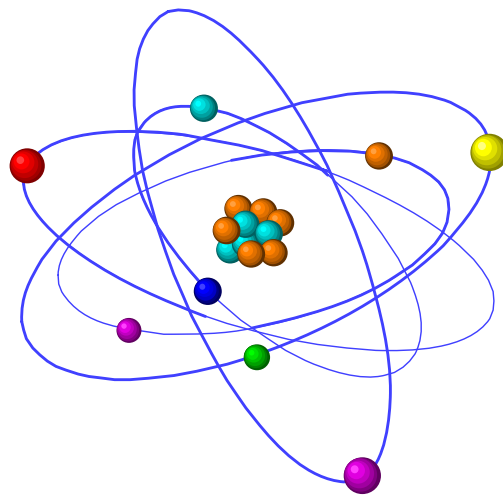


**COLUMBIA COUNTY
RADIOLOGICAL EMERGENCY RESPONSE PLAN
TO NUCLEAR POWER PLANT INCIDENTS**



MARCH 1998

**COLUMBIA COUNTY EMERGENCY MANAGEMENT AGENCY
COLUMBIA COUNTY COURTHOUSE ANNEX
P.O. BOX 380, BLOOMSBURG, PA 17815**

**Change 6
2008**



Summary of Changes

Changes in this plan are designated by the revision bars located in the left margin.

NOTE: Emergency Management Coordinators insure updates and changes take place, as required.

TABLE OF CONTENTS

	<u>Page</u>
Summary of Changes	i
Table of Contents	ii
 <u>Incident Specific Plan</u>	
1. Purpose	8
2. Scope	8
3. Situation	8
4. Assumptions	9
5. Concept of Operations	10
6. Responsibilities	16
7. Authority and References	26
8. Definitions	26
9. Distribution and Change	32
 <u>Enclosures</u>	
1. Columbia County Department of Public Safety Organization Chart	35
2. Interrelationship of Organizations	37
3. Position Responsibilities - Columbia County Emergency Operations Center	38
4. Emergency Response Action Guidelines	39
5. Columbia County Emergency Management Call List	43
6. Municipal Emergency Management Coordinators	44
 <u>APPENDIX 1</u> - Direction and Control	
<u>Attachment:</u>	
A. Diagram of EOC	A1-3
 <u>APPENDIX 2</u> - Communications	
<u>Attachments:</u>	
A. Columbia County Communications Systems	A2-6
B. Amateur Radio Roster	A2-7
C. Amateur Radio Assignments	A2-8
D. Initial Notification/Escalation Procedures	A2-9
E. Emergency Notification Report	A2-10

APPENDIX 3 - Alert/NotificationA3-1

Attachments:

A.	Alert/Notification System	A3-5
B.	Siren Locations	A3-6
C.	Columbia County Siren Coverage Map	A3-7
D.	Public Alert Message by NOAA Weather Radio Station	A3-8

APPENDIX 4 - Public InformationA4-1

Attachments:

A.	Initial Notification EAS Announcement	A4-5
B.	School Closure EAS Announcement, Sample	A4-6
C.	Take Shelter EAS Announcement	A4-7
D.	Evacuation EAS Announcement (Governor Orders)	A4-8
E.	Evacuation EAS Announcement (Governor Recommends)	A4-9
F.	School Evacuation EAS Announcement	A4-10
G.	Return Media Advisory	A4-11
H.	School Closure Media Announcement	A4-12
I.	Emergency Information	A4-13
J.	News Media Listing for Columbia County	A4-14
K.	Public Alert Message by NOAA Weather Radio Station	A4-15

APPENDIX 5 - Fire and RescueA5-1

Attachments:

A.	Relocation of Columbia County Fire Companies	A5-4
B.	Columbia County Fire Companies	A5-5

APPENDIX 6 - Police ServicesA6-1

Attachments:

A.	Relocation of Columbia County Police Departments	A6-4
B.	Columbia County Police Departments	A6-5

APPENDIX 7 - Health and Medical SupportA7-1

Attachments:

A.	Hospitals, Special Needs Facilities, Handicapped, Hearing Impaired Institutions Located Within the Plume Exposure Pathway EPZ	A7-7
B.	Medical Vehicle Requirements	A7-8
C.	Columbia County Ambulance Resources	A7-12
D.	Relocation of Columbia County Ambulances Located within the Plume Exposure Pathway EPZ	A7-13
E.	MS-1 Hospitals	A7-14
F.	Hospitals Serving in General Support	A7-15
G.	Support Hospitals and Bed Availability Census	A7-17
H.	Risk Hospitals Assignments to Support Hospitals	A7-18
I.	Air (Helicopter) Medical Evacuation	A7-19

APPENDIX 8 - Military SupportA8-1

Attachments:

A.	National guard Task Organization	A8-3
----	--	------

APPENDIX 9 - TransportationA9-1

Attachments:

- A. Transportation ResourcesA9-3
- B. Columbia County Bus Transportation Requirements for EvacuationA9-4
- C. Transportation Staging AreasA9-6

APPENDIX 10 - Protective ResponseA10-1

Attachments:

- A. Evacuation Routes from Municipalities to Mass Care CentersA10-5
- B. Evacuation Time EstimatesA10-6
- C. Plume Exposure Pathway EPZ DescriptionA10-7
- D. Population Data, PPL Susquehanna, LLCA10-8
- E. Sheltering InformationA10-9
- F. Protective Response Flow ChartA10-12

APPENDIX 11 - Aerial, Highway, Railroad, and Waterway Traffic ControlA11-1

Attachments:

- A. Columbia County Traffic Control PointsA11-5
- B. Columbia County Access Control PointsA11-6
- C. Columbia County Municipal Traffic Control PointsA11-8
- D. River Access Control Points (PPL Susquehanna, LLC)A11-9
- E. Railroads Affected by Nuclear Power Plant IncidentsA11-10

APPENDIX 12 - Mass CareA12-1

Attachments:

- A. Columbia County Mass Care Center RequirementsA12-4
- B. Reception Centers/Mass Care Centers and Student Pickup PointsA12-5
- C. Activation of Mass Care CentersA12-6
- D. Mass Care Center (Shelter) RegistrationA12-8
- E. Mass Care Activity ReportA12-9
- F. Summary of Support County Evacuee RequirementsA12-10
- G. Agreement for the Use of School Facilities as Mass Care Centers
During Disasters, SampleA12-11
- H. Statement of Agreement between the Columbia County Emergency Management
Agency and the Bloomsburg Chapter of the American Red CrossA12-13

APPENDIX 13 - Radiological Exposure ControlA13-1

Attachments:

- A. Monitoring/Decontamination ProceduresA13-12
- B. Dosimetry and Potassium Iodide (KI)A13-23
- C. Inventory and Maintenance ProceduresA13-45
- D. Personnel Monitoring Procedure.....A13-49
- E. Personnel Decontamination ProcedureA13-59
- F. Vehicle and Equipment Monitoring ProcedureA13-62

<u>APPENDIX 14</u> - School Services	A14-1
<u>Attachments:</u>	
A. Risk Schools' Evacuees, Bus Requirements/Availability, and Unmet Needs	A14-7
B. Student Pickup Points (Host Schools)	A14-8
C. Licensed Day Care Centers	A14-9
D. Licensed Group Day Care Home Services	A14-11
<u>APPENDIX 15</u> - Ingestion Exposure Pathway Emergency Planning Zone	A15-1
<u>Attachments:</u>	
A. Pathways for Ingestion	A15-14
B. Preventive and Emergency Protection Actions	A15-15
C. Information for Farmers	A15-19
D. Food Protection	A15-21
<u>APPENDIX 16</u> - Recovery (Reentry, Return, & Relocation)	A16-1
<u>Attachments:</u>	
A. Exclusionary and Restricted Zone Operating Procedures	A16-23
<u>APPENDIX 17</u> - Resource Requirements	A17-1
<u>Attachments:</u>	
A. Supply Request Form	A17-3
B. Municipal Supply Requisition	A17-4
C. Resource Index List	A17-5
<u>APPENDIX 18</u> - Training	A18-1
<u>APPENDIX 19</u> - Exercises and Drills	A19-1
<u>Attachments:</u>	
A. Scenario Development	A19-6
B. Biennial Exercise Assessment	A19-8
C. Drills	A19-10
<u>APPENDIX 20</u> - Agreements and Statements of Understanding	A20-1
<u>APPENDIX 21</u> - Supporting Plans and Implementing Procedures	A21-1
<u>APPENDIX 22</u> - Municipal Radiological Emergency Response Plans	A22-1
<u>APPENDIX 23</u> - Industrial Relations	A23-1
<u>Attachments:</u>	
A. Identified Industries in the EPZ	A23-3
B. Utilities	A23-4
C. Farmer/Emergency Worker Authorization Form/Industrial Worker Authorization Form ..	A23-5

D. Park and Recreation Areas Located in the EPZ	A23-6
---	-------

APPENDIX 24 - MapsA24-1

Attachments:

A. Plume Exposure Pathway EPZ (With sectors)	A24-2
B. Map of Risk Areas (Plume Exposure and Ingestion Pathway EPZ)	A24-3
C. Evacuation Plan Map	A24-4
D. Siren Locations.....	A24-5

Incident Specific Plan Maintenance and Concurrence

RADIOLOGICAL EMERGENCY RESPONSE PROCEDURES TO INCIDENTS AT THE PPL SUSQUEHANNA, LLC

1. PURPOSE

This incident specific plan establishes the response procedures and organization of Columbia County, which shall be followed, including public and private organizations within the county and by the people of the county, in preparing for and responding to emergencies stemming from an incident at the nuclear reactors located at PPL Susquehanna, LLC. This incident specific plan is part of and is to be used with the basic County Emergency Operations Plan. The Columbia County Plan adheres to the Commonwealth of Pennsylvania State Emergency Operations Plan (SEOP).

2. SCOPE

- A. To define the Columbia County Emergency Management Agency.
- B. To establish the concepts and policies under which elements of the county government and its municipalities will operate during an incident at PPL Susquehanna, LLC. This incident specific plan complies with federal guidelines and details procedures to be followed by public and private agencies in accordance with Incident specific plan of the Commonwealth Emergency Operations Plan (SEOP).
- C. To define the general interface between the counties and risk municipalities.
- D. To provide protection of the population within the plume exposure pathway EPZ (approximately a ten mile radius) of the nuclear power plant and for protective actions within the ingestion exposure pathway EPZ (50 mile radius) of the power plant in the event of a radiation incident to include: (1) alerting the population, (2) notifying the population of protective actions to take (sheltering, evacuation and Potassium Iodide usage), and (3) mobilizing county forces to support actions taken. This incident specific plan provides for the safe and timely evacuation of risk municipalities, if so required.
- E. Provide emergency response planning for protective measures to be used for agricultural, dairy, and food product control within the ingestion exposure pathway EPZ of a nuclear power plant.

3. SITUATION

- A. This incident specific plan establishes procedures for implementation of protective actions to be taken in that area of Columbia County, within the plume exposure pathway EPZ.
- B. An incident may require that the population within the plume exposure pathway EPZ seek shelter in-place or be evacuated or use Potassium Iodide (KI).

- C. Radioactive contamination may require protective measures concerning agricultural, dairy, and food product control within the ingestion exposure pathway EPZ.
- D. The offsite radiological consequences on the public are dependent upon the type of incident, the magnitude, type and duration, and of the release, the duration and mode of discharge, weather condition and topography.
- E. In the event of a release of radioactive material, the public could be affected by:
 - 1) External exposure to airborne radionuclides in the passing plume.
 - 2) Inhalation of radionuclides from the passing plume.
 - 3) Ingestion of contaminated foods, crops, milk, or water.
- F. Elected officials at each level of government are responsible for the health, safety, and well-being of persons and the protection of property within their jurisdictions.
- G. A total of **19,253** residents have been identified within the Columbia County portion of the EPZ. The population within each municipality is listed in Appendix 10.

4. ASSUMPTIONS

- A. The area potentially affected by a radiological release from PPL Susquehanna, LLC is approximately ten miles around the plant.
- B. This potential hazard creates the need for plans for various protective actions which include sheltering, evacuation, and KI issuance.
- C. Any protective action order will come from the Governor of the Commonwealth. County Commissioners in consultation with the County Emergency Management Coordinator, and PEMA, may recommend an evacuation of the county area affected.
- D. Sufficient time will be available if an evacuation is ordered.
- E. In the event of an incident at the plant, many residents will choose to evacuate without an official order or recommendation and will leave via routes other than those designated as official evacuation routes.
- F. At least 80 percent of all evacuees will relocate to private homes or motel facilities. A lesser percent of the population at risk will require housing at a mass care center. Mass care plans will be prepared for 20 percent of the risk population.
- G. Primary means of evacuation will be personal autos. Primary means of evacuation of school children and persons without transportation will be school or private buses.
- H. Transportation will be available for nonambulatory, critically ill, hospital patients, and other special cases via ambulance, buses, and other vehicles.
- I. All operational and support activities will be coordinated by the Pennsylvania Emergency Management Agency.

- J. Provisions will be maintained to provide adequate fire protection, security, and other life support.
- K. 50 miles downwind may be affected by the dispersion of radioactive material from the incident.
- L. "Unmet" needs of each level of government will be referred to the next higher level of government.
- M. The provisions of the Federal Disaster Relief Act of 1974 (Public Law 93-288), as amended by Public Law 100-707 (the Stafford Act), will apply if the nuclear power plant incident should result in a Presidential Declaration.

5. CONCEPT OF OPERATIONS

A. Governing Principle

These procedures are based on the premise of having the capability to take protective actions within the plume exposure pathway EPZ. All designated mass care centers (shelters) are located at least 20 miles from a nuclear plant. A basic assumption has been made that in the event of an evacuation the majority of the people within the plume exposure pathway EPZ will elect to relocate to relatives or friends. Mass care facilities will be developed for 20 percent of the population within the plume exposure pathway EPZ.

B. Source of Action Information

- 1) Pennsylvania Emergency Management Agency - Primary source.
- 2) Initial notifications of an emergency classification and escalations of classifications are transmitted from PPL Susquehanna, LLC to PEMA and the risk counties simultaneously by a dedicated telephone line.

C. Alternate Facility Notification

In the event of a breakdown in communications between PEMA and the risk counties, the Luzerne County Emergency Management Agency (parent county) will assume PEMA's role and serve as the source of information from PPL Susquehanna, LLC until communications can be reestablished.

- 1) PEMA will notify Columbia County Emergency Management Agency (EMA) of communications outages on SEVAN, or PPL Susquehanna, LLC will notify Columbia County EMA of the situation via phone line or FM Radio.
- 2) The Columbia County EMA calls PEMA to verify the outage.
- 3) The Luzerne County EMA initiates notification.
- 4) PEMA will contact the Columbia County EMA and advise when communications have been reestablished.

D. Method of Receipt of Action Information

- 1) Regular or special telephone equipment located in the County EOC.
- 2) Radio transmitting-receiver equipment.
- 3) The Pennsylvania Emergency Management Agency Electronic Communications (ECOMM) System installed in the Columbia County EOC.

E. Action by Initial Recipients

- 1) Acknowledge receipt of message and officially log or make written record of the information, including all key facts, type of emergency action, source, method, date, and time of receipt. Telephone messages shall include name and general identification of the individual calling, together with a telephone number to which a return telephone call can be made.
- 2) Furnish the information received either in person, by telephone, or by other appropriate means, to one of the first available persons listed below:
 - a) County Emergency Management Coordinator
 - b) County Emergency Management Deputy Coordinator
 - c) Director of Public Safety
 - d) Chairman, Columbia County Commissioners
 - e) First available Columbia County Commissioner
- 3) Take such further actions as the receiving official above may direct. The names and points of contact, including office and home telephone numbers, of the above listed officials are posted in the Columbia County 911 center.
- 4) Officially log or make other written record of the name and title of the official to whom the message was delivered to include the date and time of its delivery.

F. Emergency Response Actions

- 1) In the event of an incident at PPL Susquehanna, LLC, Columbia County will base its response actions on the incident classification scheme shown in the emergency action level guidelines found at Enclosure 5, Basic Incident Specific Plan.
- 2) Staffing of the emergency response positions will be in accordance with the county EOP.

G. Operations

1) Unusual Event

- a) Acknowledge and log notification message. (Verify message if received other than dedicated PPL Susquehanna, LLC line conference call.)
- b) Deploy emergency fire, rescue, police, and ambulance services to site if requested, and continue normal operations.
- c) County 911 center notifies Columbia County Emergency Management Coordinator or assistant. County EMC notifies county commissioners and risk municipalities.
- d) Provide courtesy notification to risk EMA's via pager.

2) Alert

- a) Acknowledge and log notification message. (Verify message if received other than dedicated PPL Susquehanna, LLC line conference call.)
- b) If initial notification is of an Alert, take the response actions under Unusual Event and those listed below. When notification is of an escalation to Alert, review the checklist items under the Unusual Event and ensure actions are underway or completed and then proceed with the actions under the Alert classification.
- c) Notify
 - (1) EMA Coordinator or alternate
 - (2) County Commissioners
 - (3) Risk municipalities
 - (4) Fire department, police departments, ambulance companies
 - (5) County EOC staff members (as required)
 - (6) Risk school districts, private schools
 - (7) Health care and other public/private institutions
 - (8) Local chapters, American Red Cross
- d) Bring to operational status
 - (1) County EOC
 - (2) RACES/ARES and EAS
 - (3) County public inquiry center
 - (4) Radio communications with risk municipalities, support counties, contiguous counties

- e) Place on standby status
 - (1) Route alert teams
 - (2) School buses and drivers
 - (3) Bloomsburg Chapter American Red Cross, county mass care centers
 - (4) TCP/ACP personnel
 - (5) Monitoring/decontamination teams
- f) Provide nontechnical support assistance to BRP, if requested.
- g) Municipalities and support agencies deliver Control PRDs to the Columbia County EOC.
- h) Consider activating the public alert/notification system. PEMA will coordinate with the risk counties and advise the county EMCs to activate the alert/notification system (including EAS) when:
 - (1) The release of significant information will reassure the public of their safety.
 - (2) The public is to be informed of a plant status that may lead them to implement specific actions on their own.
 - (3) Specific actions, to include protective actions, are to be taken by the public.
- i) If PEMA loses all communications, Luzerne County will coordinate the activation of sirens with Columbia County. If both PEMA and Luzerne County are unable to communicate with Columbia County, Columbia County will act on its own initiative based on information provided by the power plant or BRP. When communications are restored, the counties will coordinate with PEMA prior to implementation of any protective actions.
- j) Coordinate broadcasting EAS announcements with PEMA and Luzerne County EMA as soon as public alert/notification system is activated. EAS announcements are used only for the dissemination of emergency information and directions.
- k) Deploy municipal route alerting, if necessary, each time the public alert/notification system is activated.
- l) Confirm that PEMA EOC has notified support counties.
- m) Report county unmet needs to PEMA.
- n) Consider sending county representative to risk municipalities to assist as necessary.

3) Site Area Emergency

- a) Acknowledge and log notification message. (Verify message if received other than dedicated PPL Susquehanna, LLC line conference call.)
- b) If initial notification is of a Site Area Emergency, take the response actions under Unusual Event and Alert, and those listed below. When notification is of an escalation to a Site Area Emergency, review the checklist items under the Unusual Event and the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- c) Mobilize
 - (1) County and municipal EOC staffs
 - (2) Fire departments, police departments, ambulance companies
 - (3) Bloomsburg and Berwick Chapters, American Red Cross
 - (4) RACES/ARES
 - (5) Monitoring/decontamination teams, report to assigned centers or stations
- d) Confirm that mass care centers for emergency workers within the county are placed on operational status. Confirm that mass care centers in the support counties have been placed on operational status.
- e) Public information statements are issued to inform the public regarding emergency management issues. PEMA will coordinate information with the nuclear power plant, the Governor's Office, and the County Public Information Officers.
- f) Counties coordinate with PEMA prior to implementation of any protective actions. In the event that protective action becomes necessary, the public notification system (sirens) will be activated, followed immediately by an appropriate prewritten EAS announcement shown in Appendix 4. PEMA will coordinate with the risk counties and specify the time to activate the sirens. EAS announcements for radiological emergency response should not be made until after sirens are activated. EAS announcements are used only for the dissemination of emergency instructions and directions.
- g) Activate transportation staging areas.
- h) Risk school district superintendents and county transportation support agencies are notified to place buses and drivers needed for evacuation on standby status at school locations.
- i) Issue dosimetry and KI to emergency workers.
- j) Issue radiological monitoring/decontamination kits to emergency workers' monitoring/decontamination stations and provide radiological briefing.

- k) Upon notification by PEMA, ensure municipal access control points and municipal traffic control points are operational.
 - l) Notify farmers to prepare to shelter livestock.
 - m) Instruct municipal EOCs to perform route alerting after the sirens are sounded.
 - n) Consider sending county representative to risk municipalities.
- 4) General Emergency
- a) If initial notification is of a General Emergency, take the response actions under Unusual Event, Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Unusual Event, the Alert, and the Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.
 - b) Mobilize
 - (1) Emergency Worker Mass Care Centers within county
 - (2) TCPs/ACPs
 - c) Shelter/Evacuate, if instructed
 - (1) General public
 - (2) School districts, schools
 - (3) Health care and other public or private institutions
 - (4) Notify farmers to shelter livestock.
 - d) Relocate, if necessary
 - (1) County and municipal EOCs
 - (2) Seats of government
 - (3) Fire and police departments, and ambulance companies
 - e) Counties coordinate with PEMA prior to implementation of any protective actions. In the event that protective action becomes necessary, the public alert system will be activated, followed immediately by an appropriate prewritten EAS announcement shown in Appendix 4. PEMA will coordinate with the risk counties and specify the time to activate the sirens. EAS announcements for radiological emergency response should not be made until after sirens are activated to alert the public. EAS announcements are used only for the dissemination of emergency instructions and directions.

- f) If PEMA loses all communications, Luzerne County will coordinate the activation of sirens with Columbia County. If both PEMA and Luzerne County are unable to communicate with Columbia County, Columbia County will act on its own initiative based on information provided by the power plant or BRP. When communications are restored, the counties will coordinate with PEMA prior to implementation of any protective actions.
- g) PEMA continues to provide coordinated media briefings.
- h) Support evacuation pickup points for persons without transportation as required.
- i) If the initial notification from the facility or PEMA is a General Emergency, PEMA and the risk counties have the authority to advise the public to take protective actions.
- j) Notify the State EOC when the county portion of the risk EPZ is evacuated.
- k) Consider sending a county representative to risk municipalities.

6. RESPONSIBILITIES

- A. The overall responsibility for decision making within Columbia County rests with the county commissioners who have the ultimate responsibility for the protection of life and property within the county. However, the decision to compel an evacuation can only be ordered by the Governor of the Commonwealth of Pennsylvania. County commissioners may recommend evacuation, but they may not compel it. The county commissioners have appointed an emergency management coordinator to be responsible for overall coordination of radiological emergency response planning and to act as their spokesperson for activities involving emergency response to an incident at PPL SUSQUEHANNA, LLC. The emergency management coordinator is responsible for ensuring that annual review and revision of county and municipal plans are accomplished, and certifying them to be current.
- B. Federal Responsibilities
 - 1) The Nuclear Regulatory Commission (NRC) regulates all nuclear power facilities in the Commonwealth of Pennsylvania.
 - 2) The NRC will provide technical guidance and advice to the state in the event of a nuclear incident.
 - 3) The Department of Homeland Security coordinates support provided by federal agencies.
- C. State Responsibilities
 - 1) The Pennsylvania Emergency Management Agency (PEMA) is the lead agency in the state for coordination of emergency response to nuclear facility incidents.

- 2) The Bureau of Radiation Protection (BRP) of the Department of Environmental Protection (DEP) provides technical assessment and advice.
- 3) PEMA provides a liaison officer to the county EOC during exercises and incidents.

D. County Responsibilities

- 1) Develop and maintain a comprehensive site-specific county RERP in consonance with Incident specific plan to the Commonwealth Emergency Operations Plan (EOP). Review and update the county RERP at least annually and coordinate changes with PEMA.
- 2) Identify county emergency organizations and personnel resources and request that they develop procedures in support of the RERP.
- 3) Identify personnel to staff and augment the county Emergency Management Agency. Assign functional responsibilities essential to planning, implementation of the RERP, and activation of the EOC if an incident should occur. Sufficient personnel must be identified to staff positions on a 24-hour basis. Callout will be for 100% of the EOC staff and upon briefing, shift responsibilities will be assigned.
- 4) Establish, equip, and maintain an EOC.
- 5) Develop a system for rapidly notifying county and municipal government heads, key EMA staff, emergency forces, volunteer organizations, school districts, private schools and colleges, and hospitals, nursing homes, child care facilities, group homes, and county detention facilities.
- 6) Develop provisions for the notification of transient population, hearing impaired, and non-English speaking persons.
- 7) Verify, in coordination with the utility, that the public notification system within the approximate 10-mile plume exposure pathway EPZ is operable on a 24-hour basis.
- 8) Coordinate with and assist district school superintendents and private school administrators in the development of their respective emergency response procedures and plans.
- 9) Assist hospitals, nursing homes, and other public institutions to develop their procedures for protective response. Review these procedures for adequacy and to ensure consonance with this county RERP. Ensure that municipalities develop procedures for assisting disabled and mobility impaired individuals.
- 10) Coordinate with PEMA regarding procedures for the evacuation of hospitals and institutions operated by the Department of Public Welfare.

- 11) Coordinate development of plans for the evacuation of county-operated prison and detention facilities and review these plans to verify consonance with this county plan.
- 12) Coordinate with business and industry in the development of their emergency response procedures and plans.
- 13) Coordinate with PEMA to verify that power plant plans, for the evacuation and reception of on-site personnel, do not conflict with county evacuation procedures.
- 14) Coordinate selection of feeder evacuation routes, traffic control points, and recommended changes in main evacuation routes with PEMA, the PSP, and the Department of Transportation.
- 15) Develop response procedures to provide emergency fuel and road clearance along municipal evacuation routes.
- 16) Coordinate with PEMA and respective support counties to identify:
 - a) Traffic control points
 - b) Mass care centers
 - c) Central resource receiving point(s)
- 17) Coordinate procedures, in conjunction with PEMA, with designated support counties for the movement and reception of evacuees.
- 18) Establish the requisite number of monitoring/decontamination station(s) for emergency workers.
- 19) Prepare response procedures for distribution or predistribution of radiological equipment. If not predistributed, provide for complete distribution to risk municipalities and support agencies within two hours of an Alert declaration. Provide for processing of control PRDs. (See Appendix 13).
- 20) Prepare response procedures for the distribution of a thyroid-blocking agent (procured by the Commonwealth) to off-site emergency workers and institutionalized personnel in coordination with PEMA and the Department of Health.
- 21) Maintain response procedures for the radiological monitoring and decontamination of emergency workers at emergency worker decontamination stations within the risk county.
- 22) Provide for radiological emergency response training, in coordination with PEMA, of county and municipal personnel who would be utilized for emergency operations during an incident.

- 23) Assist the utility and coordination with PEMA, disseminate public information material to the permanent and transient population, which would include, but not be limited to, information concerning:
 - a) The plume exposure pathway EPZ
 - b) Main evacuation routes
 - c) Mass care centers
 - d) Protective actions
 - e) Contact points for additional information
 - f) Special arrangements for the mobility impaired
 - g) Educational information on radiation
 - h) The ingestion exposure pathway EPZ
- 24) Assist the utility and PEMA in updating the above material annually.
- 25) Prepare and maintain information concerning protective actions; establish procedures for transmittal of this information to the public through the Emergency Alert System.
- 26) Prepare for opening a county public inquiry center.
- 27) Participate in a State-county-nuclear power plant news media conference held with risk counties around the respective nuclear power plant in conjunction with the biennial exercise and the annual exercise.
- 28) Conduct periodic communications drills; participate in drills and exercises held by PEMA and the nuclear power plants and in the federally required biennial exercises.
- 29) Participate in off-site training provided by the nuclear power plants as specified in Appendix 18.
- 30) Maintain a current listing, with copy to PEMA, of unmet personnel and equipment needs.
- 31) Designate and develop procedures for operation of a central resource receiving point.
- 32) Plan security for areas where the public is taking shelter or evacuating, in coordination with PEMA, the PSP, and the National Guard.
- 33) Designate the location of the alternate EOC, if necessary.

- 34) Prepare detailed procedures for a controlled reentry into the evacuated area in coordination with PEMA and PSP.
- 35) Maintain records and reports acquired during an incident, prepare after-action reports, and participate in critiques.
- 36) Coordinate planning for nuclear power plant incident response with the risk municipalities within the county. Assist in the development of risk municipal emergency operations plans.

E. Municipal Responsibilities:

- 1) Maintain a radiological emergency response plan in consonance with the county procedure.
- 2) Provide for and equip an emergency operations center (EOC), and designate a qualified emergency management coordinator and a staff to man the center, on a 24-hour basis, when mobilized.
- 3) Provide initial and refresher training of the municipal EMA staff and other emergency workers and maintain system for record retention and insure personnel are duly enrolled.
- 4) Provide for a system of rapidly notifying municipal government heads, key EMA staff, emergency workers, and volunteer support organizations.
- 5) Designate a line of succession for municipal officials.
- 6) Provide route alerting teams to supplement, as necessary, the Alert Notification System (ANS) (sirens).
- 7) Maintain a current list of the names and addresses of homebound and mobility impaired persons with special medical and transportation requirements, persons with hearing impairment, and non-English speaking persons.
- 8) Confirm that schools and hospitals within the municipality have been notified. Notify child care facilities, group homes, and transient areas.
- 9) Provide for transportation pick-up points for the evacuation of persons within the municipality without their own transportation means.
- 10) Ensure that dosimetry, other radiological equipment, and a thyroid-blocking agent are properly secured and ready for issue (if predistributed) and to provide for the processing of the control PRD.
- 11) Designate, in coordination with the County, municipal traffic control points (TCPs) and access control points (ACPs), as necessary.
- 12) Designate a central municipal resource receiving point.
- 13) Maintain a municipal resource listing of items required to support the plan.

- 14) Maintain a current listing, with a copy to the county, of unmet personnel and equipment needs.
- 15) Maintain procedures to facilitate return of evacuees after reentry is authorized.
- 16) Participate in drills and exercises conducted by the County, PEMA, the nuclear power plant, and in the federally required biennial exercise.

F. State Police

- 1) Provide a liaison person to the county EOC.
- 2) Provides traffic control requirements and security in areas where State Police already have such responsibility.

G. National Guard

Provide liaison personnel to county EOC for coordination of National Guard missions.

H. State Department of Agriculture

Develop procedures for protection of food production control in the ingestion exposure pathway EPZ.

I. Pennsylvania Department of Transportation

- 1) Provide liaison person to the County EOC.
- 2) Provide assistance in clearing impediments from evacuation routes.

J. Bloomsburg and Berwick Chapters of the American Red Cross

- 1) Provide a liaison person to the County EOC.
- 2) In accordance with current agreements, the Red Cross Chapter operates and provides services at the county mass care centers.

K. County Staff Assignments

- 1) Emergency Management Coordinator (Incident Commander)
 - a) Act as the chief of staff for the county commissioners, direct the staff; coordinate the activities of the emergency forces and brief county commissioners.
 - b) Receive, evaluate, and disseminate information.

- c) Maintain plans and training programs for response to nuclear power plant incidents according to state and federal guidelines. All plans will be updated on an annual basis.
 - d) Maintain contracts and other agreements necessary to provide adequate support for emergency operations.
- 2) Communications (Operations) ESF-2
 - a) Receive and disseminate alert/notification information.
 - b) Maintain communications with PEMA, the Eastern Area Office of PEMA, the PPL SUSQUEHANNA, LLC nuclear power plant, municipalities within the county, support counties, and with key county governmental activities and field units.
 - c) Coordinate utilization of RACES.
 - d) Coordinate with other county staff groups.
- 3) Fire/Rescue Services Officer (Operations) ESF-4, 9, and 10.
 - a) Supply information and advice on fire and rescue matters.
 - b) Coordinate liaison with municipal fire and rescue staff groups throughout the county.
 - c) Coordinate disaster emergency operations carried out by fire and rescue organizations within the county.
 - d) Assure municipal preparations to execute route alerting are in progress. Monitor municipality's route alerting during an emergency.
 - e) Coordinate with other county staff groups.
- 4) Police Services Officer (Operations) ESF-13
 - a) Supply information and advice on law enforcement matters.
 - b) Provide liaison with municipal police staff groups throughout the county concerning law enforcement, traffic control, and security.
 - c) Provide liaison with National Guard, Army Reserve, and other similar agencies.
 - d) Conduct general coordination of disaster emergency operations carried out by municipal police organizations within the county.
 - e) Coordinate the manning of TCPs with the state police and municipal police.
 - f) Coordinate with other county staff groups.

- 5) Health/Medical Services Officer (Logistics) ESF-8
 - a) Supply information and advice on medical and health matters.
 - b) Coordinate with municipal medical and health staff groups throughout the county.
 - c) Coordinate disaster operations carried out by medical and health organizations and ambulance units within the county to include the evacuation of medical facilities and nursing homes, if required.
 - d) Coordinate with other county staff groups.
- 6) Mass Care/American Red Cross (ARC) Officer (Logistics) ESF-6
 - a) Supply information and advice on mass care matters to the Berwick and Bloomsburg Chapters of the American Red Cross.
 - b) Coordinate with the Berwick and Bloomsburg Chapters of the American Red Cross representatives responsible for mass care activities.
 - c) Monitor the mass care centers within the county operated by the ARC.
 - d) Maintain mass care center agreements.
 - e) Coordinate with other county staff groups.
- 7) Resources Manager/Public Works Officer (Logistics) ESF-3
 - a) Supply information and advice on public works and engineering matters.
 - b) Coordinate with municipal public works, utility, and engineering staff groups throughout the county.
 - c) Coordinate municipal disaster public works and engineering operations carried out within the county.
 - d) Manage resources and conduct damage assessment.
 - e) Coordinate establishment of Central Resources Receiving Point.
 - f) Coordinate with other county staff groups.
- 8) Transportation Officer (Logistics) ESF-1
 - a) Supply information and advice on transportation matters.
 - b) Coordinate transportation support with school and key transportation industry representatives throughout the county.

- c) Coordinate transportation resources for disaster emergency operations involving inter-municipal transport of people and materials.
 - d) Establish Transportation Staging Area.
 - e) Coordinate with other county staff groups.
 - f) Advise school district superintendents and the directors of private schools and colleges to prepare their own plans using private resources to maximum extent feasible, and to notify the County Emergency Operations Center of any unmet emergency resource requirements.
- 9) Public Information Officer (Command Staff) ESF-15 (External Affairs)
- a) Supply information and advice on public information matters.
 - b) Provide liaison with news media organizations throughout the county.
 - c) In coordination with PEMA, prepare for public release of emergency information and instructions, as directed by the county commissioners.
 - d) Prepare and distribute public information materials prior to an emergency.
 - e) Coordinate EAS messages.
 - f) Establish a public inquiry center.
 - g) Coordinate with other county staff groups.
- 10) Radiological Protection Officer (Operations) ESF-10
- a) Establish contact with the State Radiological Officer and supply information and advice on radiological matters.
 - b) Receive and maintain incident assessment reports.
 - c) Coordinate the distribution of dosimetry and KI, if not predistributed. Maintain, protect from above background exposure, and process Control PRD. Deliver Control PRD and Control PRD Form to PEMA when instructed.
 - d) During the emergency, serve as the source of information regarding personal dosimetry readings of emergency workers.
 - e) Upon termination of the emergency, collect dosimetry, KI, and emergency workers Dosimetry-KI Report Forms.
 - f) Coordinate monitoring/decontamination station and center operations.
 - g) Distribute dosimetry/KI to outside agencies as required.

h) Coordinate with other county staff groups.

11) USDA Food Agriculture Council (FAC)/County Emergency Board (CEB) Representative (Logistics) ESF-11

a) Supply information and advice on agriculture and food processing matters.

b) Coordinate with State Department of Agriculture/State Emergency Board.

c) In case of an evacuation, designate farmers who need to reenter the evacuated area as emergency workers, and issue them dosimetry-KI in coordination with the county radiological officer (RO).

L. Support Procedures

- 1) Any order to evacuate will come from the Governor. County commissioners and/or county EMA coordinator may recommend an evacuation.
- 2) Instructions to citizens, control of emergency operations, disaster assistance, protective actions etc., will be accomplished by the lowest level of government affected, in coordination with the county emergency management agency.
- 3) The Bureau of Radiation Protection of the Department of Environmental Protection will serve as the technical authority on radiation for the Commonwealth. All such information will be transmitted to the county through PEMA.
- 4) The Central Resource Receiving Point and the Transportation Staging Area is the Bloomsburg fairground, (the Bloomsburg Airport is also available if required), Bloomsburg, Pennsylvania.

M. Contingencies

- 1) If a county is unable to respond to a nuclear power plant incident, the provisions of Section 7504(a) of the Pennsylvania Emergency Management Services Code (35 Pa. C.S.), as amended, will be invoked automatically and the State becomes immediately responsible for the coordination and support of response activities within the affected county.
- 2) If a municipality is unable to respond to a nuclear power plant incident, the provision of Section 7504(a) of the Pennsylvania Emergency Management Services Code (35 Pa. C.S.), as amended, will be invoked automatically and the county becomes immediately responsible for the coordination and support of response activities within the affected municipality.
- 3) The above actions are required to ensure that the health and safety of persons within the county and municipality will be protected. PEMA may, if necessary, direct the county to discharge this responsibility in accordance with the authority granted to PEMA by Section 7313(7) of the Pennsylvania Emergency Management Services Code (35 Pa. C.S.) as amended.

