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Beginning Of Document



PILGRIM NUCLEAR POWER STATION

Procedure No. EP-IP-201

EMERGENCY PLANT MANAGER



Stop
Think
Act
Review

SAFETY RELATED

REVISION LOG

REVISION 2

Date Originated 5/01

Pages Affected

Description

All

Revise Procedure to reflect PNPS 1.3.4-1 format. Revision bars are not shown for reformatting.

4,10

Update referenced NOP 88A2 to be PNPS 1.3.12.1.

5

Update CANS response protocols.

9

Change Emergency Preparedness "Manager" to "Superintendent".

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1.0 PURPOSE

This Procedure provides the initial guidance, directions, and reference to the Emergency Plant Manager for responding to an emergency and for the management of the PNPS Emergency Response Organization (ERO) inside the Protected Area.

2.0 REFERENCES

- [1] EP-PP-01, "*PNPS Emergency Plan*"
- [2] PNPS 1.3.12.1, "*Non-Emergency Notification of BECo/PNPS Management*"

3.0 DEFINITIONS

- [1] BAC - Blood Alcohol Concentration
- [2] CANS - Computerized Automated Notification System
- [3] EOF - Emergency Operations Facility
- [4] ERF - Emergency Response Facility - generic title for all emergency facilities
- [5] OSC - Operational Support Center
- [6] SONS - Station Off-Normal Notification System
- [7] TSC - Technical Support Center

4.0 DISCUSSION

None

5.0 RESPONSIBILITIES

- [1] If delegated from the Emergency Director, authorizing extension of emergency exposures (cannot be further delegated).
- [2] If delegated from the Emergency Director, authorizing the use of potassium iodide (cannot be further delegated).

- [3] Authorization of all TSC and OSC activities involving the dispatch of personnel from any onsite emergency response facility (Non-Delegable).
- [4] Site access authorization for ERO personnel who have been determined to have a BAC of 0.04 or greater (Non-Delegable).
- [5] Coordination and conduct of plant accident assessment and mitigating activities associated with PNPS operations (the Operations Shift Superintendent retains the responsibility for actual operation of the plant).
- [6] The direction of actions taken for the protection for onsite PNPS personnel, including site evacuation activities.
- [7] Coordination and conduct of emergency classification recommendations.

6.0 PROCEDURE

6.1 NOTIFICATION OF AN EMERGENCY

- [1] In the event that a meaningless pager display appears, call the Computerized Automated Notification System (CANS) to verify that an emergency situation does not exist at PNPS.
- [2] Upon receiving the Unusual Event (1111) classification code on your pager:
 - (a) Call CANS to indicate that you have been notified.
 - (b) When asked to enter your employee identification number, enter your Social Security number.
- [3] Upon receiving an Alert (2222), Site Area Emergency (3333), or a General Emergency (4444) classification code on your pager:
 - (a) Call CANS to indicate that you have been notified.
 - (b) When asked to enter your employee identification number, enter your Social Security number.
 - (c) Provide the system with an estimate of your time of arrival (in military time) at the Technical Support Center (TSC).
- [4] Upon receiving the Recovery (0000) classification code on your pager:
 - (a) Call CANS to indicate that you have been notified.
 - (b) When asked to enter your employee identification number, enter your Social Security number.

6.2 FOR AN UNUSUAL EVENT

- [1] Contact the Control Room to determine the status of the situation. Use an Essential Information Checklist and review each of the listed areas. Additionally, review the actions being taken to resolve the situation and the projected course of the event. Determine whether any additional manpower or logistical support is needed.
- [2] Provide a brief description of the incident and information on where to be contacted to key managers by either:
 - (a) Contacting the Station Off-Normal Notification System (SONS) and recording the messages personally.
 - (b) Contacting the Emergency Offsite Manager (EOM), provide the desired message information, and direct the EOM to perform the SONS notification.
- [3] The On-Call Emergency Director may contact you to review the actions being taken to resolve the situation and the projected course of the event (using the Essential Information Checklist). Exchange points of contact for further discussions as the situation develops.
- [4] The On-Call Nuclear Information Duty Officer and the Emergency Offsite Manager may contact you for a briefing on the situation.
- [5] No further action is required in response to an incident at this level.

6.3 ACTIVATION (FOR AN ALERT OR HIGHER CLASSIFICATION)

- [1] Report to the site. Depending on the nature of the emergency, determine whether to go the Control Room to speak directly with the on-shift Emergency Director or to report to the TSC and contact the Control Room by phone.
 - (a) Use an Essential Information Checklist and review each of the listed areas. Verify that the appropriate classification was made.
 - (b) Check the status of any protective action recommendations (applicable for a General Emergency only).
- [2] Upon arrival at the TSC, sign in on the roster board and direct the Emergency Plant Manager Administrative Assistant to:
 - (a) Maintain a log of all pertinent actions and decisions made during the course of the response.
 - (b) Complete an Emergency Response Organization Roster for the TSC, OSC, Security, and the Control Room.

- [3] Instruct the TSC and OSC Supervisors to ensure clocks are synchronized with the official Control Room time.
- [4] When you have been sufficiently briefed and assured that an adequate staff has assembled as indicated by the TSC Supervisor, OSC Supervisor, and the Onsite Radiological Supervisor, then:
 - (a) Inform the Emergency Director (either in the Control Room or the EOF depending on activation status) you have assumed the Emergency Plant Manager position.
 - (b) Inform the Operations Shift Superintendent that:
 - (1) The TSC and OSC are prepared to assume responsibility for engineering and personnel support activities.
 - (2) All shift personnel not directly involved in control of the plant from within the Control Room shall be sent to the OSC Operations Coordinator.
 - (c) Make a general announcement to personnel in the facility.

6.4 OPERATION (FOR AN ALERT OR HIGHER CLASSIFICATION)

- [1] Discuss the situation with the on-call Emergency Director and the Emergency Offsite Manager when they arrive at the EOF.
- [2] Request a delegation of the authority for extending emergency radiation exposure and the use of potassium iodide for onsite personnel from the Emergency Director. Refer to EP-IP-440 for information and guidance on emergency exposure controls. This authority may NOT be further delegated.
- [3] Periodically confer with the Emergency Director to review the status of the situation and progress toward resolution.
- [4] Periodically confer with the following individuals to review actions being implemented, priorities of assigned activities, and to ensure a coordinated response by each group:
 - (a) TSC Supervisor
 - (b) Onsite Radiological Supervisor
 - (c) OSC Supervisor
 - (d) Emergency Plant Operations Supervisor
 - (e) Emergency Security Supervisor

- [5] Ensure that periodic updates are provided to the onsite organization, as appropriate, using the facility PA system.
- [6] Ensure documentation for assigned activities is maintained and completed by TSC and OSC personnel.

