quantity	Remarks
16DP-0EP		00-000	NRC DOCUMENT CONTROL DESK	DOCUMENT CONTROL DESK, US NUCLEAR REGULATORY COMMISSION, MAIL STATION PI-37, WASHINGTON, DC 20555-0001	PW	1	SEND CERTIFIED MAIL ONLY!
16DP-0EP		00-000	NRC RIV ERC	USNRC REGION IV, ATTN.: E.W. MERSCHOFF, 611 RYAN PLAZA DRIVE, SUITE 400, ARLINGTON, TX 76011	PW	2	SEND CERTIFIED MAIL ONLY!
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Remarks

Quantity to be Reproduced	
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09-18-98

Document #	Critical Area	Control	Custodian	Location	Paper	Quantity	Remarks
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Remarks

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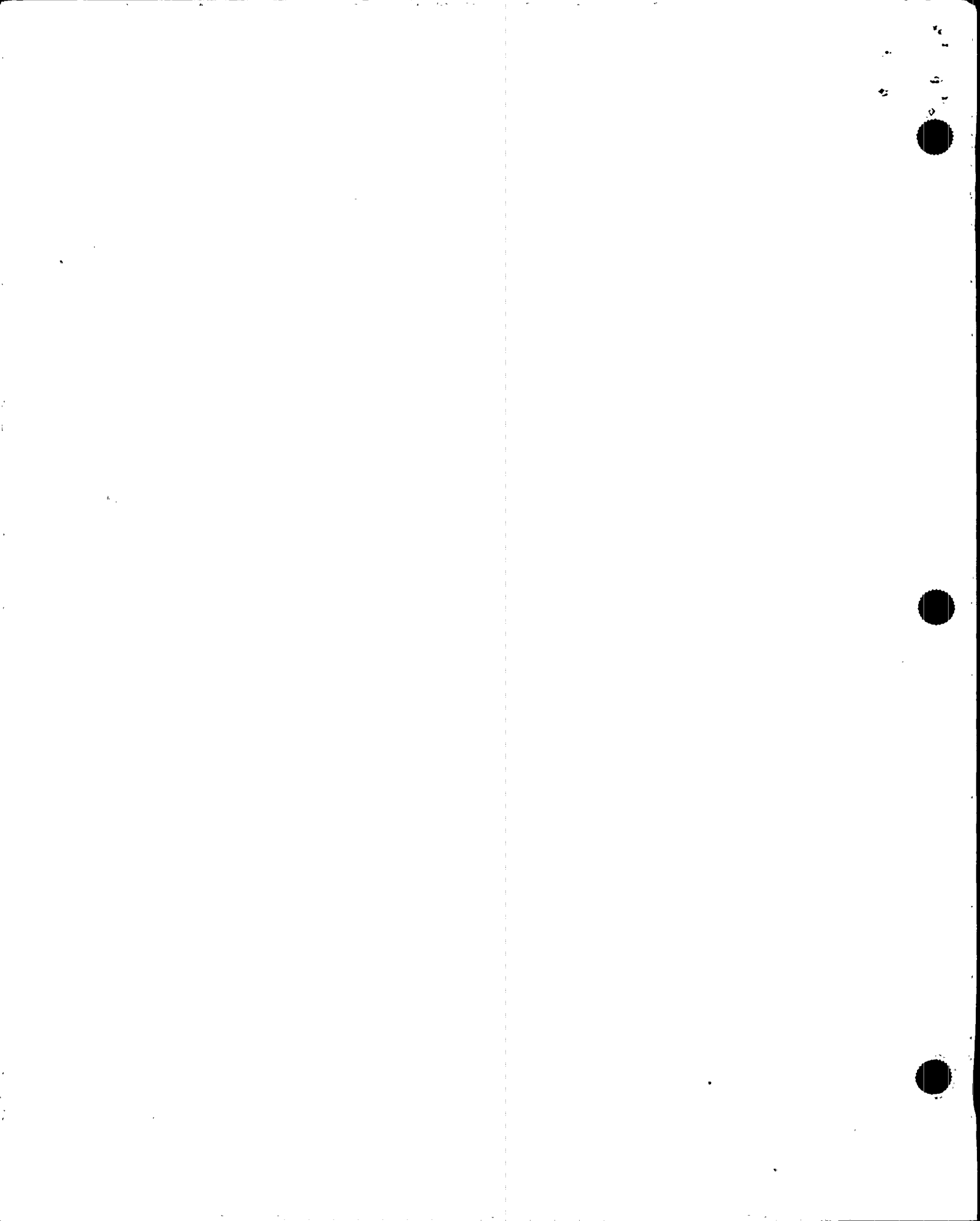
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16DP-0EP15		03-005B	REACT-ANALYST	D/TSC-DATA-CENTER	PW	1	
16DP-0EP15		03-005D	RP-SUPPORT-TECH	D/TSC-DATA-CENTER	PW	1	
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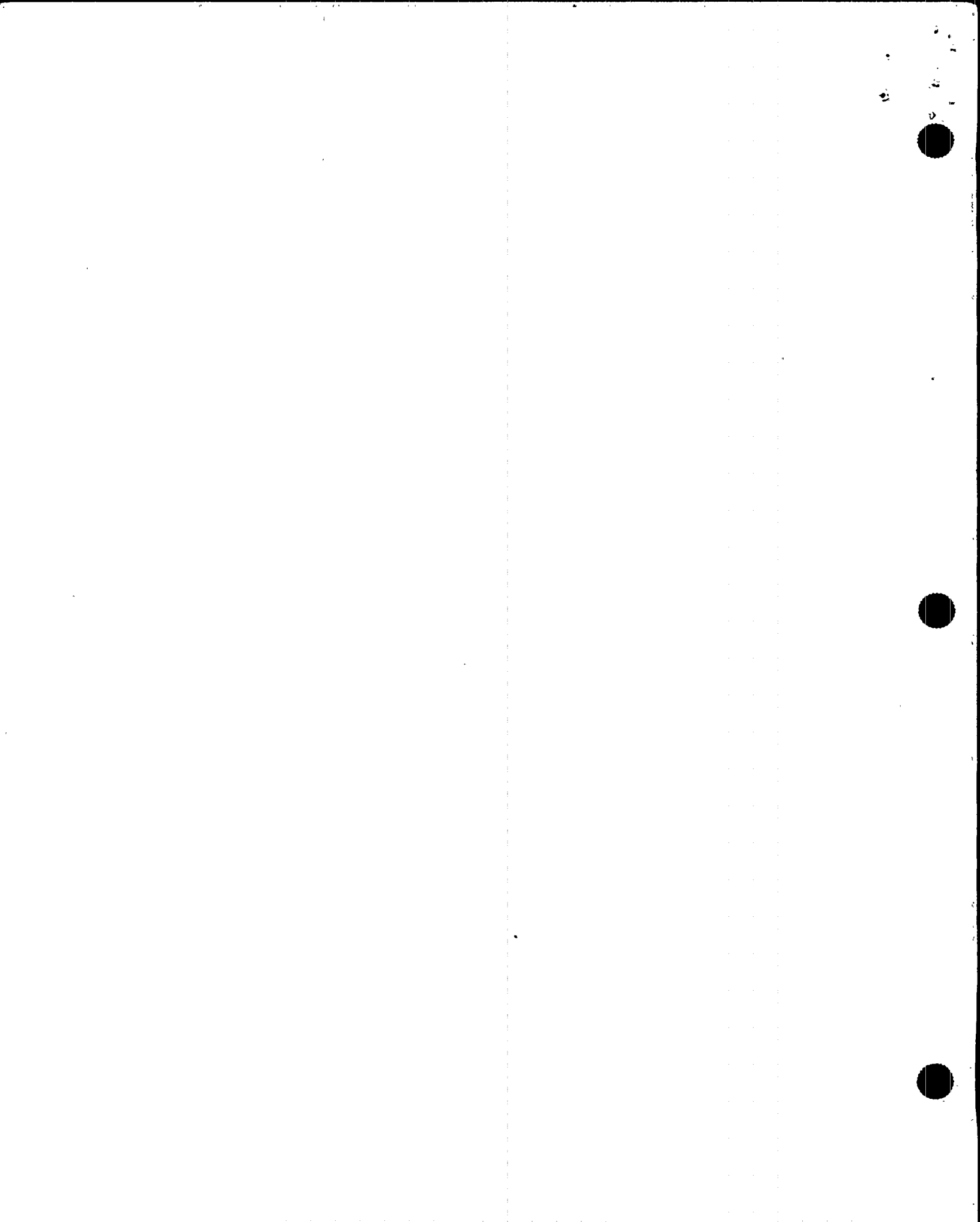
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Remarks