- 4) In order to discharge the above listed responsibilities, the Columbia County EMC may request police, fire, and ambulance/rescue forces from neighboring non-risk municipalities to accomplish route alerting, notification of the public, evacuation of homebound persons, operation of pick-up points for persons without transportation, and operation of municipal TCP/ACPs. Communications with the augmentation forces will be by telephone and Amateur Radio.

7. AUTHORITY AND REFERENCES

A. Authority

This Incident specific plan is issued under the authority of and in accordance with the provisions of the Pennsylvania Emergency Management Services Code (35 Pa. C.S.), as amended.

B. References

- 1) U.S. Nuclear Regulatory Commission and the Federal Emergency Management Agency, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654, FEMA-REP-1, Rev. 1, November 1980.
- 2) Nuclear/Radiological Plan to the Commonwealth of Pennsylvania Emergency Operations Plan.
- 3) Commonwealth of Pennsylvania, State Emergency Operations Plan.
- 4) Commonwealth of Pennsylvania Radiological/Nuclear Plan.
- 5) Pennsylvania Emergency Management Services Code with amendments.
- 6) Pennsylvania Code, Title 4, Part I, Chapter 3, Subchapter C, "Emergency Management Responsibilities of Departments and Agencies."
- 7) Pennsylvania Emergency Alerting System (EAS), Operations Plan for the Commonwealth of Pennsylvania.
- 8) PPL Susquehanna, LLC Emergency Plan for the Susquehanna Steam Electric Station, Units 1 and 2.
- 9) DEP/BRP

8. DEFINITIONS

- A. Access Control Points (ACP) - Manned points established primarily by State or municipal police, augmented as necessary by the National Guard, around the perimeter of the plume exposure pathway EPZ on roads leading into it for the purpose of controlling access into the area.

- B. Acknowledge(ment) - Timely affirmation by the addressee of receipt of a message or announcement.
- C. Activate - To start or place into action an activity or system.
- D. Alert - A warning signal by sound, indicating imminent danger or risk. (For use in context with this document: The siren alert signal - a three to a five minute steady tone signifying that the general public in the risk emergency planning zone (EPZ) should tune in to the Emergency Alert System (EAS) on their radios or TV sets for an important message. Note: Not to be confused with the "Alert Classification" used by nuclear power plants.)
- E. Central Resource Receiving Point - A predesignated location outside the plume exposure pathway EPZ suitable for the reception and distribution of supplies and equipment. These facilities are designated and operated by the respective risk and support counties.
- F. Control - To exercise authority with the ability to influence actions, compel, or hold in restraint. (For use in context with this document: 35 Pa. C.S., as amended, clarifies and strengthens the role of the Governor by granting him authority to issue executive orders and disaster proclamations which have the force and effect of law when dealing with emergency disaster situations and controlling operations.)
- G. Coordination - Arranging in order, activities of equal importance to harmonize in a common effort. (For use in context with this document: authorizing and/or providing for coordination of activities relating to emergency disaster prevention, preparedness, response, and recovery by State, local governments, and Federal agencies; for nuclear power plant operations/incidents in which the Commonwealth and its political subdivisions participate.)
- H. County Emergency Board (CEB) - Also known as the County Food and Agricultural Council (FAC). A board comprised of USDA organizations at county level, specifically: Agricultural Stabilization and Conservation Service (ASCS), Cooperative Extension Service (CES), Farmers' Home Administration (FmHA), and Soil Conservation Service (SCS).
- I. Deploy - To move to the assigned location in order to start operations.
- J. Direction - Providing authoritative guidance, supervision, and management of activities/operations along a prescribed course to reach an attainable goal. (For use in context with this document: promulgation of Incident Specific Plan to the Commonwealth EOP, which establishes standardized policies, guidance, and radiological procedures for preparedness and emergency response to nuclear power plant incidents; supplemented by correspondence and verbal discourse to ensure progress in the right direction.)

- K. Emergency Alert System (EAS) Announcements - Official announcements made at the county level for the specific purpose of providing information, instructions, or directions from the County Commissioners, or their designated official representative, to the permanent and transient residents of the county. Announcements are made over the legally designated EAS network. EAS announcements at the State levels are made only when they are applicable statewide. Priorities for EAS announcements are specified in law; first priority to the Federal government, second priority to county governments, and third priority to State governments. Restriction on use of EAS announcements does not preclude appropriate use of newspapers, radio, and television for public information statements.
- L. Emergency Management - The judicious planning, assignment, and coordination of all available resources in an integrated program of prevention, mitigation, preparedness, response, and recovery for emergencies of all kind, whether from enemy attack, man-made, or natural sources.
- M. Emergency Operations Center (EOC) - Specific facility equipped for long-term operation and designated for use by the Emergency Management Agency to direct operations in the event of an emergency condition or incident.
- N. Emergency Planning Zone (EPZ) - A generic area defined about a nuclear power plant to facilitate offsite emergency planning and develop a significant response base. It is defined for the plume and ingestion exposure pathways.
- O. Emergency Preparedness Liaison Officer (EPLO) - A person designated by the Secretary/Director of a Commonwealth Department/Agency who will represent the Department in the State EOC with authority to respond to the directions of the Governor or the Executive Officer in charge of carrying out the decisions of the Governor and coordinating the response activities of all Departments/Agencies and utilization of their resources.
- P. Facility Operator - The management person responsible for the operation of a nuclear power plant.
- Q. Food and Agricultural Council (FAC) - See County Emergency Board.
- R. Host School - Pre-determined schools to which risk school students are evacuated, at which they remain under the risk school officials' supervision until they are picked up by their parents or legal guardians.
- S. Ingestion Exposure Pathway EPZ - That area surrounding a nuclear power plant which, as a result of a release of radioactive material, is a potential source of exposure through the ingestion of water and foods, such as milk or fresh vegetables, originating there. This EPZ consists of a circular area of 50 miles radius around the nuclear power plant.
- T. Mass Care Centers - Fixed facilities suitable for providing emergency lodging and all essential social services and capable of providing for victims of disaster left temporarily homeless. Feeding may be done within a mass care center (in suitable dining facilities) or nearby.

- U. Mobilize - To augment staff and resources in order to accomplish the mission on a 24-hour/day basis.
- V. Mode of Discharge - Means or methods by which radiocontaminants are transmitted to the ground surface, surface water, the atmosphere, or any combination thereof.
- W. Municipality - For the purpose of this Incident Specific Plan, the terms "municipality" or "municipal government" are defined as referring, singularly or collectively, to cities, boroughs, townships, and incorporated towns within the Commonwealth of Pennsylvania; in this Incident Specific Plan "municipality" does not include counties.
- X. Notification - To make known or inform. For use in context with this document: to transmit emergency information and instructions to Emergency Management Agencies, staff and associated organizations. Also, announcements over the Emergency Alert System to the general public immediately after the sirens have been activated.
- Y. Notify - To inform about a condition, event, or situation.
- Z. Nuclear Power Plant Incident (hereinafter called an "incident") - An incident is an event or condition at a nuclear power plant which could result in impact on public health and safety. Four incident classes have been identified; from the least serious to the most serious they are: Unusual Event, Alert, Site Area Emergency, and General Emergency. (Note: Site Area Emergency or General Emergency classification levels are not to be confused with a "Declaration of Disaster Emergency" made by the Governor in accordance with 35 Pa. C.S.) Within each class there are specific emergency responses necessary to ensure that public health and safety are protected. Descriptions of the four emergency classification levels are as follows:
 - 1) Unusual Event

Events are in progress or have occurred, that indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection. No release of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occur.
 - 2) Alert

Events are in progress or have occurred, that indicate actual or potential substantial degradation of the level of safety at the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Any release of radioactive material are expected to be limited to small fractions of the Environmental Protection Agency (EPA) Protective Action Guidelines (PAG) exposure levels.

3) Site Area Emergency

Events are in progress or which have occurred, that involve actual or likely major failure of plant functions needed for protection of the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Any releases of radioactive material are not expected to exceed EPA PAG exposure levels except near the site boundary.

4) General Emergency

Events are in progress or have occurred, that involve actual or imminent substantial core degradation or melting with potential loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases of radioactive material can be reasonably expected to exceed EPA PAG exposure levels off-site for more than the immediate area.

- AA. Operational - Capable of accepting mission assignments at an indicated location with partial staff and resources.
- BB. Parent County - The county in which the nuclear power plant is physically located.
- CC. Plume Exposure Pathway EPZ - The area surrounding a nuclear power plant which potentially is subject to radiation exposure as a result of an incident involving radioactive material emanating from the facility. Such potential exposure could involve: (a) whole body exposure to gamma radiation from the plume and from deposited materials, and (b) inhalation exposure from the passing radioactive plume. The EPZ for this pathway consists of an area of approximately ten miles in radius around nuclear power plant. (The exact size and configuration of each plume exposure pathway EPZ for the respective nuclear power plant in Pennsylvania were determined in relation to local emergency response needs and capabilities as they are affected by conditions such as demography, topography, access routes, and jurisdictional boundaries. Plume exposure pathway EPZs for the nuclear power plants are shown in Appendix 24.)
- DD. Political Subdivision - Any county, city, borough, township, or incorporated town within the Commonwealth.
- EE. Projected Dose - An estimate of the radiation dose which affected individuals could potentially receive if protective actions are not taken.
- FF. Protective Action - An action taken to avoid or reduce a projected dose of radiation. (Sometimes referred to as a radiation exposure level or range established by appropriate Federal or State agencies beyond which protective actions should be considered.)
- GG. Protective Action Guide (PAG) - An Environmental Protection Agency (EPA) preestablished projected radiation dose to individuals which warrants protective action.

- HH. Public Information Statements - Public announcements made by PEMA or county official spokespersons via newspapers, radio, or television to explain government actions being taken to protect the public in the event of any public emergency. The purpose of the announcement is to provide accurate information, prevent panic, and counteract misinformation and rumors. Reference to the emergency situation itself will be made only in the context of the reasons for governmental actions, and not to provide detailed information about it.
- II. Radiological Emergency Response Plan (RERP) - Detailed emergency response procedures, guidance, and responsibilities developed in advance by State Department/Agencies, risk and support counties with the objectives of protection of the people from personal injury or loss of life and mitigation of damage or loss of property resulting from a nuclear power plant incident(s).
- JJ. Reception Center - A predesignated site outside the plume exposure pathway EPZ through which evacuees needing mass care support will pass to obtain information and directions to mass care centers. A reception center may be located in either a risk or support county.
- KK. Recovery - The generic term used for the overall process of decontamination and/or restoration of vital services and infrastructure to allow for resumption of normal activity in areas in which protective actions have been implemented.
- LL. Reentry - The temporary return of those authorized by the Governor for a prescribed period into the exclusionary or restricted zones.
- MM. Relocation - A protective action implemented during the recovery whereby evacuees or sheltered individuals residing in area exceeding relocation PAGs are removed and/or excluded from return to restricted zones until directed by the Commonwealth and are accommodated at a new location for an extended period - months to years.
- NN. Return - The permanent return of citizens, businesses, governments, and institutions to their dwellings, places of employment, or operating sites after restricted areas have been determined by the Commonwealth to be safe for occupancy.
- OO. Risk Counties - Those counties located partially or wholly within the plume exposure pathway EPZ of a nuclear power plant.
- PP. Risk School District - A school district located partially or wholly within the plume exposure pathway EPZ of a fixed nuclear facility including parochial and private schools served by public school transportation.
- QQ. Route Alerting - This is a supplement to the siren system and is implemented, as necessary, in the event of siren failure or to alert persons or areas which may not be within the sound of the sirens. Route alerting is a municipal responsibility and is accomplished by municipal route alert teams traveling in vehicles along preplanned routes delivering the following message: "There is an emergency at the (nuclear power plant); please tune to your Emergency Alert Station."

- RR. Sheltering - Action by the public to take advantage of the protection against radiation exposure afforded by remaining indoors, away from doors and windows, during and following the passage of the radioactive plume.
- SS. Standby - To be ready to perform but awaiting at home or other location for further instructions.
- TT. Declaration of Disaster Emergency - A declaration of disaster emergency exists whenever the Governor issues a proclamation of disaster emergency. A disaster emergency shall be declared by executive order or proclamation of the Governor at any time upon finding that a disaster has occurred or that the occurrence or the threat of a disaster is imminent. The disaster emergency continues until the Governor finds that the threat or danger has passed and terminates it by executive order or proclamation, but no declaration of disaster emergency may continue for longer than 90 days unless renewed by the Governor. The term, declaration of disaster emergency, is not to be confused with the emergency classification terms called Site Area Emergency and General Emergency.
- UU. Support - To act in a secondary or subordinate role to a primary activity by providing a means of maintenance or sustainment to keep the activity from failing under stress. (For use in context to this document: providing "unmet" needs, unforeseen requirements for supplies, equipment, services, advice, training, etc.; a support county providing mass care for a risk county.)
- VV. Support County - The county or counties outside the plume exposure pathway EPZ of a nuclear power plant that, through prior arrangement, will provide support to a risk county in the event of an incident. Depending on size and location, the same county may be both a risk and support county.
- WW. Traffic Control Points (TCP) - Manned posts established at critical road junctions for the purpose of controlling or limiting traffic. TCPs are used to control evacuation movement and also to limit entry into a nuclear power plant facility when an emergency situation requires it.
- XX. Unmet Needs - Capabilities and/or resources required to support emergency operations but neither available nor provided for at the respective levels of government.
- YY. Verification - Follow up by the addressee to confirm understanding of the contents of a message or announcement.

9. DISTRIBUTION

- A. Distribution of the Columbia County Radiological Emergency Response Plans is as follows:
- 1) Columbia County Commissioners (3)
 - 2) The municipalities of Columbia County located within the plume exposure pathway EPZ (8)

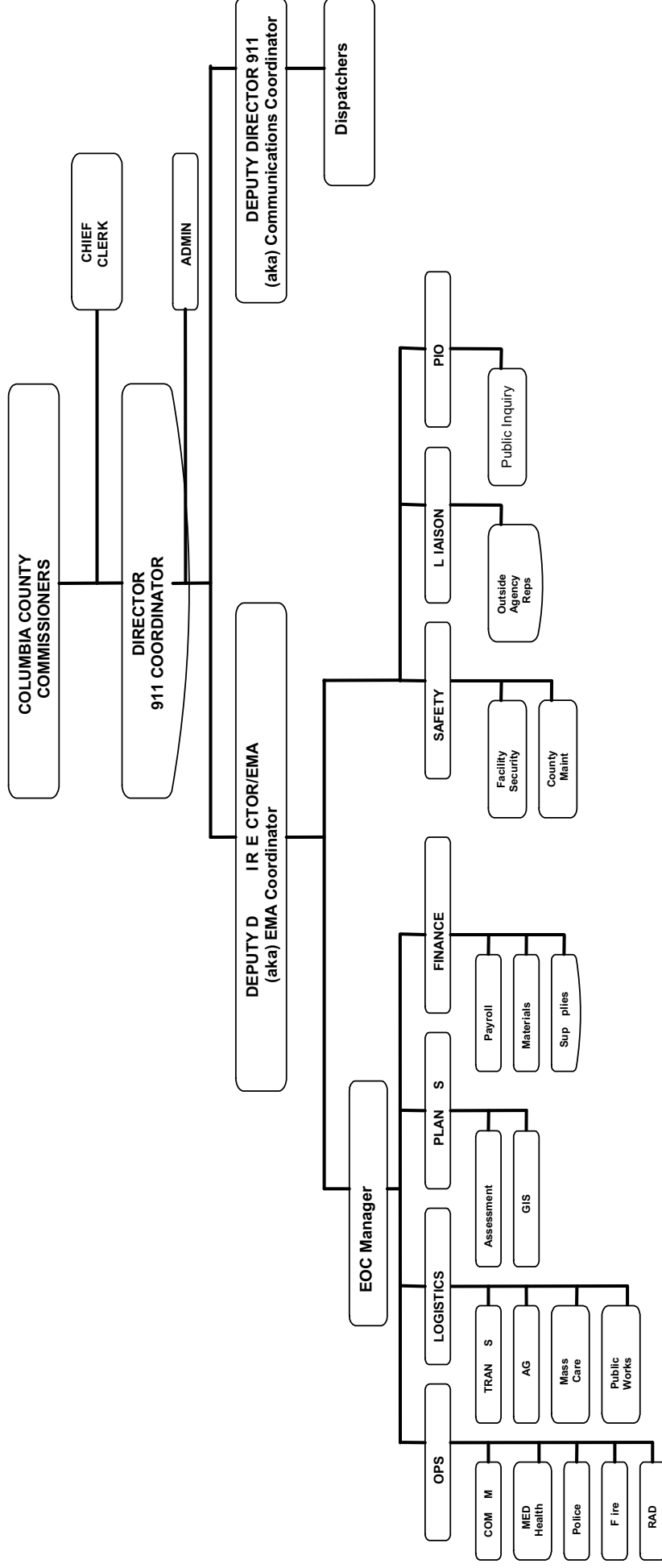
- 3) Chief Clerk (1)
 - 4) Designated staff of the Columbia County Emergency Management Agency (10)
 - 5) Bloomsburg Chapter, American Red Cross (1)
Berwick Chapter, American Red Cross (1)
 - 6) Municipal and County libraries (4)
 - 7) Columbia County school districts (5)
 - 8) Berwick Hospital and Retirement Village (3)
 - 9) Bloomsburg Hospital (1)
 - 10) Outlook Point Commons (1)
 - 11) FEMA Region III (through PEMA) (5) (Electronic)
 - 12) PEMA Headquarters (1) (Electronic)
 - 13) PEMA Eastern Area Office (through PEMA) (1) (Electronic)
 - 14) PEMA Central Area Office (through PEMA) (1) (Electronic)
 - 15) Risk Support Counties (through PEMA) (8) (Electronic)
 - 16) Pennsylvania State Police Headquarters (through PEMA) (1)
 - 17) Pennsylvania State Police Area Headquarters (through PEMA)
 - 18) Pennsylvania State Police Troops F, N, P (through PEMA) (3)
 - 19) Department of Military Affairs (through PEMA)
 - 20) Supporting Battalions (through PEMA) (2)
- B. While distribution of these plans will be controlled, additional copies can be made available upon specific request and justification to the appropriate emergency management agency. As copies are distributed, the name and address of the recipient will be added to the county distribution list.
- C. As revision are made, properly identified change pages will be sent to all organizations, agencies, and individuals holding a copy of these procedures. Changes on pages of this document will be shown by a vertical line in the right hand margin. Additionally, the change number and date of the change will be put on the lower right hand corner of each page that is changed.

ENCLOSURES:

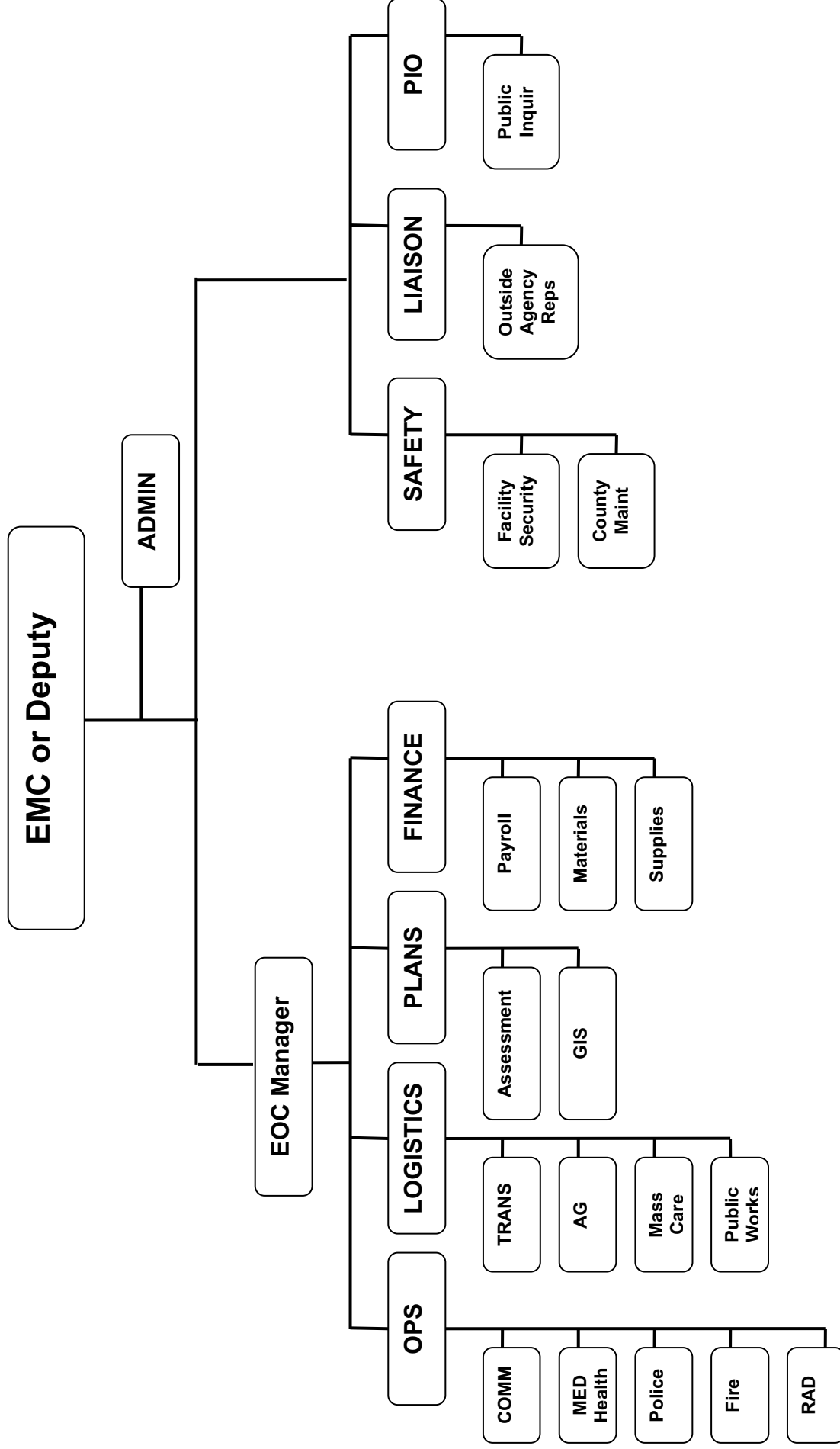
1. Columbia County Emergency Management Organization Chart
2. Interrelationship of Organizations
3. Columbia County Primary and Support Responsibilities Chart
4. Position Responsibilities - Emergency Operations Center
5. Emergency Classification Response Guidelines
6. Emergency Management Call List
7. Columbia County Municipal Emergency Management Coordinators
8. Continuity of Government
9. Appointment of County Coordinator

Enclosure 1

COLUMBIA COUNTY
Department of Public Safety
Organization Chart



EOC CHAIN OF COMMAND



INTERRELATIONSHIP OF ORGANIZATIONS

Department of Homeland Security (DHS)	Coordinates planning and response to incidents by federal agencies and departments. Supplies training, guidance, and resources to PEMA.
Pennsylvania Emergency Management Agency (PEMA)	PEMA is the lead state agency. Coordinates planning and response to incidents by state agencies and departments. Supplies training, guidance, and resources to county emergency management agencies.
County Emergency Management Agency	Coordinates planning and response to incidents by county agencies and departments. Supplies training, guidance, resources, and assistance to municipal emergency management agencies.
Municipal Emergency Management Agency	Plans for and responds to incidents within the municipality utilizing municipal resources.
American Red Cross, Bloomsburg And Berwick Chapters	Operates mass care centers. Trains mass care shelter managers. Coordinates services of voluntary organizations. All, per agreement between local chapters, school districts, other facility providers, and emergency management agencies.
Nuclear Power Plant	Coordinates onsite emergency response planning with risk counties. Provides sirens for alert/ notification. Communicates with risk counties and others. Advises PEMA and risk counties of emergency situation. Assists in plan development and maintenance for risk and support counties and risk municipalities and provides annual training to the risk municipalities and offers training to the risk and support counties.

POSITION RESPONSIBILITIES - EMERGENCY OPERATIONS CENTER

<u>POSITION</u>	<u>RESPONSIBILITIES</u>
County Commissioners	Overall responsibility for Emergency Management Agency.
Director of Public Safety	Emergency Management and communications interface.
County Emergency Management Coordinator	Plans, response, training, and exercises.
Deputy Coordinator	Assist County Coordinator.
EOC Manager	Support Emergency Management Coordinator.
Operations Officer	Support Emergency Management Coordinator.
Public Information (External Affairs)	Public information program and news releases. Establish public inquiry centers.
Administrative/Clerical	Receptionist and telephone/office equipment operator.
Mass Care/American Red Cross	Direct mass care center operations.
Police Services	Plan for security and traffic control.
Fire Rescue and Hazmat Services	Fire prevention, protection, suppression, and assist in alert and rescue.
Health and Medical Services	Plan/implement medical response and ambulance services.
Transportation	Transportation.
Communications	Communications and alert, including amateur radio communications where needed.
Radiological	Provide personnel radiological monitoring and decontamination.
Public Works	Coordinate resource requirements.
Agriculture and Animal Care	Certify farmers as emergency workers and advise on food control measures.

EMERGENCY RESPONSE ACTION GUIDELINES FOR THE FOUR CLASSES OF INCIDENTS

CLASS	LICENSEE ACTIONS	STATE AND/OR COUNTY ACTIONS
<u>NOTIFICATION OF UNUSUAL EVENT</u> <u>Class Description</u> A minor problem is in progress or has occurred that could reduce plant safety. No releases of radioactive material requiring offsite response or monitoring are expected. No action by the general public is required. <u>Purpose</u> Purpose of off-site notification is to (1) assure that the first step in any response later found to be necessary has been carried out, (2) bring the operating staff to a state of readiness, and (3) provide systematic handling of unusual event information and decision making.	<ol style="list-style-type: none">1. Promptly inform state and county Emergency Management Agencies of the nature of unusual condition as soon as discovered.2. Augment on-shift resources as needed.3. Assess and respond.4. Escalate to a more severe class, if appropriate, <p>OR</p> <ol style="list-style-type: none">5. Close out with verbal summary to off-site authorities; followed by written summary within 24 hours.	<ol style="list-style-type: none">1. Provide fire or security assistance if requested.2. Escalate to a more severe class, if appropriate.3. Standby until verbal closeout.

CLASS	LICENSEE ACTIONS	STATE AND/OR COUNTY ACTIONS
ALERT <u>Class Description</u> <p>Events are in progress or have occurred that have substantially reduced or could substantially reduce plant safety. Any radioactive releases are expected to be below Environmental Protection Agency guidelines for protection of the public. No action by the general public is required.</p> <u>Purpose</u> <p>Purpose of off-site alert is to (1) assure that emergency personnel are readily available to respond if situation becomes more serious or to perform confirmatory radiation monitoring if required, and (2) provide off-site authorities current status information.</p>	<ol style="list-style-type: none"> Promptly inform state and county Emergency Management Agencies of the alert status and reason for alert as soon as discovered. Augment resources and activate on-site Technical Support Center and on-site operational support center. Bring emergency operations facility (EOF) and other key emergency personnel to standby status. Assess and respond. Dispatch on-site monitoring teams and associated communications. Provide periodic plant status updates to off-site authorities (at least every 15 minutes). Provide periodic meteorological assessment to offsite authorities and, if any releases are occurring, dose estimates for actual releases. Escalate to a more severe class, if appropriate. Close out or recommend reduction in emergency class by verbal summary to off-site authorities followed by written summary within eight (8) hours of closeout or class reduction. 	<ol style="list-style-type: none"> Provide fire or security assistance if requested. Notify key personnel, augment resources, and bring the primary response centers to operational status. Place on standby status EAS and emergency personnel including monitoring teams and associated communications. Provide confirmatory off-site radiation monitoring and ingestion pathway dose projections if actual releases substantially exceed technical specification limits. Escalate to a more severe class, if appropriate. Maintain alert status until verbal closeout or reduction of emergency class.

CLASS	LICENSEE ACTIONS	STATE AND/OR COUNTY ACTIONS
<p>SITE AREA EMERGENCY</p> <p><u>Class Description</u></p> <p>Events are in progress or have occurred that have affected or are likely to affect major plant safety systems. Any radioactive releases are not expected to exceed Environmental Protection Agency guidelines for protection of the public beyond plant property. No action by the general public is required.</p> <p><u>Purpose</u></p> <p>Purpose of the site area emergency declaration is to (1) assure that response centers are manned, (2) assure that monitoring teams are dispatched, (3) assure that personnel required for evacuation of near-site areas are at duty stations if situation becomes more serious, (4) provide consultation with off-site authorities, and (5) provide updates for the public through off-site authorities.</p>	<ol style="list-style-type: none"> 1. Promptly inform state and county Emergency Management Agencies of the site area emergency status and the reason for emergency as soon as discovered. 2. Augment resources by activating on-site Technical Support Center, on-site operational support center and near-site emergency operations facility (EOF). 3. Assess and respond. 4. Dispatch on-site and off-site monitoring teams and associated communications. 5. Dedicate an individual for plant status updates to off-site authorities and periodic press briefings (perhaps joint with off-site authorities). 6. Make senior technical and management staff onsite available for consultation with NRC and state on a periodic basis. 7. Provide meteorological and dose estimates to off-site authorities for actual releases via a dedicated individual or automated data transmission. 8. Provide release and dose projections based on available plant condition information and foreseeable contingencies. 9. Escalate to <u>general emergency</u> class, if appropriate <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 10. Close out or recommend reduction in emergency class by briefing of off-site authorities at EOF and by phone followed by written summary within eight (8) hours of class reduction. 	<ol style="list-style-type: none"> 1. Mobilize EOC staff and resources on a 24-hour day basis. 2. Provide any assistance requested. 3. If sheltering near the site is desirable, activate public notification system within at least two miles of the plant. 4. Provide public within at least about 10 miles periodic updates on emergency status and place secondary support centers on standby. 5. Augment resources by activating primary support centers. 6. Dispatch key emergency personnel including monitoring teams and associated communications. 7. Place on standby status other emergency personnel (e.g., those needed for evacuation) and dispatch personnel to near-site duty stations. 8. Provide off-site monitoring results to licensee, DOE, and others, and jointly assess them. 9. Continuously assess information from licensee and off-site monitoring with regard to changes to protective actions already initiated for public and mobilizing evacuation resources. 10. Recommend placing milk animals within two (2) miles on stored feed and assess need to extend distance. 11. Provide press briefings, perhaps with licensee. 12. Escalate to general emergency class, if appropriate. 13. Maintain site area emergency status until closeout or reduction of emergency class.

CLASS	LICENSEE ACTIONS	STATE AND/OR COUNTY ACTIONS
<p>GENERAL EMERGENCY</p> <p><u>Class Description</u></p> <p>Events are imminent, are in progress or have occurred involving substantial damage to the reactor core and failures to plant safety systems that are needed for public protection. Radiation releases are expected to exceed Environmental Protection Agency guidelines for protection of the public beyond plant property. The public is asked to tune into an Emergency Alert System radio or television station for official information and instructions.</p> <p><u>Purpose</u></p> <p>Purpose of the general emergency declaration is to (1) initiate predetermined protective actions for the public, (2) provide continuous assessment of information from licensee and off-site organization measurements, (3) initiate additional measures as indicated by actual or potential releases, (4) provide consultation with off-site authorities, and (5) provide updates for the public through off-site authorities.</p>	<ol style="list-style-type: none"> 1. Promptly inform state and county Emergency Management Agencies of general emergency status and reason for emergency as soon as discovered (parallel notification of state/local). 2. Augment resources by activating on-site Technical Support Center, on-site operational support center, and near-site emergency operations facility (EOF). 3. Assess and respond. 4. Dispatch on-site and off-site monitoring teams and associated communications. 5. Dedicate an individual for plant status updates to off-site authorities and periodic press briefings (perhaps joint with off-site authorities). 6. Make senior technical and management staff onsite available for consultation with NRC and state on a periodic basis. 7. Provide meteorological and dose estimates to off-site authorities for actual releases via a dedicated individual or automated data transmission. 8. Provide release and dose projections based on available plant condition information and foreseeable contingencies. 9. Close out or recommend reduction of emergency class by briefing of off-site authorities at EOF and by phone followed by written summary within eight (8) hours of closeout or class reduction. 	<ol style="list-style-type: none"> 1. Provide any assistance requested. 2. Activate immediate public notification of emergency status and provide public periodic updates. 3. Consider advisability of evacuation (projected time available vs. estimated evacuation times) or sheltering. 4. Augment resources by activating secondary support centers, as required. 5. Dispatch key emergency personnel including monitoring teams and associated communications. 6. Dispatch other emergency personnel to duty stations. 7. Provide off-site monitoring results to licensee, DOE, and others, and jointly assess them. 8. Continuously assess information from licensee and off-site monitoring with regard to changes to protective actions already initiated for public and mobilizing evacuation resources. 9. Recommend placing milk animals within 10 miles on stored feed and assess need to extend distance. 10. Implement protective actions. 11. Provide press briefings, perhaps with licensee. 12. Maintain general emergency status until closeout or reduction of emergency class.

COLUMBIA COUNTY EMERGENCY MANAGEMENT CALL OUT LIST

List Maintained in EOC

COLUMBIA COUNTY MUNICIPAL EMERGENCY MANAGEMENT COORDINATORS

A current listing of Municipal Emergency Management organizations is maintained in the Columbia County EOC and is updated as necessary.

DIRECTION AND CONTROL

1. Overall direction and control of emergency operations will be coordinated from the Columbia County Emergency Operations Center (EOC), located in the Courthouse Annex, Rear 26 West First Street, Bloomsburg, PA. The Center is organized, equipped, and staffed, when augmented by mobilized emergency personnel to maintain 24-hour operations for an extended period. The Columbia County Emergency Management Coordinator is responsible for ensuring that the EOC is at all times capable of being operated on a protracted 24-hour basis.
2. Key operations personnel will be alerted by the county emergency management coordinator in the event of an incident at the Susquehanna Steam Electric Station Nuclear Power Plant which could affect the safety of the citizens of Columbia County.
3. As the county responds at each ECL, staff will refer to appropriate position SOP for specific procedures to be followed. These SOPs are maintained in the EOC.
4. The Courthouse Annex is also the location of the county central dispatch and 911, which services all of Columbia County.
5. The Columbia County Commissioners have the responsibility for the safety and protection of the public within Columbia County. The county emergency management coordinator is under the direction and control of the county commissioners as are all county departments and agencies.
6. In the event of a breakdown of communications, Luzerne County, as the parent county, will assume PEMA's role and serve as the source of information from PPL Susquehanna, LLC to the Risk and Support County Emergency Management Agencies until communication is reestablished.
7. In a worst case situation at a nuclear power plant involving actual or imminent core degradation or potential loss of containment, the facility may declare a GENERAL EMERGENCY to include a recommendation of protective actions to be taken. This classification could be announced bypassing all lesser classifications, e.g., ALERT and SITE AREA EMERGENCY. Under this circumstance, upon receiving notification from power plant or PEMA of the GENERAL EMERGENCY, PEMA and the risk counties have the authority to advise the public to take sheltering action.
8. The County EMC is responsible for continuity of resources (technical, administrative, and material) required to implement this RERP.
9. Relocation of EOC. If the primary EOC becomes inoperable, alternate locations have been designated.