NOTE

Nonessential contractor personnel, handicapped personnel, and visitors are sent offsite at an Alert. All work not in direct support of mitigating the emergency should be suspended and workers ordered to return to their staging areas (shops, trailers, offices, etc.).

Accountability as well as Protected Area evacuation for all nonessential personnel are required at a Site Area Emergency or General Emergency.

- [7] At a Site Area or General Emergency (or whenever deemed necessary):
 - (a) Order a site evacuation and direct Security to prohibit access of nonessential personnel to the site. Evacuation and assembly are conducted in accordance with EP-IP-410.
 - (b) Ensure personnel accountability is performed and maintained inside the Protected Area. If personnel are determined to be missing, initiate search and rescue in accordance with EP-IP-420.
- [8] Determine whether site access authorization will be given for ERO personnel who have been identified to have a BAC of 0.04 or greater, specifically with regard to:
 - (a) The individual's condition.
 - (b) The needs of the response effort in support of the emergency.
 - (c) The determination of when and in what capacity the individual shall be used.
- [9] If a localized emergency exists (that is, one that affects only a portion of a building or the site), direct Security to control access to the area(s).
- [10] Continuously monitor plant conditions and ensure that the Emergency Director remains apprised of specific circumstances which impact the emergency classification and protective measures. Refer to EP-IP-100 for information and guidance on emergency classification.
- [11] Refer to EP-IP-220 for information and guidance on task assignment and support activities.

6.5 TSC/OSC RELOCATION

- [1] If it becomes necessary to evacuate or relocate staff from the TSC/OSC, take the following actions:
- (a) Direct the OSC Supervisor to coordinate the relocation of the OSC Staff to the Control Room Annex.
 - (b) Identify the minimum staff needed for the conditions at hand and relocate with this staff to the Control Room.
 - (c) Direct the TSC Supervisor to coordinate the relocation of the remaining TSC staff to the Emergency Operations Facility.

7.0 RECORDS

All log sheets, forms, and other documentation shall be reviewed for completeness and forwarded to the Emergency Preparedness Superintendent.

8.0 ATTACHMENTS

ATTACHMENT 1 - DOCUMENT CROSS-REFERENCE

ATTACHMENT 2 - IDENTIFICATION OF COMMITMENTS

DOCUMENT CROSS-REFERENCE

This Attachment lists those documents, other than source documents, which may be affected by changes to this Procedure.

Document Number	Document Title
EP-IP-100	Emergency Classification and Notification
EP-IP-220	TSC Activation and Response
EP-IP-440	Emergency Exposure Controls
EP-AD-122	Maintenance of the Emergency Telephone Directory
PNPS 1.3.12.1	Non-Emergency Notification of BECo/PNPS Management

IDENTIFICATION OF COMMITMENTS

This Attachment lists those external commitments (i.e., NRC commitments, QA audit findings, and INPO inspection items) implemented in this Procedure.

Reference Document	Commitment	Affected Section(s)/Step(s)
None		



Beginning Of Document



PILGRIM NUCLEAR POWER STATION

Procedure No. EP-IP-230

OSC ACTIVATION AND RESPONSE



Stop
Think
Act
Review

SAFETY RELATED

REVISION LOG

REVISION 4

Date Originated 6/01

Pages Affected

Description

7

Revise OSC Operations coordinator responsibilities.

11,15

Add reference to EP-IP-220, "*TSC Activation and Response*".

13

Change Emergency Preparedness "Manager" to "Superintendent".

REVISION 3

Date Originated 8/00

Pages Affected

Description

All

Revise Procedure to reflect PNPS 1.3.4-1 format. Revision bars are not shown for reformatting.

7

Change "Nuclear Operations Supervisor" to "Control Room Supervisor".

11

Correct editorial omission of line 6.3[5](b).

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1.0 PURPOSE

This Procedure outlines the steps required for the activation and operation of the Operational Support Center (OSC) including the dispatch of response damage control and repair personnel onsite.

2.0 REFERENCES

[1] EP-PP-01, "*PNPS Emergency Plan*"

3.0 DEFINITIONS

[1] Reentry - The return to an area which was previously evacuated due to known or suspected hazardous radiological conditions.

4.0 DISCUSSION

None

5.0 RESPONSIBILITIES

- [1] The OSC Supervisor is responsible for:
- (a) Implementation of this Procedure at an Alert classification or higher.
 - (b) Supervising OSC activities including team prioritization, assignment, and dispatch.
 - (c) Providing information and status on team activities and resource needs (such as equipment, materials, and personnel) to the Emergency Plant Manager.
 - (d) Providing periodic facility briefings to update all OSC personnel on plant and team status.
 - (e) Ensuring adequate personnel and other resources are available to the OSC staff.

- [2] The Activities Coordinator is responsible for:
- (a) Planning task activities, assigning members, conducting briefings/debriefings, and the dispatch of the OSC teams as assigned by the OSC Supervisor.
 - (b) Ensuring availability of qualified Mechanical, Electrical, I&C, and Materials personnel for OSC and team staffing.
 - (c) Providing information to OSC teams and the OSC Supervisor.
- [3] The OSC Operations Coordinator is responsible for:
- (a) Planning task activities, assigning members, conducting briefings/debriefings, and the dispatch of the OSC teams as assigned by the OSC Supervisor.
 - (b) Assessing the need for additional qualified Operations and Chemistry personnel for OSC and team staffing.
 - (c) Coordinating all chemistry sample teams including PASS.
 - (d) Providing operations information to OSC teams and the OSC Supervisor.
- [4] The Radiation Protection Coordinator is responsible for:
- (a) Planning task activities, assigning members, conducting briefings/debriefings, and the dispatch of the OSC teams as assigned by the OSC Supervisor.
 - (b) Assessing the need for additional qualified radiological personnel for OSC and team staffing.
 - (c) Briefing and debriefing personnel on plant radiological conditions and protective equipment.
 - (d) Providing radiological information to OSC teams and the OSC Supervisor.
 - (e) Coordinating and dispatching of Personnel Monitoring Teams at the discretion of the Onsite Radiological Supervisor.
- [5] The Materials Supervisor is responsible for:
- (a) Providing materials and equipment in support of OSC team activities.
 - (b) Coordinating with the Logistics Supervisor in the EOF to obtain equipment and materials not available onsite or through previously arranged agreements.