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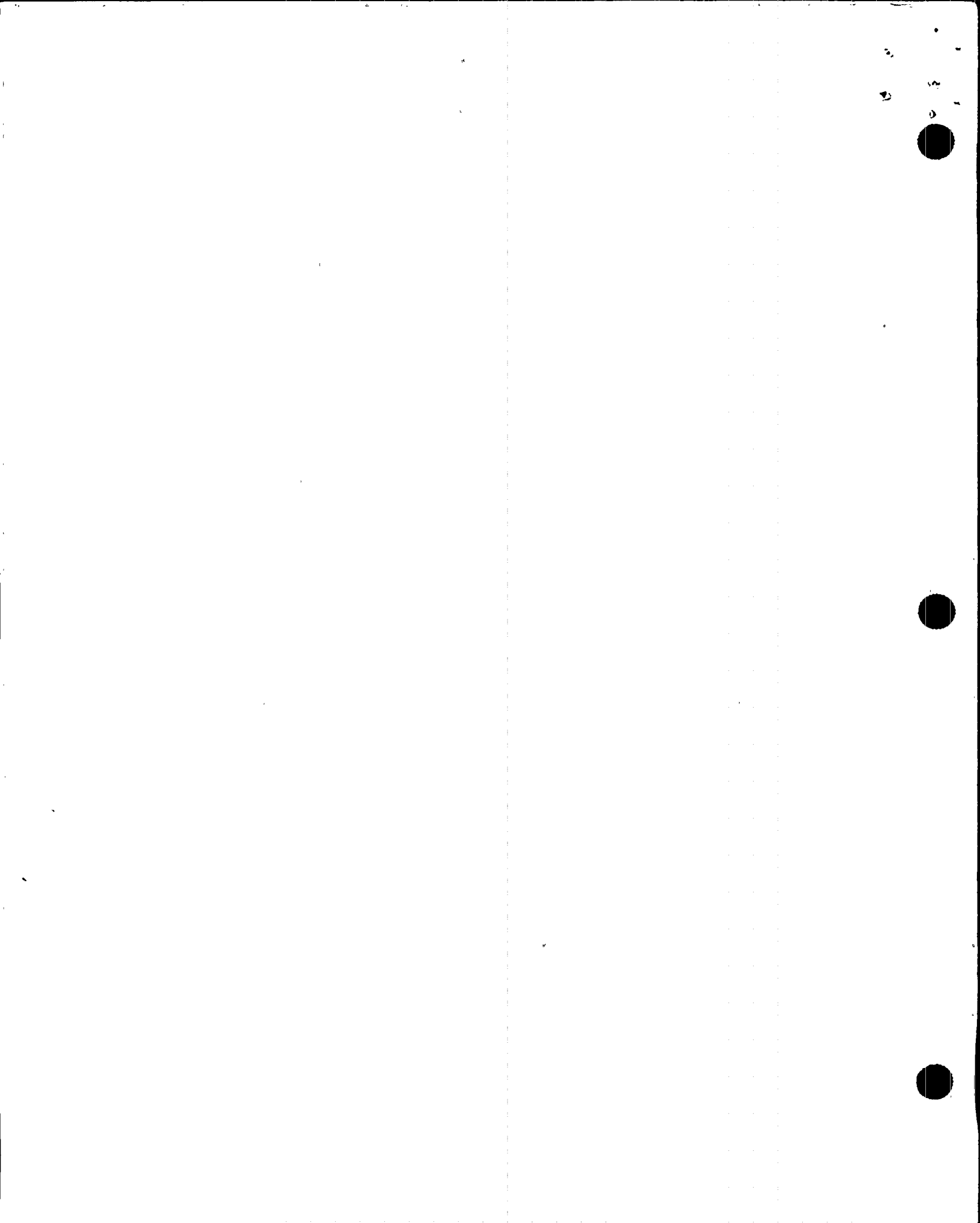
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PROCEDURE INTENT