10. Preservation of Records

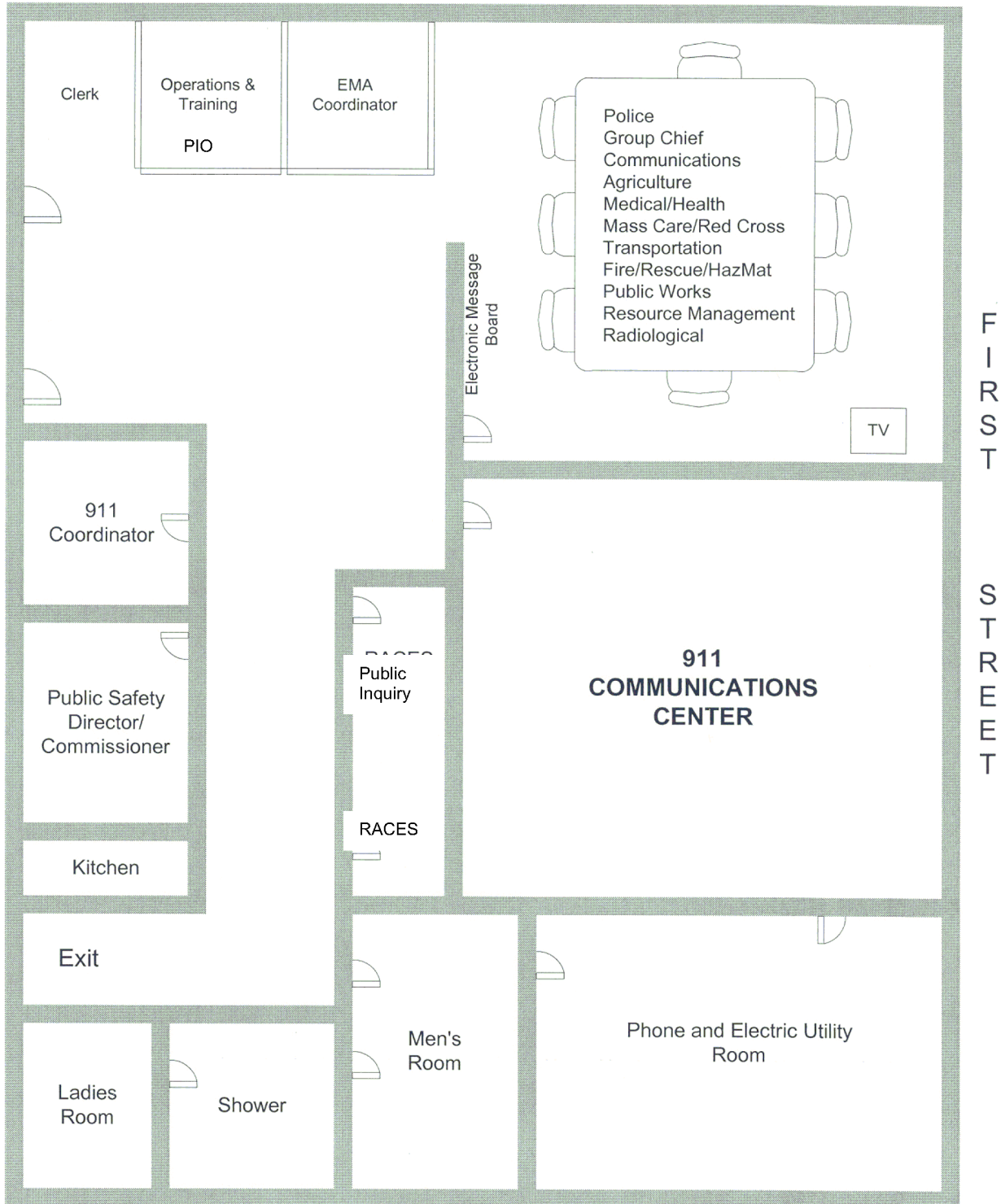
It is the responsibility of elected officials to ensure that all legal documents of both a public and private nature recorded by the designated official be protected and preserved in accordance with state and federal laws.

ATTACHMENT:

A. Diagram of EOC

Attachment A

Diagram of Department of Public Safety



G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix01-2008.doc

COMMUNICATIONS

1. PURPOSE

To identify communications facilities, equipment, and systems used in support of the county response.

2. RESPONSIBILITY

- A. The Director of Public Safety has responsibility for emergency communications in Columbia County. The Department of Public Safety has been divided into the 911 Center and the Emergency Management Agency located in the Columbia County Courthouse Annex, Rear 26 West First Street, Bloomsburg. The 911 Center is responsible for day-to-day communications and the EMA is responsible for communication interfaces during a County emergency. The Communications Officer/Amateur Radio Officer has been appointed to support EMA Communications.
- B. In the event PEMA is out of communications, Luzerne County will coordinate the activating of sirens with Columbia County. If both PEMA and Luzerne County are out of communications with Columbia County, Columbia County will act on its initiative based on information provided by the power plant or BRP. When communications are available, the counties will coordinate with PEMA prior to implementation of any protective actions.

3. SITUATION

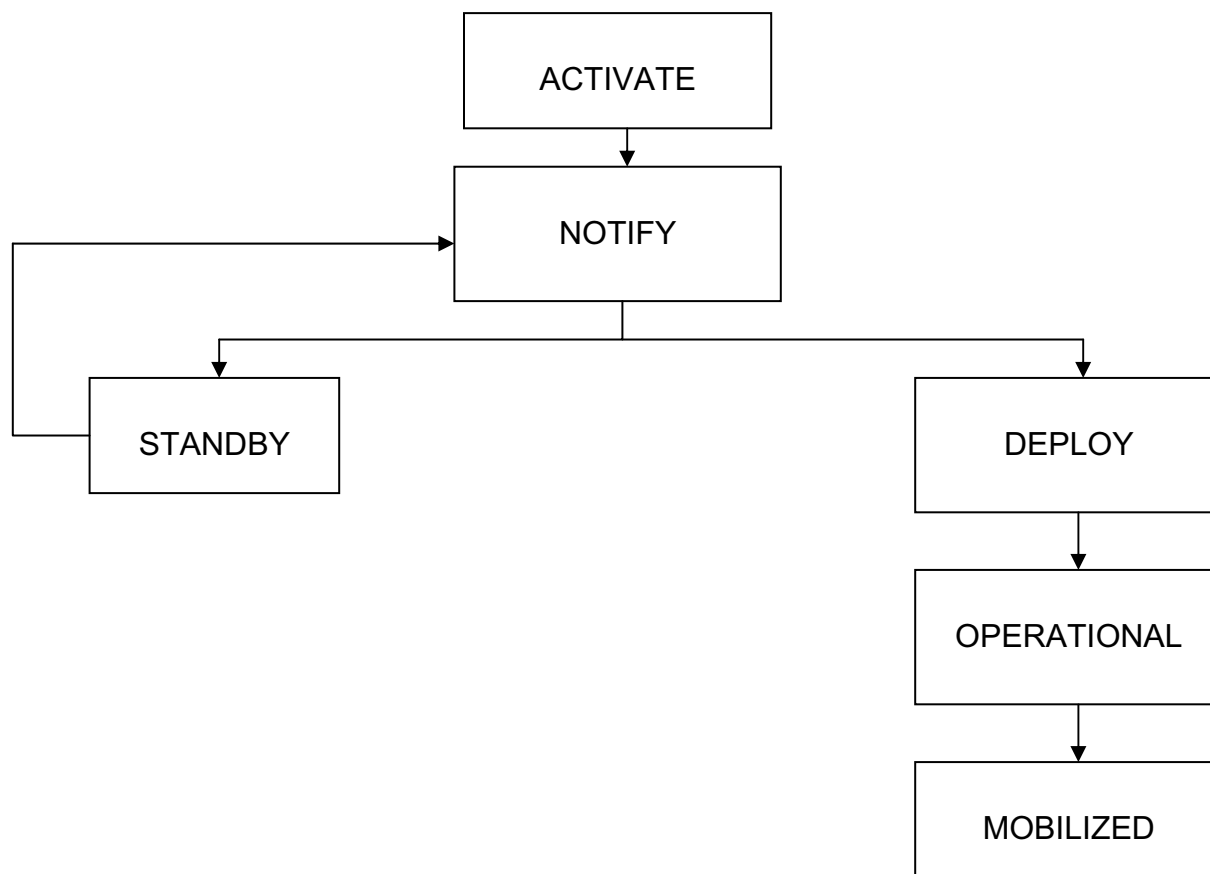
- A. The Columbia County Department of Public Safety operates a Public Safety Communications Network 24-hour per day, everyday of the year, with the following agencies and departments:
 - 1) Fire
 - 2) Police
 - 3) Medical/Ambulance/Hospital
 - 4) 9-1-1 Emergency Telephone System
 - 5) Hearing Impaired TTY System
- B. The Department of Public Safety (manned and operational 24-hours per day) maintains radio communications capability with:
 - 1) Amateur Radio Emergency Services
 - 2) County/Municipal Government
 - 3) All municipalities within that portion of the plume exposure pathway EPZ located within Columbia County.

- 4) With Luzerne County, the other SSES risk county
- 5) The American Red Cross
- 6) EAS station WQKX-94.1 is primary and WFYY-106.5 is secondary.
- 7) SEVAN
- C. Communications with support counties will be established through PEMA State EOC.
- D. Any required communications with federal emergency response organizations will be handled through PEMA State EOC.
- E. Columbia County may have a representative at the utility's Emergency Operations Facility (EOF).

4. CONCEPT OF OPERATIONS

- A. The regular 911/communications staff will be augmented as deemed appropriate by the communications officer. Columbia County EMA is capable of 24 hours per day operations over an extended period.
- B. The Department of Public Safety will transmit to all base and mobile units in the county fire, police, ambulance, and medical nets.
- C. Amateur Radio will operate from the EOC under the control of the communications officer and will be activated to serve as the backup system for county.
- D. In the event an evacuation is ordered, radio communications will be established at the mass care centers and monitoring/decontamination centers and stations.
- E. The primary means for transmitting ECLs and PARs will be the Columbia County Emergency Management Communications System (UHF Radio). The secondary means will be Amateur Radio. Telephone/fax is tertiary means. County radio equipment and procedures are listed in the Columbia County Emergency Operations Center EOC.

F. Response Actions Flowchart



Activate: Start or place into action

Notify: To inform of a condition

Standby: Ready to perform but awaiting further instructions

Deploy: To move to the assigned location in order to start operations

Operational: Capable of accepting assignments but with partial staffing

Mobilized: Fully staffed for 24-hour operation

- 1) Unusual Event
 - a) Dispatcher will acknowledge and log incoming message. (Verify message if received via other than dedicated line.)
 - b) Notify Columbia County Emergency Management Coordinator or Deputy and the Director of Public Safety.
 - c) Deploy emergency services as requested.
- 2) Alert
 - a) If initial notification is of an Alert, take the response actions under Unusual Event and those listed below. When notification is of an escalation to Alert, review the checklist items under the Unusual Event and ensure actions are underway or completed and then proceed with the actions under the Alert classification.
 - b) Notify communications officer.
 - c) Notify 911 Supervisor.
 - d) Activate/deploy, if required, Amateur Radio communications.
 - e) Perform operational test on County EMA communication system.
 - f) Place EAS on standby.
- 3) Site Area Emergency
 - a) If initial notification is of a Site Area Emergency, take the response actions under Unusual Event and Alert, and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Unusual Event and the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area classification.
 - b) Mobilize communications officer and additional dispatchers to ensure adequate shift coverage.
 - c) Mobilize additional Amateur Radio operators as needed.
 - d) Place Amateur Radio communications with mass care centers, school districts, and monitoring/decontamination stations on operational status.

4) General Emergency

If initial notification is of a General Emergency, take the response actions under Unusual Event, Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Unusual Event, the Alert, and the Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.

4. TESTING

The following is the schedule for testing communications:

- A. County Fire Network Tested daily.
- B. County Police Network Tested daily.
- C. Ambulances, County EMS Network Tested daily.
- D. County Government (UHF) Tested quarterly.
- E. Amateur Radio NET As required per procedure.
- F. Amateur Radio (State Net) As required per procedure.
- G. Telephones & "911" Tested daily.
- H. SEVAN Tested as determined by PEMA.
- I. PASTAR Tested as determined by PEMA
- j. Dedicated phone lines from SSES Tested monthly.
- K. EAS/EMNET Tested weekly.
- L. PEMA 800 MHTZ System Tested weekly.

ATTACHMENTS:

- A. Columbia County Communications Systems
- B. Amateur Radio Roster
- C. Amateur Radio Assignments
- D. Initial Notification/Escalation Procedures
- E. Emergency Notification Report

COLUMBIA COUNTY COMMUNICATIONS SYSTEM

1. RADIO SERVICES

- A. Police Communications Network
- B. Fire Communications Network
- C. Emergency Medical Communications Network
- D. County Emergency Management Communications System
- E. Amateur Radio:

The Columbia County Amateur Radio network operates with a base station in the Columbia County EOC. An amateur radio transceiver is permanently positioned in the EOC to be manned by designated amateur radio personnel during emergency operations.

- F. Mobile Telephones are available in Columbia County EOC.

2. COMMON CARRIER SYSTEMS WITHIN THE EOC

- A. "PASTAR" provides instant point-to-point transmission of text and graphic information between and among PEMA and all county emergency management agencies.
- B. Emergency Alert System/EMNET.
- C. PEMA 800 MHz System

3. FREQUENCIES

Frequencies are maintained on file in the County EOC.

Attachment B

AMATEUR RADIO ROSTER

A current Amateur Radio roster is maintained in the County EOC. It is updated quarterly.

AMATEUR RADIO ASSIGNMENTS

1. Amateur Radio communications will be established at the following county locations at the designated emergency level:

- A. Alert

- 1) Columbia County EOC
- 2) Beaver Township EOC
- 3) Berwick Borough / Briar Creek Boro EOC
- 4) Briar Creek Township EOC
- 5) Fishing Creek Township EOC
- 6) Mifflin Township EOC
- 7) North Centre Township EOC
- 8) South Centre Township EOC
- 9) Bloomsburg Red Cross Chapter
- 10) Berwick Red Cross Chapter

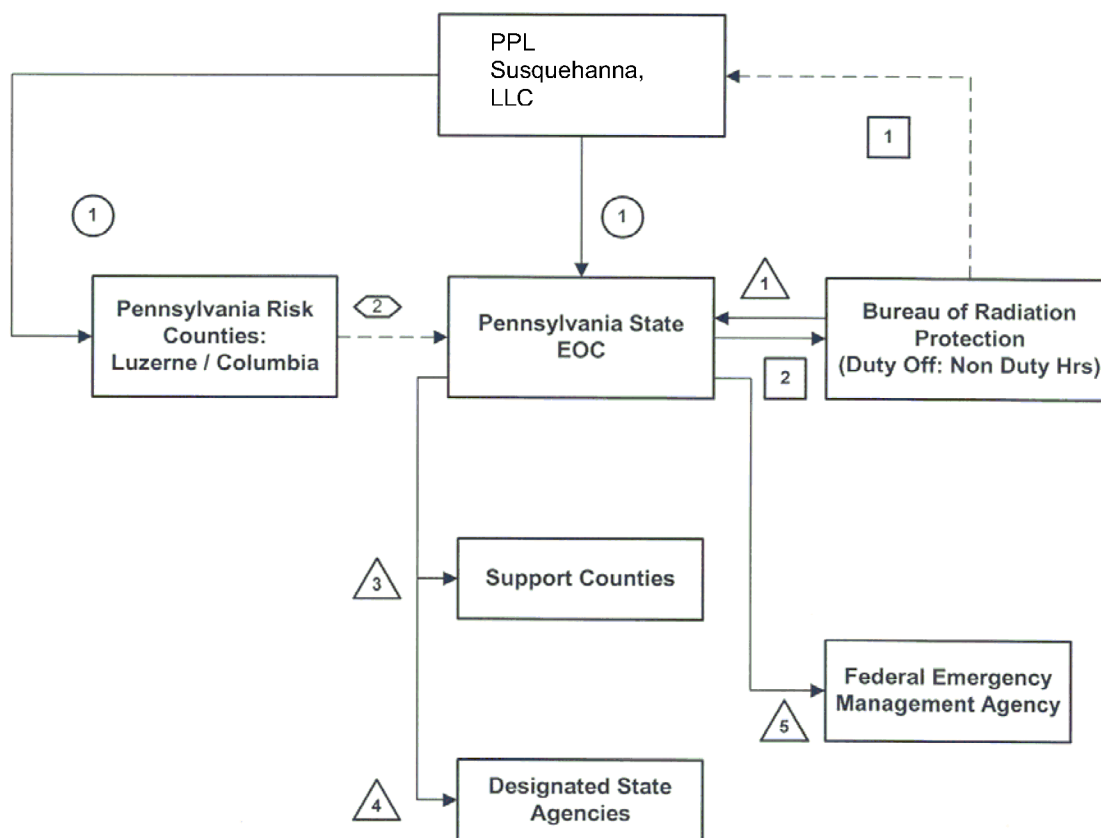
- B. Site Area Emergency (in addition to above list)

- 1) Berwick School District (upon request)
- 2) Central Columbia School District (upon request)
- 3) Bloomsburg Area School District (upon request)
- 4) Columbia Montour Area Vocational Technical School (Mass Care and monitoring/ decontamination for emergency workers).
- 5) Bloomsburg and Berwick Hospitals (upon request)

The Amateur Radio Officer, in coordination with the Alert/Notification and Communications Officer, will assign Amateur Radio teams to these locations at the time of an emergency.

Attachment D

**Initial Notification/Escalation Procedures for an Alert,
Site Area Emergency, or General Emergency**



NOTES: (a) Notifications are sequenced as shown, with the initial notifications designated by 1s.
(b) During non-duty hours, notification is made to the risk counties and to the PEMA Duty Officer, who, in turn, notifies the BRP Duty Officer.

LEGEND: Verification -----
Notification _____

Attachment E

Control # _____

EMERGENCY NOTIFICATION REPORT

1. Call Status: ☐ **THIS IS A DRILL** ☐ **THIS IS AN ACTUAL EVENT**

2. This is: _____ at PPL Susquehanna, LLC
(Communicator's Name)

My telephone number is: 570-542- 3 Notification time is: _____
570-759- 4 (Time notification initiated)
(Callback telephone number)

3. **EMERGENCY CLASSIFICATION:**

- ☐ **UNUSUAL EVENT** ☐ **SITE AREA EMERGENCY**
☐ **ALERT** ☐ **GENERAL EMERGENCY**
☐ **The event has been terminated.**

UNIT: ☐ **ONE** **Declaration Time:** _____ **DATE:** _____
☐ **TWO** (Time classification/termination declared) (Date classification/termination declared)
☐ **ONE & TWO**

THIS REPRESENTS A/AN: ☐ **INITIAL DECLARATION**
☐ **ESCALATION** } **IN CLASSIFICATION STATUS**
☐ **NO CHANGE**

4. **The Classification Designation is:** _____

BRIEF NON-TECHNICAL DESCRIPTION OF THE:

- ☐ **EMERGENCY EVENT** (Initial declaration and escalations) **OR**
☐ **OTHER SIGNIFICANT EVENT** (No change in emergency classification or classification time)

5. **THERE IS:** ☐ **No**
☐ **AN AIRBORNE** } **RADIOLOGICAL RELEASE IN PROGRESS DUE TO THE**
☐ **A LIQUID** **EVENT**

Fuel Clad Barrier AND Containment Barrier LOSS, RCS Barrier AND Containment Barrier LOSS,
an increase in the detected radiation by effluent monitors or sampling that is a result of the event,
any radioactive liquid released beyond the Protected Area that is a result of the event,
RG1, RS1, RA1, RU1, MU7, SBTG initiation on RB Vent hi-rad
Other classifications should be assessed to determine if there is a radiological release due to the event in progress.

6. **WIND DIRECTION IS FROM:** _____ °. **WIND SPEED IS:** _____ mph.
(Data from 10 meter meteorological tower, available on PICSY.)

7. **REPEAT:** ☐ **THIS IS A DRILL** ☐ **THIS IS AN ACTUAL EVENT**

APPROVED: _____ **Time:** _____ **Date:** _____
(ED, RM, or EOFSS) (Time form approved) (Date form approved)

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix02-2008.doc

PUBLIC ALERT & NOTIFICATION SYSTEM

1. PURPOSE

To establish public alert and public notification procedures, identify tasks, designate responsibilities and establish a system for receipt and dissemination of notification to the residents and transients in the plume exposure pathway EPZ and for notifying emergency management personnel at county and municipal levels.

2. RESPONSIBILITY

The Columbia County Emergency Management Coordinator has overall responsibility for notifying residents and transients and for alerting emergency management personnel. The Columbia County Department of Public Safety has the capability to activate the PPL Susquehanna, LLC Nuclear Power Plant alert sirens and to initiate alert notification to emergency forces. The decision to activate the sirens will be made by the Governor and implemented by Columbia County. Route alerting by the municipalities will be completed within 45 minutes of the decision. Municipal emergency management coordinators are responsible for ensuring that the resident and transient population as well as industries and institutions in the municipality are notified.

3. EXISTING ALERT/NOTIFICATION SYSTEM

- A. The primary alerting control point is located in the County EMA Department of Public Safety building. The alerting control point includes a Pennsylvania Emergency Management Agency SEVAN system, telephone lines for use by fire, police, ambulance, and the county 911 emergency telephone system. Tone-coded siren controls for alerting and attention signals are installed at strategic locations within the EPZ. The alert sirens can all be activated from the County EOC. If for any reason Columbia County is unable to activate the sirens, Columbia County will immediately notify PEMA and SSES of that situation.
- B. PPL has installed alert sirens throughout an approximate ten mile radius around the SSES Nuclear Power Plant including sirens located in Columbia County.

4. CONCEPT OF OPERATIONS

- A. The Susquehanna Steam Electric Station Nuclear Power Plant has the capability of notifying PEMA, BRP, and Columbia County by dedicated commercial telephone concerning any incident at the facility.
- B. PEMA is the primary source of information concerning actions to be taken by Columbia County in response to an incident at SSES.
- C. In the event that PEMA's communication systems are inoperable, the Luzerne County Emergency Management Agency will assume PEMA's coordination, verification, and notification role with BRP and Columbia County until communications are reestablished. See Attachment A of this Appendix.

- D. Actions Upon Receipt of Action Information (ECLs and PARs)
- 1) Acknowledge receipt of message, verify, log, and make a written record of the information, including key facts, type of emergency action, source, method, date, and time of receipt. Telephone messages shall include name and general identification of the individual calling, together with a telephone number to which a return telephone call can be made. See Attachment D, Notification of Nuclear Power Plant Incident.
 - 2) Immediately furnish the information received either in person, by telephone or by another appropriate means, to the Emergency Management Coordinator or the Deputy EMC.
 - 3) Take such further actions as the receiving official above may direct. The names and points of contact, including office and home telephone numbers, of the above listed officials are on file in the Columbia County Department of Public Safety.
 - 4) Officially log or make other written record of the name and title of the official to whom the message was delivered to include the date and time of its delivery. Acknowledgment and verification may be transmitted by alternate communications methods.
- E. Upon notification of an Alert or higher level classification at SSES, actions as shown in Paragraph 7, "Concept of Operations," of the Basic Document are taken. The public alert and notification system (including the Emergency Alert System) will be activated in coordination with PEMA when:
- 1) The release of significant information will reassure the public of their safety.
 - 2) The public is to be informed of the plant status that may lead the public to implement specific action on their own.
 - 3) Specific actions are to be taken by the public, to include protective actions.
- F. Sirens are activated to alert residents to tune to an EAS radio or television station. It is essential for EAS to be prepared to begin broadcasting three minutes after sirens are activated. The siren signal is a 3-5 minute steady signal. Route alerting will be accomplished by municipalities as required after the public alert/notification system is activated, and it will commence with the coordinated time for activation of the sirens.
- G. Route alerting is redundant to the siren system and notifies the hearing impaired.
- H. Police and fire departments, or backup forces designated by municipalities, provide route alerting with vehicles, public address systems, and door-to-door notification as necessary.

5. SYSTEM DESIGN OBJECTIVES AND TESTING

A. The minimum design objectives for coverage by the alert/notification systems are:

- 1) Capability for providing both an alert signal (sirens) and an informational or instructional message (EAS announcement) to the population on an area-wide basis throughout the plume exposure pathway EPZ.
- 2) The initial alert/notification system will assure direct coverage of essentially 100 percent of the population within ten miles of the site.
- 3) Route alerting will occur within 45 minutes to ensure 100% coverage of the populations within the plume exposure pathway EPZ who may not have received the initial alert are notified.

B. The siren systems for the plume exposure pathway EPZ for SSES will be tested as follows:

- 1) A silent test will be conducted every two weeks with appropriate log entry.
- 2) A growl test will be conducted quarterly on each siren and when preventive maintenance is performed.
- 3) A complete cycle test of the alert signal will be conducted annually and when required in conjunction with biennial exercises. Transmission of a test message over the EAS will be demonstrated or simulated during the biennial exercises.
- 4) An annual report certifying the tests were performed will be provided to PEMA by the SSES Nuclear Power Plant.

C. Redundant Means of Communications

- 1) The notification systems below will be used in a supplementary manner when part or all of the siren system fails to function. These will be used to notify the public in the plume exposure EPZ of potential hazards and protective actions to be taken. These systems may include:
 - a) Emergency vehicles with loudspeakers. (Route alerting)
 - b) Telephone.
 - c) Radio.
 - d) Television.
 - e) CBs or other radios.
 - f) Personal notification.

- 2) National Oceanographic and Atmospheric Administration (NOAA) weather radio network area offices provide a PEMA Alert notification to be transmitted when an emergency exists to warrant notifying large segments of the population. In such a situation, PEMA will direct the appropriate NOAA area office to transmit the notification. (In this case, the notification would be concerned with an emergency at a particular nuclear power plant.) The timing of the NOAA notification will be fixed by PEMA after coordination with the risk county(ies) on the appropriate EAS announcement to issue.

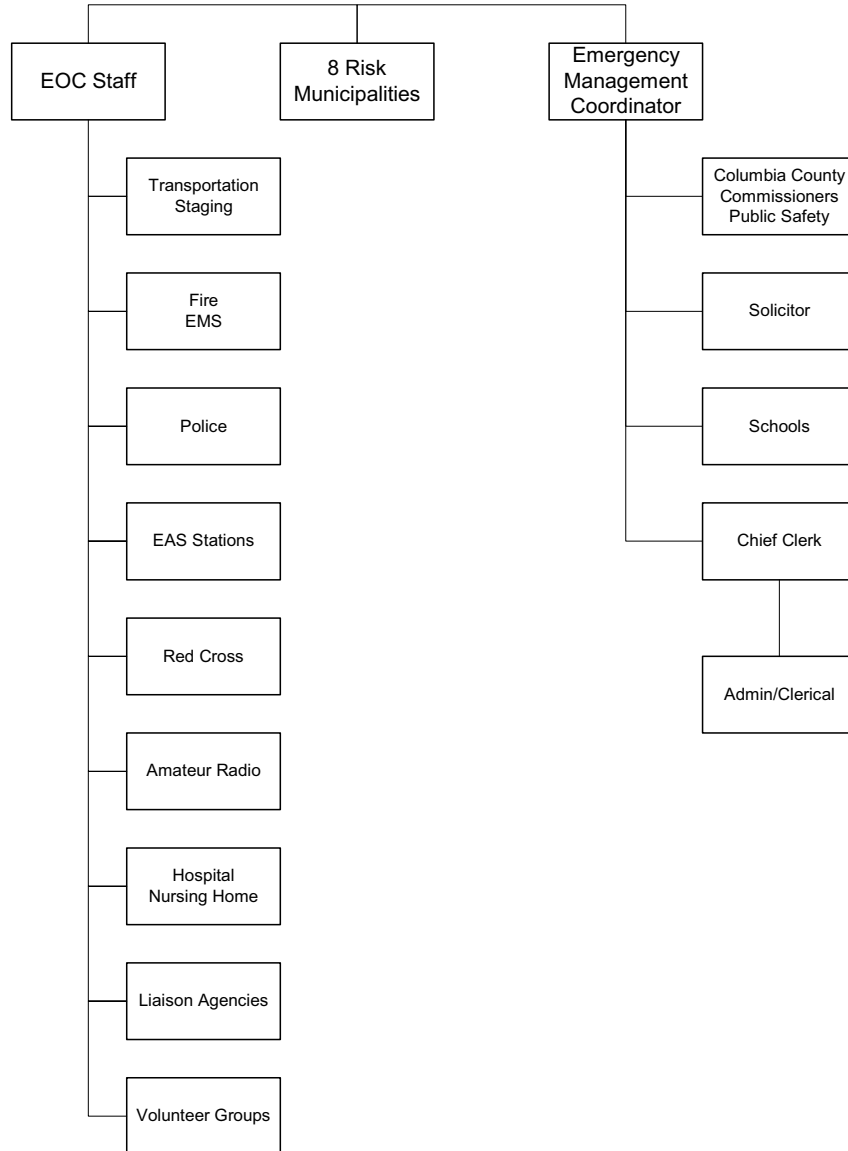
ATTACHMENTS:

- A. Alert & Notification System Process
- B. Siren Locations
- C. Columbia County Siren Coverage Map
- D. Public Alert Message by NOAA Weather Radio Station

Attachment A

ALERT & NOTIFICATION SYSTEM PROCESS

Columbia County
Appendix 3 - Attachment A, Tab 1
Alert/Notification System Schematic



Visio Chart: ColumbiaAppendix3-A-1

List of Sirens

Information in County EOC

COLUMBIA COUNTY SIREN COVERAGE MAP

Maintained in EOC

**PUBLIC ALERT MESSAGE
BY: NOAA WEATHER RADIO STATION
FOR: INCIDENTS AT A NUCLEAR POWER PLANT**

The Pennsylvania Emergency Management Agency advises that an incident has occurred at Susquehanna Steam Electric Station.

For further information tune to your emergency alert system (EAS) station on radio or TV. You will receive notification over that station if protective actions are required of the public. Please avoid unnecessary use of the telephone system since it is urgently needed by the local emergency management agencies. The name and frequency of your EAS station may be found in the blue page section of the primary directory in your telephone service area.

(Note: A separate taped cartridge for each of the five nuclear power plants in the Commonwealth has been sent to the NOAA weather radio station that broadcasts within the plume and ingestion exposure pathway emergency planning zones of the respective plants.)

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix03-2008.doc

PUBLIC INFORMATION (EOF-15 External Affairs)

1. PURPOSE

To establish public information procedures to be used in support of the Columbia County response to an incident at SSES.

2. OBJECTIVES

- A. To establish a program to inform persons living, working or traveling in risk areas of Columbia County of plans and procedures for their notification, actions, and further contact in the event of an incident at SSES.
- B. To develop materials and to identify procedures for the release of emergency information and instructions to the news media and the public in the event of an incident at SSES.

3. RESPONSIBILITIES

- A. The Columbia County Emergency Management Coordinator and Public Information Officer (PIO) in coordination with PEMA are responsible for the advance development of a public information program to inform persons living, working, and traveling in risk areas of the county of plans and procedures for their notification, actions, and points of contact for further information in the event of an emergency associated with SSES.
- B. The Columbia County Emergency Management Coordinator and PIO are responsible for the advance development of prepared messages designed for dissemination over the emergency alert system at the time of an emergency. These messages will be developed with the assistance of PEMA and will provide the public with specific emergency instructions based on the seriousness of the incident.
- C. The Columbia County Commissioners in consultation with PEMA are responsible for the release of prepared instructions to the public at the time of an emergency associated with SSES.
- D. Columbia County Municipal Emergency Management Coordinators are responsible for the distribution of county prepared printed materials informing the general, transient, and handicapped public of actions to be taken in the event of an emergency associated with SSES.
- E. County and municipal PIOs assess public reaction to emergency operations and instructions, and advise respective emergency management coordinators accordingly. The County PIO maintains the rumor control station.

4. CONCEPT OF OPERATIONS

- A. Pre-emergency public information will be prepared and annually updated by the Columbia County Emergency Management Coordinator and PIO. This information will instruct the public at risk of how they will be notified, what their actions should be, and who to contact for further information in the event of an emergency at SSES.
- B. The Columbia County Emergency Management Coordinator will coordinate the distribution and dissemination of pre-emergency public information. Risk municipality emergency management coordinators will be responsible for the distribution of printed materials to local residents, hotels, motels, campgrounds, and other transient population areas.
- C. Columbia County will participate in a biennial and annual news media orientation held for SSES risk counties that will be sponsored by PEMA. This orientation will acquaint news media representatives with radioactive emergency response plans and points of contact for release of public information during an emergency.
- D. The Columbia County PIO, with the assistance of PEMA, will prepare and update prepared statements for broadcast over the emergency alert system in the event of an emergency.

(A listing of EAS stations is in Appendix 2.)

- E. When the emergency situation makes it prudent to alert the public, the Columbia County Commissioners, assisted by the Emergency Management Coordinator and County PIO, may commence issuing public information statements via newspaper, radio or television to explain Columbia County governmental actions being taken to protect the residents and transients within the county. The purpose of the announcements is to provide accurate information, prevent panic and counteract misinformation and rumors. Reference to the situation at SSES Nuclear Power Plant will be made only in the context of our governmental actions.
- F. When the emergency situation reaches a degree of danger requiring protective actions by the public; or other factors, combined with the potential danger, make it prudent to activate the sirens to alert the public, PEMA will coordinate the specific time to activate the sirens and the appropriate EAS announcements to be made. EAS announcements will not be made before the sirens are activated. If the emergency reaches a General Emergency classification, then the sirens will be activated. Again, PEMA will coordinate the specific time to activate the sirens, and the appropriate EAS announcements to be made.
- G. In the event PEMA is out of communications with the risk counties, Luzerne County assumes PEMA's role until communications are restored. In the event PEMA and Luzerne County are out of communications, Columbia County will operate on its initiative based upon information provided by PPL Susquehanna, LLC or BRP.

- H. A Public Inquiry center will be established by Columbia County whenever the EOC is activated in support of this plan. The PIO is responsible for staffing and operation of the public inquiry telephone(s). The rumor control telephone number for Columbia County, (570) 389-5738, will be published as the primary number for responding to questions from the general public. The need for additional telephone lines and personnel to man the center will be coordinated by the Emergency Management Coordinator with the PIO.
- I. The Columbia County Emergency Management Coordinator will provide space for news media use near the EOC.
- J. The Chairman of the County Board of Commissioner's, or the designee, will serve as the County's spokesperson in the event of an emergency associated with PPL Susquehanna, LLC. The county spokesperson will be briefed by the County PIO prior to the release of public information during an emergency. Arrangements for the regular exchange of information between principal organizations spokespersons will be made during an emergency.
- K. A public alert message may be broadcast over the NOAA weather radio station (see Attachment N).
- L. The Public Information Officer is responsible for the following actions:
 - 1) Unusual Event

No action required, unless requested by County Commissioners or EMC.
 - 2) Alert
 - a) When notified, report to the county EOC.
 - b) Review use of EAS announcements with EAS stations.
 - c) Call PIO staff as necessary.
 - 3) Site Area Emergency
 - a) Mobilize Public Information Staff.
 - b) In coordination with PEMA PIO, and in accordance with guidance provided by County Commissioners or County Emergency Management Coordinator, notify appropriate news media and issue appropriate public information statements.
 - c) Direct operations of rumor control staff.
 - d) When directed by County Emergency Management Coordinator, ensure that appropriate EAS announcements are made after sirens are activated.

4) General Emergency

Same actions as shown for Site Area Emergency.

ATTACHMENTS:

- A. Initial Notification EAS Announcement
- B. School Closure EAS Announcement, Sample
- C. Take Shelter EAS Announcement
- D. Evacuation EAS Announcement (Governor Orders)
- E. Evacuation EAS Announcement (Governor Recommends)
- F. School Evacuation EAS Announcement
- G. Return Media Advisory
- H. School Closure Media Announcement
- I. Media Advisory
- J. Emergency Information
- K. News Media Listing for Columbia County
- L. Public Alert Message by NOAA Weather Radio Station

INITIAL NOTIFICATION EAS ANNOUNCEMENT

(Performed By PEMA)

There has been an Incident at Susquehanna Steam Electric Station

This is the State Emergency Operations Center, Harrisburg, Pennsylvania. The following message has been released by the Director of the Pennsylvania Emergency Management Agency:

An incident has occurred at the Susquehanna Steam Electric Station. All residents in the Emergency Planning Zone of Columbia and Luzerne Counties should stay tuned to this station for the latest information and instructions. Sirens within the area may be periodically activated to direct your immediate attention to announcements over the designated Emergency Alert System radio and television stations.

The situation at the Susquehanna Steam Electric Station requires no special action at this time. Consult your telephone directory emergency pages to see if you are in the ten-mile radius of the plant and to obtain other information.

Stay tuned to this station for official bulletins and special instructions issued by the Pennsylvania Emergency Management Agency.

SCHOOL CLOSURE EAS ANNOUNCEMENT

This (is)(is not) an exercise. The following message has been released by the Director of the Columbia County Emergency Management Agency (or PEMA):

An incident has occurred at the Susquehanna Steam Electric Station nuclear power plant. Families with students attending school within a ten-mile radius of the plant are advised that school will be closed for the duration of the incident. Consult the Emergency Information Section of your telephone directory for additional information.

If you live within ten miles of the Susquehanna Steam Electric Station nuclear power plant and your student attends a school outside of the ten-mile area, the school district will not bus students into the ten-mile area.

Families with students affected by this announcement were provided information by the school or school district at the beginning of the school year.

Stay tuned to this station for official bulletins and special instructions that may be issued.

This (is)(is not) an exercise.

(The message should subsequently be repeated as requested by the Columbia County Emergency Management Agency or PEMA.)

TAKE SHELTER EAS ANNOUNCEMENT

(Performed By PEMA)

There has been an incident at Susquehanna Steam Electric Station.

This is a Take Shelter Emergency Alert System Announcement

From the State Emergency Operations Center, Harrisburg, Pennsylvania. The following message has been released by the Director of the Pennsylvania Emergency Management Agency:

The Governor has announced that a GENERAL EMERGENCY was declared at the Susquehanna Steam Electric Station. The Governor recommends that persons living or working in the Emergency Planning Zone of Columbia and Luzerne Counties, remain indoors or take shelter in any available building.

The Secretary of Health has advised that emergency workers and special populations should take potassium iodide (KI).

The Secretary of Health has also advised that the general public should take KI.

Consult your telephone directory emergency pages if you are in the ten-mile radius of the plant for instructions for sheltering.

Stay tuned to this station for official bulletins and special instructions issued by the Pennsylvania Emergency Management Agency.

EVACUATION EAS ANNOUNCEMENT (GOVERNOR ORDERS)

(Performed By PEMA)

There has been an incident at Susquehanna Steam Electric Station

This is an Evacuation Emergency Alert System Announcement (Governor Orders)

From the State Emergency Operations Center, Harrisburg, Pennsylvania. The following message has been released by the Director of the Pennsylvania Emergency Management Agency:

The Governor of Pennsylvania has announced that a GENERAL EMERGENCY was declared at the Susquehanna Steam Electric Station and **ORDERS** the evacuation of all persons within Emergency Planning Zone of Columbia and Luzerne Counties.