6.0 PROCEDURE

6.1 FACILITY ACTIVATION

[1] The OSC Supervisor shall:

- (a) Sign in on the OSC staffing board.
- (b) Assign a communicator/log keeper to record activities in the OSC. Log the time each of the following facility activation steps is completed.
- (c) Assign a status board keeper to ensure all OSC personnel sign in on the OSC staffing board and at the OSC Supervisor's desk.
- (d) Obtain keys from the OSC/TSC key locker and open the OSC Tool/Material and equipment cabinets (the Onsite Radiological Supervisor is responsible for the Radiation Protection equipment cabinets). Direct the inventory of any lockers which had a broken seal.
- (e) Direct the Radiation Protection Coordinator to commence initial and subsequent periodic habitability surveys of the combined TSC/OSC facilities and other occupied staging areas.
- (f) Obtain a briefing from the Emergency Plant Manager and determine the status of any teams currently dispatched through the Control Room.
- (g) Brief OSC personnel on present plant and team status.
- (h) Ensure the following minimum staffing requirements are met in the OSC prior to declaring the OSC activated.
 - (1) OSC Supervisor
 - (2) One Mechanical Technician
 - (3) One Electrical Technician
 - (4) One I&C Technician
 - (5) Two Radiation Protection Technicians
 - (6) One Chemistry Technician
- (i) Notify the Emergency Plant Manager that the OSC is ready to activate when all of the above actions have been completed.

[2] The Activities Coordinator shall:

- (a) Sign in on the OSC staffing board and at the OSC Supervisor's desk.
- (b) Assess the need for additional personnel and provide any requests to the OSC Supervisor as necessary.

[3] The OSC Operations Coordinator shall:

- (a) Sign in on the OSC staffing board and at the OSC Supervisor's desk.
- (b) Obtain a briefing from the OSC Supervisor concerning plant and status of teams dispatched from the Control Room.
- (c) Assess the need for additional Operations personnel and provide any requests to the OSC Supervisor as necessary.
- (d) Ascertain the ability to conduct chemistry sampling via normal as well as through the PASS and provide this information to the OSC Supervisor.
- (e) Establish communication with the individual assigned to the Mitigation Line to obtain frequent updates of plant, equipment, operations status as necessary, and forward information to the OSC Supervisor.

[4] The Radiation Protection Coordinator shall:

- (a) Sign in on the OSC staffing board and at the OSC Supervisor's desk.
- (b) Obtain a briefing from the Onsite Radiological Supervisor in the TSC concerning current radiological conditions and any personnel currently dispatched in the plant.
- (c) Obtain a copy of current employee exposure for use in ALARA considerations when assigning OSC team members.
- (d) Brief the OSC Supervisor of the information obtained from the Onsite Radiological Supervisor.
- (e) Assess the need for additional radiological personnel and provide any requests to the Onsite Radiological Supervisor as necessary.
- (f) Update status board maps with current plant radiological conditions.

6.2 FACILITY OPERATION

[1] The OSC Supervisor shall:

- (a) In addition to the minimum personnel necessary for activation, ensure the OSC staff ultimately includes the following positions:
 - (1) Activities Coordinator
 - (2) Operations Coordinator
 - (3) Radiation Protection Coordinator
 - (4) Warehouse personnel
 - (5) OSC pool personnel
 - (6) OSC Communicator/Log Keeper
 - (7) OSC Status Board Keeper
- (b) Organize OSC and pool personnel to minimize noise and congestion within the facility. Supervisors should be located in the briefing area and pool personnel in the shop area behind the OSC (or other convenient local areas).
- (c) Direct team formation and dispatch following requests from the Emergency Plant Manager via the TSC. OSC teams are organized in support of:
 - (1) Search and rescue operations.
 - (2) Repair and corrective actions.
 - (3) Damage assessment/control teams.
 - (4) Onsite/in-plant survey teams.
 - (5) First aid support of onsite medical emergencies.
 - (6) Fire Brigade.
 - (7) Postaccident sampling activities.
- (d) Direct the assigned team coordinators to maintain complete documentation of all teams they organize and dispatch from the OSC.

- (e) Through discussions with the OSC Coordinators:
 - (1) Assess the capabilities of pool personnel and determine whether additional resources are necessary.

NOTE

If a Protected Area evacuation has not taken place, additional personnel may be contacted directly at their respective work areas.

- (2) If additional personnel are required in the OSC, contact the Logistics Supervisor at the EOF.
- (f) Through discussions with the Emergency Plant Manager, obtain information on Station status and the tasks expected to be developed given the current situation.
- (g) Provide regular field status updates to the Emergency Plant Manager.
- (h) Ensure a staff member is appointed to maintain control of the facility while involved in protracted meetings and private briefings.
- (i) Provide periodic updates on plant status to all OSC personnel as well as teams dispatched in the plant.
- (j) In the event of a Protected Area evacuation:
 - (1) Assist Security in the preparation of an accountability list of all personnel assigned to the facility, including any dispatched personnel.
 - (2) Resolve accountability discrepancies with Security.
 - (3) If any personnel are unaccounted for, initiate EP-IP-420, "Search and Rescue",.
 - (4) Maintain continued accountability of all OSC personnel, including those persons on dispatched teams.

[2] The OSC Coordinators shall:

- (a) Maintain an adequate reserve of personnel in the OSC pool by requesting additional resources from the OSC Supervisor as necessary.
- (b) Frequently brief the OSC Supervisor on assigned task status.

6.3 OSC TEAM ASSIGNMENT AND DISPATCH

NOTE

OSC team documentation is used to ensure teams are dispatched under carefully controlled conditions. However, if it is determined that completion of the documentation will impede timely response, teams may be briefed and dispatched prior to documentation completion.

- [1] OSC team assignments originate from and are approved through the Emergency Plant Manager. The OSC team assignment and dispatch are documented on the OSC Team Task Assignment Sheet (Attachment 1).
- (a) The steps for accomplishing a task can be worked in a parallel fashion as desired. That is, the OSC Supervisor may elect to assign a team coordinator to begin team formation and briefing while the Onsite Radiological Supervisor is determining the necessary radiological controls.
 - (b) Equipment, personnel, instructions, and documentation may be prestaged in anticipation of foreseeable task assignments.
- [2] Radiological Controls - Upon task assignment to the OSC, the Onsite Radiological Supervisor will begin an OSC Team Task Assignment Sheet and determine the radiological controls required to perform the activity as follows:
- (a) For tasks which do not require radiological controls, the "No" block is selected on the OSC Team Task Assignment Sheet and the task documentation package is forwarded to the OSC Supervisor.
 - (b) For tasks which do require radiological controls, the "Yes" block is selected on the OSC Team Task Assignment Sheet and the following options considered:
 - (1) If the task can be covered under an existing RWP and the use of that RWP is desired, the appropriate RWP number is indicated on the OSC Team Task Assignment Sheet and the task documentation package is forwarded to the OSC Supervisor.
 - (2) If the task is not to be covered under an existing RWP, the Onsite Radiological Supervisor will complete the first two sections of the Emergency Radiological Controls Form (in accordance with EP-IP-440) and forward the task documentation package to the OSC Supervisor.