This procedure provides functional instruction for the activation and operation of the Technical Support Center.

SECTION 2.0 - ONSITE EMERGENCY COORDINATOR

2.2 - Subsequent Actions *continued...*Protective
Measures

Perform the following actions as required:

IF...	THEN...
the emergency classification or current Protective Action Recommendation has changed	Inform the Emergency Operations Director of any event or Protective Action Recommendation changes. Discuss options for site evacuation, onsite sheltering, or early dismissal of personnel as required.
Technical Support Center dose rates are rising	Authorize emergency exposures as necessary. Adjust stay times of Technical Support Center personnel to minimize exposure. Relocate personnel to the Emergency Operations Facility, if necessary.
use of Potassium Iodide is indicated	Consult with the Radiation Protection Monitor regarding the use of Potassium Iodide and authorize administration of Potassium Iodide to personnel as required.
the Operations Support Center is deemed uninhabitable	Direct the Operations Support Center Coordinator to relocate staff, equipment, and supplies to an Alternate Operations Support Center in a designated Unaffected Unit. Ensure that radiological precautions are observed.
a fire response is indicated	Implement 14DP-0FP32, Emergency Notification and Response, and dispatch the Fire Team / Fire Team Advisor. If required, instruct the Security Director to contact the alternate offsite fire department for assistance.
a medical response is indicated	Implement 14DP-0FP32, Emergency Notification and Response, and 14DP-0FP11, Emergency Medical Response. Contact x4444 and advise. If necessary, dispatch an Emergency Medical Team and coordinate any required offsite assistance.
the Technical Engineering Manager recommends Severe Accident Management Guideline implementation	Evaluate use of 79IS-9ZZ05, PVNGS Severe Accident Management Guidelines