The Secretary of Health has advised that emergency workers and special populations should take potassium iodide (KI).

The Secretary of Health has also advised that the general public should take KI and evacuate.

If you live within ten-mile Emergency Planning Zone, consult the telephone directory for detailed evacuation instructions. If you need a place to stay, you will be assigned a mass care center after reporting to the reception center.

If you require transportation assistance, refer to the telephone directory for the telephone number. If you are unable to make contact, call your local police or fire department.

Stay tuned to this station for official bulletins and special instructions issued by the Pennsylvania Emergency Management Agency.

EVACUATION EAS ANNOUNCEMENT (GOVERNOR RECOMMENDS)

There has been an incident at Susquehanna Steam Electric Station

This is an Evacuation Emergency Alert System Announcement (Governor Recommends)

From the State Emergency Operations Center, Harrisburg, Pennsylvania. The following message has been released by the Director of the Pennsylvania Emergency Management Agency:

The Governor of Pennsylvania has announced that a GENERAL EMERGENCY was declared at the Susquehanna Steam Electric Station and **RECOMMENDS** the evacuation of all persons within the Emergency Planning Zone of Columbia and Luzerne Counties.

The Secretary of Health has advised that emergency workers and special populations should take potassium iodide (KI).

The Secretary of Health has also advised that the general public should take KI and evacuate.

If you live within ten-mile Emergency Planning Zone, consult the telephone directory for detailed evacuation instructions. If you need a place to stay, you will be assigned a mass care center after reporting to the reception center.

If you require transportation assistance, refer to the telephone directory for the telephone number. If you are unable to make contact, call your local police or fire department.

Stay tuned to this station for official bulletins and special instructions issued by the Pennsylvania Emergency Management Agency.

SCHOOL EVACUATION EAS MEDIA ANNOUNCEMENT

(Performed by County)

(In the event that school is evacuated prior to public)

This (is)(is not) an exercise. The following message has been released by the Director Columbia County Emergency Management Agency:

The governor has announced that an emergency exists at the SSES nuclear power plant and (recommends) (orders) the evacuation of all schools within ten miles of the plant in _____ and _____ Counties.

Parents with students attending schools within ten miles of the plant are advised that their students will be evacuated by bus directly to designated host schools outside the risk area. Parents are asked to pick up their students at these host schools.

Students living within ten miles of the plant who attend schools outside the ten-mile area will remain at their school under supervision of school officials until picked up by parents or guardians. Families with students affected by this announcement should review information provided by the school or school district at the beginning of the school year.

Stay tuned to this station for official bulletins and special instructions that may be issued.

This (is)(is not) an exercise.

(The message should subsequently be repeated as requested by the Director Columbia County Emergency Management Agency.)

RETURN MEDIA ADVISORY

(This advisory is intended for use by support and risk county news media.)

This (is)/(is not) an exercise. The following advisory has been released by the Director Columbia County Emergency Management Agency and affects residents who evacuated the area around the Susquehanna Steam Electric Station nuclear power plant.

The governor has announced that the residents of the following municipalities may begin the orderly return to their homes:

1. _____ Township
2. _____ Borough

Procedures for reentry to the evacuated area have been planned to ensure the safety of all returning evacuees. Persons in mass care centers will be notified of their scheduled return. They should wait for notification before proceeding.

It is requested that each family cooperate with the municipalities that have been your hosts during this emergency by helping to restore evacuation facilities to their original condition and by assisting with general area cleanup before leaving.

Until further notice, residents of the following municipalities should not return home at this time:

1. _____ Township
2. _____ Borough

The preceding has been an advisory by the Director of Columbia County Emergency Management Agency.

This (is)/(is not) an exercise.

SCHOOL CLOSURE MEDIA ANNOUNCEMENT

(Performed by County)

This (is)/(is not) an exercise. The following information has been provided by the Director, Columbia County Emergency Management Agency:

An incident has occurred at the PPL Susquehanna, LLC nuclear power plant. Families with students attending school within a ten-mile radius of the plant are advised that school will be closed for the duration of the incident. Consult the Emergency Information Section of your telephone directory for additional information.

If you live within ten miles of the PPL Susquehanna, LLC nuclear power plant and your student attends a school outside of the ten-mile area, the school district will not bus students into the ten-mile area.

Families with students affected by this announcement were provided information by the school or school district at the beginning of the school year.

Stay tuned to this station for official bulletins and special instructions that may be issued.

This (is)/(is not) an exercise.

EMERGENCY INFORMATION

Emergency information pages have been published in area telephone directories. This information is available to permanent and transient populations. This information is also available on the internet at www.columbiacounty.org.

NEWS MEDIA LISTING FOR COLUMBIA COUNTY

List Maintained in EOC

PUBLIC ALERT MESSAGE
BY: NOAA WEATHER RADIO STATION
FOR: INCIDENTS AT A NUCLEAR POWER PLANT

(Note: This is a predistributed message and is enclosed here for information only. A separate taped cartridge for each of the five nuclear power plants in the Commonwealth has been sent to the NOAA weather radio station that broadcasts within the plume and ingestion exposure pathway emergency planning zones of the respective plants.)

The Pennsylvania Emergency Management Agency advises that an incident has occurred at Susquehanna Steam Electric Station.

For further information tune to your emergency alert system (EAS) station on radio or TV. You will receive notification over that station if protective actions are required of the public. Please avoid unnecessary use of the telephone system since it is urgently needed by the local emergency management agencies. The name and frequency of your EAS station may be found in the blue page section of the primary directory in your telephone service area.

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix04-2008.doc

FIRE AND RESCUE

1. PURPOSE

To provide fire and rescue services in both support and risk areas in the event of an incident at PPL Susquehanna, LLC and to assist municipal governments in alerting the public.

2. RESPONSIBILITIES

- A. The responsibility for fire prevention, protection, and suppression will remain with the individual fire companies of Columbia County.
- B. Fire companies will follow municipal emergency plans for supplemental route alerting of the population.
- C. The County Fire/Rescue Officer will be responsible for coordinating fire coverage, equipment, and personnel.
- D. Provide ongoing emergency service for evacuated areas.

3. REQUIREMENTS

- A. Columbia County fire companies in the plume exposure pathway EPZ for SSES have agreed to assist in alerting citizens in areas not covered by the siren/alert system.
- B. In the event of an incident at SSES the primary means of notifying fire companies will be by radio with telephone as a backup.

4. CONCEPT OF OPERATIONS

The Fire and Rescue Officer is responsible for the following actions:

A. Unusual Event

Fire companies will deploy emergency services onsite as requested.

B. Alert

- 1) If initial notification is of an Alert, take the response actions under Unusual Event and those listed below. When notification is of an escalation to Alert, review the checklist items under the Unusual Event and ensure actions are underway or completed and then proceed with the actions under the Alert classification.
- 2) When notified, the Fire and Rescue Officer reports to the county EOC.

- 3) Verify that municipal EOC's have contacted Rte Alert Teams located within the plume exposure pathway EPZ.
- 4) Review emergency plans and procedures.
- 5) Review radiation protection responsibilities and procedures.
- 6) Place route alert teams on standby status.

C. Site Area Emergency

- 1) If initial notification is of a Site Area Emergency, take the response actions under Unusual Event, Alert, and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Unusual Event and the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- 2) Ensure that municipal EOC's issue dosimetry and KI to their fire company emergency workers.
- 3) Advise municipal deploy route alerting in accordance with municipal plans.

D. General Emergency

- 1) If initial notification is of a General Emergency, take the response actions under Unusual Event, Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Unusual Event, the Alert, and the Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.
- 2) Deploy route alerting when directed.
- 3) After evacuation of the public, instruct fire companies to relocate.
- 4) Direction and control will come from the county through municipal officials and emergency management coordinators.
- 5) Fire personnel and route alert personnel will read their dosimeters every half hour and record the readings before and after each mission on the Dosimetry Report Form.
- 6) Upon the advice of the Secretary of the Department of Health, through emergency management channels, emergency workers will be advised to take KI.
- 7) Fire companies upon relocation will provide fire protection (as radiation levels will allow).

ATTACHMENTS:

- A. Relocation of Columbia County Fire Companies
- B. Columbia County Fire Companies

RELOCATION OF COLUMBIA COUNTY FIRE COMPANIES

Fire companies listed within the plume exposure pathway EPZ will be relocated to the alternate site, if necessary, as shown below. Fire chiefs of departments located in municipalities outside of the plume exposure pathway EPZ will arrange facilities for relocated county fire, ambulance, and rescue units as listed herein and in Annex G, Appendix 7, Attachment D.

C	EP	R	S
Berwick Fire Departments		Columbia-Montour Vo-Tech School	
Mifflinville Rangers		Columbia-Montour Vo-Tech School	
Summerhill Fire Company		Columbia-Montour Vo-Tech School	

COLUMBIA COUNTY FIRE COMPANIES

A list of Columbia County Fire Companies is maintained in the County Communications Center. The list is updated as required.

| G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix05-2008.doc

POLICE SERVICES

1. PURPOSE

To establish procedures for the utilization of PSP, county, municipal, and other enforcement agencies in support of emergency operations to include an evacuation of the plume exposure pathway EPZ surrounding SSES, and to limit access to areas where the population is taking shelter or evacuated.

2. RESPONSIBILITIES

- A. The Pennsylvania State Police Troop N in South Centre Township will coordinate its police activities with the county. It is responsible for security in both support and risk areas and for the control of traffic should an evacuation be ordered.
- B. Municipal police departments will continue their normal responsibilities. Special assignments regarding security will be coordinated with the State Police through the Columbia County Emergency Management Agency.
- C. The State Police will provide law enforcement and traffic control along main evacuation routes. They will also be responsible for coordinating access control points for areas taking shelter or evacuating. Traffic control points and access control points locations are shown at Appendix 11.
- D. Upon order to State Active Duty by the Governor, the Pennsylvania National Guard will assist with security and access control in the risk area.

3. REQUIREMENTS

To ensure police protection for their respective municipalities in Columbia County, the police departments in the plume exposure pathway EPZ have agreed to remain in their respective municipalities and to provide police protection as long as radiation levels permit.

4. CONCEPT OF OPERATIONS

A. Unusual Event

Police departments will deploy onsite emergency services as requested.

B. Alert

- 1) If initial notification is of an Alert, take the response actions under Unusual Event and those listed below. When notification is of an escalation to Alert, review the checklist items under the Unusual Event and ensure actions are underway or completed and then proceed with the actions under the Alert classification.
- 2) When notified the Police Services Officer reports to the County EOC.

- 3) Municipal police departments (when applicable) will be notified and briefed on the situation.
- 4) Police departments will review emergency plans and procedures.
- 5) Police departments will review radiological exposure control measures to be taken.

C. Site Area Emergency

- 1) If initial notification is of a Site Area Emergency, take the response actions under Unusual Event, Alert, and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Unusual Event and the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- 2) Mobilize police departments throughout the EPZ.
- 3) Coordinate with the Department of Transportation and PA National Guard Liaison Officers for use of equipment and personnel to facilitate movement of traffic.
- 4) Police departments will continue to perform police duties.
- 5) Police will stay in station houses as much as possible if any low level radiation is detected or reported.
- 6) Police departments will issue dosimetry and potassium iodide (KI) to their emergency workers. (CAUTION: Workers will administer KI to themselves only upon the advice of the Secretary of the Department of Health through emergency management channels.)
- 7) Place TCPs/ACPs on standby status.

D. General Emergency

- 1) If initial notification is of a General Emergency, take the response actions under Unusual Event, Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Unusual Event, the Alert, and the Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.
- 2) At declaration of GE emergency workers, special populations & general public inside 10 mile EPZ will be instructed to take Potassium Iodide (KI) consistent with State Plan.
- 3) Municipalities will request police assistance as needed from the county EOC.

- 4) Ensure traffic control points are mobilized in each municipality and coordinated with the municipal EOC.
- 5) Radio contact will be maintained with municipal police forces from the EOC. Radio transmissions will be for emergency messages only.
- 6) State Police will assist municipal police as needed and as available.
- 7) After evacuation, police departments will relocate beyond the plume exposure pathway EPZ.
- 8) Police departments will provide police protection by task force from outside the plume exposure pathway EPZ insofar as radiation levels allow.
- 9) Ensure access control points are mobilized for security in the event of population sheltering or evacuation.

ATTACHMENTS:

- A. Relocation of Columbia County Police Departments
- B. Columbia County Police Departments

Attachment A

RELOCATION OF COLUMBIA COUNTY POLICE DEPARTMENTS

Police Department in EPZ	Relocation Site
Berwick Borough	Columbia-Montour Vo-Tech School
Briar Creek/North Centre Township	Columbia-Montour Vo-Tech School

Attachment B

COLUMBIA COUNTY POLICE DEPARTMENTS

A list of Columbia County Police Departments is maintained in the County Resource Manual on file in the County EOC. The list is updated as required, and identifies municipalities that are served by the Pennsylvania State Police.

| G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix06-2008.doc

HEALTH AND MEDICAL SUPPORT

1. PURPOSE

To establish policies and procedures for the provision of health and medical support in Columbia County in the event of an incident at SSES.

2. RESPONSIBILITIES

- A. The Columbia County Emergency Management Agency is responsible for providing for appropriate medical support to the public. The Columbia County Emergency Management Agency is responsible for notification and support to hospitals and nursing homes as well as providing support to the municipalities within the plume exposure pathway EPZ for nonambulatory and ambulatory persons requiring special medical transportation. A Medical Coordinator has been appointed to assist the County Coordinator with medical support in Columbia County. In the event of an evacuation, each support county is responsible to provide appropriate medical services to the evacuees in the mass care centers located in their counties.
- B. Special needs facilities within the plume exposure pathway EPZ are responsible for contracts with support facilities, including transportation to the extent feasible, and coordinate their emergency plans with the County EMC.
- C. A listing of hospital and medical special needs facilities are listed in Appendix 7, Attachment A.
- D. Columbia County Health/Medical Officer is responsible for providing appropriate health and medical support to the public at risk in the event of an emergency.
- E. Ambulance services in the risk area will continue to provide their normal services to the public. In the event of evacuation, risk area ambulance services will assist with evacuation of persons requiring special medical transportation, but their support services will first be provided to areas normally covered.
- F. Each municipality in the plume exposure pathway EPZ is responsible for maintaining a current list of persons living in private residences who will require evacuation by ambulance or other type of special transportation, and provide a copy to the County EMA.
- G. Columbia County ambulance services, that are located outside the risk area, will maintain services to areas normally covered. These ambulance services will assist in evacuation of persons within the risk area as assigned by the County Emergency Management Agency. Ambulance services from other counties that are scheduled to support this evacuation will assemble at a staging area located at the Bloomsburg Fairgrounds. Dispatch of these ambulances from the staging area on evacuation missions will be accomplished by the health and medical group.

- H. The assignment to a support medical facility, see Attachment H, of hospitalized nonambulatory evacuees will be determined at the time of an incident by the health and medical staff based on bed availability at the facility to provide the individual patient care needed, and the needs of the patient, e.g., cardiac, burns, etc.

3. REQUIREMENTS

A. Columbia County EMA

- 1) Coordinate evacuation of patients from risk hospitals to support hospitals.
- 2) Assist in providing transportation resources to support evacuation of one hospital and two nursing homes located within the plume exposure pathway EPZ.
- 3) Assist in providing transportation resources to support municipalities within the plume exposure pathway EPZ to evacuate persons requiring special medical attention.
- 4) Coordinate emergency medical services to ensure provision of basic and advanced life support medical services (ALS and BLS).
- 5) Provide for health protection of emergency workers.
- 6) Notify designated MS-1 hospitals when incidents at nuclear power plants might be expected to cause contaminated injuries to off-site populations.
- 7) Identify the hospitals, special needs facilities, and other institutions located within the plume exposure pathway EPZ.
- 8) Support and assist hospitals, nursing homes, and other institutions with their health and medical unmet needs in accordance with coordinated plans.

B. Hospitals and Nursing Homes

When directed by the county EMA in coordination with PEMA and the Department of Health, hospitals and nursing homes within the plume exposure pathway EPZ will implement the provisions of their radiological emergency response plans to:

- 1) Administer KI to staff and patients (upon advice by the Secretary of Health).
- 2) Reduce the number of inpatients, if feasible.
- 3) Initiate specific protective actions:
 - a) Shelter - Stay indoors and limit exposure to outside air.
 - b) Prepare for possible evacuation.
 - c) Coordinate with designated relocation site(s).

- d) Finalize arrangements for transportation requirements.
- e) Evacuate to relocation sites.

C. Hospitals in General Support

Hospitals serving risk and support counties implement their radiological emergency response plans upon notification by the county emergency management agency, in coordination with PEMA and the Department of Health, to include:

- 1) Reduce hospital census. The degree to which hospitals effect patient reduction is judgmental and related to the anticipated need. The Pennsylvania Department of Health will provide advice.
- 2) Initiate emergency preparedness measures:
 - a) Identify areas for -
 - (1) Monitoring for radioactive contamination
 - (2) Triage
 - (3) Personnel decontamination
 - (4) Personal property labeling
 - (5) Emergency care and treatment
 - (6) Logistical control of patient and visitor traffic
 - (7) Temporary storage of contaminated items
 - (8) Relocation of evacuated patients
 - b. Arrange for
 - (1) Emergency staffing
 - (2) Positioning of personnel radiological monitoring equipment
 - (3) Continued communications with the county emergency management agency

4. SITUATION

- A. The Berwick Hospital Center is located 5 miles from PPL Susquehanna, LLC and is located inside the EPZ.

- B. General support hospitals that are capable of providing medical support to contaminated/irradiated individuals are shown in Attachment F. Support hospitals that will receive evacuated patients from risk hospitals are shown in Attachments G and H.
- C. There are nursing homes located in Columbia County within the plume exposure pathway EPZ. These nursing homes are listed according to their proximity to PPL Susquehanna, LLC in Attachment A. If required, they would be evacuated.
- D. A list of the municipalities within the plume exposure pathway EPZ and the number of persons requiring special medical transportation are listed in Tab 3 to Attachment B. These persons will be relocated to an appropriate medical or nursing facility as determined by the Columbia County EMA.
- E. Ambulance services are responsible to provide resources to handle daily emergency calls. All ambulances not committed to maintaining daily emergency coverage will assist in the evacuation of hospitals, nursing homes, and nonambulatory and ambulatory persons requiring special medical transportation (See Attachment C).
- F. Transportation requirements will be coordinated by the Columbia County transportation staff officer.

5. CONCEPT OF OPERATIONS

A. Unusual Event

Deploy emergency ambulance services onsite as requested.

B. Alert

- 1) If initial notification is of an Alert, take the response action under Unusual Event and those listed below. When notification is of an escalation to Alert, review the checklist item under the Unusual Event and ensure actions are underway or completed and then proceed with the actions under the Alert classification.
- 2) When notified, the Columbia County Health and Medical Coordinator reports to the EOC.
- 3) Notify the hospital and nursing homes located within the plume exposure pathway EPZ and advise them of the situation.
- 4) Notify Columbia County ambulance services and advise them of possible use of equipment and personnel.
- 5) Request municipal emergency management coordinators to review and update their list of persons requiring special medical attention or transportation.

C. Site Area Emergency

- 1) If initial notification is of a Site Area Emergency, take the response actions under Unusual Event, Alert, and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Unusual Event and the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- 2) Mobilize Health and Medical Services staff.
- 3) Request nursing homes to reduce patient census or evacuate and report patient census to the Health and Medical Services staff.
- 4) Notify support medical facilities and advise them of the situation.
- 5) Request availability of beds from support medical facilities.
- 6) Dispatch advanced life support and basic life support units to their assigned areas.
- 7) Mobilize ambulance services in their quarters and if the situation requires move ambulances to the transportation staging areas.
- 8) Assure that municipal emergency management coordinators report transportation requirements for persons requiring special medical transportation.

D. General Emergency

- 1) If initial notification is of a General Emergency, take the response actions under Unusual Event, Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Unusual Event, the Alert, and the Site Area Emergency to ensure actions are underway or completed and then proceed with the actions under the General Emergency classification.
- 2) If necessary, notify hospitals and nursing homes to take shelter or evacuate. PEMA will advise action to be taken.
- 3) Deploy ambulance resources in support of evacuation as necessary.
- 4) Hospitals, nursing homes, and municipalities will report the status and completion of evacuations to the Columbia County Medical Coordinator.
- 5) Maintain records of evacuees relocated to health and medical facilities.
- 6) Notify State EOC of implementation status of protective action.

ATTACHMENTS:

- A. Hospitals, Special Needs Facilities, Handicapped, and Hearing Impaired Institutions
- B. Medical Vehicle Requirements
- C. Columbia County Ambulance Resources
- D. Relocation of Columbia County Ambulances Located within the Plume Exposure Pathway EPZ
- E. MS-1 Hospitals
- F. Hospitals Serving in General Support
- G. Support Hospitals and Bed Availability Census
- H. Risk Hospital Assignments to Support Hospitals
- I. Air (Helicopter) Medical Evacuation

Attachment A

**Hospitals, Special Needs Facilities, Handicapped, and
Hearing Impaired Institutions
Located within the Plume Exposure Pathway EPZ**

1. <u>HOSPITALS</u>	<u>Phone</u>	<u>Distance from SSES</u>
Berwick Hospital East Sixteenth Street Berwick, PA 18603	759-5000	4.5 miles WSW
2. <u>NURSING HOMES/PERSONAL CARE</u>		
Berwick Retirement Villages I and II East Sixteenth Street Berwick, PA 18603	759-5400	4.5 miles WSW
Elmcroft of Berwick 2050 West Front Street Berwick, PA 18603	759-3155	5 miles WSW
Stulbs Independent Living 423 East Fifth Street Berwick, PA 18603	759-3000	5 miles WSW
3. <u>PERSONS WITH SPECIAL NEEDS</u>		
A. Lists of persons requiring special medical transportation are maintained on file in the respective municipal EOC.		
B. A listing of hearing impaired people have been identified, and the list is on file in the respective municipal EOCs.		

Attachment B

MEDICAL VEHICLE REQUIREMENTS

1. When Berwick Hospital and Retirement Villages I and II are preparing to evacuate, transportation requirements will be categorized utilizing the form at Tab 1.
2. Transportation requirements for nursing homes located in Columbia County will be updated at the time of an emergency utilizing Tab 2.
3. Transportation requirements for persons requiring special medical transportation, living at home, are listed at Tab 3 and will be updated at the time of an emergency.

TABS:

1. Transportation Requirements for Berwick Hospital
2. Transportation Requirements for Berwick Retirement Villages I and II
3. Municipal Medical Transportation Requirements

Attachment B, Tab 1

Transportation Requirements For Berwick Hospital

Date: _____

Time: _____

R SP R SS				
P E SS	E	S		S
MED. SURG.				
PEDIATRICS				
ICU/CCU				
INTERMEDIATE				
MATERNITY				
NEO-NATAL*				
TOTALS				

* Mothers and newborns count as one.

This form to be updated at time of emergency. See Appendix 9, Transportation, for preplanned transportation requirements and unmet needs.

Attachment B, Tab 2

**Transportation Requirements For
Berwick Retirement Villages I and II**

Date: _____

Time: _____

RS	E	ER E S S	E	S		RE	S E
Berwick Retirement Villages I & II East Sixteenth Street Berwick, PA 18603		240	2	3	5	Danville State Hospital Danville, PA	

* Van, wheelchair

Ambulance, bus, and van requirements are to be updated at the time of an emergency. See Appendix 9, Transportation, for preplanned transportation requirements and unmet needs.

This is the average patient load and it will be updated at the time of an emergency.

NOTE: Effort will be made to reduce census prior to evacuation.

Attachment B, Tab 3

Municipal Medical Transportation Requirements

R S	P	ED	R SP R	RE	RE E	S
municipalit			People Re irin m lance ran portation ES ED	otal m lance ee		
Berwick Borough (Briar Creek Boro)			30	15		
Beaver Township			2	1		
Briar Creek Township			2	1		
Fishing Creek Township			0	0		
Mifflin Township			2	1		
North Centre Township			0	1		
South Centre Township			0	1		
S			36	20		

Note: These are preplanned requirements and will be updated at time of emergency.

Attachment C

COLUMBIA COUNTY AMBULANCE RESOURCES

1. Ambulance Services: See Inter-Hospital disaster plan for additional resources.

ambulance Service in the EPZ	ambulance Service outside the EPZ	total ambulances available
Berwick		4
Berwick Paramedics		1
	Bloomsburg	2
	Bloomsburg Paramedics	1
	Benton	2
	Millville	1
	Catawissa	1
	Centralia	1
	Sugarloaf	1
total ambulances available		14

2. Supplemental Medical Transport Vehicles: Inform Transportation Officer & Resources Manager if Medical Transport Vehicles are used.

Source	Contact	Vehicle Type	Quantity	Capacity
Area Agency On Aging	Kathi Lynn Home: 784-2558 Office: 784-9272	Lift Van	1	2 Wheel Chairs or 10 Passengers
		Passenger Van	1	14 Passengers
		Passenger Van	4	11 Passengers
		Mini Vans	2	7 Passengers
		Sedan	1	4 Passengers
Medic 1	911 Coordinator	Van	2	2 Passengers
		Box-Type Vehicle	3	2 Passengers
TOTAL VEHICLES AND PASSENGER CAPACITY			14	52 Passengers

3. Medical Airlift Resources

Air Carrier	Location	Phone	Phone	
Life Flight	Geisinger Medical Center	570-271-6666	800-852-7328	3 *

* Additional Airlift Companies Coordinated by Life Flight

Attachment D

**Relocation of Columbia County Ambulances
Located within the Plume Exposure Pathway EPZ**

1. Ambulance services within the plume exposure pathway EPZ will be relocated as follows:

A	BULANCE SER ICE	RELOCATION SITE
	Berwick Ambulance	Columbia Montour Area Vo-Tech School 5050 Sweppenheiser Drive Bloomsburg, PA 17815

Attachment E

**List of Designated MS-1 & Facility Support Hospitals
Hospitals Capable of Evaluation and
Emergency Treatment of Contaminated Injured**

Nuclear Power Plant: Susquehanna Steam Electric Station

County Supported: Columbia

C /		C	C
Susquehanna Health Care Lycoming County	General	287	Nuclear Medicine
Bloomsburg Hospital Columbia County	General	125	RAD Monitoring Decontamination
Geisinger Medical Center * Montour County	General	577	Nuclear Medicine Support Hospital to SSES

* GMC is not an MS-1 Hospital but serves as a support hospital to SSES and can perform all the tasks associated with the MS-1 Program.

Hospitals Serving In General Support

The hospitals around Susquehanna Steam Electric Station that are capable of providing medical support to contaminated/irradiated individuals are shown on the following list, marked with an asterisk (*). The remaining hospitals are those in the general area of northeastern Pennsylvania that can be utilized for back-up (non-radiological) support. All other hospitals in the state with this capability are identified in the Commonwealth's Disaster Operations Plan, Annex E, and those additional hospitals could be used if necessary.

NU BER O BEDS	
COLU BIA COUNTY	
Bloomsburg Hospital * 549 East Fair Street, Bloomsburg, PA 17815 (570) 387-2100	125
Berwick Hospital Center * 701 East Sixteenth Street, Berwick, PA 18603 (570) 759-5000	169
LYCO IN COUNTY	
Muncy Valley Hospital 215 East Water Street, Muncy, PA 17756 (570) 546-8282	70
Susquehanna Health Care Systems * 777 Rural Avenue, Williamsport, PA 17701 (570) 321-1000	566
ONTOUR COUNTY	
Geisinger Medical Center * North Academy Avenue, Danville, PA 17822 (570) 271-6211	577
NORT U BERLAND COUNTY	
Shamokin Area Community Hospital RR 2, Shamokin, PA 17872 (570) 644-4200	90
Sunbury Community Hospital * 350 North Eleventh Street, Sunbury, PA 17801 (570) 286-3333	136
SC UYL ILL COUNTY	
St. Catherine Mec 101 Broad Street, Ashland, PA 17921 (570) 875-2000	117
Miner's Memorial Medical Center & Geriatric Center Seventh Street, Coaldale, PA 18218 (570) 645-2131	221

Attachment F

NU BER O BEDS

UNION COUNTY	
Evangelical Community Hospital * One Hospital Drive, Lewisburg, PA 17837 (570) 522-2000	155
LU ERNE COUNTY	
Hazleton General Hospital 700 East Broad Street, Hazleton, PA 18201 (570) 450-4357	184
Geisinger South* 25 Church Street, Wilkes Barre, PA 18765 (570) 826-3100	303
Geisinger Wyoming Valley 1000 East Mountain Drive, Wilkes Barre, PA 18711 (570) 826-7300	230

Attachment G

Support Hospitals And Bed Availability Census

Date: _____

Time: _____

	/S	P	ICU/CCU	I		N
COLU BIA COUNTY						
Bloomsburg Hospital 387-2100						
Berwick Hospital Center 759-5000						
LYCO IN COUNTY						
Muncy Valley Hospital 546-8282						
Susquehanna Health Care Systems 321-1000						
ONTOUR COUNTY						
Geisinger Medical Center 271-6211						
NORT U BERLAND COUNTY						
Shamokin Area Community Hospital 644-4200						
Sunbury Community Hospital 286-3333						
SC UYL ILL COUNTY						
St. Catherine Medical Center 875-2000						
Miner's Memorial Medical Center & Geriatric Center 645-2131						
UNION COUNTY						
Evangelical Community Hospital 522-2000						
LU ERNE COUNTY						
Hazleton General Hospital 450-4357						
Geisinger South Hospital 826-3100						
Geisinger Wyoming Valley 826-7300						
TOTALS						

Attachment H

Risk Hospitals Assignments To Support Hospitals

Date: _____

Time: _____

BED ASSIGNMENTS

	/S	P	ICU/CCU	I		N
COLU BIA COUNTY						
Bloomsburg Hospital 387-2100						
Berwick Hospital Center 759-5000						
LYCO IN COUNTY						
Muncy Valley Hospital 546-8282						
Susquehanna Health Care Systems 321-1000						
ONTOUR COUNTY						
Geisinger Medical Center 271-6211						
NORT U BERLAND COUNTY						
Shamokin Area Community Hospital 644-4200						
Sunbury Community Hospital 286-3333						
SC UYL ILL COUNTY						
St. Catherine Medical Center 875-2000						
Miner's Memorial Medical Center & Geriatric Center 645-2131						
UNION COUNTY						
Evangelical Community Hospital 522-2000						
LU ERNE COUNTY						
Hazleton General Hospital 450-4357						
Geisinger South Hospital 826-3100						
Geisinger Wyoming Valley 826-7300						
TOTALS						

Pennsylvania State Police and Army National Guard Air (Helicopter) Medical Evacuation

1. PURPOSE

To prescribe policies and responsibilities governing aerial medical evacuation.

2. SITUATION

- A. Use of Pennsylvania State Police and Pennsylvania National Guard helicopters to supplement those available from private sources, is subject to the provisions and restrictions outlined in paragraph 4 below.
- B. The determination of helicopter readiness will depend upon:
 - 1) Whether evacuation of patients was preplanned and sufficient lead time is allowed to mobilize crews. (Normally twelve hours to mobilize Pennsylvania National Guard.)
 - 2) The location and urgency of the situation.
- C. Evacuation of patients may be accomplished at the site of hospitals and nursing homes if space allows for a minimum of 200' x 100' landing area and the approach is conducive to a helicopter descent.

3. MISSION

To provide transportation for patients by air evacuation when time is a critical factor.

4. POLICIES GOVERNING THE USE OF NATIONAL GUARD AND PENNSYLVANIA STATE POLICE HELICOPTERS

- A. National Guard
 - 1) Department of Defense (DOD) Directive 45.15.13R governs the use of National Guard aircraft. The general policy governing the use of National Guard aircraft is that they may only be used in support of a State or Federal mission.
 - 2) Official purposes for utilizing National Guard aircraft are:
 - a) In direct support of the military mission (Federal or State).
 - b) When specifically authorized by law.
 - c) When approved by Department of Defense after the head of a federal department or agency has certified the mission to be in the national interest and commercial transportation is not available.

Attachment I

- d) When the mission is an emergency with a potential loss of life, and commercial transportation is not available, feasible, or adequate.

B. Pennsylvania State Police

- 1) In the event of an incident at PPL Susquehanna, LLC, the PSP helicopters are available and have been authorized by the Governor to provide medical air evacuation if required.
- 2) Patients may be transferred by PSP helicopter when:
 - a) Ground transportation is not readily available.
 - b) Ground ambulance access to the incident is prevented.
 - c) Speed is essential.
 - d) Advanced emergency care would otherwise be lacking or nonexistent.

NOTE: See also Attachment C, this Appendix.

C. Responsibilities

- 1) The Pennsylvania Department of Health in coordination with PEMA is the responsible agency for coordinating medical air evacuation efforts.
- 2) PSP prefers to have either a physician or a registered nurse accompany each patient during helicopter medical evacuation. During an emergency, their policy may have to be modified to include a qualified person to administer emergency care and, therefore, assume responsibility for patient care.
- 3) PSP ground patrols will provide the necessary ground to air coordination of activities during the time the helicopters are airborne.
- 4) The Army National Guard will coordinate their ground to air activities through their own communications system. Communications between PSP and National Guard are possible.
- 5) Columbia County Emergency Operations Center will provide necessary assistance concerning communications whenever possible. (National Guard helicopters will be assigned a compatible frequency should flight operations commence.)

D. Specific Helicopter Area Operation

- 1) National Guard helicopters can provide approximately nine (9) Chinooks (CH-47) and thirty (30) UH (Huey) helicopters.

- 2) Helicopter patient carrying capabilities:
 - a) Chinook - CH-47:
 - (1) Max. 12 litters with three attendants.
 - (2) 33 seats
 - b) Huey - UH-1:
 - (1) Max. three litters with two attendants.
 - (2) 10 seats
- 3) PSP
206B Jet Rangers (7)
 - a) Max. two litters with one attendant.
 - b) Four passengers.
- 4) Helicopter evacuation pickup points will be determined by the organizations involved, i.e., PSP and Army National Guard.
- 5) A list of civilian helicopter airlift capabilities is at Attachment C, this Appendix.

MILITARY SUPPORT

1. PURPOSE

To specify missions, procedures, and responsibilities of the Pennsylvania Army National Guard (PAARNG) in the support of State agencies and Counties in the event of a nuclear power plant incident.

2. SITUATION

See Basic Document.

3. CONCEPT OF OPERATIONS

- A. County emergency management agencies confirm to PEMA their need for direct support from PAARNG.
- B. PEMA requests the activation of the PAARNG.
- C. The Governor, upon advice of PEMA and the Adjutant General, decides when to order the PAARNG to State Active Duty (SAD).
- D. When ordered to SAD, the PAARNG deploys a battalion in direct support to each risk County. (See Attachment A.)
- E. Operational control of PAARNG remains with the Adjutant General or designated deputy.
- F. It is estimated that the respective PAARNG units could be mobilized and ready for deployment within six hours. The lead-time required to mobilize and deploy National Guard units will be considered before assigning specific missions.

4. RESPONSIBILITIES

- A. Upon order to SAD, the PAARNG is responsible for providing direct support to the risk Counties in the form of traffic control, security (to include access control), search and rescue, emergency transportation, emergency fuel on major evacuation routes, emergency clearing of roads and evacuation. Such emergency assistance will be as a supplement to the resources of the Municipal and County governments and other State agencies.

- B. County and Municipal authorities are responsible for identifying specific requirements for National Guard assistance within their respective political subdivisions. These identified requirements will be communicated to the National Guard liaison person assigned to the County EOC or, in the absence of a liaison person, the PEMA EOC for subsequent referral to the Department of Military and Veterans Affairs (DMVA) Emergency Preparedness Liaison Officer (EPLO). Requests will identify the type of assistance needed, location, time (if applicable) and the name of the individual responsible for making the request.

5. COORDINATION

- A. The supporting National Guard unit will provide liaison personnel at the designated risk County EOC, after activation of the PAARNG.
- B. Direct coordination between the risk Counties and their supporting PAARNG battalions is authorized.

6. REFERENCE

Pennsylvania National Guard OPLAN 95-1, Joint Emergency Operation Plan (JEOP), August 1995.

7. DEFINITIONS AND TERMS

(See Basic Document, paragraph 13.)

8. ABBREVIATIONS/ACRONYMS

(See Basic Document, Enclosure 3.)