[3] Assigning Team Coordinators - The OSC Supervisor will review the task and assign team organization, briefing, and tracking responsibilities to the appropriate coordinator as follows:

- (a) Responsibility for task briefings will be assigned to a designated team coordinator (either Activities, Operations, or Radiation Protection).
- (b) Responsibility for radiological briefings, if required, will be assigned to the Radiation Protection Coordinator.
- (c) The position assigned as the team coordinator will be noted on the OSC Team Task Assignment Sheet.

[4] Team Assembly - The team coordinator will designate the team members who will perform the assigned task and record the names on the OSC Team Task Assignment Sheet. Team composition should consider the following:

- (a) Previous nonemergency exposure for ALARA considerations (if exposure records are not available, individuals can provide an estimation).

NOTE

Prior Emergency Director/Emergency Plant Manager approval must be given for all emergency exposures anticipated to cause an individual to have accumulated greater than 5 rem over the course of the emergency. See EP-IP-440, "*Emergency Exposure Controls*", for guidance.

- (b) Exposure accumulated during the course of the emergency (as tracked by the Onsite Radiological Supervisor).
- (c) Experience with the assigned task.
- (d) Familiarity with any existing Procedures or processes.
- (e) Physical capacity to perform the task.
- (f) Additional qualifications required for the task (such as SCBA).

[5] Task Briefing - The team coordinator (with assistance from specific supervisors or other experienced personnel) will record key information and instructions on the Emergency Task Assignment Sheet (in accordance with EP-IP-220) and provide a team briefing of the assigned task considering the items listed below:

- (a) Nature of the task including applicable Procedures if available.
- (b) Equipment, tools, instrumentation, and materials necessary for the task.
- (c) Physical location where the task is performed, including system and equipment numbers as applicable.

- (d) Safety precautions pertaining to both the task and to personnel (such as system or circuit isolation, hard hat, safety glasses, safety shoes, respiratory equipment, etc.).
 - (e) Communications equipment, channels, backup, and reporting expectations.
 - (f) Any special instructions applicable to the task or evolution.
 - (g) Any security, safety, or access controls in place to prevent unauthorized or unintentional entry into hazardous or restricted areas.
 - (h) Radiological Briefing - If the task requires radiological controls, ensure a briefing of the appropriate team member(s) is conducted with consideration given to the following:
 - (1) If an RWP is used, the radiological briefing will be conducted in accordance with the RWP.
 - (2) If an RWP is not used, the Radiation Protection Coordinator shall conduct a briefing with the OSC team (or RP support team member) covering the instructions provided on the Emergency Radiological Controls Form.
- [6] Dispatch - Following the briefing and collection of any necessary items, the team coordinator will note the time, dispatch the team, and inform the OSC Supervisor.
- [7] While dispatched, the team coordinator or a designated individual will maintain communication (as appropriate) with team personnel to obtain status and provide technical assistance when needed. Additionally, the team coordinator will keep the OSC Supervisor informed of the status of team activities and any unexpected conditions.
- [8] Task Debriefing - The team coordinator, with assistance from specific supervisor(s) or other experienced personnel as deemed necessary, will note the time the team returned and provide a team debriefing of the assigned task which includes the following:
- (a) Status and disposition of the assigned task. If the task was not completed, include discussion on any recommendations and situation information provided by the team members.
 - (b) Any observed environmental or operational hazards.
 - (c) The ultimate status of equipment, components, or systems affected by the task (such as isolation).
 - (d) The disposition of items (such as equipment, tools, materials, and keys) used to perform the task.
 - (e) Any supplemental information pertaining to the task or plant and system status observed while dispatched.

- (f) Radiological Debriefing - If the task required radiological controls, the following items must also be included in the debriefing and reported to the Onsite Radiological Supervisor:
- (1) Identification of any exposure received by individual team members during conduct of the task.
 - (2) Any information pertaining to the radiological conditions observed while dispatched, specifically with regards to actual versus anticipated levels (ensure wall maps are updated to reflect known radiological conditions).
 - (3) The disposition of items (such as meters, dosimetry, and keys) used while performing the task.
- [9] Documentation - The team coordinator will ensure the appropriate team task documentation is provided to the OSC Supervisor to formally complete the task. The completed package is then provided to the Emergency Plant Manager for final disposition.

6.4 OSC RELOCATION

If the On-Site Radiological Supervisor determines it is necessary to evacuate or relocate staff from the OSC, the OSC Supervisor shall take the following actions:

- [1] Direct the OSC staff to gather any logs and records needed to continue emergency operations and to begin relocation to the Control Room Annex.
- [2] Use the diagram provided in the Emergency Telephone Directory as a guide for setting up operations in the Control Room Annex.
- [3] Establish communications with the Emergency Plant Manager in the Control Room and continue to support emergency operations.

6.5 FACILITY DEACTIVATION

- [1] The OSC Supervisor shall:
 - (a) Deactivate the OSC when directed by the Emergency Plant Manager.
 - (b) Verify all dispatched teams have returned to the OSC and have been debriefed.
 - (c) Verify all emergency supplies and equipment have been replaced in their specified storage locations.
 - (d) Direct an inventory of OSC emergency equipment using EP-AD-301, "*Emergency Preparedness Facilities and Equipment Surveillance*", and report any deficiencies to Emergency Preparedness.
 - (e) Forward all records to the Emergency Preparedness Superintendent.

[2] The team coordinators shall forward all completed OSC team documentation to the OSC Supervisor.

7.0 RECORDS

This Procedure generates the following documents:

- The OSC Supervisor's Log Book.
- OSC Team Task Assignment Sheet.

Completed documents shall be forwarded to the OSC Supervisor who will review and submit all records to Emergency Preparedness.

8.0 ATTACHMENTS

ATTACHMENT 1 - OSC TEAM TASK ASSIGNMENT SHEET

ATTACHMENT 2 - DOCUMENT CROSS-REFERENCE

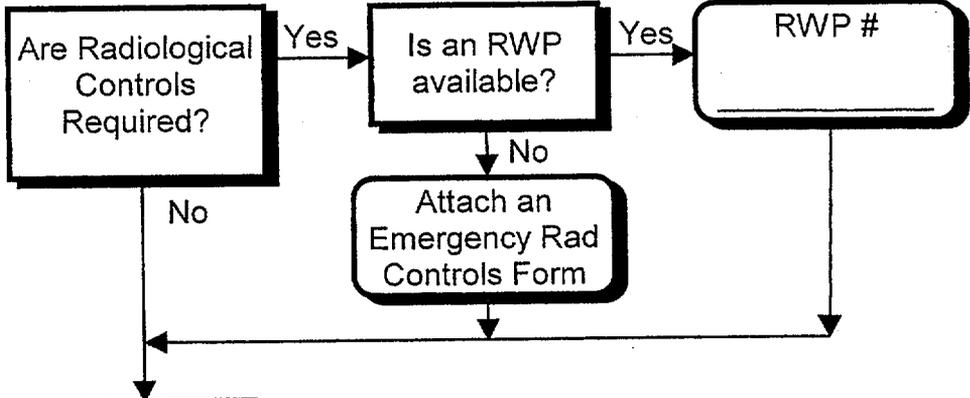
ATTACHMENT 3 - IDENTIFICATION OF COMMITMENTS

OSC TEAM TASK ASSIGNMENT SHEET

Task:	No:
Location:	Date:

Onsite Rad Supervisor
(See Section 6.3.2)
 Yes No

Time Completed _____



OSC Supervisor
(See Section 6.3.3)

Time Completed _____

Assign Team Coordinator Position: _____

Team Coordinator
(See Section 6.3.4)

Time Completed _____

Assign Team Members #1: _____
#2: _____
#3: _____
#4: _____

Team Coordinator
(See Section 6.3.5)

Time Completed _____

Develop and Conduct Team Briefing(s)

Note: Record key information/instructions on the Emergency Task Assignment Sheet. (See EP-IP-220, "TSC Activation and Response".)

Team Coordinator
(See Section 6.3.6)

Time Completed _____

Team Dispatched

Time Completed _____

Team Returned

Team Coordinator
(See Section 6.3.8)

Time Completed _____

Team Debriefed Task Completed
 Yes
 No

DOCUMENT CROSS-REFERENCE

This Attachment lists those documents, other than source documents, which may be affected by changes to this Procedure.

Document Number	Document Title
EP-IP-100	Emergency Classification and Notification
EP-IP-231	Onsite Radiation Protection
EP-IP-252	Facilities Support
EP-IP-410	Evacuation/Assembly
EP-IP-420	Search and Rescue
EP-IP-440	Emergency Exposure Controls

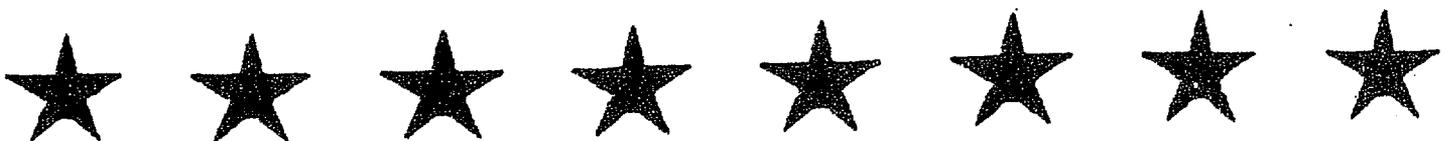
IDENTIFICATION OF COMMITMENTS

This Attachment lists those external commitments (i.e., NRC commitments, QA audit findings, and INPO inspection items) implemented in this Procedure.

Reference Document	Commitment	Affected Section(s)/Step(s)
NRC Inspection Finding 81-15-47	Develop procedures for use during emergencies which describe the concept of operations of the emergency repair and corrective action teams, including reporting chains and precautions appropriate for the situation.	All



**Beginning
Of
Document**



PILGRIM NUCLEAR POWER STATION

Procedure No. EP-IP-440

EMERGENCY EXPOSURE CONTROLS



Stop
Think
Act
Review

SAFETY RELATED

REVISION LOG

REVISION 6

Date Originated 5/01

Pages Affected

Description

All

Reformat to reflect PNPS 1.3.4-1. Revision bars are not shown for reformatting.

3,13,14

Add "Dose Card" to title of Attachment 1.

10,12

Change "Boston Edison Medical Director" to "Entergy Medical Department".

11

Change "Chemical Engineer" to "Core Damage Engineer".

12

Add reference to supplies of KI stored with the Medical Department. Clarify verbiage of instruction to individual regarding continued administration of KI.

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1.0 PURPOSE

This Procedure provides guidelines and administrative controls for radiation exposure received by PNPS controlled emergency workers during the course of a declared emergency.

2.0 REFERENCES

- [1] Environmental Protection Agency, EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents
- [2] EP-PP-01, "*PNPS Emergency Plan*"
- [3] International Atomic Emergency Agency (IAEA), Technical Report No. 152, Evaluation of Radiation Emergencies and Accidents
- [4] National Council on Radiation Protection (NCRP) Report 39, Basic Radiation Protection Criteria
- [5] National Council on Radiation Protection (NCRP) Report 55, Protection of the Thyroid Gland in the Event of Releases of Radioiodine
- [6] The Food and Drug Administration Approved Patient Package Insert for Commercially Packaged Potassium Iodide

3.0 DEFINITIONS

- [1] Corrective Action - Includes surveillance and/or assessment actions and plant operations necessary to minimize further deterioration of the level of plant safety or to mitigate the consequences of the accident, if failure to perform these actions could result in a significant increase in offsite exposures.
- [2] Emergency Exposure - Radiation exposure received by an emergency worker conducting accident mitigating or life saving actions during a declared emergency.

[3] Emergency Exposure Limits

<u>Dose Limit*</u>	<u>Activity</u>	<u>Conditions</u>
5	All	
10	Protecting valuable property.	Lower dose not practical.
25	Life saving or protection of large populations.	Lower dose not practical.
> 25	Life saving or protection of large populations.	Only on a voluntary basis to persons fully aware of the risks involved.

* EPA TEDE values for nonpregnant adults from exposure and intake during an emergency situation in rem. Workers performing services during emergencies should limit dose to the eyes to three times the listed value and dose to any other organ (including skin and body extremities) to ten times the listed value.

[4] Emergency Worker - An individual who holds an emergency response function as indicated by the PNPS Emergency Plan during a declared emergency.

[5] Life Saving Action - Actions related to the search for and rescue of injured persons, or corrective or protective actions to mitigate conditions which could result in imminent injury or substantial overexposure to an individual.

[6] Total Effective Dose Equivalent (TEDE) - Sum of the external effective dose equivalent and the committed dose equivalent.