ATTACHMENT:

- A. National Guard Task Organization

Attachment A

NATIONAL GUARD TASK ORGANIZATION

SITE	RISK COUNTY	PRIMARY BN	BACKUP BN
Beaver Valley Power Station	Beaver (Parent County)	28 SIGNAL 835 5th Ave, Coraopolis, PA 15108-1598	1-107 FA 820 Frank Ave. New Castle, PA 16101-5208
Limerick Generating Station	Montgomery (Parent County)	1-111 MX 1046 Belvoir Rd. Norristown, PA 19401-2806	2-103 AR 900 Adams Ave Scranton, PA 18510-1004
	Chester	1-213 ADA 111 Armory Drive Spring City, PA 19475-1231	1-109 MX 900 Adams Ave Scranton, PA 18510-1004
	Berks	1-109 FA POB 1028 280 Market Street Wilkes-Barre, PA 18703-1028	3-103 AR POB 291, R.D. #2 Lewisburg, PA 17837-0291
Peach Bottom Atomic Power Station	York (Parent County)	2-112 MX POB 589 28 Armory Lane Lewistown, PA 17044-0589	2-103 AR 900 Adams Ave Scranton, PA 18510-1004
	Lancaster	1-213 ADA 111 Armory Drive Spring City, PA 19475-1231	1-111 MX 1046 Belvoir Rd Norristown, PA 19401-2806
	Chester	1-111 MX 1046 Belvoir Rd Norristown, PA 19401-2806	1-104 CAV SQDN 5350 Ogontz Ave Philadelphia, PA 19141-1693

SITE	RISK COUNTY	PRIMARY BN	BACKUP BN
Susquehanna Steam Electric Station	Luzerne (Parent County)	1-109 FA POB 1028 280 Market Street Wilkes-Barre, PA 18703-1028	1-109 MX 900 Adams Ave Scranton, PA 18510-1004
	Columbia	2-103 AR 900 Adams Ave Scranton, PA 18510-1004	3-103 AR POB 291, R.D. #2 Lewisburg, PA 17837-0291
Three Mile Island Nuclear Station	Dauphin (Parent County)	3-103 AR POB 291, R.D. #2 Lewisburg, PA 17837-0291	1-109 FA POB 1028 280 Market Street Wilkes-Barre, PA 18703-1028
	York	2-112 MX POB 589 28 Armory Lane Lewistown, PA 17044-0589	2-103 AR 900 Adams Ave Scranton, PA 18510-1004
	Cumberland	1-108 FA 504 Calvary Road Carlisle, PA 17013-1699	1-103 AR 565 Walters Avenue Johnstown, PA 15907-1298
	Lebanon	1-109 MX 900 Adams Ave Scranton, PA 18510-1004	1-104 CAV SQDN 5350 Ogontz Ave Philadelphia, PA 19141-1693
	Lancaster	1-213 ADA 111 Armory Drive Spring City, PA 19475-1231	1-111 MX 1046 Belvoir Rd Norristown, PA 19401-2806

Abbreviations:

ADA - Air Defense Artillery
CAV - Cavalry
MX - Mechanized Infantry

AR - Armor Bn - Battalion
FA - Field Artillery

TRANSPORTATION

1. PURPOSE

To establish procedures for transportation support of emergency operations to include evacuation of the population in the plume exposure pathway EPZ of PPL Susquehanna, LLC.

2. RESPONSIBILITY

The County Emergency Management Coordinator is responsible for providing for transportation support to the people of Columbia County. A Transportation Coordinator with a supporting staff has been appointed to develop and coordinate transportation procedures and requirements in Columbia County.

3. REQUIREMENTS

Transportation will be provided for three groups in Columbia County. One group is special needs individuals in private residences requiring medical type transportation. This group's requirements are discussed in Appendix 7, Health and Medical Support. The second group requiring transportation are school children if school is in session. This group's requirements are discussed in Appendix 14, School Services. The third group requiring transportation services are those persons without automobiles. This group is discussed in this Appendix. Specific pickup points for people without transportation are listed in each municipal plan. Each is on file in the County EOC. A recapitulation of all transportation requirements and unmet needs is listed in Attachment D to this Appendix.

4. CONCEPT OF OPERATIONS

The Transportation Coordinator is responsible for the following actions:

A. Unusual Event

No requirement.

B. Alert

- 1) When requested, Transportation Coordinator reports to the county EOC.
- 2) Consider notification to bus companies and ambulance associations or companies are notified of situation and advised of possible need for their resources.
- 3) Request update of unmet requirements for transportation from municipalities, school districts, and support agencies (see Attachment D).
- 4) Request municipal update of unmet needs for transportation for nursery schools, day care centers, and group day care homes.

- 5) Notify transportation staging area personnel and place on standby.

C. Site Area Emergency

- 1) If initial notification is of a Site Area Emergency, take the response actions under Alert and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Alert and ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- 2) Mobilize transportation staff.
- 3) School district superintendents are notified to place buses and drivers needed for evacuation on standby status at school locations.
- 4) If situation requires, recommend to the County EMC the deployment of buses and ambulances into transportation staging areas. Coordinate this recommendation with Medical Services.
- 5) Report unmet transportation needs to EOC Manager.

D. General Emergency

- 1) If initial notification is of a General Emergency, take the response actions under Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Alert and Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.
- 2) Monitor relocation of fire, police, and ambulance companies outside of the plume exposure pathway EPZ, if relocation is required.
- 3) Support evacuation pickup points for persons without transportation as required.
- 4) Mobilize buses, ambulances, vans, and trucks to facilities and municipalities as required.

ATTACHMENTS:

- A. Transportation Resources
- B. Columbia County Transportation Requirements for Evacuation
- C. Transportation Staging Areas

Attachment A

TRANSPORTATION RESOURCES

1. Bus Resources

BUS COMPANIES		02/06	
COMPANY	CONTACT	PHONE	QUANTITY
JOE & JAN'S CHARTER TOURS	JOE OR JAN	275-5318 800-326-9324 275-5310-FAX 275-3348-RES. 274-6652 JOE EMERGENCY ONLY	11-46 PASSENGER 12-72 PASSENGER 27 MOTOR COACHES 1 HANDICAPPED MOTOR COACH
	DIANE	274-6679	
FISHING CREEK TRANSPORTATION	FRED BENNETT	683-6106-OFFICE 784-9395-RES 204-7717-CELL	35-72 PASSENGER BUS
	CHRISTINE HESS	204-1158-CELL	

BUS RESOURCES WITHOUT LETTERS OF AGREEMENT		02/06	
COMPANY	PHONE	QUANTITY	
JOHN BOWER, BERWICK AREA	752-5265-DAY	16	
	752-2602-NIGHT		
WILBUR SPONENBERG, BLOOM AREA	784-7805-DAY	1	
	389-1661-NIGHT		
GALLAGHER'S, BERWICK AREA	759-1093-DAY	10	
	752-1476-NIGHT		
SUSQUEHANNA TRAILWAYS CATAWESE COACH, COAL TWP	1-800-692-6314-FIRST	36	
	1-800-752-8687-SECOND		
	570-753-5125-AFTER HOURS ANSWERING SERVICE		
WINTERSTEEN, WAPWALLOPEN	379-2221	1	
DOUGLAS WAGNER, BLOOM AREA	784-7474	2	
DON EDWARDS, ORANGEVILLE AREA	683-5473	2	
GLEN RHINARD, HUNTINGTON MILLS	864-3980	11	
EARL DOHL, BERWICK AREA	752-7066	2	
ROBERT BREWINGTON, BENTON	925-6515	10	
RINEHIMER BUS CO, NUANGOLA	868-3667	3	
MAC JOHNSON, ORANGEVILLE AREA	784-4430	6	
TOTAL		100	

Columbia County Bus Transportation Requirements For Evacuation

A. School Districts:

SCHOOL DISTRICT BUS REQUIREMENTS			
Di trict	E ac ee	e Re ire	e n an
Berwick	3906	82	82
Bloomsburg (Beaver/Main)	142	2	2

Note: Benton Area, Central Columbia, Bloomsburg Area School Districts, and Columbia/Montour Vo-Tech School have students which reside in the EPZ but the school is located outside the EPZ.

B. Persons Without Transportation: Bus reporting points are the respective Municipal Buildings.

RISK MUNICIPALITY TRANSPORTATION REQUIREMENTS				
nicipalit	E ac ee	e Re ire	e n an	nmet ee
Beaver Township	16	1	0	1
Berwick Borough	2316	32	0	32
Briar Creek Borough	30	1	0	1
Briar Creek Township	180	3	0	3
Fishing Creek Township	45	1	0	1
Mifflin Township	100	2	0	2
North Centre Township	53	1	0	1
South Centre Township	5	1	0	1
S	2745	42	0	42

* Estimated Figures: Actual number will be determined at time of incident.

C. Total School and Public Bus Requirements

	Total	Available	Unmet Needs
School	84	84	0
Municipal	42	170	0
TOTAL	126		

- D. All unmet needs will be filled with county assets listed in Attachment A of this appendix. If county assets are exhausted, other resources will be utilized to augment county resources. These resources include, but are not limited to, mutual aid agreements, inter-hospital disaster plan resources, and PEMA.

TRANSPORTATION STAGING AREAS

1. Location

Bloomsburg Fairgrounds
West Main Street
Bloomsburg, PA

2. Staff

- A. Overall Coordinator
- B. Communications (RACES)
- C. Incoming Resource Coordinator
- D. Outgoing Traffic Dispatcher
- E. Fuel Coordinator

3. Incoming resources will be directed to the appropriate staging area when notified to mobilize.

PROTECTIVE RESPONSE

1. PURPOSE

- A. To prescribe protective response actions; portray population distributions; and designate evacuation time estimates for the plume exposure pathway EPZs contiguous to the five nuclear power plants located within the Commonwealth.
- B. To establish policies and procedures for sheltering or evacuation of the population within the plume exposure pathway EPZ of the Nuclear Power Plant in the event that evacuation is ordered.

2. SITUATION

- A. Upon direction or recommendation by the Governor that protective actions are to take place, PEMA will notify the risk and support counties and designated State agencies that such action is to be taken, and that their respective procedures for protective actions are to be implemented. PEMA will coordinate counties' concurrence of the protective action decision made by the Governor and specify the time to commence the operation.
- B. The two protective actions that may be implemented are:
 - 1) Sheltering (in-place).
 - 2) Evacuation.
- C. Sheltering is a protective action which could be recommended to the public.
- D. Evacuation is a protective action that involves movement of the population from the plume exposure pathway EPZ and is a worst case situation.
- E. Evacuation or sheltering can be implemented at either a Site Area Emergency or General Emergency classification. The selection of the evacuation option is a judgment based upon an evaluation of the specific circumstances surrounding the incident.
- F. It is assumed that in the event of an evacuation, at least 80 percent of the population in the risk area will obtain housing with relatives, friends, or commercial facilities outside the area, and they will not require mass care facilities.
- G. Any evacuation carried out under the provisions of this plan will be based on a 360° plume exposure pathway EPZ.
- H. It may not be necessary nor prudent to require the evacuation of all facilities located beyond the ten-mile radius, but within the plume exposure pathway EPZ. The decision to require an evacuation will be based on the circumstances surrounding the incident. Any limitation placed on an evacuation order will be made with the intent of maximizing overall public protection to the fullest extent possible.

3. RESPONSIBILITIES

- A. The responsibility for evacuation rests with the County Commissioners and the elected municipal officials upon an evacuation order or recommendation from the Governor of Pennsylvania. County Commissioners may recommend an evacuation, but they cannot compel it.
- B. Coordination and control of the evacuation will be the responsibility of the county emergency management coordinator supported by state and county forces, municipal EMA coordinators, and municipal forces.
- C. Columbia County identifies the following municipalities and population within the plume exposure pathway EPZ.

municipalities	Population	are
Beaver Township *	611	122
Berwick Borough	10,976	2,195
Briar Creek Borough	616	123
Briar Creek Township	3,010	627
Fishing Creek Township*	652	130
Mifflin Township*	2,124	425
North Centre Township*	878	176
South Centre Township*	386	77
TOTAL	19,253	3,851

* Partially within the plume exposure pathway EPZ.

- D. There are five school districts, Benton, Berwick, Bloomsburg (Beaver Main), Central Columbia, and the Columbia/Montour Area Vo-Tech School, with students who reside in the plume exposure pathway EPZ. There are one hospital and two nursing homes within the EPZ.

4. CONCEPT OF OPERATIONS

Actions taken to implement sheltering or evacuation of the plume exposure pathway EPZ are the same as those shown in paragraph 5.G. of the Basic Annex. They are accomplished under the direction and coordination of PEMA in conjunction with the County EMA. Federal assistance, if required, is requested through PEMA.

A. Site Area Emergency

- 1) Appropriate EAS announcements will be broadcast. (See Appendix 4, Public Information)
- 2) Support agencies will begin mobilization.
- 3) Mass care centers are on standby for possible reception of evacuees. Reports are made to the county EOC.
- 4) Hospitals, nursing homes and extended care facilities are instructed to prepare for possible evacuation. (See Appendix 7, Health and Medical Support and Appendix 14, School Services.)
- 5) Ambulances and buses are deployed, if necessary, to evacuate hospitals, nursing homes, and extended care facilities.
- 6) Municipalities involved in possible evacuation are instructed to mobilize emergency personnel.
- 7) Schools will be instructed to deploy buses and prepare for possible evacuation.
- 8) State and municipal police are deployed to designated traffic control points. (See Appendix 11, Traffic Control.)

B. General Emergency

- 1) County EOC will control evacuation procedure.
- 2) County broadcasts appropriate EAS announcements.
- 3) Reception centers and mass care centers are operational. (See Appendix 12, Mass Care)
- 4) County EOC monitors evacuation progress.
- 5) County EOC coordinates with state and municipal police on routing evacuees as required.
- 6) County EOC requests reports from municipalities on unmet needs and allocates unmet need resources.
- 7) County EOC monitors fire and police requests for augmentation and coordinates with appropriate sources.
- 8) If school is in session, students are evacuated if necessary. (See Appendix 14, School Services)
- 9) Nonambulatory patients from nursing homes, extended care facilities, private residences, and hospitals are evacuated if necessary. (See Appendix 7, Health and Medical Support)
- 10) County EOC receives reports from medical evacuee locations and makes adjustments as required.
- 11) County EOC receives reports on school evacuation and makes adjustments as required.
- 12) County EOC receives status reports and reports status to PEMA.

ATTACHMENTS:

- A. Evacuation Routes from Municipalities to Reception Centers and Mass Care Centers
- B. Evacuation Time Estimates
- C. Plume Exposure Pathway EPZ Description
- D. Population Data, PPL Susquehanna, LLC
- E. Sheltering Information
- F. Protective Response Flow Chart

Attachment A

Evacuation Routes From Municipalities To Reception Centers

Municipality	Evacuation Route
Beaver Township (570) 784-4852 Fax: 784-7195	Take local routes to State Route 339. Go south on State Route 339 to State Route 54. Go east on State Route 54 to Marian High School Road and North to Marian High School, Barnesville.
Berwick Borough (570) 752-6020	Take State Route 11 south to Route I-80; or State Route 93 north to State Route 487, south on State Route 487 to Route I-80; west on Route I-80 to Exit 212 to I-180, west on I-180 to Exit 15. Lycoming Mall, Halls.
Briar Creek Borough (570) 759-1566	Take State Route 11 south to Route I-80, west on Route I-80 to Exit 212 to I-180, west on I-180 to Exit 15, Lycoming Mall, Halls.
Briar Creek Township (570) 752-5390	Take local routes to State Route 93, north on State Route 93 to State Route 487, south on State Route 487 to Route I-80 to Exit 212A to State Route 147, south on State Route 147 through Northumberland to Sunbury. Rte 147 becomes Front Street. Turn left onto Chestnut Street and right onto Fourth Street to Walnut Street to Shikellamy High School, Sunbury.
Fishing Creek Township (570) 683-6033	Take local routes west to State Route 254. Go west on State Route 254 to State Route 42 in Millville. Take State Route 42 north to State Route 442. Take State Route 442 west to Interstate 180. Go north on Interstate 180 to Lycoming Mall, Halls.
Mifflin Township (570) 752-4651	Take local routes to Route I-80, west on Route I-80 to Exit 212A SR 147 south to SR 45 west on 45 to Montandon Elementary School, Montandon.
North Centre Township (570) 759-1121	Take State Route 93 north or Fowlersville Road west to State Route 487, south on State Route 487 to Route I-80, west on Route I-80 to Exit 212A to State Route 147, south on State Route 147 through Northumberland to Sunbury. Rte 147 becomes Front Street. Turn left onto Chestnut Street and right onto Fourth Street to Walnut Street to Shikellamy High School, Sunbury.
South Centre Township (570) 784-7718	Take local routes to Route I-80, west on Route I-80 to Exit 212A SR 147 south to SR 45 west on 45 to Montandon Elementary School, Montandon.

EVACUATION TIME ESTIMATES

Susquehanna Steam Electric Station

These estimates are taken from "Susquehanna Steam Electric Station Evacuation Time Estimates" prepared for Pennsylvania Power & Light Company by HMM Associates, Waltham, Massachusetts, August 1981. Evacuation time estimates were developed by HMM Associates for three time periods, i.e., normal weekday, nighttime, and weekend. Time estimates for evacuation of the plume exposure pathway EPZ under these conditions are:

- Normal Weekday 6 hours, 5 minutes
- Night 4 hours, 20 minutes
- Weekend 5 hours

If buses must make a return trip for evacuees without their own transportation, the normal weekday estimate increases to 7 hours, 45 minutes.

Adverse weather conditions were also studied by HMM. Their estimates for evacuation of the plume exposure pathway EPZ for the conditions indicated are as follows:

- Snow or Rain
 - Normal Weekday 7 hours, 35 minutes
 - Night 6 hours, 5 minutes
 - Weekend 7 hours, 10 minutes
- Flooding 8 hours, 50 minutes
- Icing 8 hours, 50 minutes
- Winter Storm 8 hours, 50 minutes

In developing the estimates for flooding, icing, and winter storms, HMM concluded that it is not isolated roadway closings that increase the evacuation times but rather road capacity constraints and speed reductions.

- * Population statistics from 1990 and 2000 Census indicate negligible change from 1981 Report.

Written Description Of Plume Exposure Pathway Epz

1. COLUMBIA COUNTY

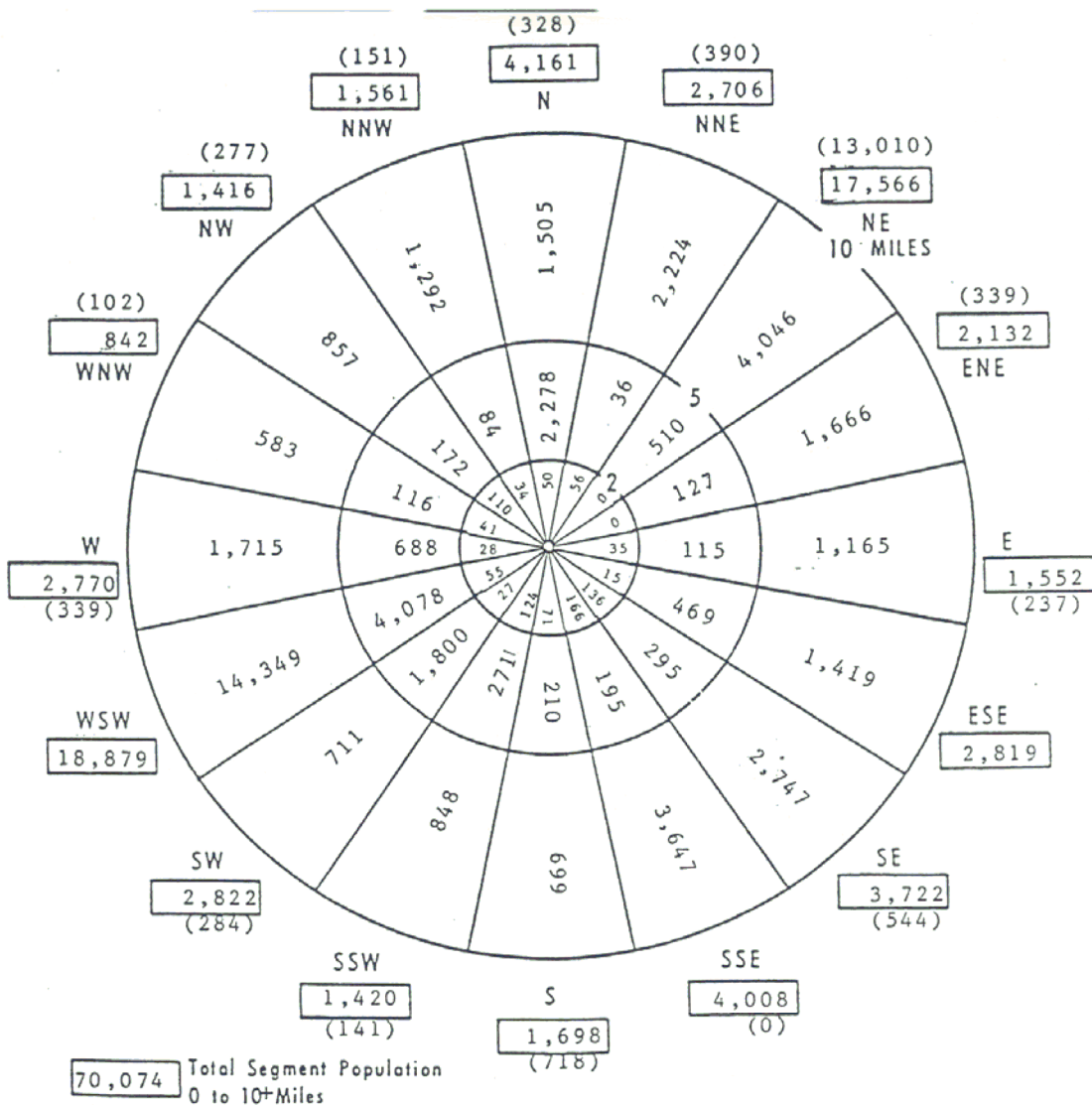
Begin at the intersection of the Huntington/Fairmont corporate boundary with the Columbia/Luzerne County boundary. Proceed Southeast along the county line, past point where State Route 239 crosses county line, to Rhorsburg-Zaners-New Columbus Road. Take Rhorsburg-Zaners-New Columbus Road Southwest to its intersection with State Route 487. Follow 487 South until it intersects with the Fishing Creek/Orange Township corporate boundary. Go Southeast along this boundary to the North Centre Township corporate boundary. Proceed West along this boundary to the Orange/North Centre Township corporate boundary. Follow this boundary South to State Route 93. Take 93 East to School House Road. Follow School House Road South to its intersection with Interstate 80. Proceed Southeast on Interstate 80 (across north branch of the Susquehanna River) to River Road. Proceed Southwest on River Road to its intersection with State Route 339. Follow 339 South to Ryan Road. Take Ryan Road until it intersects with West Street, Mifflin Follow West Street, Mifflin Southward to its intersection with Beaver Valley Road. Proceed East on Beaver Valley Road until it intersects with Chapel Hill Road. Follow Chapel Hill Road toward the Southeast to its junction with Dogtown Road. Follow Dogtown Road South to its intersection with State Route 339. Proceed Southeast on 339 to the Columbia/Schuylkill County boundary. Follow this boundary Northeast to the intersection of the Columbia/Luzerne/Schuylkill County line.

2. LUZERNE COUNTY

Begin at the intersection of the Luzerne/Columbia/Schuylkill County line. Follow the Luzerne/Schuylkill County line southeast to the Black Creek/Hazle Township corporate boundary. Follow this boundary north to the Hazle/Sugarloaf Township corporate boundary. Continue east then north and east again along this boundary to its intersection with the Sugarloaf/Butler Township corporate boundary. Follow this boundary northwest to the Butler/Hazle Township corporate boundary. Continue eastward along this boundary until it intersects with State Route 309. Take 309 north to its intersection with Interstate 80. Follow Interstate 80 east to the Butler/Dennison Township corporate boundary. Follow the boundary north to the point where the corporate boundaries meet for Butler/Dennison/Dorrance and Wright Townships. Proceed north along the Dorrance/Wright Township corporate boundary to the Nuangola Borough corporate boundary. Follow this boundary east, then north and west around the borough to Newport/Hanover Township corporate boundary. Proceed north along this boundary to the Nanticoke City boundary. Follow this boundary east, north, and west (on south side of Susquehanna River) around the city to its intersection with the Newport Township corporate boundary. Proceed along the Newport Township boundary to the Hunlock/Plymouth Township corporate boundary. Follow this boundary north to SR 4036. Take SR 4036 northwest to the Hunlock/Ross Township corporate boundary. Follow this boundary southwest to the intersection of T514/T506 (point where corporate boundaries meet for Huntington/Union/Ross Township). Proceed north on Huntington/Ross Township corporate boundary to Huntington/Fairmont Township corporate boundary. Proceed west along this boundary to the Luzerne/Columbia County line.

Attachment D

POPULATION DATA
PPL SUSQUEHANNA, LLC



POPULATION TOTALS			
RING, MILES	RING POPULATION	TOTAL MILES	CUMULATIVE POPULATION
0-2	948	0-2	948
2-5	11,444	0-5	12,392
5-10	39,509	0-10 +	68,932

SOURCE: Bureau of Census, 1984 Population Estimate.

NOTE: Population residing outside the 10 mile radius, but within the EPZ of each section appears within the parenthesis.

* 2000 Census data indicates less than 1% change in EPZ population.

SHELTERING INFORMATION

1. PURPOSE

To provide general information on individual actions that can be taken in order to provide temporary protection from inhalation and ingestion of radiocontaminated particles and gases.

2. GENERAL

- A. Any building, structure or vehicle that can be partially or completely sealed so that outside air does not enter will provide some protection from radiation.
- B. If instructed to "take shelter", all persons should seek the most immediately available shelter. Additional information will be broadcast on the radio/TV Emergency Alert System, EAS. Telephones should be used to make emergency calls only such as the need to summon fire, police, or rescue personnel. An EAS announcement will inform on when it is appropriate to leave a shelter.

3. ACTIONS TO BE TAKEN

- A. Appropriate actions if sheltering is taken in a home, school, or any other building are:
 - 1) Close doors, windows, drapes, blinds, etc.
 - 2) Minimize all sources of outside air. Turn off air conditioners, furnaces, and heat pumps.
 - 3) If possible, move to a below ground level or windowless room. They provide the most protection.
 - 4) Place a supply of potable (drinking) water in a sealed container.
 - 5) Place fresh vegetables, fresh fruit, and dairy products in sealed containers. Refrigerators and freezers provide acceptable protection.
 - 6) Canned, packaged, and bottled foods can be consumed safely. The containers, however, should be washed thoroughly before opening.
 - 7) In nuclear power plant incidents involving the release of radioactive iodine, cows may ingest the contaminant and produce milk with some degree of contamination. Only milk produced after any exposure of the cows to contaminated feed (not milk stored in the home or already packaged milk at the dairy or store) is subject to radioactive iodine contamination.

Attachment E

- 8) Food not stored indoors or similarly protected, such as garden vegetables, fruit on trees, or food products obtained outside the home after the incident, could be contaminated. Contamination, however, does not render such foods unusable. Most foods can easily be decontaminated by fairly simple food preparation procedures.
- 9) The following procedures for various food types are generally considered to be effective protective measures in assuring that food is free of contamination and suitable for consumption.

<u>TYPE OF FOOD</u>	<u>RECOMMENDED PROTECTIVE ACTION</u>
a) Root Crops	Thoroughly wash, brush, scrub (potatoes, carrots, etc.) or peel to remove surface contamination. Root crops are the least susceptible to contamination since the soil protects the edible portion from immediate contamination. Care should be taken in digging and storing to prevent contact with contaminated surface.
b) Fruits and Vegetables	Thoroughly wash, brush, scrub, or peel to remove surface contamination. These food products are susceptible to contamination due to the exposure surface area of the edible portion.
c) Canned or Packaged Foods	Thoroughly clean the surface of the package by washing, vacuuming, or using a damp cloth to remove surface contamination prior to opening.
d) Frozen Foods	Frozen foods packaged prior to an incident involving radioactive contamination will be safe as long as they were kept in a freezer. If the surface becomes contaminated, it should be thoroughly cleaned off prior to opening to prevent contaminating the contents.
e) Unpackaged Stored Foods	These foods will be safe to eat if outside air has been excluded from the storage area. If the storage area has become contaminated, they may be able to be salvaged by washing, scrubbing, peeling, etc. This will depend upon the type of food item involved.

Attachment E

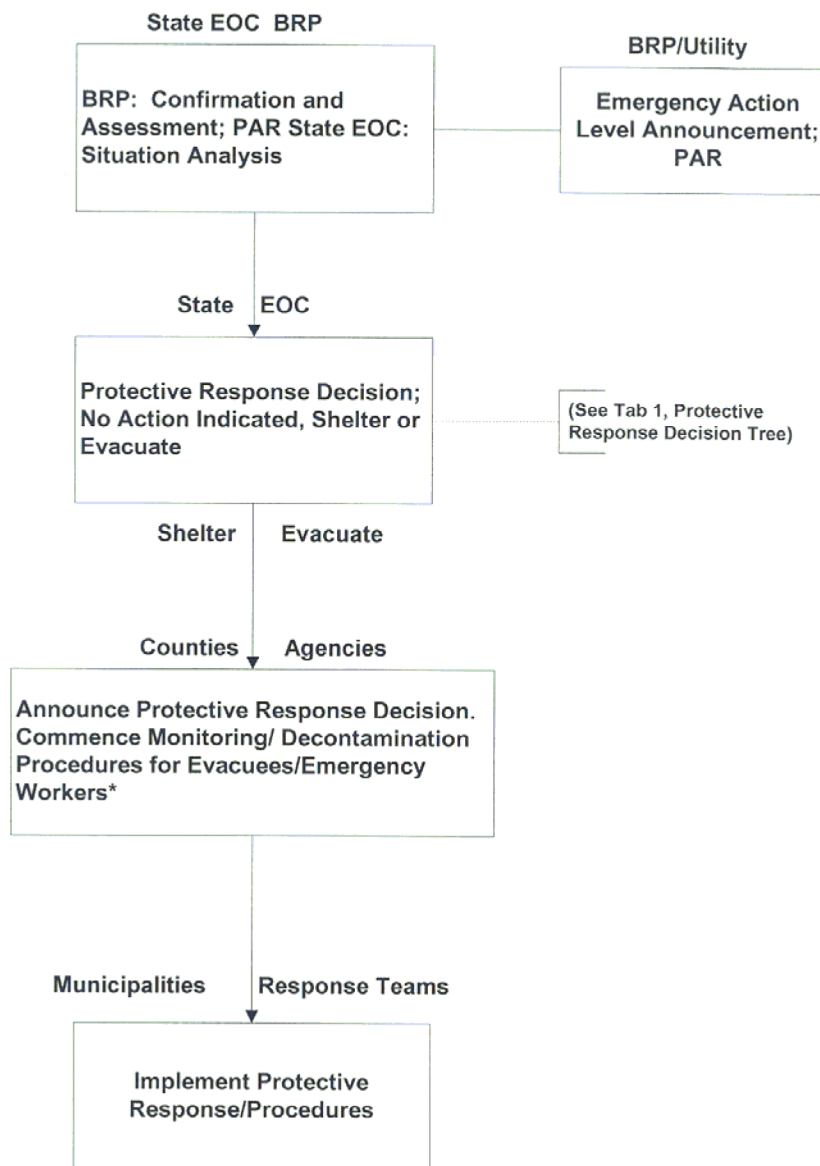
- 10) If it is announced that a radioactive plume will pass through an individual's area, that person should:
 - a) If it becomes necessary to go outdoors, wear a surgical or commercial face mask, double clothing such as raingear, hat, gloves, and galoshes. Tape cuffs and other openings outside of gloves and footwear.
 - b) Wear surgical or commercial face masks while indoors. Or, cover mouth and nose with a dampened handkerchief or towel. (A handkerchief folded to 16 layers is equivalent to two layers of a bath towel or four layers of toilet paper.)
 - c) After the plume has passed (EAS announcement), wash exposed extremities with non-abrasive soap and warm water. Avoid hot and cold water because they could affect the pores and aggravate contamination.
 - d) Shower body and hair with non-abrasive soap and warm water. Clean fingernails thoroughly. Redress with clothes from a closed closet or drawer. Wash old clothing in laundry detergent and dry. Rewash hands thoroughly.
- 11) Plan ahead:
 - a) Develop a family plan of emergency action including actions to be taken by each family member when away from home, and when at home.
 - b) Stock emergency supplies of food, medicines, sanitary materials, infant and pet supplies, first aid items, etc., in sufficient supply to last for several days.
 - c) Have available flashlights, batteries, a battery-powered radio, a fire extinguisher, and basic tools.

B. Appropriate actions if sheltering is taken in a vehicle are:

- 1) Stop. Close all doors, windows, and vents.
- 2) Turn off the heater or air-conditioner.
- 3) Tune radio to the EAS station.
- 4) If inside a contaminated area, drive out of the area if at all possible, or drive to your residence and take cover with your family.
- 5) If not within a contaminated area, do not enter it if at all possible.

Attachment F

Protective Response Flow Chart



PAR - Protective Action Recommendation

* - If directed.

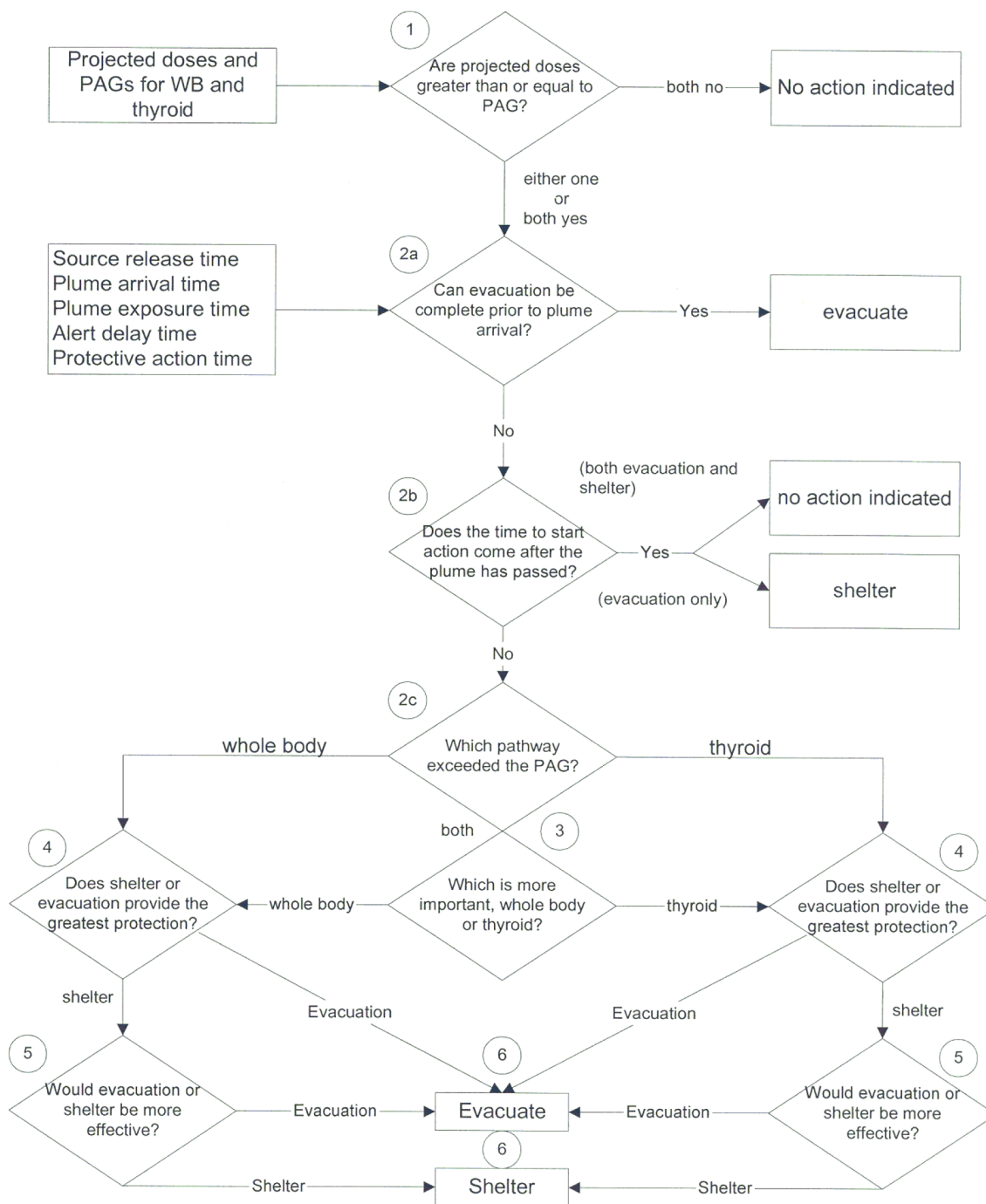
Tab:

1. Protective Response Decision Tree

Luz-ColAppendix10-F-visioAPP10ATF.v

Attachment F, Tab 1

Protective Response Decision Tree



PAG - Protective Action Guide
WB - Whole Body

LuzColAttachmentF-1

AERIAL, HIGHWAY, RAILROAD, AND WATERWAY TRAFFIC CONTROL

1. PURPOSE

- A. To establish procedures for traffic control in support of emergency operations to include an evacuation of residents and transients within the plume exposure pathway EPZ.
- B. To specify provisions for restricting aerial flights, railroad traffic, and waterway travel in case of a nuclear incident at the Susquehanna Steam Electric Station Nuclear Power Plant.

2. SITUATION

- A. A number of companies use railroad tracks that traverse the plume exposure pathway EPZ surrounding each of the five nuclear power plants within the Commonwealth. Closing sections of those railways may be necessary in the event of a nuclear power plant incident.
- B. Each of the five nuclear power plants is sited on a major waterway: Beaver Valley Power Station on the Ohio River; Peach Bottom Atomic Power Station, Susquehanna Steam Electric Station and Three Mile Island Nuclear Generating Station on the Susquehanna River; and Limerick Generating Station on the Schuylkill River. Closing sections of those rivers may be necessary in the event of a nuclear power plant incident.

3. RESPONSIBILITIES

A. Highway Traffic Control

- 1) Development of procedures for traffic control on municipal evacuation routes in the event of an emergency rests with the County Emergency Management Coordinator. The Columbia County Police Services Coordinator in cooperation with the Pennsylvania State Police and municipal police forces is responsible for the execution of traffic control procedures on major and municipal evacuation routes respectively.

B. Railroad Traffic

PEMA, through the PUC Emergency Preparedness Liaison Officer, EPLO, notifies appropriate railroad agencies of the restrictions placed on rail traffic. A list of railroads affected by SSES Nuclear Power Plant is at Attachment E.

C. River Traffic

PEMA determines the need to restrict river traffic and notifies the Pennsylvania Fish & Boat Commission and Pennsylvania State Police. The Fish & Boat Commission establishes and operates waterway ACPs as required.

D. Aerial Traffic

PEMA through the PennDOT EPLO places restrictions on aerial flights in the vicinity of the involved nuclear power plant.

4. REQUIREMENTS

To ensure an orderly flow of traffic during an evacuation, control points are established at major intersections along evacuation routes. The State Police have identified potential bottlenecks along major arteries and are responsible for control of these points. Municipal police forces are responsible for traffic flow within their municipality. The Pennsylvania Department of Transportation will assist with the clearance of obstacles on main evacuation routes. The Pennsylvania National Guard will provide wreckers and gasoline trucks to service vehicles along major evacuation routes. Municipalities are required to provide these services within their municipality. (In the event of a radiation release, the PA Turnpike may be closed to regular traffic between Interchanges 16 and 21. Evacuation traffic, however, will continue to use the PA Turnpike as scheduled.)

5. CONCEPT OF OPERATIONS

The Law Enforcement Coordinator is responsible for the following actions:

A. Unusual Event

Deploy onsite police services if requested.

B. Alert

- 1) If initial notification is of an Alert, take the response action under Unusual Event and those listed below. When notification is of an escalation to Alert, review the checklist item under the Unusual Event to ensure actions are underway or completed and then proceed with the actions under the Alert classification.
- 2) When requested, the Police Services Coordinator reports to the County EOC.
- 3) Review traffic control plans, ensure availability of resources, and request municipal police chiefs to review emergency plans and make known any unmet needs.

C. Site Area Emergency

- 1) If initial notification is of a Site Area Emergency, take the response actions under Unusual Event, Alert, and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Unusual Event and the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- 2) Mobilize Police Services Coordinator staff.

- 3) Monitor distribution of dosimetry and KI to police departments.
- 4) Mobilize police departments throughout the county.
- 5) Notify PEMA about any unmet traffic control requirements.
- 6) State and municipal police will commence traffic control or access control operations, if necessary.

D. General Emergency

- 1) If initial notification is of a General Emergency, take the response actions under Unusual Event, Alert, Site Area Emergency, and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Unusual Event, the Alert, and the Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.
- 2) Ensure that traffic control points are operational in preparation for evacuation.
- 3) Ensure that access control points are operational for security in the event of population sheltering or evacuation.
- 4) Coordinate with Pennsylvania Department of Transportation for clearance of obstacles on main evacuation routes.
- 5) Ensure that municipal governments provide wreckers and emergency fuel supply along the evacuation routes.
- 6) Instruct personnel manning traffic control points along the evacuation routes to facilitate the movement of school buses and other emergency vehicles.
- 7) As necessary, impose communications restrictions on police net limiting it to emergency transmissions only. Coordinate with County Communications Coordinator.
- 8) Release appropriate EAS announcements pertaining to highway closings and restrictions.
- 9) Request municipal police to provide situation reports periodically.
- 10) Prepare to mobilize traffic control points upon notification of authority to reenter.

ATTACHMENTS:

- A. Columbia County Traffic Control Points
- B. Columbia County Access Control Points
- C. Columbia County Municipal Traffic Control Points
- D. River Access Control Points, PPL Susquehanna, LLC
- E. Railroads Affected By Nuclear Power Plant Incidents

Attachment A

COLUMBIA COUNTY TRAFFIC CONTROL POINTS

P S	R ES	E	
i in ree o n ip			
50	SR0487 & SR1020 State Rte 487 and Winding Road	1	PSP
51	SR0487 & SR1022 State Rte 487 and Zaners Bridge Road	2	PSP
riar ree o n ip			
52	Twin Church Road & SR1025 Foundaryville Rd/Summerhill Rd	1	PSP
53	SR1025 Foundryville Rd & SR1012 Shickshinny Valley Rd	1	PSP
54	SR1019 Kachinka Hollow Rd & SR1025 Foundaryville Rd	1	PSP
55	SR1012 Knob Mtn Rd & SR1017 Martzville/Evansville Rd	1	PSP
56	SR1017 Lake Rd & SR0093	2	PSP
riar ree oro er ic oro			
57	U.S. 11 & Park Road	2	PSP
ort entre o n ip			
58	SR0093 & Edwards Road	2	PSP
59	SR1012 Knob Mtn Rd & SR0093	1	PSP
60	SR0093 & Dohl Road	1	PSP
So t entre o n ip			
61	I-80 & U.S. 11	2	PSP
62	U.S. 11 & I-80	2	PSP
POST 61 will have one man located on I-80 EAST directing traffic off ramp #241 to Lime Ridge. Another man on I-80 WEST at off ramp #241 to Berwick not leaving any traffic off. POST 62 will have one man on U.S. Route 11 turning traffic around approximately 1/10 mile NORTH of intersection Low Street. Another man will be located on U.S. Route 11 SOUTH, stopping traffic from entering I-80 EAST on ramp #241.			
ran e ille oro			
63	SR0487 & SR0093	2	PSP
Scott o n ip			
64	SR0487 & SR1008 Fowlersville	2	PSP
65	I-80 & SR0487	1	PSP
66	SR0487 & I-80	2	PSP
POST 65 will have a man on I-80 EAST exit #23635 directing traffic off on to Route 487. POST 66 will have two men on Route 487 entrance to I-80 EAST stopping all traffic from entering on ramp #236.			
i lin o n ip			
67	I-80 & SR0339 (West Third Street)	2	PSP
68	SR0339 & I-80	2	PSP
69	SR339 & SR 2028 (East Third Street At Mifflinville Bridge)	2	PSP
ea er o n ip			
70	SR 2022 Scotch Valley & SR2024 Beaver Valley Road	1	PSP
ain o n ip			
71	SR0339 & SR2022 Scotch Valley	1	PSP
72	SR0339 & SR2009 Creek Road	1	PSP

General Instructions: Purpose of these TCPs is to expedite the flow of traffic away from the EPZ during the evacuation.

Only authorized personnel (police, fire, ambulance, National Guard, emergency management) will be permitted entry to EPZ. In addition, those residents who wish to enter the EPZ to evacuate their families may also be permitted entry.

COLUMBIA COUNTY ACCESS CONTROL POINTS

P S	R ES	E	R P	S R S
ent on ip				
101	T711 & T 806 Depoe & Burts Road	1	PSP	No traffic south on T 806
102	T 699 & T 794 Rocky Hollow & Pealer Rd	1	PSP	No traffic east on T 609
103	PA 239 & SR1025 Shickshinny Road & Bendertown Road	1	PSP	No traffic east on PA 239
104	SR1025 & T 829 Bendertown & Frosty Hollow Rd	1	PSP	No traffic east on T 829
i in ree on ip				
105	T 665 & SR1022 Rohrsburg/Zaner	1	PSP	No traffic east on SR1022
106	SR1022 & SR1025 Zaner & Ridge Rd	1	PSP	No traffic south on SR1025
107	T 772 & SR1022 Paperdale & Zaners Bridge	1	PSP	No traffic south on T 772
108	T 603 & SR1022 Ridge Rd and Church Rd	1	PSP	No traffic east on T 603
109	T 764 & SR1022 Zaner Bridge and Country	1	PSP	No traffic south on T 764
110	Winding Road & SR0487	1	PSP	No traffic east on SR1020
111	SR1022 Zaners Bridge Rd & PA 487	1	PSP	No traffic east on SR1022
ran e ille oro				
112	SR 93 & SR 487 Main St. & Berwick Rd.	1	PSP	No traffic east on SR 93
ort entre on ip				
114	T 525 (Whitmire Road) & T 566	1	PSP	No traffic east on T 525
115	T 656-N & SR1010 Hosler-Cabin Run Road	1	PSP	No traffic north on T 656
116	T 656-S & SR1010 Hosler-Cabin Run Road	1	PSP	No traffic east on SR1010
117	T 656 & SR1008 Fowlersville and Cabin Run Road	1	PSP	No traffic east on SR1008
118	SR1008 & SR1003 Fowlersville Rd & School House Rd	1	PSP	No traffic east on SR1008
119	T 481 & SR1003 Ridge Road & School House Rd	1	PSP	No traffic east on T 481
120	SR1003 & T 644 Light House-Shaffer Hollow Rd	1	PSP	No traffic south on T 644

Attachment B

P S	R ES	E	R P	S R S
So t entre o n ip				
121	I-80 & U.S. 11 (Columbia Blvd)	2	PSP	No traffic east on I-80
122	U.S. 11 & I-80	2	PSP	No traffic north on U.S. 11
123	T 646 & Columbia Blvd Cryders Lane	1	PSP	No traffic east on SR1004
i lin o n ip				
124	I-80 & SR2020 Pee Wee Hill	2	PSP	No traffic east on I-80
125	SR2020 & I-80 Pee Wee Hill	2	PSP	No traffic north on SR2020
126	T 417 & SR0339 Aten Rd & Mifflin/Main Rd	1	PSP	No traffic east on T 417
127	PA 339 Mifflin/Main Rd & T 415 (Ryman)	1	PSP	No traffic east on T 415
128	T 628 & T 411 Hofnagle School Rd & Jarrard Rd	1	PSP	No traffic east on T 628
129	T 409 & T 628 Mifflin X Rd & Hofnagles Rd	1	PSP	No traffic east on T 628
ea er o n ip				
130	SR2022 & SR2024 Scotch Valley & Beaver Valley	1	PSP	No traffic east on SR2022
131	SR2024 & T 628 Beaver Valley & Chaple Hill Rd	1	PSP	No traffic north on T 628
132	SR2024 & T 626 Beaver Valley & School House Lane	1	PSP	No traffic east on SR2024
133	T 630 & T 626 Dogtown Road & School House Lane	1	PSP	No traffic on T 630
134	SR2026 & PA 337 Mountain Shadow Rd	1	PSP	No traffic east on SR2026

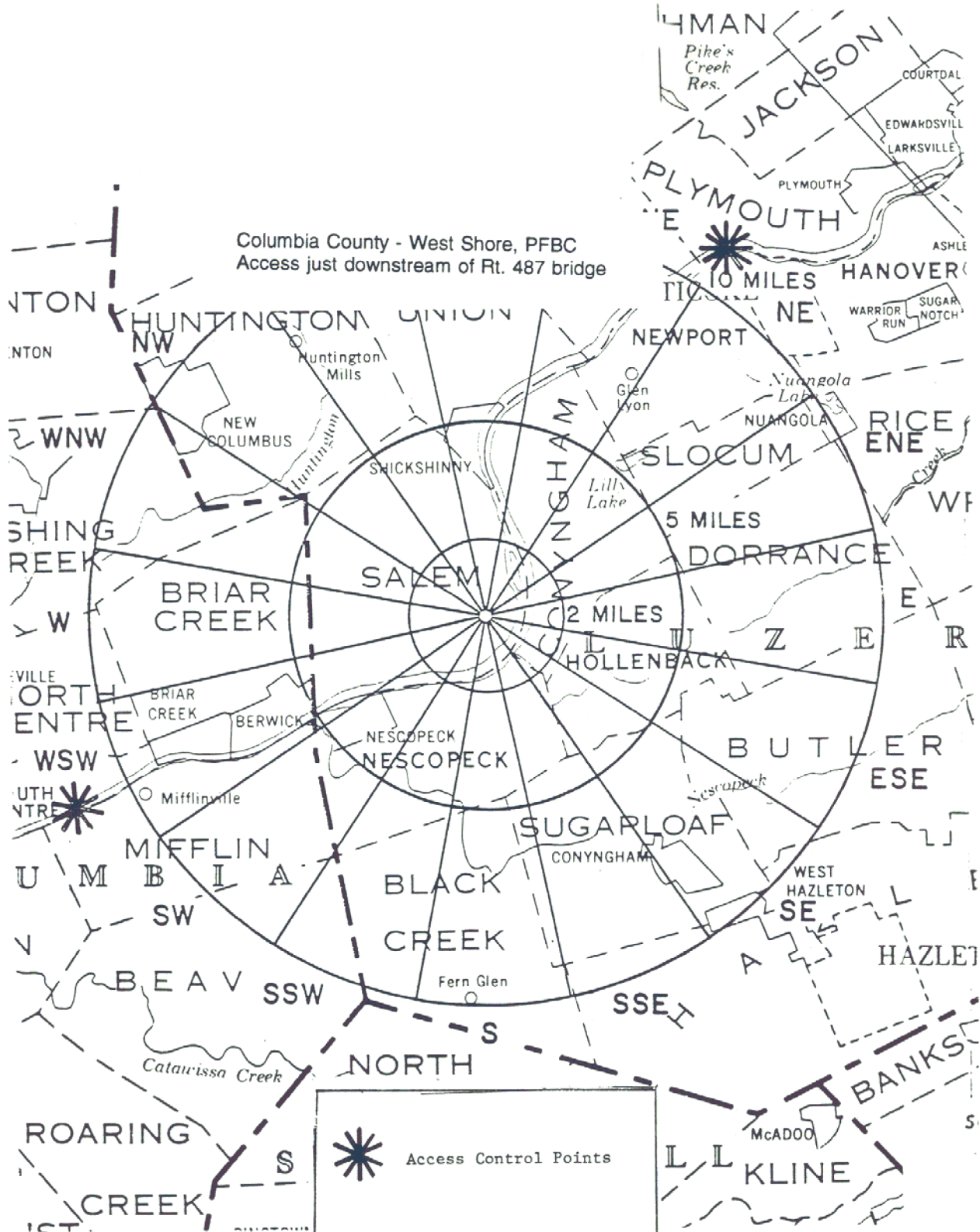
Attachment C

COLUMBIA COUNTY MUNICIPAL TRAFFIC CONTROL POINTS

P S	R ES	E	DEP R E
er ic oro			
1	West Front Street & Market Street	1	Berwick
2	Market Street & West Second Street	1	Berwick
3	Summerhill Ave, Heights Rd, & Martzville Rd	1	Berwick
4	Intersection Summerhill Ave, Bowers Lane	1	Berwick
5	East Sixteenth Street & Evergreen Blvd (Berwick Hospital)	1	Berwick
6	East Front Street & Walnut Street	1	Berwick
7	East Second Street & Walnut Street	1	Berwick
8	West Front Street & Orange Street (Rts 11 & 93)	1	Berwick
9	West Front Street & Park Blvd	1	Berwick
10	West Orange Street & Fairchild St	1	Berwick
11	Freas Avenue & Cemetery Rd	1	Berwick
riar ree o n ip			
1	SR1014 & SR1023 (Evansville-Martzville Rd & Freas Ave)	1	Briar Creek Twp
2	SR1025 & SR1029 (Water Dam Road, Foundryville)	1	Briar Creek Twp
ea er o n ip			
1	Shuman's Corner JCT SR339 & T 630 (State Rd & Dogtown)	1	Beaver Twp FP
i lin o n ip			
1	Market Street & Third Street	1	Mifflin Twp
So t entre o n ip			
1	U.S. 11 & SR1003 (Low Rd)	1	South Centre Twp
2	U.S. 11 & T 506 (Keifers Lane)	1	South Centre Twp
3	U.S. 11 & T 461 (Wolfe Hollow Rd)	1	South Centre Twp
4	U.S. 11 & T 504 (Bisset's Lane)	1	South Centre Twp
i in ree o n ip			
1	SR0487 & SR1020 (Winding Rd)	1	State Police
2	SR0487 & SR1022, Zaners Bridge Rd	1	State Police
ort entre o n ip			
1	Intersection Route 93 & Edwards Rd	1	North Centre Twp

Attachment D

RIVER ACCESS CONTROL POINTS
PPL SUSQUEHANNA, LLC



RAILROADS AFFECTED BY NUCLEAR POWER PLANT INCIDENTS

<u>Nuclear Power Plant</u>	<u>Railroad</u>
PPL Susquehanna, LLC	Canadian Pacific North Shore Railroad

Note: Telephone numbers are on file in the State EOC.

MASS CARE

1. PURPOSE

To provide procedures for mass care of emergency workers (general public evacuees from Columbia County will receive mass care and radiological decontamination from the support counties).

2. REFERENCE

Pennsylvania Emergency Management Directive D-90-1, "Mass Care Services," April 26, 1990 (Draft).

3. RESPONSIBILITY

Primary responsibility for the activation and operation of mass care centers shall rest with the Support County Emergency Management Coordinator together with the mass care coordinator and staff. The Bloomsburg Chapter of the American Red Cross will provide support in emergency worker mass care operations. Decision to open or close any mass care center will be made at the county level.

4. REQUIREMENTS

- A. The basic principle governing the activation and operation of mass care centers is: mass care centers should be activated only to meet the needs of evacuees who do not stay with relatives, friends, or at available commercial facilities outside the plume exposure pathway EPZ. This appendix is based upon the assumption that 30 percent of the evacuees will need mass care services.
- B. Mass care centers are independent units operating according to the conditions prevailing at the time.
- C. Columbia County's number of evacuees is 19,253. The county has assumed that 20 percent of the evacuees will require mass care space. Thus, Columbia County's mass care requirements are 3,851 evacuees, and all mass care centers will be located in support counties and more than 20 miles from the facility. There are no mass care centers for the general population and one for emergency workers in Columbia County.

5. CONCEPT OF OPERATIONS

The Mass Care Coordinator, assisted by the American Red Cross staff, is responsible for the following actions:

A. Unusual Event

No action required.

B. Alert

- 1) When notified the Mass Care Coordinator reports to the EOC.
- 2) Mass Care Coordinator notifies the members of his/her staff and the American Red Cross.
- 3) Confirm that PEMA has alerted the support counties.

C. Site Area Emergency

- 1) If initial notification is of a Site Area Emergency, take the response actions under Alert and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.
- 2) Mobilize Mass Care staff and American Red Cross staff.
- 3) Request American Red Cross to alert volunteers.
- 4) Ensure emergency worker mass care centers are operational.
- 5) Request Amateur Radio officer establish communications between the County EOC and the emergency worker mass care center within the county.

D. General Emergency

- 1) If initial notification is of a General Emergency, take the response actions under Alert and Site Area Emergency. When notification is of an escalation to General Emergency, review the checklist items under the Alert and the Site Area Emergency to ensure actions are underway or completed.
- 2) Ensure emergency worker mass care centers are mobilized.

ATTACHMENTS:

- A. Columbia County Mass Care Center Requirements
- B. Reception Centers/Mass Care Centers and Student Pickup Points
- C. Activation of Mass Care Centers
- D. Mass Care Center (Shelter) Registration
- E. Mass Care Activity Report
- F. Summary of Support County Evacuee Requirements

- G. Agreement for the Use of School Facilities as Mass Care Centers During Disasters, Sample
- H. Statement of Agreement between the Columbia County Emergency Management Agency and the Bloomsburg Chapter of the American Red Cross

Attachment A

COLUMBIA COUNTY EMERGENCY WORKER CARE REQUIREMENTS

	RE RE E	P
Columbia/Montour Area Vo-Tech School *	765 Emergency Workers	100/200
Central Columbia Middle School		500
Central Columbia High School		300
	765 Total Requirement	900

- * Columbia/Montour Area Vo-Tech School is the monitoring/decontamination station for Columbia County. All emergency workers will be monitored/decontaminated at the Vo-Tech. The Columbia/Montour Area Vo-Tech School, Central Middle School, and Central High School will be used, as needed, as Emergency Worker Rehabilitation centers for emergency workers. The emergency workers that are expected at the monitoring/decontamination station are:

Columbia County	-	614
Salem Township	-	64
Nescopeck Borough	-	44
Nescopeck Township	-	<u>43</u>
		765

The number for Columbia County does not include Berwick Hospital or Retirement Village personnel.

Attachment B

RECEPTION CENTERS

1. RECEPTION CENTERS

P	RE EP D R SS RE
Beaver Township	Marian High School, Barnesville
Berwick Borough	Lycoming Mall, Halls
Briar Creek Borough	Lycoming Mall, Halls
Briar Creek Township	Shikellamy High School, Sunbury
Fishing Creek Township	Lycoming Mall, Halls
Mifflin Township	Montandon Elementary, Montandon
North Centre Township	Shikellamy High School, Sunbury
South Centre Township	Montandon Elementary, Montandon

NOTE: Child care centers are required by PA Dept. of Welfare regulations to have an emergency plan which includes relocation site.

ACTIVATION OF EMERGENCY WORKER CARE CENTERS

1. ACTIVATION ORDER

The order to activate one or more care center is issued by the County Emergency Management Coordinator or Deputy. Once the order to activate is issued, the appropriate Red Cross person, or designated alternate, is notified, who in turn notifies the appropriate Care Center Managers.

2. ACTIONS OF EMERGENCY WORKER CARE CENTER MANAGERS

A. After being officially notified to open a building for the mass care center, the manager should:

- 1) Proceed immediately to the building.
- 2) Establish and maintain contact with the disaster headquarters.
- 3) Alert basic staff and activate the building.
- 4) Arrange the building for mass care operation, and inventory supplies and equipment.
- 5) Order supplies and equipment from the disaster headquarters and report any need for support such as medical services.
- 6) Recruit additional personnel (evacuees may be recruited).
- 7) Begin feeding beverages and snacks as soon as the shelter opens and begin regular meal service as soon as possible.

3. SPONTANEOUSLY ACTIVATED CARE CENTERS

In times of emergency, it is quite possible that a predesignated mass care center, or even a facility not so designated, might be opened spontaneously. When that happens, it might be desirable to continue its operation. Upon request, the Red Cross may be able to provide a Mass Care Center Manager and assume responsibility from that point on for the management and funding of it. It should be made known to the person(s) responsible for the facility that Red Cross management must be accepted in order for the Red Cross to fund its operation, and any unusual costs incurred before the Red Cross assumes responsibility are not the responsibility of the Red Cross. It is desirable to record this understanding in writing, if possible, and to include appropriate notations in the log.

4. RECORDS AND FISCAL MATTERS

- A. Records of care activities within the county should be maintained and agreements and resource lists should be updated every two years.
- B. Final after-action report to include:
 - 1) A complete summary of all activities including statistics on number housed, fed, given medical care, evacuated, or received from other counties or states.
 - 2) Overall narrative report to include recommendations, changes in procedures, suggested improvements, and repairs required relating to any damages to the facility or losses or damages to equipment.
- C. Fiscal Matters

When an emergency worker care center is operated by Red Cross Managers, then the Red Cross Agency will pay the operational costs of the center(s) as an outright grant. In situations not within Red Cross purview, expenses for operations will be borne by municipal or county governments. In these cases, complete records of expenditures should be kept for reasons of possible reimbursement from State or Federal funds.

5. USE OF GOVERNMENT DONATED FOOD

- A. Normally, if care centers are located in schools and school cafeterias are used, food supplies on hand are usually sufficient for immediate needs. As needed, procurement of additional food supplies may be made per agreement with the Pennsylvania Department of Agriculture and the General Services Bureau of Government Donated Foods.
- B. The American Red Cross is authorized to make the necessary requests.

Attachment D

EMERGENCY WORKER CARE CENTER (SHELTER) REGISTRATION

AMERICAN RED CROSS

Family Last Name

Names	Age	Medical Problem:	Referred to Nurse
		*Killed	
		*Injured	
		*Hospitalized	

Man

Woman
(Include
Maiden Name)

Children in
Home

Family
Members not
in Shelter
(Location if
known)

Shelter Master File

DISASTER SHELTER REGISTRATION

Shelter Location

Shelter Telephone No. Date of Arrival

Predisaster Address and Telephone No.

I do, do not, authorize release of the
above information concerning my whereabouts or
general condition.

Signature

Date Left Shelter

Time Left Shelter

Postdisaster Address and Telephone No.

American Red Cross Form

Facsimile of ARC Form No. 5972

EMERGENCY WORKER CARE ACTIVITY REPORT

American Red Cross

Mass Care Activity Report

INSTRUCTIONS: COMPLETE APPROPRIATE SECTION(S) AND BOXES ON A DAILY BASIS.

Facility: _____

Address: _____

Building Contact: _____

Address: _____

Telephone No.: () _____

DR No. _____ District: _____

Chapter: _____

Code: _____

Red Cross Contact: _____

Telephone No.: () _____

Other Staff: _____

Date	Shelter							Feeding										Supply						
	Persons		Med	Staff			Mob	B	L	D	St	T	Staff			Rec'd	CIK		CK		C	B		
	Reg	Hsed	#	H	V	P							T	Fix	B		L	D	St	V			P	T
								M									R							
								F									I							
								M									R							
								F									I							
								M									R							
								F									I							
								M									R							
								F									I							
								M									R							
								F									I							

USE REVERSE SIDE FOR ADDITIONAL INFORMATION

American Red Cross Form 5975 (Rev 9-85)

Back:

Date	Shelter							Feeding										Supply						
	Persons		Med	Staff			Mob	B	L	D	St	T	Staff			Rec'd	CIK		CK		C	B		
	Reg	Hsed	#	H	V	P							T	Fix	B		L	D	St	V			P	T
								M									R							
								F									I							
								M									R							
								F									I							
								M									R							
								F									I							
								M									R							
								F									I							

Abbreviations for Mass Care Activity Report (Form 5975)

Shelter: Persons

Reg = Registered/anticipated
Hsed = Actually housed overnight
Med = Medical
= Number given first aid in shelter
H = Number sent to hospital
Staff
V = Volunteer
P = Paid
T = Total number of staff

Feeding:

Mob = Mobile feeding
Fix = Fixed feeding
B = Breakfast
L = Lunch
D = Dinner
St = Subtotal
T = Total meals
Staff
V = Volunteer
P = Paid
T = Total number of staff

Supply:

Rec'd = Received
Iss'd = Issued
CIK = Cleaning kit
k = Kit (small and large box)
s = Supplemental box
CK = Comfort kit
M = Male
F = Female
C = Cots
B = Blankets
R = Received
I = Issued

Attachment F

Summary Of Support County Evacuee Capacities

S pport o nt	E ac ee	a are enter apacit
Union	2,189	2,190
Lycoming	2,450	2,700
Northumberland	800	2,000
Montour	**	**
Schuylkill	2,484 ***	3,800 ***
TOTAL	7,923	10,690

** Provides host schools for Berwick School District and Beaver Main Elementary School (Bloomsburg School District) evacuation.

*** Totals for Luzerne and Columbia County.

**Agreement For The Use Of School Facilities
As Mass Care Centers During Disasters, Sample**

This agreement is made this _____ day of _____ 19____ by and between the School Board of the _____ School District and the _____ Chapter of the American Red Cross.

WITNESSETH:

WHEREAS, pursuant to the terms of Federal statutes, the American Red Cross can provide emergency services on behalf of individuals and family victims of disaster; and

WHEREAS, pursuant to the terms of the Pennsylvania Emergency Management Services Code (35 Pa. C.S.A. Section 7101 et seq.), the _____ County Emergency Management Agency has been designated as the coordinating agency for disaster operations in _____ County;

WHEREAS, pursuant to the authority vested in the _____ School Board, the officials of the _____ School District are authorized to permit the American Red Cross to use its school buildings, other buildings, grounds, and equipment for mass care centers required in the conduct of American Red Cross disaster relief activities and it is requested that they cooperate with the American Red Cross and the Columbia County Emergency Management Agency for such purposes.

NOW THEREFORE, it is mutually agreed between the parties as follows:

1. _____ School District facilities shall be made available to the _____ County Emergency Management for use as mass care centers at such times as a disaster emergency has been declared by the County of _____ and/or the Commonwealth of Pennsylvania. School District personnel shall retain full authority and responsibility for the protection of school property.
2. In cases where disaster emergencies are not officially declared, _____ School District administrators shall make district facilities available for mass care use upon the request of _____ County Emergency Management Agency.
3. Emergency facility use will not commence, in either 1 or 2 above, until the primary responsibility of student welfare and safety has been resolved.
4. The American Red Cross agrees to operate said facilities on behalf of the _____ County Emergency Management Agency and the American Red Cross agrees that it shall exercise reasonable care in the conduct of its activities in such facilities and further agrees to replace or reimburse _____ School District for any school food or supplies that may be used by the American Red Cross, or damage caused to district property by American Red Cross personnel in the conduct of their relief activities in said mass care centers.

In witness whereof, the School Board of _____ School District has caused this Agreement to be executed by the President of the _____ School Board, the American Red Cross has caused this Agreement to be executed by the _____ Chapter, and the _____ County Emergency Management Agency has caused this Agreement to be executed by the Agency's Director, said Agreement is effective as of the date set forth above.

Signed: _____
(Name), Executive Director
_____ Chapter American Red Cross

Signed: _____
(Name), President
_____ School Board

Signed: _____
(Name), Coordinator
_____ County Emergency Management Agency

**Statement Of Agreement Between
The Columbia County Emergency Management Agency And
Bloomsburg Chapter Of The American Red Cross**

1. PURPOSE

The purpose of this Statement of Agreement is to provide for cooperation and coordination between Columbia County Emergency Management Agency and the Bloomsburg Chapter of the American Red Cross in carrying out their assigned responsibilities in the event of natural or man-made disasters or enemy attack.

2. DEFINITION OF DISASTER

A disaster is an occurrence such as hurricane, tornado, storm, nuclear power plant accident, flood, high water, wind-driven water, tidal wave, earthquake, drought, blizzard, pestilence, famine, fire, explosion, volcanic eruption, building collapse, transportation wreck, enemy attack, or other situation that causes human suffering or creates human needs that the victims cannot alleviate without assistance.

3. AUTHORITY

A. The Statement of Agreement between the Commonwealth of Pennsylvania and the American National Red Cross, was finalized on July 21, 1987. The agreement states that here are to be cooperative arrangements for planning, preparedness, and disaster operations between the Pennsylvania Emergency Management Agency and the American Red Cross. It encourages the County Emergency Management Agency and the local American Red Cross Chapters to establish similar arrangements.

B. Bloomsburg Chapter of the American Red Cross

The American Red Cross (ARC) through its Pennsylvania Capital Region Chapter is an instrument of the United States Government, with a Congressional Charter, codified at 36 U.S.C., Section 1 et. seq., and the Disaster Relief Act of 1974 (P.L. 93-288).

C. County of Columbia

The Columbia County Emergency Management Agency (County EMA) was established in accordance with Section 7501 of the Pennsylvania Emergency Management Services Code (35 Pa. C.S., Sections 7101-7707). The County Emergency Management Agency has been designated as the Agency responsible for management of county emergency operations.

4. RESPONSIBILITIES - County Emergency Management Agency

- A. Columbia County EMA will devote its primary efforts to: the countywide dissemination of warnings, human rescue, emergency medical care, evacuation, and other property protection measures. The Columbia County EMA will, as necessary and practical, provide initial emergency care and other vital assistance immediately required by people in need.
- B. The Columbia County EMA Coordinator will represent the County as a full member of the Bloomsburg Chapter disaster committee.
- C. Columbia County EMA will act as the County's coordinating agency for mass care activities as follows:
 - 1) Selecting of and planning for the utilization of mass care centers.
 - 2) Planning and coordinating with the ARC to include obtaining written agreements with the ARC and owners/directors or School Boards of facilities to be used as mass care centers.
 - 3) Notifying the ARC of the occurrence of an incident and determining the time, number, and type of facilities to be opened based upon the size of the disaster. Advising the ARC when its support is no longer required.
 - 4) Assisting the ARC in recruiting and training volunteers to fulfill mass care functions throughout the county. The County EMA will keep the ARC informed regarding available training opportunities and, in cases where both parties offer similar training, attempt to consolidate the training into one program.
 - 5) Reporting unmet needs to the appropriate PEMA Area Office.

5. RESPONSIBILITIES - Chapter of the American Red Cross

- A. The ARC will respond to those disasters as defined in paragraph 2.
- B. The Pennsylvania Capital Region ARC and the Columbia County EMA agree to coordinate their emergency response activities in an interdependent manner.
- C. For those disasters that require the activation of a Columbia County Emergency Operations Center, the ARC will provide an experienced representative to represent the ARC at the County EOC upon request.
- D. The ARC will coordinate the disaster relief efforts of other voluntary agencies with which it has written agreements for mutual cooperation in times of disaster.
- E. The ARC will pre-plan the availability and staffing of facilities needed for mass care.

Attachment H

- F. The ARC will select key staff members for each mass care center and train them in advance to function effectively on a 24-hour basis during emergencies. Those pre-selected should include: Center Managers and Assistants, Nursing Staff, Family Service Counselors, Food Service Personnel, Storekeepers, and Maintenance Staff.
- G. The ARC Chapter is responsible for recruiting and training volunteers to fulfill its functions throughout the jurisdiction of the Chapter. The ARC should keep the County EMA informed regarding available training opportunities and where training programs are similar, attempt to consolidate the training into a single program.
- H. When the Columbia County EMA decides it is necessary to open one or more mass care centers, the ARC is responsible for notifying the predesignated mass care center managers.
- I. Since the ARC requires early notification in order to be able to respond adequately to disasters, the Columbia Chapter will provide the Columbia County EMA with a list of key personnel and their phone numbers for alert/notification purposes.
- J. The ARC will participate in obtaining written agreements with the County and owners/directors or School Boards of facilities to be used as mass care centers.
- K. The ARC will report unmet needs of the mass care centers to the Columbia County EMA.

6. PLANNING AND IMPLEMENTATION

- A. Cooperative arrangements for planning, exchange of information, and continuing liaison regarding preparedness and disaster operations will be developed and maintained by the Columbia County EMA and the Pennsylvania Capital Region Chapter of the American Red Cross.
- B. All disaster planning will take into account the cooperative and mutually supporting nature of the two parties.

IN WITNESS THEREOF, the parties hereto have executed this Statement of Agreement on the dates indicated.

COUNTY of Columbia, Bloomsburg Chapter of the American Red Cross

By: _____
Columbia County Emergency Management Coordinator

By: _____
Title: _____

Date: _____

Date: _____

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix12-2008.doc

RADIOLOGICAL EXPOSURE CONTROL

1. PURPOSE

To specify the Commonwealth's radiation protection procedures for the public and emergency workers in the event of an incident at a nuclear power plant. To specify responsibilities for incident assessment, radioactive plume monitoring, protective action measures, monitoring of the general public and emergency workers for radioactive contamination to include their clothing and equipment and disposal of radioactive waste.

2. SITUATION

See Paragraph 3 of the basic document.

3. CONCEPT OF OPERATIONS

- A. In the event of a release of radiation or radioactive contaminants from a nuclear power plant, the Bureau of Radiological Protection (BRP) assesses the need for radiological exposure control, and advises the Pennsylvania Emergency Management Agency (PEMA) Emergency Operations Center (EOC) on the need to commence exposure control activities specified herein. The State EOC instructs state departments/agencies and county emergency agencies to commence radiological exposure control operations (monitoring, decontamination, recording, etc.), and to take protective action measures, when advised.
- B. In clarification of the above, the general public and emergency workers need not be monitored for radioactive contaminants or decontaminated until there is a need to do so. That need will be the subject of a deliberate decision at state level. That decision will be relayed to state departments/agencies and county emergency management agencies in the form of an instruction from the State EOC to implement radiological exposure control response.

4. RESPONSIBILITIES

A. PEMA

- Coordinates with BRP, the utility, other state agencies, federal government agencies, and risk counties to determine protective action to be taken by the public and emergency workers.
- Provides periodic situation reports to counties during the emergency, including incident assessment and plume exposure information.
- Specifies procedures for decontamination of the public and emergency personnel and their clothing and equipment.
- Assists federal personnel with pertinent logistics information related to the disposal of radiation contaminated waste materials generated from the general public and emergency workers.

- Pre-distributes dosimetry and potassium iodide (KI) to risk and support county emergency management agencies.
- Specifies implementation of comprehensive inventory-maintenance programs for dosimetry and KI; collects PRDs, control PRDs, and appropriate records from the county after each incident.
- Assists the Department of Health with planning the distribution of KI to health care facilities.

B. BRP

The BRP is the state agency that will conduct incident assessment and air monitoring for detection and delineation of the radioactive plume. BRP calculates projected radiation doses to the whole body and thyroid and reports these projections as well as actual radiation exposure rates and total doses received by affected areas to PEMA. BRP recommends protective actions based on its information and analysis of the situation. BRP interprets the analysis results of environmental, agricultural and foodstuffs sampling, and reports these findings as appropriate to PEMA and Department of Agriculture. BRP collects the state, federal, and licensee data for comprehensive technical analysis and transmits its recommendations to PEMA who, in turn, relays appropriate information through emergency management channels.