4.0 DISCUSSION

None

5.0 RESPONSIBILITIES

- [1] The Emergency Director (ED), or the Emergency Plant Manager (EPM) when delegated, is responsible for the authorization of:
 - (a) Individual dose in excess of the lower emergency exposure limits.
 - (b) The administration of potassium iodide (KI).
- [2] The Onsite and Offsite Radiological Supervisors are responsible for:
 - (a) Tracking dose received by the emergency workers during the course of the emergency.
 - (b) Ensuring that proper emergency exposure guidelines are followed by emergency workers.
 - (c) Evaluating, recognizing, and recommending the need for KI.

6.0 PROCEDURE

6.1 DOSES \leq THE LOWER EMERGENCY EXPOSURE LIMITS

- [1] Individual exposure received over the course of the emergency shall be recorded and documented in accordance with Section 6.3.
- [2] From the time an emergency is declared, ERO personnel are considered emergency workers. Emergency workers are allowed to receive the following exposure over the course of the emergency, exclusive of previous exposure and without special authorization:
 - (a) 5 rem TEDE (whole body).
 - (b) 15 rem to the eyes.
 - (c) 50 rem to the skin, thyroid, and extremities.
- [3] Radiation exposures to emergency personnel shall be maintained, when possible, within the PNPS administrative exposure guides.
- [4] In order to maintain personnel exposures as low as possible, methods used during normal Station operation to control and minimize exposures, such as ALARA (As Low As Reasonably Achievable), shall remain in force during an emergency condition to the degree consistent with timely implementation of emergency measures.
- [5] To assure adequate protection of minors and the unborn during emergencies, the performance of emergency activities should be limited to nonpregnant adults.

6.2 DOSES > THE LOWER EMERGENCY EXPOSURE LIMITS

- [1] Individual exposure received over the course of the emergency shall be recorded and documented in accordance with Section 6.3.
- [2] Prior ED/EPM approval must be given for all emergency exposures anticipated to exceed 5 rem or to cause an individual to have accumulated greater than 5 rem over the course of the emergency.
- [3] Pre-Exposure Evaluation: Consideration of the following guidelines shall be given prior to authorizing doses greater than the lower exposure limits:
 - (a) The risk of not performing the task shall be evaluated against the anticipated exposure.
 - (b) Dosimetry equipment capable of measuring the anticipated maximum exposure and type of radiation shall be worn by personnel receiving emergency exposures.
 - (c) Personnel shall not enter any area where dose rates are unmonitored or immeasurable.
 - (d) Where practical, all attempts shall be made to keep emergency exposures ALARA (for example, use of protective clothing, respiratory protection, thyroid blocking agent).
- [4] Personnel undertaking any emergency operation in which the dose will exceed 25 rem to the whole body shall be identified by signature on the Emergency Volunteer Acknowledgment Form (Attachment 3) and should:
 - (a) Do so only on a voluntary basis.
 - (b) Be more than 45 years of age.
 - (c) Be made fully aware of the risks involved, including the numerical levels of dose at which acute effects of radiation exposure will be incurred and numerical estimates of the risks of delayed effects.

6.3 EMERGENCY EXPOSURE DOCUMENTATION

- [1] Emergency exposure documentation for ERO personnel shall be maintained by the Onsite and Offsite Radiological Supervisors (as applicable). Individual exposures will be recorded on Attachment 1 or other similar form to ensure adequate documentation and tracking during the course of the emergency.
- [2] Activities in support of emergency efforts which involve emergency exposure must include a radiological briefing and will be documented through a Radiation Work Permit (RWP) or on an Emergency Radiological Controls Form (Attachment 2).

NOTE

Although it is preferable to document radiological controls prior to dispatching individuals on emergency related tasks, radiological controls and precautions may be provided verbally and documented as soon as possible thereafter.

- [3] Radiological controls determined to be necessary for a task conducted during the emergency are documented on Attachment 2 as follows:
 - (a) Task Assignment: The task, number, location, and date are copied from the OSC Team Task Assignment Sheet or completed as appropriate (for tasks such as RMT dispatch).

NOTE

Prior ED/EPM approval must be given for all emergency exposures anticipated to cause an individual to have accumulated greater than 5 rem over the course of the emergency.

- (b) Task Exposure (Individual) Estimate: The maximum expected dose to any single member of the team. Team members are instructed to either contact the team coordinator or to return prior to exceeding this dose. Consideration shall be given to the benefit of performing the task versus the exposure to be received by personnel when this value has been determined.
- (c) Task Dose Rate Limit: The maximum expected whole body dose rate. Team members are to fall back to an area of lower dose rate and contact the team coordinator or return when this limit is encountered.
- (d) Dosimetry: Describes any requirements beyond a TLD and SID. A TLD and SID are automatic requirements for all tasks involving radiological controls.
- (e) PCs and Respiratory Protection: Denotes the necessary protective clothing and equipment required for the task.

- (f) Suggested Route: Best or preferred route to the task site or the sequence to follow for tasks conducted at multiple locations.
 - (g) Anticipated Conditions: Radiation, contamination, and airborne conditions. Values need not be provided for tasks which could be hindered by stopping to conduct contamination and airborne surveys. When air sampling is required, ensure guidance is provided regarding:
 - (1) Sample location(s).
 - (2) Sample volume (collection time and flow rate).
 - (3) Analysis or counting method to be used.
 - (4) Actions for high exposure rates on collected samples.
 - (h) Survey Equipment and Maps: Describes any radiological equipment and logs or maps used to conduct surveys performed as part of or during the task.
 - (i) Special Instructions: Describes any additional radiological information or instructions necessary to the task.
- [4] Task Exposure: The task exposure section is used to identify the individuals assigned to and track exposure received during conduct of the task. Current emergency dose will be checked against the task exposure estimate prior to team dispatch to ensure no exposure limits are exceeded without proper authorization.

NOTE

Although it is preferable to document authorization prior to tasks which allow extended exposure, authorization may be granted verbally and documented as soon as possible thereafter.

- [5] Extended Exposure: The extended exposure section provides authorization by the Emergency Director (or Emergency Plant Manager for onsite ERO personnel when delegated) prior to activities which would result in doses greater than the lower emergency limits.
- (a) If the task exposure estimate exceeds 5 rem or the task exposure will result in an individual's emergency exposure exceeding 5 rem, an extended limit must be determined and authorized.
 - (b) Extended emergency exposures for life saving or protection of large populations anticipated to exceed 25 rem must include additional briefing and documentation in accordance with the Emergency Volunteer Acknowledgment Form (Attachment 3).

6.4 POST-EXPOSURE EVALUATION

- [1] EPA-400 specifies that emergency exposures received during an emergency are considered a once-in-a-lifetime exposure and are not added to occupational exposure accumulated under nonemergency conditions.
- [2] 10 CFR 20 specifies doses received during emergencies must be subtracted from the limits for Planned Special Exposures that the individual may receive during the current year and during the individual's lifetime.
- [3] Individuals receiving doses beyond the lower exposure limits shall be restricted from further occupational (nonemergency) radiation exposure pending the outcome of exposure evaluations and medical surveillance.
- [4] The Emergency Medical Department shall be contacted for follow-up care and further evaluation, as required.

6.5 ADMINISTRATION OF POTASSIUM IODIDE (KI)

- [1] The Emergency Director or the Emergency Plant Manager shall be responsible for authorizing the administration of KI to PNPS emergency workers.

NOTE

KI is 90% effective in blocking the uptake of radioiodine by the thyroid if administered within the first hour of uptake, and is 50% effective if administered within 4 hours after uptake. Almost no benefit will be obtained if KI is administered 10 to 14 hours after exposure; therefore, it shall not be administered after such a duration.

- [2] KI should be considered as a potential dose reducing option for any situation in which airborne radioactive iodine is present (an additional ALARA option).
- [3] Dose Determination: KI should be administered to emergency workers if by calculation, measurement, or estimation the total dose to the thyroid will exceed 50 rem.
 - (a) The isotopic halogen concentrations must be determined before a thyroid dose can be estimated. Concentrations can be determined by direct measurement of each isotope or by estimations based on a known I-131 concentration.
 - (1) Concentration estimations can be determined as follows:
 - By the use of the Halogen Concentration Worksheet (Attachment 4).
 - Through the use of the Excel spreadsheet file SAMPLE. SAMPLE is loaded on the TSC core damage computer and the EOF dose assessment computers.

- (2) When estimated concentrations are used, the estimations should be confirmed by direct measurement as soon as practical.
- (3) The sample data and calculation sections are used to determine I-131 activity if a SAM-II is used to analyze the I-131 concentration. Otherwise, the I-131 concentration can be entered directly.
- (4) Accident type is determined by the Reactor or Core Damage Engineer in the TSC. If the accident type is unknown, assume a gaseous release.

(b) Thyroid dose can be estimated from isotopic concentrations (in $\mu\text{Ci/cc}$) as follows:

- (1) Direct Calculation

$$\text{Thyroid Dose}_i = \text{Concentration}_i \times \text{DCF}_i \times \left(\frac{-1}{\lambda} \times e^{-\lambda t} + \frac{1}{\lambda} \right)$$

Isotope	DCF $\left(\frac{\text{rem} \cdot \text{cm}^3}{\mu\text{Ci} \cdot \text{hr}} \right)$	$\lambda(\text{hr}^{-1})$
I-131	1.3E+06	3.59E-03
I-132	7.7E+03	3.01E-01
I-133	2.2E+05	3.33E-02
I-134	1.3E+03	7.88E-01
I-135	3.8E+04	1.05E-01
Te-132	2.9E+05	8.86E-03

Where t = exposure period in hours.

Total thyroid dose is the sum of the individual doses from each of the isotopes above.

- (2) Through the use of the Excel spreadsheet file titled SAMPLE. SAMPLE is loaded on the TSC core damage computer and the EOF dose assessment computers.
- (3) Through the use of the dose assessment computer application titled DAPAR. DAPAR is loaded on computers in the Control Room and the EOF.

- [4] Issuing KI: The Onsite Radiological Supervisor or the Offsite Radiological Supervisor, as applicable, shall:

NOTE

The Emergency Director or the Emergency Plant Manager is responsible for authorizing the administration of KI to PNPS emergency workers.

- (a) Ensure approval and documentation are recorded on the Potassium Iodide Administration Form (Attachment 5).

CAUTION

Individuals who have known allergies to iodide shall NOT be issued KI.

- (b) Notify those who are to receive KI to report to a designated location for distribution.
- (c) Issue one 130 mg KI tablet to each individual who is to receive KI. KI is stored in the OSC Medical locker and in the EOF Medical locker. Additional supplies are also located in the Medical Department.
- (d) Contact the Entergy Medical Department and request follow-up care and further guidance concerning KI administration.
- (e) Instruct individuals to take one 130 mg KI tablet daily for 10 days or as directed by the Entergy Medical Department and record each issuance on the Potassium Iodide Administration Form (Attachment 5).

7.0 RECORDS

- [1] The following documents may be generated by the implementation of this Procedure:
- (a) Emergency Worker Exposure Record
 - (b) Emergency Radiological Controls Form
 - (c) Emergency Volunteer Acknowledgment Form
 - (d) Halogen Concentration Worksheet
 - (e) Potassium Iodide Administration Form
- [2] Completed documents shall be collected by the Onsite Radiological Supervisor or the Offsite Radiological Supervisor, as applicable, who reviews and submits all records to the Emergency Preparedness Superintendent.

8.0 ATTACHMENTS

ATTACHMENT 1 - EXAMPLE - EMERGENCY WORKER EXPOSURE
RECORD/DOSE CARD

ATTACHMENT 2 - EMERGENCY RADIOLOGICAL CONTROLS FORM

ATTACHMENT 3 - EMERGENCY VOLUNTEER ACKNOWLEDGMENT FORM

ATTACHMENT 4 - HALOGEN CONCENTRATION WORKSHEET

ATTACHMENT 5 - POTASSIUM IODIDE ADMINISTRATION FORM

ATTACHMENT 6 - DOCUMENT CROSS-REFERENCE

ATTACHMENT 7 - IDENTIFICATION OF COMMITMENTS

EMERGENCY VOLUNTEER ACKNOWLEDGMENT FORM

Assignment	
Task:	No:
Location:	

Health Effects associated with Whole Body Absorbed Doses Received Within a Few Hours^a (Acute Dose)		
Dose (Rad)	% Precursory Effects ^b	% Early Fatalities ^c
50	2	
100	15	
140		5
150	50	
200	85	15
250	98	
300		50
400		85
460		95

- a Risks will be lower for protracted exposures.
- b Forewarning symptoms of more serious health effects associated with large doses of radiation.
- c Supportive medical treatment may increase the dose at which these frequencies occur by approximately 50 percent.

Approximate cancer Risk to Average Individuals from 25 Rem Acute Exposure		
Age at Exposure (years)	Approximate risk of premature death (deaths per 1000 persons exposed)	Average years of life lost if premature death occurs (years)
20 to 30	9.1	24
30 to 40	7.2	19
40 to 50	5.3	15
50 to 60	3.5	11

I have been briefed on the radiological consequences and hazards associated with the authorized emergency exposure, and I have volunteered to perform the task described.