C. County Emergency Management Agency

The county EMAs will rely upon BRP through the State EOC for incident assessment, field monitoring and for the receipt, analysis and coordination of field monitoring data. The county emergency management agency provides training, dosimetry and KI to emergency workers. It also provides for monitoring and decontamination, if required, to the general public, federal, state, county and municipal emergency workers and their pertinent personal items including vehicles and emergency equipment. The county emergency management agency is responsible for distributing dosimetry to hospitals, licensed nursing homes and prisons located in the plume exposure pathway of the EPZ. It maintains and distributes (et the Alert classification if not already pre-distributed) dosimetry, chargers, survey meters, KI and related record-keeping forms to municipalities, appropriate hospitals, and monitoring/decontamination stations. The county emergency management agency designates access points in coordination with PSP in the EPZ and certifies farmers with livestock and necessary industrial workers for access in the plume exposure pathway of the EPZ. Counties may pre-distribute dosimetry/KI, chargers, survey meters, and related forms from the central location, if they so desire.

D. Municipal Governments

Each municipal government within the plume exposure pathway EPZ will issue dosimetry and KI to emergency workers within its area at the Site Area Emergency classification.

E. Emergency Workers

In addition to performance of assigned tasks, emergency workers are responsible for utilizing their dosimeters, KI, and Dosimetry-KI Report Form as prescribed (see Attachment B, Paragraph 4), and for undergoing monitoring (see Attachment A, Paragraph 2.A).

The uppermost limit of radiation exposure for emergency workers is set by the Environmental Protection Agency (EPA) at 25 Rem Total Effective Dose Equivalent (TEDE) whole body exposure and this limit should not be exceeded except for authorized life saving missions or protection of large populations (see Attachment B, Paragraph 4.B). Emergency workers should strive to keep any exposure as low as reasonably achievable (ALARA).

F. Monitoring/Decontamination Teams

Monitoring/decontamination teams will monitor with hand-held survey meters or portal monitors, members of the public and emergency workers to ascertain if individuals are contaminated with a radioactive material. BRP has set the action level for determining whether individuals or equipment as contaminated.

G. PRD Service Contractor

Following an incident PRD's used by emergency workers will be collected and read by an accredited laboratory. Data will be provided to BRP and PEMA.

5. RADIOLOGICAL EXPOSURE CONTROL FOR THE GENERAL PUBLIC

A. Protective Actions

- 1) Protective actions will be recommended to PEMA by BRP as part of its incident assessment. (See Appendix 6)
- 2) The two primary protective action options for the general public are sheltering and evacuation. The procedures for implementation of these options are described in Appendix 4.

B. Monitoring

- 1) County emergency management organizations are responsible for monitoring of the general public. Attachment A to this Appendix sets forth the procedures for monitoring at monitoring/decontamination centers for the public and monitoring/decontamination stations for emergency workers.
- 2) In the event of a nuclear power plant incident, the public and emergency workers may have to be individually monitored to ascertain whether the individual is contaminated with a radioactive substance. Persons found to be contaminated must be decontaminated. Monitoring will be initiated upon receipt of instructions to do so from the State EOC.

- 3) Teams will be located at monitoring/decontamination centers and stations will perform monitoring once a determination has been made that monitoring is required. Members of the public will be monitored upon request, regardless of whether they intend to stay in mass care facilities.

6. RADIOLOGICAL EXPOSURE CONTROL FOR EMERGENCY WORKERS

A. General

Unlike the general public, emergency workers with assignments within the plume exposure pathway EPZ are not always able to take shelter or evacuate the area due to their duties. Other protective measures available to emergency workers are enumerated below in Paragraph B through E.

B. Dosimetry

Each emergency worker assigned tasks within the EPZ, or those who may enter the EPZ, will be equipped commensurate with one of three specific categories. Equipment depends on location, mobility and grouping. The direct-reading dosimeters (DRD) enable the worker to monitor herself/himself during the emergency for total radiation dose received. The Personal Record Dosimeter (PRD) is an independently read device that is considered to be more dependable and precise than the direct-reading dosimeters. Each emergency responder and identified emergency workers are responsible for following the dosimetry procedures, including record keeping. Attachment B to this Appendix sets forth guidance and procedures on dosimetry, equipment and use.

C. Thyroid Blocking Agent

- 1) The accumulation of radioiodine (radioactive isotopes of the common element iodine) in the thyroid gland is a potential threat during a nuclear power plant incident. Potassium iodide (KI) acts as a blocking agent to radioiodine, preventing it from accumulating in the thyroid gland.
- 2) KI tablets are pre-distributed by the county to the municipal EOC's. At the site Area Emergency Municipal Officials will distribute KI to individual emergency workers and special facilities.
- 3) Upon declaration of General Emergency all individuals should take KI (KI is made available by PPL Dept. of Health)
- 4) KI is made available to the general public in the EPZ by PA Department of Health.

D. Anti-contamination Clothing

Emergency workers working within the EPZ can use their personal rain gear as a prevention against contamination on the body and personal clothing/uniform. Any type of head cover, boots or galoshes with pant legs taped outside the footwear, rain coat or winter coat with collar turned up, and gloves offer effective protection by minimizing exposure to radioactive contaminants.

E. Respiratory Protection

Should unforeseen circumstances occur whereby emergency workers would be temporarily exposed to a radioactive plume containing large amounts of particulate, they should improvise respiratory protective measures if regular respiratory protective gear is not available. While these methods may not be fully effective against vapors and gasses, they can be effective temporary protection (until the plume passes or the emergency worker evacuates) against radioactive particulates. Improvised respiratory protective measures recommended by BRP are:

- 1) Sheltering in a vehicle or building that can be "buttoned-up" (windows, doors, and air vents closed).
- 2) Conscientiously covering the mouth and nose with a cloth or filtering device; suggested items include a handkerchief, 3 or 4 ply of toilet tissue, or a folded towel. Dampened handkerchiefs and towels greatly increase their effectiveness as a filter.

F. Monitoring of Emergency Workers

- 1) After monitoring procedures have been placed in effect through the State EOC, and upon completion of his/her mission, each emergency worker must report to a monitoring/decontamination station or center to be monitored (and decontaminated, if necessary). The emergency worker teams performing monitoring at the mass care centers for the general public and stations for emergency workers will monitor for themselves.
- 2) The county emergency management agency provides for monitoring and, if necessary, decontamination of emergency workers. Each risk county has at least one monitoring/decontamination station for this purpose. The monitoring/decontamination stations are located just outside the plume exposure pathway EPZ so as to be readily accessible to workers assigned to work within the EPZ. Additionally, each battalion of the Pennsylvania Army National Guard, located within the EPZ or deployed into risk/support counties, will be prepared to set up and operate one monitoring station which is intended to be primarily for National Guard personnel. Regardless, each monitoring station or monitoring center will extend its services to any requesting emergency worker whether he/she be an employee of the federal, state, county, or municipal government, or a volunteer.
- 3) Emergency workers may receive the same monitoring service at the mass care monitoring/decontamination centers.
- 4) Whether monitoring station or monitoring center, the same procedures for monitoring as specified for the general public apply to emergency workers with the exception of the thyroid check. Emergency workers will be monitored for accumulation of radioiodine in the thyroid gland (see Attachment A).

- 5) The emergency worker monitoring and decontamination stations of Columbia County is:

Columbia/Montour Area Vocational Technical School
Sweppenheiser Road
Bloomsburg, PA 17815

G. Dosimetry-KI Distribution to Emergency Workers

1) Federal Government emergency Workers

Federal government personnel are expected to provide their own dosimetry and thyroid-blocking agent.

2) State Government Emergency Workers

- a. Each state government worker who will operate within the plume exposure pathway EPZ will be provided a Category A standard issue (see Attachment B). Dosimetry, KI, dosimeter chargers, and survey meters will be distributed to state agencies as shown in Chart 1, "Dosimetry, Survey Meters and Potassium Iodide Allotments per State Agency."

(1) The equipment and KI is pre-distributed to the state EOC in Harrisburg and to the PEMA Regional Offices in Indiana, Harrisburg and Hamburg. (See Chart 1)

(2) At the time of an incident the equipment and KI will be picked up by the respective state agency EOC representatives who in turn will arrange for distribution to the proper elements within their agencies. The amount of dosimetry-KI to be distributed to the respective state agencies from each distribution point is shown on Chart 1.

- b. The "Receipt Form for Dosimetry-Survey Meters-KI" (See Tab 4 to Attachment B) and the "Acknowledgement of Receipt by Emergency Workers for Dosimetry-KI and Survey Meters" (See Tab 5 of Attachment B) form will be used for inventory control of the equipment and KI distributed to state agencies during emergency.

- c. BRP is exempt from the requirements of this section, BRP will conduct dosimetry-KI distribution and recording for their workers in accordance with BRP plans and procedures.

3) County, Municipal and Volunteer Emergency Workers

Each emergency worker will be issued appropriate dosimetry and KI at Site Area Emergency. Dosimetry and KI are available to the county EMA. See Attachment B for the dosimetry-KI distribution scheme.

H. State Agency Radiological Training, Inventory, Maintenance and Record Keeping

With the assistance of BRP, PEMA is responsible for dosimetry training for appropriate state agencies including dosimetry charging and reading and recording of information. Equipment and KI inventory and maintenance procedures with appropriate records are specified in Attachment C to this Appendix.

Inventory control during the emergency will consist of a trial of accountability form each agency issuing equipment through the individual and user of the equipment and KI. Forms and procedures for this purpose are included in Attachment B

7. PROTECTION FOR INSTITUTIONAL PERSONNEL

A. General

- 1) The evacuation time for persons residing in hospitals, licensed nursing homes, and prisons is expected to be greater than that for the general public. The staffs and complements of these facilities may become emergency workers in case of evacuation. Consequently, increased means of protection are necessary.
- 2) Direct-reading dosimeters to hospitals, licensed nursing homes, and prisons (facility) are used as area monitors, not personal monitors. An issue of dosimetry to these facilities is in the form of an area kit(s) that consists of: one DRD Charger, two 0-20R DRDs, one PRD, and a Dosimetry-KI Report Form. This issue of dosimetry will be located at a site(s) within a facility accessible to the staff for recording purposes.
- 3) One monitoring site may be usually sufficient for a facilities. Due to size and configuration of a facility, the need for additional recording sites, and additional issues of dosimetry, will be determined on a case by case basis. At a minimum, each facility will be issued one area kit.
- 4) Reading and recording of data at each recording site will be accomplished at 30 minutes intervals when exposure control activities are directed by the State EOC. The highest reading will apply to all personnel within a facility.

B. Hospitals and Nursing Homes

- 1) In addition to the minimum of one kit provided to each institution, all patients and staffs in hospitals and residents in nursing homes are provided KI. A 14-day supply of KI is on hand for each patient and resident and for 50% of the staff. It is predistributed by the Risk Counties or distributed at declaration of an Alert during an incident. (See details in Appendix B)
- 2) Evacuation can require augmentation of the on-duty shift. Therefore, PRDs and a 14-day supply of KI will be provided to 50 percent of the total staff and complement of each facility. PRDs and KI are either predistributed, or issued to hospitals and nursing homes at Alert.

- 3) Monitoring of institutional staff and residents can be accomplished by utilizing the institution's own capability and that of the host institutions, monitoring stations for emergency workers, or monitoring centers co-located with reception or mass care centers.

C. Prisons

- 1) KI will be maintained on-hand, or issued at declaration of an Alert, in sufficient supply for 100 percent of the inmates, staffs, and complements of designated prisons. A unit of KI consists of a 14-day supply per person.
- 2) The full staffs and complements of all designated prisons will be provided: one PRD, one Dosimetry-KI Report Form and a 14-day supply of KI per person. These items will be maintained on hand or issued at declaration of an Alert. Additionally, at least one area kit will be placed at each facility. (See details in Appendix B.)
- 3) Risk prisons are responsible for providing Monitoring/Decontamination Teams for the purpose of monitoring and decontaminating prison evacuees. The provisions of Attachment A, Monitoring/Decontamination Procedures, apply.

8. REFERENCES

- A. Department of Environmental Protection Bureau of Radiation Protection, "Nuclear Power Station Emergency Plan", January 1994.
- B. Commonwealth of Pennsylvania, Department of Health, "Disaster Preparedness and Recovery Plan," November 1982.
- C. FEMA-REP-2, "Guidance on Offsite Emergency Radiation Measurement Systems, Phase 1 - Airborne Release," Revision 1, July 1987.
- D. NUREG-0654 (FEMA-REP-1), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, November 1980.
- E. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA 400-R-92-001, U.S. Environmental Protection Agency, Office of Radiation Programs, Washington D.C., October 1991.
- F. Pennsylvania Emergency Management Guidance and Information Circular No. C2003-4, "Nuclear Power Plant Accident Emergency Worker Dosimetry and Potassium Iodide (KI) Stock and Distribution".
- G. FEMA REP-18, "Statements of Consideration for FEMA REP-14 and FEMA REP-15," January 1992.
- H. Letter, subject: "Recommendations to REPAC - Dosimetry for Staff and Attendants of Institutions," June 6, 1990.
- I. Meeting, Pennsylvania Emergency Management Council, July 10, 1990.

- J. FEMA Region III Letter, January 19, 1993 (clarification of dosimetry requirements).
- K. FEMA REP-14, "Radiological Emergency Preparedness Exercise Manual", September 1991.
- L. Summary of Federal REP Agencies Guidance on State Implementation of the EPA Guidance on Inhalation Dose for Emergency Workers, Ad Hoc PAG Subcommittee of the FRPCC, July 1994.

9. DEFINITIONS AND TERMS

- A. Area Kit - Dosimetry that is placed in a location where emergency workers will be in close proximity to each other during the entire mission and adequate control of exposure can be effected for all emergency workers by a dosimeter strategically placed in the work area. Area kits may be required in multiple locations within a facility. An area kit consists of one PRD, two 0-20R direct-reading dosimeters, one DRD charger and one Dosimetry-KI Report Form.
- B. Bureau of Radiation Protection (BRP) - The state agency upon which the county EMA will rely for incident assessment and plume monitoring services; BRP information will be disseminated by PEMA.
- C. CD V-700 - Survey meter (Geiger-Mueller tube) used to conduct monitoring for radiation contamination.
- D. CD V-730 - A direct-reading dosimeter with a scale from 0-20R.
- E. CD V-742 - A direct-reading dosimeter with a scale from 0-200R.
- F. CD V-750 - The dosimeter charger used to charge (zero) the DCA-622, the CD V-730, and the CD V-742 dosimeters. Other types from different manufacturers are available and authorized.
- G. Committed Dose Equivalent (CDE) - The total thyroid exposure from inhalation of radioiodine.
- H. DCA-622 - Abbreviation for Dosimeter Corporation of America model 622 direct-reading dosimeter. It has a 0-20R scale and is the commercial equivalent of the CD V-730.
- I. Dosimeter Charger - A device used to zero direct-reading dosimeters, which in this plan are the DCA-622, the CD V-730, and the CD V-742 (or equivalents).
- J. Dosimeter - Pocket size devices that measure accumulated exposure to radiation.
- K. Double clothing or rain gear protection - The donning of outer rain clothing (rain hat, coat, and boots) by emergency workers as a protective measure to prevent radioactive contamination directly on the body.

- L. Emergency Responders - Individuals or teams located within the EPZ (or who may enter the EPZ) working in a mobile capacity with a potential for individual radiation exposure, such as police, firefighters, emergency medical persons, state workers, farmers and industrial workers.
- M. Emergency Workers - In this Appendix, those persons, other than on-site nuclear facility workers, who could be exposed to radiation as a consequence of performing assigned tasks to meet an emergency situation. Included are all those persons deployed within the plume exposure pathway of the EPZ or are assigned to monitoring duty. Generally, these persons will be assigned to: (1) emergency management agencies, (2) police departments, (3) fire companies, (4) EMS Services, (5) hospitals, (6) nursing homes, (7) prisons, (8) farmers who keep livestock within the plume exposure pathway EPZ, or (9) are industrial workers who must reenter the EPZ to maintain or shut down equipment.
- N. FRERP - The Federal Radiological Emergency Response Plan (FRERP) is used by Federal agencies in peacetime radiological emergencies. It primarily concerns the offsite Federal response in support of State and Local governments with jurisdiction for the emergency.
- O. Geiger-Mueller Pancake Probe - A radiation detector that has a very thin mica (1.4 - 2 mg/square cm) window with an approximate area of 15 square centimeters.
- P. Geiger-Mueller Tube Probe - A radiation detector encased in a metal tube that has a window that can be opened and closed. When opened the detector wall thickness is normally 30-40 mg/sq centimeter and the window has approximate area of 3 square centimeters.
- Q. Monitoring - The process of checking a person or object with a survey meter to ascertain if the person or object is contaminated with a radioactive substance.
- R. Monitoring/Decontamination Center - A facility co-located with mass care or reception centers where evacuees may undergo monitoring for radio active contamination and, if necessary, are decontaminated.
- S. Monitoring/Decontamination Station - A facility located just outside the plume exposure pathway the EPZ where emergency workers undergo monitoring for radioactive contamination and, if necessary, are decontaminated.
- T. Monitoring/Decontamination Team - A team of one monitor and one recorder whose function is to perform monitoring duties. A team chief is assigned to each monitoring/decontamination center and station to supervise monitoring and decontamination.
- U. Permanent Record Dosimeter (PRD) - A non-self reading dosimeter, generally considered a "badge" type dosimeter, which is sensitive to beta and gamma energy. This devise provides a more accurate and legal record of the emergency worker's actual radiation exposure received during the duration of the incident as well as being a back-up for the direct reading dosimeter(s). The devise is not a "real-time" instrument and must be processed using specialized laboratory equipment following a radiological

emergency to determine the amount and type of exposure. Permanent Record Dosimeters are typically a TLD, film badge, other non-self reading technology.

- V. PRD Service Contractor - The service contractor providing PRD service in support of the Commonwealth's Radiological Emergency Response to Nuclear Power Plant Incidents. The PRD service will include provision of the PRDs; annual replacement; reading of PRDs during or after an incident, and transmitting the data to BRP and PEMA upon request.
- W. Personal Monitoring - Refers to the use of dosimeters to alert the wearer of accumulated radiation exposure.
- X. Portal Monitor - A stand alone whole body personal monitor used to monitor individuals exposed to a plume of radioactive material. The device must have the capability to detect a one microcurie (μCi) test source of Cesium - 137 and radionuclides that emit beta and gamma radiation.
- Y. Potassium Iodide (chemical symbol is KI) - A thyroid blocking agent that prevents the accumulation of radioiodine by blocking its absorption by the thyroid gland through the presence of stable (non-radioactive) iodine.
- Z. Radioactive Contamination - Refers to a radioactive material in the unwanted locations, for example on people, objects and the environment.
- AA. Radioiodine - Radioactive iodine, principally Iodine-131.
- BB. Roentgen Equivalent Man (Rem) - A unit of radiation dose equivalent that is based on latent effects on the human body.
- CC. Survey Meter - For purposes of this plan a hand held monitor used to detect Beta and/or Gamma contamination on individuals or equipment. Many types from different manufacturers are available and authorized.
- DD. Total Effective Dose Equivalent (TEDE) - The total whole body exposure to an individual that includes external exposure from the plume, external exposure from the ground deposition and internal exposure from inhalation.

10. APPREVIATIONS / ACRONYMS

(See Basic Document, Enclosure 3)

ATTACHMENTS:

- A. Monitoring/Decontamination Procedures
- B. Dosimetry and Potassium Iodide (KI)
- C. Inventory and Maintenance Procedures
- D. Personnel Monitoring Procedure
- E. Personnel Decontamination Procedure
- F. Vehicle and Equipment Monitoring Procedure

MONITORING/DECONTAMINATION PROCEDURES

1. MONITORING/DECONTAMINATION CENTERS

A. Organization at Mass Care Centers

- 1) Mass care centers for evacuees will serve as points where radioactive contamination monitoring and decontamination will be conducted. When radioactive contamination monitoring is required, evacuees, upon arrival at the center will first be monitored for radiological contamination and, if necessary, be decontaminated after which they can be admitted to the "general living" portion of the mass care center. Trained monitoring teams will conduct the monitoring for radiological contamination, carry out decontamination procedures, and complete associated records. This activity, although collocated with the mass care centers, is not an integral part of that operation. Monitoring teams take direction from the county radiological officer. Monitoring of evacuees should be completed as soon as possible while monitoring of vehicles can be accomplished after the evacuees have been processed.
- 2) Monitoring teams will organize their areas and traffic flow patterns so that contaminated persons and those to be monitored will not mix with the contamination-free individuals already admitted to the "general living" section of the mass care center. For example, persons will be sent to the decontamination area (shower) by a route that will not place them in contact with contamination-free areas. Showers used for decontamination will not be available for general use until they are decontaminated.
- 3) Persons waiting to be monitored must be separated from the monitoring area so that it will not cause false readings on the person being monitored. Care must also be taken to avoid areas where high voltage electrical lines and electrical equipment such as computers are present. Those items can cause false readings on the survey meter.

B. Monitoring Services for Persons Who Are Not Housed at Mass Care Centers

Persons who do not intend to stay at a mass care center, but who wish to be monitored will be extended these services at the monitoring/decontamination centers. The monitoring procedures and record keeping are identical for people who stay or do not stay at mass care centers.

C. Monitoring/Decontamination Stations for Emergency Workers

- 1) After monitoring procedures have been placed in effect by PEMA, and upon completion of his/her mission, or more often as directed by supervisors, each emergency worker must report to a monitoring station or a mass care monitoring center to be monitored for radiological contamination, and, if necessary, be decontaminated.

Attachment A

- 2) Most emergency workers will be working within the plume exposure pathway EPZ which extends about ten miles in a 360 degree circle around the nuclear power plant. Since the monitoring centers for the public are located 20 or more miles from the nuclear power plant, special monitoring stations for emergency workers are established just outside the plume exposure pathway EPZ. Therefore, emergency workers will not be required to travel the longer distance to monitoring centers.
- 3) The monitoring stations for emergency workers are provided for by each risk county emergency management agency. Additionally, each designated battalion of the Pennsylvania Army National Guard, upon activation to state active duty, will be prepared to set up and operate a monitoring station which is intended primarily to service National Guard personnel. Nonetheless, all monitoring stations will extend their service to any requesting emergency worker, whether Federal, state, county, municipal employee, or volunteer.

D. Equipment and Personnel Requirements in Risk Counties

- 1) Portal monitors or hand-held monitors that meet minimum federal specifications may be used for monitoring.
- 2) A sufficient number of survey meter are available for each monitoring location to provide for enough instrumentation in accordance with this appendix. If portal monitors are used these requirements should be modified based on the monitoring time required by the manufacturer. Some hand held survey meters will be required for pinpointing the actual location of contamination, re-monitoring after decontamination attempts, and vehicle and equipment monitoring.
- 3) Personnel requirements are one trained monitor and one recorder (assistant to the monitor) for each survey meter as a minimum. Personnel performing monitoring duties will be issued a PRD. Recorders who do not monitor will not be issued a PRD.
- 4) The monitoring teams and equipment available will be capable of monitoring, within about a 12-hour period, all residents and transients arriving at mass care monitoring centers.
- 5) Inventory, maintenance, and property accountability with regard to dosimetry, survey meters, and KI are described in Attachment C to this Appendix.
- 6) Personnel monitors should wear disposable or plastic gloves while monitoring. Additionally, it is suggested that shirts/blouses with long sleeves and long trousers/slacks be worn. Masks or respirators are not required or recommended.

E. Equipment and Personnel Requirements in Support Counties

The equipage and procedures for monitoring/decontamination teams is in accordance with this Appendix.

F. Monitoring/Decontamination Record Keeping

Monitoring team personnel will be responsible for completing a "Monitoring/Decontamination Report Form" (see Tab 1 to this Attachment) for each individual found to be contaminated. The form will be completed, signed by the monitor and individual monitored at each of the steps [(1) initial monitoring, (2) after first decontamination, (3) after second decontamination, (4) medical referral.] Two copies of the form will be prepared. One copy will be given to the individual when decontamination is completed or the individual is sent to a medical facility. The Risk County Emergency Management Agency will retain the original in a historical file. (Support County emergency management agencies are responsible for forwarding these completed forms to their corresponding risk county emergency management agency.) The Risk County Emergency Management Agency will make these forms available to BRP, if requested. Individuals who are found to be free of contamination upon initial monitoring will not need this form completed. However, counties must implement a method whereby these individuals' names are recorded to show they were monitored and some method of marking "clean" individuals is used so as to ensure their acceptance into mass care centers.

G. Progress Reports on Monitoring/Decontamination

Monitoring team chiefs will verbally report at two-hour intervals to their county emergency management agency on results of monitoring. The report will include the following cumulative data: number of persons monitored; number contaminated; number decontaminated; number referred to a medical facility (for radiation decontamination/treatment); the highest reading on any contaminated individual; and any unusual notable findings. The risk and support county EMCs are responsible for consolidating this information and reporting it immediately to PEMA who in turn will relay the information to BRP.

2. PERSONNEL MONITORING PROCESS

A. Types of Monitoring

- 1) Quick monitoring – monitoring the head, hands, elbows, hips/buttock area, knees and feet of evacuees
- 2) Full monitoring – monitoring of evacuees and emergency workers by use of a portal monitor, or if a hand held instrument is used, the entire surface area of the individuals must be monitored.

B. Four-Step Process

Monitoring of individuals for detection and measurement of contamination with portable radiation instruments is a four-step process as follows:

- 1) A speaker or earphone(s) attached to the instrument is used to audibly announce the presence of contamination. With the beta window open, in accordance with procedures, the detector is passed over a potentially contaminated surface at a specified:
 - ◆ probe speed;
 - ◆ distance between the probe and the contaminated surface; and
 - ◆ distance between passes of the probe (path-width).

Instrument / Detector Combination	Parameter Values for Detecting Spot or Widespread Contamination on Individuals			Calculated Time Needed for Full Monitoring of an Adult (minutes)
	Probe Speed (inches/second)	Height of Probe (inches)	Path Width (inches)	
CDV-700 with Side Window Detector	4	0.5	0.6	19
Instruments with Pancake Detectors	6	1	2	3.9

- 2) If contamination is detected, the earphone(s) or speaker is used to find either the location of the most active spot(s) of contamination or the location of the highest concentration(s) of widespread contamination.
- 3) A meter reading is then taken with the detector in a fixed position at the location of the highest audible response and at the appropriate distance from the monitored surface. Visual estimation is satisfactory because small errors in this distance will be compensated by conservatism in the decontamination threshold criteria. Measurements at less than one inch will add more conservatism to decisions on the need for decontamination.
- 4) The meter reading is compared to the decontamination decision criteria.

3. DECONTAMINATION OR RELEASE DECISION CRITERIA

A. Personnel Decontamination or Release Decision Criteria

- 1) Portal Monitors – monitors that meet the FEMA Portal Monitor Standard (REP-21) may be used for personnel monitoring. All pre-operational checks and calibration must be performed in accordance with the manufacturer recommendations. Portal monitors should be located in low background areas to operate efficiently (background should, if possible, be the same level as when using a CDV-700 or an instrument with a pancake detector). If an individual being monitored with a portal monitor alarms the monitor, the individual should be instructed to re-enter the portal. A second alarm will require decontamination procedures to be initiated.

2) Hand Held Instrumentation

- a. Background – background should not exceed 60 cpm if using a CDV-700 or 100 cpm if using an instrument with pancake detector; if area in which monitoring is to be performed exceeds these background limits, monitoring should be relocated to an area below the values listed above.
- b. CDV-700 – if greater than 300 cpm is detected while monitoring an individual, decontamination procedures shall be initiated.
- c. Instrumentation with pancake detectors - if greater than 300 cpm above background is detected while monitoring an individual, decontamination procedures shall be initiated.

B. Vehicle & Equipment Decontamination or Release Decision Criteria

1) Portal Monitors – shall not be used for vehicle or equipment monitoring.

2) Hand Held Instrumentation

- a. Background – background should not exceed 60 cpm if using a CDV-700 or 100 cpm if using an instrument with pancake detector. If area in which monitoring is to be performed exceeds these background limits, monitoring should be relocated to an area below the values listed above.
- b. CDV-700 – if greater than 300 cpm is detected while monitoring a vehicle or equipment, decontamination procedures shall be initiated.
- c. Instrumentation with pancake detectors - if greater than 300 cpm above background is detected while monitoring a vehicle or equipment, decontamination procedures shall be initiated.

4. CONTAMINATION MONITORING INSTRUMENTATION CAPABILITIES AND LIMITATIONS

A. Portal Monitors

Capabilities: portal monitors that meet the FEMA Portal Monitor Standard and that are checked, operated, and calibrated in accordance with the manufacturer recommendations are capable of monitoring 300 individuals per hour.

Limitations: Portal monitors are ideal for situations in which large numbers of evacuees need to be monitored. In incidents where a limited number of personnel are involved, it may not be practical to use a portal monitor. Portal monitors cannot be used for vehicle or equipment monitoring.

B. Hand Held Instrumentation/CDV-700

Capabilities:

Quick monitoring – 4 minutes per individual (12 per hour);

Full monitoring – 19 minutes per individual (2.5 per hour)

Limitations: Can only be used for personnel monitoring in response to an accident at a nuclear power plant (REP program).

C. Modern instrumentation with pancake detectors

Capabilities:

Quick monitoring – 1 minute per individual (50 per hour, with break);

Full monitoring – 4 minutes per individual (12 per hour, with break)

Limitations: If incident involves pure alpha emitters, alpha survey equipment must be used. If responders are unable to determine if pure alpha emitters are present, PA Department of Environmental Protection/Bureau of Radiation Protection (DEP/BRP) must be contacted.

5. CALCULATIONS OF THE NUMBER OF PERSONNEL THAT CAN BE MONITORED IN 12 HOURS

A. REP Program Instrumentation

Each Offsite Response Organization (ORO) with REP responsibilities should review all instruments capabilities and limitations. It may be necessary to increase the number of monitoring teams for those OROs that currently have only CDV 700s. The previous monitoring time of 2-3 minutes has been replaced with 4 minutes for the quick monitoring method. Any individuals found to be contaminated, and all emergency workers, need to be fully monitored at a rate of 19 minutes per individual.

The highest through-put capable contamination monitoring instrument is a Portal Monitor that meets the FEMA REP-21 standard, with a capacity of 300 per hour.

The ideal monitoring location would have sufficient portal monitors to monitor the required evacuee amount within the 12-hour time period and possess 5 to 10 instruments with pancake detectors for monitoring of individuals that were found to be contaminated by the portal monitors. Each county ORO should perform a cost – benefit analysis to determine the appropriate ratio of instrumentation.

Attachment A

EXAMPLE: County "Z" must monitor 12,000 evacuees (20%) in a 12-hour period.
Team = # of individuals needed to perform monitoring duties for each individual.
Usually 2: one monitoring; one recording results.

Situation 1 – County Z has only CDV-700s

OLD guidance = 2.5 minutes/ person
 = 20/hour/team and team taking a 10 minute break
 = 20/hour/team x 12 hours = 240/team
 = 12,000/240/team
 = 50 teams required

NEW guidance = 4 minutes/person QUICK MONITORING with CDV-700
 = 12/hour/team with break
 = 12/hour/team x 12 hours = 144/team
 = 12,000/ 144/team
 = 84 teams required

Situation 2 – County Z has only instrumentation with pancake detectors

 = 1 minute/person QUICK MONITORING
 = 50/hour per team with break
 = 50/hour x 12 hours = 600 per team
 = 12,000/600 team = 20 teams

Situation 3 – County Z has Portal Monitors

1 portal monitor = 300 individuals per hour
 = 300 per hour x 12 hours = 3600 per portal in a 12 hour period
 = 12,000 divided by 3600
 = 4 portal monitors needed

B. Non-REP Instrumentation

The values used above for the instruments with pancake detectors and portal numbers are applicable to non-REP incidents and accidents. The ORO needs to decide the equipment used for each type event. As stated previously; portal monitors are valuable where large numbers of evacuees and emergency workers need to be monitored. If the incident does not involve large numbers of individuals that need to be monitored, the instrument with pancake detectors would be the best choice.

6. Disposal of Contaminated Wastes

- A. As described previously, clothing and similar materials as well as miscellaneous equipment and vehicles can be decontaminated. If cleaning materials and other items cannot be successfully decontaminated, special handling is necessary.
- B. Contaminated waste materials should be packaged in a plastic bag labeled properly, as radioactive, tied securely at the top, and placed in a metal or plastic container with a snug-fitting lid (garbage can). If any materials cannot be decontaminated by laundering, place it in the same type of plastic bag and container and store in a locked room that is not used for any other purpose until such time as the contaminated waste is disposed of in accordance with instructions from BRP. Accumulation of contaminated waste materials and the need for disposal should be reported through the emergency management channels.
- C. Contaminated wastewater need not be contained or stored. Due to its considerable dilution, it is considered to not pose a danger to public health.

7. Processing of Personal Property

- A. This section addresses the processing of personal property such as money, valuable documents, dentures, prosthesis, or jewelry that could be contaminated.
- B. If the person is also contaminated, the owner will decontaminate their personal property as follows:
 - 1) Brushing or swabbing.
 - 2) Washing the items in a sink using a commercial detergent.
 - 3) Washing the items while showering to decontaminate the property owner.
- C. The activities described in the above paragraph will be conducted in a controlled area so that contaminants will not be spread to contaminant-free general areas.
- D. In the event that personal property cannot be decontaminated as described above, the property will be quarantined as follows:
 - 1) Place the items in a plastic bag and seal the bag.
 - 2) Complete the Personal Property Inventory form. See Tab 2.
 - 3) Give the original copy of the inventory form to the property owner. Attach the other copy of the form to the bag holding the property.
 - 4) Place the bag containing the property in a garbage can, seal the garbage can and place the can in a secure, controlled storage area.
 - 5) Request guidance from the appropriate county EMA concerning disposition of the property when time permits.

Attachment A

- E. Contaminated personal property will not be entered into general living areas used by the public.

ATTACHMENTS:

Attachment A, Tab 1	Monitoring / Decontamination Report Form
Attachment A, Tab 2	Equipment and Personal Decontamination/Accountability Record
Attachment B	Dosimetry & Potassium Iodide

MONITORING/DECONTAMINATION REPORT FORM

MONITORING/DECONTAMINATION REPORT FORM

NOTE: COMPLETE FOR EACH PERSON MONITORED

(Signature)

(Print)

NAME OF PERSON MONITORED:

SOCIAL SECURITY NUMBER:

ADDRESS:

MONITORING LOCATION:

BACKGROUND:

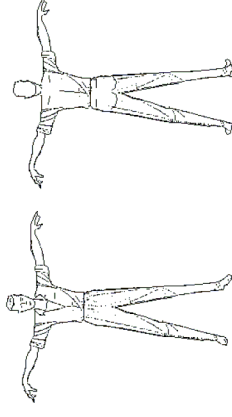
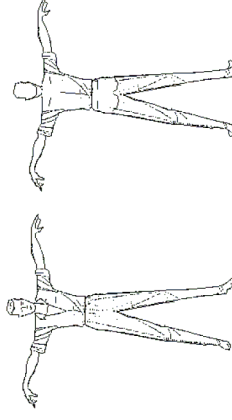
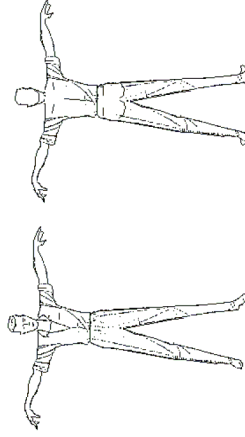
cpm

NOTE: Mark contamination location and reading from survey meter on outline below

FIRST MONITORING

SECOND MONITORING AFTER
DECONTAMINATION (IF NEEDED)

THIRD MONITORING AFTER
DECONTAMINATION (IF NEEDED)



Monitor's or Recorder's Name

(Please Print)

Survey Meter Serial No. _____
DATE _____ TIME _____ am/pm

Monitor's or Recorder's Name

(Please Print)

Survey Meter Serial No. _____
DATE _____ TIME _____ am/pm

Monitor's or Recorder's Name

(Please Print)

Survey Meter Serial No. _____
DATE _____ TIME _____ am/pm

THYROID GLAND SCREENING CHECK (Emergency Workers Only)

Monitoring includes screening for radioiodine uptake in the thyroid gland and the results recorded here. Medical referral action level for the thyroid check is 0.1 mR/hr or higher when using a CDV 700 survey meter – OR – greater than 300 cpm (above background) when using a modern survey instrument with a pancake probe.