Name: _____ Signature: _____ Date: _____

Note: Detailed information for the above tables is located in Appendix B and Appendix C of EPA-400

HALOGEN CONCENTRATION WORKSHEET

Halogen Concentration Worksheet

Calculations Performed By

Name: _____ Date: _____

Sample Data	
Gross Sample Count Rate (CPM)	A: _____
Background Count Rate #1 (CPM)	B: _____
Background Count Rate #2 (CPM)	C: _____
Meter Efficiency (%)	D: _____
Sample Duration (min)	E: _____
Sample Flow (scfm)	F: _____
Time After Shutdown (hrs)	G: _____
Accident Type (G or M)	H: _____

Sample Calculations	
Average Background = (B + C) / 2	J: _____
Net Counts = A - J	K: _____
Sample Correction = D x E x F	L: _____

Isotopic Concentrations	uCi/cc	Ratio
I-131 = (K / L) x 1.59E-09	M: _____	N/A
I-132 = Table Ratio x M	_____	_____
I-133 = Table Ratio x M	_____	_____
I-134 = Table Ratio x M	_____	_____
I-135 = Table Ratio x M	_____	_____
Te-132 = Table Ratio x M	_____	_____

Time After Shutdown	I-132	I-133	I-134	I-135	Te-132 (Gap)	Te-132 (Melt)
0	1.45	2.09	2.31	1.95	0.01	12.63
1	1.45	2.05	1.63	1.76	0.01	12.54
2	1.44	2.00	0.96	1.59	0.01	12.47
3	1.44	1.94	0.52	1.44	0.01	12.41
4	1.43	1.89	0.26	1.30	0.01	12.34
5	1.43	1.83	0.13	1.17	0.01	12.28
6	1.43	1.78	0.06	1.06	0.01	12.21
7	1.42	1.73	0.03	0.96	0.01	12.15
8	1.41	1.68	0.01	0.87	0.01	12.08
16	1.35	1.32	0.00	0.38	0.01	11.58
24	1.30	1.04	0.00	0.17	0.01	11.11
48	1.14	0.51	0.00	0.01	0.01	9.79
72	1.01	0.25	0.00	0.00	0.01	8.62
96	0.89	0.12	0.00	0.00	0.01	7.60
120	0.78	0.06	0.00	0.00	0.00	6.70
144	0.69	0.03	0.00	0.00	0.00	5.90
168	0.61	0.01	0.00	0.00	0.00	5.20

*Mix ratio assumes end of core life source term.

POTASSIUM IODIDE ADMINISTRATION FORM (CONT.)
THE FOOD AND DRUG ADMINISTRATION APPROVED PACKAGE INSERT

**THYRO-BLOCK®
TABLETS**

(POTASSIUM IODIDE TABLETS, USP)
(pronounced poe-TASS-e-um EYE-oh-dyed)
(abbreviated: KI)

TAKE POTASSIUM IODIDE ONLY WHEN PUBLIC HEALTH OFFICIALS TELL YOU. IN A RADIATION EMERGENCY, RADIOACTIVE IODINE COULD BE RELEASED INTO THE AIR. POTASSIUM IODIDE (A FORM OF IODINE) CAN HELP PROTECT YOU.

IF YOU ARE TOLD TO TAKE THIS MEDICINE. TAKE IT ONE TIME EVERY 24 HOURS. DO NOT TAKE IT MORE OFTEN. MORE WILL NOT HELP YOU AND MAY INCREASE THE RISK OF SIDE EFFECTS. *DO NOT TAKE THIS DRUG IF YOU KNOW YOU ARE ALLERGIC TO IODINE. (SEE SIDE EFFECTS BELOW.)*

INDICATIONS

THYROID BLOCKING IN A RADIATION EMERGENCY ONLY.

DIRECTIONS FOR USE

Use only as directed by State or local public health authorities in the event of a radiation emergency.

DOSE

Tablets: ADULTS AND CHILDREN 1 YEAR OF AGE OR OLDER: One (1) tablet once a day. Crush for small children. BABIES UNDER 1 YEAR OF AGE: One-half (1/2) tablet once a day. Crush first.

Take for 10 days unless directed otherwise by State or local public health authorities.

Store at controlled room temperature between 15° and 30° C (59° to 86° F). Keep container tightly closed and protect from light.

WARNING

Potassium iodide should not be used by people allergic to iodine. Keep out of the reach of children. In case of overdose or allergic reaction, contact a physician or the public health authority.

DESCRIPTION

Each THYRO-BLOCK® TABLET contains 130 mg of potassium iodide. Other ingredients: magnesium stearate, microcrystalline cellulose, silica gel, sodium thiosulfate.

HOW POTASSIUM IODIDE WORKS

Certain forms of iodine help your thyroid gland work right. Most people get the iodine they need from foods, like iodized salt or fish. The thyroid can "store" or hold only a certain amount of iodine.

In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.

If you take potassium iodide, it will fill up your thyroid gland. This reduces the chance that harmful radioactive iodine will enter the thyroid gland.

WHO SHOULD NOT TAKE POTASSIUM IODIDE

The only people who should not take potassium iodide are people who know they are allergic to iodine. You may take potassium iodide even if you are taking medicines for a thyroid problem (for example, a thyroid hormone or anti-thyroid drug). Pregnant and nursing women and babies and children may also take this drug.

HOW AND WHEN TO TAKE POTASSIUM IODIDE

Potassium Iodide should be taken as soon as possible after public health officials tell you. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than 10 days.

SIDE EFFECTS

Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.

Possible side effects include skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.

Taking iodine may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

WHAT TO DO IF SIDE EFFECTS OCCUR

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide. Then, if possible, call a doctor or public health authority for instructions.

HOW SUPPLIED

THYRO-BLOCK® TABLETS (Potassium Iodide Tablets, UPS) bottles of 14 tablets (NDC 0037-0472-20). Each white, round, scored tablet contains 130 mg potassium iodide.

WALLACE LABORATORIES
Division of
CARTER-WALLACE, INC.
Cranbury, New Jersey 08512

IN-0472-01

Rev 2/85

DOCUMENT CROSS-REFERENCE

This Attachment lists those documents, other than source documents, which may be affected by changes to this Procedure.

Document Number	Document Title
EP-IP-230	OSC Activation and Response
EP-IP-231	Onsite Radiation Protection
EP-IP-251	Offsite Radiation Protection

IDENTIFICATION OF COMMITMENTS

This Attachment lists those external commitments (i.e., NRC commitments, QA audit findings, and INPO inspection items) implemented in this Procedure.

Reference Document	Commitment	Affected Section(s)/Step(s)
NRC Inspection Finding 84-05-16/85-19-01	Describe or reference by procedure the program for exposure control during emergencies. Improve program for evaluation/control of re-entry team radiation exposure.	All