Survey meter Serial No. _____

Reading: _____

Signature of Monitor/Recorder _____

Medical Referral - subject individual sent to _____

hospital for decontamination and/or treatment (Time) _____

am/pm

on (Date) _____

Decontamination Team Chief _____

PEMA-BOP-REP—1a (DRAFT 5/2008)

Attachment A, Tab 2

**EQUIPMENT AND PERSONAL PROPERTY
DECONTAMINATION/ACCOUNT/ACCOUNTABILITY RECORD**

DATE	TIME	LOCATION	
TYPE OF EQUIPMENT/PROPERTY (INCLUDE MAKE & SERIAL NUMBER)			
WHERE USED			
EQUIPMENT/PROPERTY WAS USED BY (LIST ALL KNOWN USERS)			
BACKGROUND READING: cpm			
EQUIPMENT PART OR PROPERTY (DESCRIBE)	MONITORING FIRST/SUBSEQUENT	EQUIPMENT PART OR PROPERTY (DESCRIBE)	MONITORING FIRST/SUBSEQUENT
1.	(cpm)	9.	(cpm)
2.	(cpm)	10.	(cpm)
3.	(cpm)	11.	(cpm)
4.	(cpm)	12.	(cpm)
5.	(cpm)	13.	(cpm)
6.	(cpm)	14.	(cpm)
7.	(cpm)	15.	(cpm)
8.	(cpm)	16.	(cpm)
CHECK APPROPRIATE FINAL ACTION: (Enter appropriate item number from previous block)			
EQUIPMENT OR PROPERTY DECONTAMINATED			
EQUIPMENT OR PROPERTY QUARANTINED-UNABLE TO DECONTAMINATE SURFACES			
SIGNATURE OF TEAM RECORDER			
PRINTED NAME OF TEAM RECORDER			
EQUIPMENT/PROPERTY OWNER			
ADDRESS:	STREET		
	CITY/STATE/ZIPCODE		
NOTE: BRING THIS FORM WITH YOU WHEN YOU CLAIM YOUR EQUIPMENT OR PROPERTY			
RELEASE OF EQUIPMENT OR PROPERTY TO OWNER			
I hereby state that I am again in full possession of my equipment/personal property which was left at the decontamination site to be decontaminated.			
Signature			
Witness			Date

PEMA-BOP-REP-2 (DRAFT 5/2008)

DOSIMETRY AND POTASSIUM IODIDE (KI)

1. GENERAL INFORMATION

Each emergency worker assigned tasks within and around the plume exposure pathway EPZ will be equipped commensurate with one of three specific categories during the plume phase. These categories incorporate the "area concept," as approved by the Pennsylvania Emergency Management Council on July 10, 1990. The categories and guidelines below represent the minimum acceptable standard which may be augmented. This can be done by appropriate justification from the county EMC. A control PRD will be provided for each storage location.

A. CATEGORY A

Emergency responders located within the EPZ, or those who may enter the EPZ, functioning in a mobile capacity with a potential for individual radiation exposure, such as: police, firefighters, emergency medical persons, plus state workers, farmers, and industrial workers on a selected basis. Each location that issues direct-reading dosimeters (DRD) will have at least one charger, with a minimum of one per 100 DRD issue. (If location is very isolated, a backup charger may be appropriate.)

Category A Standard Issue:

PRD - 1 per emergency responder

*0-20R Direct-reading dosimeter - 1 per emergency responder

KI - 1 unit (14-day supply) per emergency responder

- * **AREA EQUIPAGE** - where more than 2 Category A emergency workers respond together and remain in the same area, the area concept will be used for equipage: a minimum of two 0-20 DRDs. However, each person will still be issued a PRD and a unit of KI.

B. CATEGORY B

Collectively grouped persons located within the EPZ who may be exposed at facilities and institutions such as: hospitals, nursing homes, prisons, municipal and county EOCs, fire stations, police stations, and ambulance stations. Each Category B facility and institution where emergency workers will remain until after completion of the evacuation of the general public will be issued at a minimum one area kit. An area kit contains:

1 - PRD

1 - Charger

2 - 0-20R DRDs

1 - Dosimetry/KI Report Form

Category B Standard Issue:

PRD - 1 per staff member

KI - 1 unit (14-day supply) per staff member

Attachment B

C. CATEGORY C

Emergency responders located outside the EPZ who, due to assigned tasks during a nuclear emergency, have limited potential for radiation exposure; (e.g., monitoring/decontamination teams, MS-1 hospital staffs). Transporters of contaminated or potentially contaminated individuals outside of EPZ are not provided dosimetry.

Category C Standard Issue:

PRD - 1 per emergency responder, monitor or hospital staff member as stated in the hospital plan.

Monitoring/Decontamination Teams

Each individual who meets/directs/monitors possibly contaminated people or vehicles will receive a Category C Standard Issue.

2. DISTRIBUTION OF DOSIMETRY-POTASSIUM IODIDE AND RELATED PROCEDURES

A. Distribution

- 1) At present the PRDs, Dosimetry-KI Report Form, potassium iodide (chemical symbol is KI), and appropriate numbers of survey meters and DRD Chargers have been pre-distributed by PEMA to the risk and support county emergency management agencies (EMAs) in support of response to nuclear power plant incidents. The risk county EMAs are charged with distribution or pre-distribution of the appropriate numbers of dosimeters, Dosimetry-KI Report Forms, dosimeter chargers, and KI to their respective risk municipalities no later than when the Alert status is declared. At Site Area Emergency the risk municipalities will distribute the equipment and KI: (1) to members of their own EOC staff; (2) to emergency organizations (fire companies, police departments, and ambulance services) who will then issue to their emergency workers. Also at Site Area Emergency monitoring teams are activated and the county EMA distributes the appropriate numbers of PRDs, survey meters, Dosimetry - KI Report Forms, Emergency Worker Dosimetry/KI Record Cards, Personal Property Inventories, and Monitoring/ Decontamination Report Forms to each team.
- 2) Specific additional allocations will be as follows:
 - a. A reserve stock of 0-20R DRDs will be positioned at the risk municipal and risk county EOCs for unforeseen incidents where there may be a need for independent missions in the EPZ. The percentage of reserve stock (a minimum of 10%) will be justified by each risk municipal/county EMC.
 - b. If a task requires multiple shifts to accomplish, DRDs will be re-zeroed and passed from shift to shift.

Attachment B

- c. A stockage of 0-200R DRDs will be established at risk county level. At the option of the county EMC, stockage may be up to 30% of Category A personnel, as determined by the county and risk municipal EMCs. These would be issued in the extremely unlikely event of a life-saving mission requirement in a known, high radiation area.
- d. Route alerting persons will receive a PRD and a unit of KI. Each vehicle to be used in route alerting will be equipped with two 0-20R DRDs. (NOTE: PRD/KI are issued only when individuals do not receive an issue in another of these categories.)
- e. Traffic control persons in the EPZ will receive a PRD and a unit of KI. Each TCP will be equipped with two 0-20R DRDs. (NOTE: PRD/KI issued only when individuals do not receive an issue in another of these categories.)
- f. Law enforcement persons in the EPZ will receive a Category A Standard Issue. Law enforcement officials who are outside the EPZ, but may have a need to enter, will also receive a Category A Standard Issue. The appropriate law enforcement supervisor and County EMC will make the judgement as to equipage.
- g. Firefighters in the EPZ will receive a PRD and a unit of KI. Firefighters who are outside the EPZ, but may have the necessity to enter, will also receive a PRD and a unit of KI. Each fire apparatus will be equipped with two 0-20R DRDs. The appropriate fire chief and County EMC will make the judgement as to equipage.
- h. Emergency medical services personnel in the EPZ will receive a PRD and a unit of KI. Emergency medical persons who are outside the EPZ but may have to enter will also receive a PRD and a unit of KI. Each medical emergency response vehicle, in or entering the EPZ to respond, will be equipped with two 0-20R DRDs for use by the crew. The appropriate medical supervisor and County EMC will make the judgement as to equipage.
- i. A stock of Category A issues will be established for farmers who need to return to care for their livestock. The chairman of the FAC/CEB and risk county coordinator will determine the quantity of individual issues required. The risk county coordinator will determine location and procedures for issue to designated farmers. (AREA EQUIPAGE concept will be applied as appropriate.)
- j. A stock of Category A issues will be established for industrial workers who need to return to attend to industrial matters which, if not attended to, could result in safety compromises and/or unfavorable public impact.

The Risk County Emergency Management Coordinator will determine the quantity of individual issues required. (AREA EQUIPAGE concept will be applied, as appropriate.)

Attachment B

- k. Selected state workers will receive a Category A Standard Issue. Determination of need will be accomplished by PEMA in consultation with appropriate state agencies. (AREA EQUIPAGE concept will be applied, as appropriate.)
- l. A Category B Standard Issue equipage equivalent to 50% of total staff members will be allocated for each hospital in the Plume EPZ. A greater amount than 50% may be issued if the facility manager plans to call in more than 50% of the staff to assist in the operation/evacuation of the facility. One unit of KI will be provided for each patient. Quantity of KI will be determined by reference to the maximum patient capacity of the facility. The number of area kits required for each facility will be determined by the county EMC in consultation with the facility manager in order to compensate for different size facilities.
- m. A Category B Standard Issue equipage equivalent to 50% of total staff members will be allocated for each nursing home in the Plume EPZ. A greater amount than 50% may be issued if the facility manager plans to call in more than 50% of the staff to assist the operation/evacuation of the facility. One unit of KI will be provided for each patient. Quantity of KI will be determined by reference to the maximum resident capacity of the facility. The number of area kits required for each facility will be determined by the county EMC in consultation with the facility manager in order to compensate for different size facilities.
- n. A Category B Standard Issue equipage for 100% of the total staff members will be allocated for each prison in the Plume EPZ. One unit of KI will be provided for each inmate. Quantity of KI will be determined by reference to the maximum capacity of the facility or current population, whichever is greater. The number of area kits required for each facility will be determined by the county EMC in consultation with the superintendent/warden in order to compensate for different size facilities.
- o. For county and municipal EOCs within the EPZ, each staff member will receive the Category B Standard Issue.
- p. For computing Monitoring/Decon Team requirements, one hand-held survey meter will be required per 250 persons at monitoring/decontamination centers; one will be required for each 50 emergency workers at the monitoring/decontamination stations. This monitoring is to be performed in a 12-hour period at each monitoring/decontamination location. Also one or more hand-held meter must be included for monitoring persons after showers and additional hand-held meters will be stocked for monitoring vehicles and equipment. If portal monitors are used these requirements should be modified based on the monitoring time required by the manufacturer. Some hand-held survey meters will be required for pinpointing the actual location of contamination, re-monitoring after decontamination attempts, and vehicle and equipment monitoring. Survey meters are not required for Ambulances/ Emergency Response Vehicles either in EPZ or in support of MS-1 Hospitals.

Attachment B

B. Property Control

- 1) Property accountability must be maintained in the distribution process. "Receipt Form for Dosimetry-Survey Meters-KI" (see Tab 4) is designed for transfer of quantities of equipment from agency to agency, such as from the county to hospitals, nursing homes, municipalities and monitoring teams, and from municipalities to emergency response organizations (fire, police, ambulance). "Acknowledgment of Receipt by Emergency Workers for Dosimetry-KI and Survey Meters" (see Tab 5) is designed to expedite transfer of the equipment-KI to individual users. Municipal EOCs, fire companies, police departments, ambulance services, and monitoring teams will use this form (Tab 5) to maintain accountability when distributing the equipment-KI to their individual emergency workers.
- 2) The county, municipality, or other agency which stores and maintains the equipment and KI is the responsible agency for assuring return of all equipment upon termination of an incident.

C. Control PRDs

- 1) Control PRDs are equal in number to about one percent of the total amount allotted for distribution. A control PRD will be provided for each PRD storage location. Each "control PRD" is so labeled and the serial numbers are not in the same sequential batch as the PRDs meant for distribution to emergency workers. As coordinated by PEMA, the control PRDs will be forwarded to the Commonwealth's Radiological Officer located in the State EOC. The county EMA will complete the "Control PRDs Form" (see Tab 3) and forward it with the control PRDs, or in the case of pre-distribution, the agency holding the PRDs will complete the form and forward it to the appropriate county EMA along with the "Control PRDs."
- 2) The purpose of "Control PRDs" is to allow measurement of a "baseline" of any radiation that the PRDs have been exposed to prior to distribution for the emergency. The amount of radiation exposure denoted by the control PRDs will be subtracted from the reading obtained for each emergency worker in that county. This procedure can be characterized as a "mathematical zeroing" of the PRD.
- 3) At the time of an incident the county or municipal EMA will take reasonable steps so that the control PRDs are not exposed to radiation other than background radiation. Specifically, if the PRDs are stored at a location, which happens to be inside the plume exposure pathway EPZ, they should be moved to a location outside the EPZ. This move should be accomplished at Alert. Where PRDs are stored outside the plume exposure pathway EPZ, care should be taken so that the control PRDs are not moved inside the EPZ.
- 4) Control PRDs may be delivered by air to the PEMA EOC by the PSP if aircraft are available. In the event aerial delivery is approved by PSP, risk counties will deliver their control PRDs to the site indicated below. Support counties will deliver their control PRDs to the below site that is most convenient.

Attachment B

	C	D S
PPL Susquehanna, LLC	Columbia	PSP Barracks Bloomsburg Station 6850 Hidlay Church Road Bloomsburg, PA 17815
	Luzerne	PSP Barracks Troop P Headquarters 475 Wyoming Avenue Wyoming, PA 18644

- 5) Coordination of aerial delivery, at the time of an incident, is a responsibility of the State Radiological Officer. In the event that the PSP cannot provide aerial delivery of the control PRDs, the counties are responsible for their delivery to the State EOC. Preplanning by two or more counties so as to deliver their control PRD by one vehicle, rather than individual vehicles, is encouraged.

D. Inventory and Maintenance

Inventory and maintenance procedures are specified in Attachment C to this Appendix.

E. County Distribution Time Requirements

The county EMA will begin their entire dosimetry-KI survey meter distribution to risk municipalities and support agencies at the declaration of Alert, if not pre-distributed.

3. POTASSIUM IODIDE (KI)

A. Background Information

- 1) Iodine accumulates in the thyroid gland which is located at the front base of the neck just below the larynx. Radioactive iodine will also accumulate in the thyroid gland. Taking KI will have the effect of saturating the thyroid gland with iodine so that radioiodine (radioactive iodine) will not lodge there in a large quantity.
- 2) The Pennsylvania Department of Health has developed policies relating to use of KI during nuclear power plant incidents. The department has procured KI tablets for emergency workers and for staff and patients of risk hospitals and risk nursing homes. A unit of KI consists of 14 tablets of 130 milligrams in size; the dose is one tablet per day while a radioiodine threat exists.

Attachment B

- 3) The toxicity level of KI is very low and dangers in taking this drug are considered to be minimal. Nonetheless, individuals should not take more than the recommended dose. Although side effects to KI are unlikely because of the low dose and the short time period it will be taken, some side effects are possible. The side effects may include: skin rashes, swelling of the salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, cold symptoms, and sometimes gastrointestinal symptoms). A few people may have an allergic reaction with more serious symptoms. These symptoms could be: elevated temperature, joint pains, swelling of the face and body, and at times severe shortness of breath which requires immediate medical attention. Individuals who know they are allergic to iodine, should not take KI and should consult a physician regarding their ability to be an emergency worker.
- 4) The effectiveness of KI as a blocking agent is greatest if administered shortly before the time of exposure to radioiodine, but some exposure saving can be obtained by administration shortly after exposure.
- 5) Emergency workers who may experience a severe reaction to KI, as determined by their private physicians, should be evacuated from the plume exposure pathway EPZ before or immediately upon issuance of the advisory to take KI.

B. Pennsylvania Department of Health Policies on KI

- 1) KI in tablet/capsule form is available to emergency workers (emergency management agencies, police forces, fire companies, ambulance services, prison guards and inmates, farmers keeping livestock, and selected industrial workers) and to hospitals and nursing homes located within the EPZ. County EMAs will specify in their plans those facilities, municipalities, agencies and teams that receive KI for use by emergency workers.
- 2) At the declaration of a General Emergency, emergency workers, special populations and the general public inside the 10 mile EPZ will be instructed to take Potassium Iodide (KI) consistent with the state plan.

4. EMERGENCY WORKERS EXPOSURE CONTROL

A. Dose Limits For Emergency Workers

- 1) The dose limits for emergency workers are for radiation doses received during the emergency phase. They are considered to be once-in-a-lifetime doses and are separate and distinct from occupational exposures received under subsequent non-emergency conditions.
- 2) Emergency workers and supervisors are cautioned that dose limits should not be construed as "license" to incur radiation exposure unnecessarily. Emergency workers and supervisors should attempt to keep exposure As Low As Reasonably Achievable (ALARA). This concept means that exposure to radiation should be kept to a minimum for all persons and that any one individual should not receive a total dose far in excess of other emergency workers if circumstances permit

Attachment B

substitution of personnel, termination of the assignment, or other protective action. ALARA applies to the decision chain for emergency worker exposure in subparagraph (6) below.

- 3) BRP reports projected radiation doses that a person will receive if they remain in a specific area. PEMA reports this information to the appropriate County for further relay to Municipalities. This information is to be used in the management of emergency workers doses.
- 4) Whole Body Dose Limits
 - a. Whole body dose limits specified by the Environmental Protection Agency (EPA-400) and BRP are expressed as Total Effective Dose Equivalent (TEDE). TEDE whole body dose includes external exposure from the plume, external exposure from ground deposition and internal exposure from inhalation.
 - b. The emergency worker dose limit for whole body exposure is 5 Rem TEDE.
 - c. Some situations may justify exceeding the 5-Rem TEDE whole body dose limit for emergency workers. These include protection of valuable property such as livestock, protection of large populations or lifesaving missions. Until evacuation of the general public is complete, the emergency worker whole body dose limits will be based solely on external gamma radiation exposure, as measured by a direct-reading dosimeter, without regard to additional dose that may be received from inhalation.
 - (1) The emergency worker dose limit for protection of valuable property, valuable functions or care of special groups is 10 Rem TEDE.
 - (2) The emergency worker dose limit for lifesaving or protection of large populations is 25 Rem TEDE.
 - (3) For extraordinary circumstances situations may occur in which a dose in excess of 25 Rem for emergency exposure would be unavoidable in order to carry out a life saving operation or to avoid extensive exposure of large populations. It is not possible to prejudge the risk that one should be allowed to take to save the lives of others. Reference EPA 400 (May 1992), page 2-11. The emergency worker shall be a volunteer with full awareness of the risks of acute and late effects of the dose.
 - d. In situations where the internal exposure from inhalation is significant, emergency workers entering the plume after evacuation is completed are assigned a predetermined administrative whole body dose limit, from external gamma only, that is lower than the maximum TEDE dose for the emergency worker activity to be performed. BRP will calculate the appropriate DRD reading corresponding to the emergency worker dose limits, using a correction factor for the specific radionuclide mix in the plume. The licensee will provide the correction factor to BRP as soon as it is available, but not later than the completion of the evacuation. The predetermined administrative dose limits

Attachment B

account for dose already received and the calculated ratio of external dose to TEDE. PEMA will disseminate this information to County and Municipal emergency workers in affected areas.

5) Thyroid Gland Dose Limits

- a. The dose limit for thyroid exposure specified by the Environmental Protection Agency (EPA 400) and by BRP is 25 Rem Committed Dose Equivalent (CDE). CDE is the total thyroid exposure from inhalation of radioactive iodine.
- b. There is no specific upper limit for thyroid exposure in a lifesaving mission. An upper limit is not given for thyroid exposure since complete thyroid loss might be acceptable during lifesaving activities.

6) Decision Chain for Emergency Worker Exposure

- a. 1-5 Rem TEDE Exposure - It is through State authorization that volunteer emergency workers may be exposed to up to 5 Rem TEDE (whole body) in performance of their duties. The municipal emergency management coordinator, however, must ascertain the following conditions:
 - (1) The activity, mission, or task is essential to providing for public safety.
 - (2) The immediate supervisors of emergency workers (fire chiefs, police chiefs, etc.) are managing radiation exposure so that it is kept to a minimum for all persons, and that any one worker should not receive a total dose far in excess of their other emergency workers within the municipality.
- b. 5+ to 25 Rem TEDE Exposure - The County Emergency Management Coordinator, upon the advice of the County Radiological Officer, may authorize municipalities, or other responsible organizations such as fire companies, etc., each independently, to exceed the 5 Rem TEDE dose limit up to 25 Rem TEDE. The following conditions, however, must be ascertained by the County EMC.
 - (1) Upon a request from a municipality for an individual to exceed the 5 Rem TEDE limit, ascertain that the activity, mission, or task is essential to providing for public safety.
 - (2) The municipality is managing radiation exposure so that it is kept to a minimum for all persons; and that any one worker should not receive a total dose far in excess of other emergency workers within the municipality.
 - (3) Another municipal emergency worker force, that could still maintain their emergency worker exposure below 5 Rem TEDE, cannot be deployed in a timely manner in order to assume the mission.

Attachment B

- c. Greater than 25 Rem TEDE Exposure - It is anticipated that exceeding the 25 Rem TEDE limit in order to conduct a lifesaving mission will be an extremely rare event. Lifesaving response is of such urgency that it is not practical to go through an elaborate decision making process. The decision will have to be made on the scene by the senior supervisor (Police Chief, Fire Chief, etc.) in charge of, or person closest to the situation. If no supervisory personnel are available on the scene, an individual may have to make the decision. The person making the decision will consider the following conditions:
 - 1) The mission must be life saving, i.e. failure to act will result in loss of human life.
 - 2) Alternative solutions have been exhausted, i.e. if time is available, another emergency worker(s), that could still maintain their emergency worker exposure below 25 Rem, cannot be deployed in a timely manner in order to assume the lifesaving mission.
 - 3) The lifesaving mission must be accomplished by a volunteer(s).
 - 4) The volunteer should be a healthy adult. Volunteers must be advised of the possible long term effect on reproductive capability and the potential for generic damage in their future children.
 - 5) Women of reproductive capacity must be fully advised of the increased potential for genetic damage and fetal exposure.
 - 6) The volunteer(s) selected should be persons whose normal duties might involve such missions, e.g., police, fire and rescue personnel.
 - 7) The volunteer(s) selected must have received the lowest total dose in comparison to other volunteers for the mission.
 - 8) The mission must be accomplished in the least amount of "stay time."
 - 9) The volunteer(s) must be knowledgeable of and accept the increased risk of exceeding the 25 Rem PAG.

NOTE: It is intended that emergency workers be informed on the above conditions during training prior to an incident. There may not be time to repeat those instructions during an actual incident.

- 7) Information to be Provided Emergency Workers.
 - a. Standard Operating Procedures (SOPs) developed for emergency worker missions should provide the following:
 - (1) Prior to departure on a mission, each emergency worker will:
 - (a) Be provided with an update on the status of the incident;

Attachment B

- (b) Be provided with Potassium Iodide (KI) in accordance with the policy established by the Secretary of Health; and
 - (c) Be informed of emergency worker PAG levels of radiation exposure, procedures and frequency for reading dosimeters, where to report after the mission is completed, and what may be required if decontamination of the worker or equipment is necessary.
- (2) During the conduct of the mission:
- How each emergency worker or team will be provided updates on the accident status and any special protective actions.
- (3) At the conclusion of the mission:
- (a) The monitoring of each emergency worker to include farmers and industrial workers who reenter the EPZ, equipment, and vehicles used, and what will be required if decontamination is necessary; and
 - (b) Determination if each emergency worker has exceeded his or her allowable exposure, and whether or not each has any remaining "stay time" in controlled areas.
 - (c) Determination if each emergency worker will be referred to a medical facility for radiation exposure treatment.

B. Increased Risks Due to Radiation Exposure

Information concerning the possible consequences of emergency workers' exposure to radiation during a nuclear power plant incident is organized below into three categories - (1) immediate somatic effects, (2) long term somatic effects, and (3) genetic effects. Somatic are characteristics of or effects on the body of the individual actually exposed, as distinguished from genetic characteristics or genetic effects which are manifested in future offspring (descendants).

1) Representative Relationships Between a Brief One-Time Radiation Exposure and Immediate Somatic Effects

Representative or Dose or Gamma Radiation	at re o E ect
5-25 Rem	Minimal dose detectable by chromosome analysis or other specialized analysis.
50-75 Rem	Minimal acute dose readily detectable in a specific individual (e.g., one who is a possible exposure case.)
75-125 Rem	Minimal acute dose likely to produce vomiting in about 10% of people so exposed.

Attachment B

150-200 Rem	Acute dose likely to produce transient disability and clear hemotological changes in a majority of people so exposed.
-------------	---

2) Long Term Somatic Risks as a Result of a One-Time Exposure to Radiation

Current knowledge about the long-term health effects resulting from a one-time radiation exposure below 25 Rem indicates that development of health problems, such as cancer, in adults so exposed is extremely unlikely. There is no direct clinical evidence of low level radiation (in this case meaning a one-time exposure below the whole body dose protective action guide of 25 Rem) causing health problems years after the exposure.

3) Genetic Effects of Radiation

The cause chromosome and gene abnormalities (mutations) is thought to be radiation exposure of reproductive cells and ovaries and testes. Persons exposed to any radiation should avoid the possibility of conception during the first three months after exposure to virtually eliminate any possible genetic risk.

C. Dosimetry and KI Record Keeping

- 1) Each emergency worker is responsible for completing a Dosimetry-KI Report Form (see Tab 1) and for returning it with the dosimetry to his/her organization at the termination of his/her services. Each emergency organization will forward the forms and PRDs to the appropriate county EMA, which in turn will deliver the PRDs and forms to PEMA. PEMA will deliver the forms from all counties to BRP and will deliver the PRDs to the PRD service contractor for reading. All dosimetry records will be forwarded through emergency management channels to BRP for the purposes of record keeping, analysis, reporting, and storage. Direct-reading dosimeters will be retained at county or other agency level, as appropriate.
- 2) Weather and other conditions may make it difficult if not impossible for an emergency worker to utilize the Dosimetry-KI Report Form while deployed on a mission. All effects must be taken to keep the form dry and legible. If necessary, at the completion of the mission, data will be transferred onto a clean copy of the Dosimetry-KI Report Form when conditions allow it to be completed.
- 3) BRP will retain all original copies and will be the permanent record keeper of the completed Dosimetry-KI Report Forms along with BRP's explanation of each, the PRD service contractor generated information, and all related material. The records of individuals will be kept confidential.
- 4) BRP will use the Dosimetry-KI Report Form to select PRDs for immediate reading. The highest priority will be given to PRDs worn by persons whose direct-reading dosimetry indicates 25 R or more, or where medical authority has requested immediate reading, or where other circumstances warrant. In these cases, PEMA will expedite delivery of the PRDs to the PRD service contractor and readings will be received within 24 hours after the contractor's receipt of the PRDs. BRP will promptly relay the readings, with their interpretation, to the individual and to appropriate medical authorities. All other PRDs will be in the "routine" category of

Attachment B

five days turnaround time from the PRD service contractor; individuals will be informed of the PRD readings.

- 5) If emergency workers turn in their PRDs for reading and are later employed in an area where dosimetry is needed, they will be issued new PRDs.

D. Dosimetry Reading Procedures

Direct-reading dosimeters will measure the external exposure from the plume and ground deposition. The internal exposure from inhalation cannot be measured with a DRD. In situations where the internal exposure from inhalation is significant, the exposure measured by the DRD will under-report the total whole body exposure. Emergency workers should use the direct-reading dosimeter(s) to ensure that whole body exposure is minimized and that the whole body dose limits are not exceeded. By regularly checking the DRD, the emergency worker can make reasonable judgments about how much radiation, if any has been received.

- 1) Prior to use, direct-reading dosimeters should be "zeroed". If zeroing is not possible due to lack of a charger and the dosimeter reading is less than 10% of full scale, the dosimeter may be used but the initial reading must be recorded and subsequently subtracted from exposure reading. If the reading is more than 10% of full scale, do not use the dosimeter.
- 2) Dosimeters contained in other than area kits should be worn clipped to the upper torso of an outer garment from the time of issue until the worker is released from the mission requiring reading of the dosimeter. Dosimetry contained in area kits should be read until PEMA says dosimetry reading is no longer necessary. Dosimetry may be worn inside protective gear if there are no outer pockets on protective gear, and must be worn inside protective gear if temperatures outside the protective gear exceed 130 degrees Fahrenheit. In no case will the same PRD be worn by more than one person since it would be impossible to ascertain later how much of the dose recorded on the PRD was received by each individual.
- 3) Emergency workers responsible for doing so should read the direct-reading dosimeters at least once every 30 minutes after having been advised to begin reading and record the reading before and after each mission.
- 4) Two direct-reading dosimeters provide redundancy. Where the Area Concept is applied, workers will heed the higher measurement taken from the two dosimeters. It is possible for dosimeters of this type to have "electrical leakage" that will register a reading not caused by radiation. Nonetheless, workers are to "err on the side of caution" by heeding the higher reading.

5. FARMER AND INDUSTRIAL WORKER ACCESS TO THE PLUME EXPOSURE PATHWAY EPZ

A. Farmers and Industrial Workers as Emergency Workers

Farmers with livestock within the plume exposure pathway EPZ and industrial workers needed to maintain or shut down equipment will be designated emergency workers if

Attachment B

the EPZ is evacuated. The county EMA will provide these emergency workers with dosimetry and KI and identification enabling them to stay within or exit and reenter the evacuated area.

B. Distribution of Dosimetry-KI and Farmers/Industrial Workers "Pass" to the Evacuated Area

Following completion of evacuation, each risk county EMA will establish a "Contact and Dosimetry-KI Distribution Point for Farmers/Industrial Workers," which will be outside the plume exposure pathway EPZ at a location easily accessible and known to the workers. If an evacuation is necessary, an Emergency Alert System (EAS) or other announcement will instruct the emergency worker to report the designated locations(s). Utilizing its EOC agriculture representative or designated county representative, the county EMA will distribute the dosimetry-KI to the emergency workers and provide instructions on their use. A "Farmer Emergency Worker Authorization/Industrial Worker Authorization" (see Tab 6) will be completed in duplicate for each emergency worker and serve as a pass for access to the evacuated area. The agriculture or county representative as the basis for property control will retain the duplicate.

C. Limitation on Access to the Plume Exposure Pathway EPZ

The farmers/industrial workers' emergency worker status and authorization to be in the EPZ can be suspended if the incident becomes serious to warrant this action.

TABS:

1. Dosimetry-KI Report Form
2. Dosimetry-KI Instructions for Emergency Workers
3. Control TLD Form
4. Receipt for Dosimetry-Survey Meters-KI (Bulk Issue)
5. Acknowledgment of Receipt by Emergency Workers for Dosimetry-KI and Survey Meters (Individual Issue)
6. Farmer/Emergency Worker Authorization/Industrial Worker Authorization
7. KI Decision Flow Chart

Attachment B, Tab 1

(Please Print Legibly)	
Emergency's Worker Name or Name of Facility Where Area Kit is Located:	Mailing Address or Area Kit Location:
Social Security Number	Emergency Worker's Organization
Emergency's Worker Signature	

Mission		0-20R Direct Reading Dosimeter			0-200R Direct Reading Dosimeter		
# 1 Description	Date	Serial No.	BEFORE AFTER	Mission Total	Serial No.	BEFORE AFTER	Mission Total
				R			R
				R			R
				R			R
				R			R
				R			R
				R			R
				R			R
				R			R
			Total			Total	
				R			R

PRD (Personal Record Dosimeters)			
Serial No. of PRD:			
	Date/Time	Person/Organization	
Issued		By:	
Turned In		To:	
LABORATORY READING OF PRD			
M/Rem			
Date of Reading			

DOSIMETRY INSTRUCTIONS: Read the 0-20R and/or 0-200R direct-reading dosimeter each half hour. Do not exceed 5R cumulative total without authorization. The PRD gives an accurate reading of the total dose and therefore should be used by only one person. Forward the PRD with this form (see distribution below). Upon completion of the mission, or as directed, each emergency worker must report to a monitoring station or a mass care monitoring center to be monitored for radiological contamination and, if necessary, be decontaminated. Monitoring personnel at these locations will complete a "Monitoring/Decontamination Report Form" for you that will be turned in with this form to the Bureau of Radiation Protection (BRP).

DOSIMETRY-KI REPORT FORM DISTRIBUTION: Complete this form and forward the original copy with the PRD through emergency management channels to BRP. If the direct-reading dosimetry indicates total exposure to 5R or more, expedite delivery to BRP. BRP will forward to the individual and to the county EMA the PRD reading as well as an explanation of the reading. When expedited delivery is made to BRP and where otherwise warranted, BRP will report the PRD reading within 24 hours. Routine reporting may take a week or more. Copy 2 is retained by the County Emergency Management Agency. Copy 3 is retained by the individual.

KI INSTRUCTIONS: Take KI only on the direction of the Secretary of the Department of Health. Take one tablet (130 mg.) or 2 tablets (65 mg.) once a day. If you have any adverse reaction to the drug, discontinue taking KI and report to your supervisor.

COPY 2 (EMA)
PEMA-BOP-REP-3 (DRAFT 5/2008)

	Date	Time	Amount Taken
Day 1			____ Tablet(s)/____ mg
Day 2			____ Tablet(s)/____ mg
Day 3			____ Tablet(s)/____ mg
Day 4			____ Tablet(s)/____ mg
Day 5			____ Tablet(s)/____ mg
Day 6			____ Tablet(s)/____ mg
Day 7			____ Tablet(s)/____ mg
Day 8			____ Tablet(s)/____ mg
Day 9			____ Tablet(s)/____ mg
Day 10			____ Tablet(s)/____ mg
Day 11			____ Tablet(s)/____ mg
Day 12			____ Tablet(s)/____ mg
Day 13			____ Tablet(s)/____ mg
Day 14			____ Tablet(s)/____ mg

DOSIMETRY-KI INSTRUCTIONS FOR EMERGENCY WORKERS

1. PURPOSE

To provide emergency workers instructions on recording radiation dose exposure, thyroid gland screening, potassium iodide consumption, and processing of PRDs.

2. GENERAL

- A. Instructions on when to commence radiological monitoring operations will be issued by PEMA through EMA channels. Upon receipt of that instruction, emergency workers will commence recording the data indicated on the Dosimetry-KI Report Form.
- B. The Dosimetry-KI Report Form will not always be usable under field conditions; in that event, the form will be completed as soon as possible after each mission is completed. Supervisory personnel must ensure that the form is completed and processed.

3. INSTRUCTIONS

A. Dosimetry

- 1) Read the direct-reading dosimeters each half hour.
- 2) Do not exceed 5R TEDE dose exposure without County Emergency Management Coordinator's (EMC) approval.
- 3) Do not exceed 25R TEDE dose exposure except in the case of a lifesaving mission or protection of large populations. Approval by the senior person at the scene is required.
- 4) Record total dose upon completion of each mission.
- 5) Record grand total dose upon completion of all missions.
- 6) If the TEDE dose is 25R or more, expedite delivery of the Dosimetry-KI Report Form to BRP and refer the emergency worker to a medical facility for treatment.

B. Thyroid Gland Screening Check (Category A & B Emergency Workers only)

- 1) Upon completion of each mission into a known or suspected radiation area, or as directed, each emergency worker is to undergo monitoring and a thyroid gland check for radioiodine uptake.
- 2) The monitoring/decontamination team will complete the thyroid check portion of the Dosimetry-KI Report Form.
- 3) If the thyroid check exceeds limits (See Attachment A) the emergency worker is to be referred to a medical facility for treatment.

Attachment B, Tab 2

C. Permanent Record Dosimeter (PRD)

- 1) Record date/time of issue to emergency worker and turn in to supervisor/EMA.
- 2) Forward form and PRD to BRP through EMA channels.
- 3) The PRD contractor accomplishes PRD reading.

D. Potassium Iodide (KI) Record

- 1) Take KI only on the advice of the Secretary of the Department of Health.
- 2) Take one tablet daily while in a radioiodine contaminated area.
- 3) Record the date/time KI was taken daily.

4. DISTRIBUTION OF DOSIMETRY/KI FORM

- A. BRP - copy 1
- B. County EMA - copy 2
- C. Emergency Worker - copy 3

Attachment B, Tab 3

CONTROL PRD FORM

When PRDs are **issued to emergency workers**, the **CONTROL** PRDs, along with a completed copy of this form, must be forwarded by the municipality/organization to the appropriate county EMA. The county EMA is then responsible for delivering the municipal/organizational Control PRDs, along with any held by the county EMA, to PEMA.

NOTE: If the county EOC is inside the plume exposure pathway EPZ, the county should designate an alternate site **outside** the EPZ to which Control PRDs are to be delivered.

Control PRD(s) included with this form:

Serial #		thru	
Serial #		thru	
Serial #		thru	

COUNTY/MUNICIPALITY/ORGANIZATION

The PRD stock, with which the above listed control PRDs were stored, was located at:

Address:

At the time PRDs were issued to emergency workers, the CONTROL PRDs were moved to:
(enter/check as appropriate)

a. _____ COUNTY EOC

-or-

ALTERNATE LOCATION

b. _____

-and-

c. PEMA EOC

Receipt for CONTROL PRDS:

a. SIGNATURE

ORGANIZATION (date/time)

-and-

b. SIGNATURE

PEMA EOC (date/time)

PEMA-BOP-REP-4 (DRAFT 5/2008)

Attachment B, Tab 4

RECEIPT FOR DOSIMETRY-SURVEY METERS-KI (Bulk Issue)			
Issued by:		Issued to:	
Address:		Address:	
Responsible Individual:			
Telephone:			
<p>INSTRUCTIONS: During a nuclear power plant incident, use this form to maintain property control when distributing the items listed below to municipalities and monitoring/decontamination centers and stations. This form should be used for transfer of these items in bulk form from: (1) the county emergency management agency to risk municipalities and monitoring/ decontamination centers and stations; and (2) the municipalities to their local emergency response organizations (such as fire, police and ambulance associations).</p> <p>NOTE: The form listed on item 12 below should be used when issuing dosimetry-KI to individual emergency workers.</p> <p>NOTE: For return of items described: [<input checked="" type="checkbox"/>] by the appropriate line item indicates return of the item(s).</p>			
LINE NUMBER	DESCRIPTION	✓	QUANTITY
1	0-20R Direct Reading Dosimeter		
2	0-200R Direct Reading Dosimeter		
3	Dosimeter Charger – type		
4	PRD (Permanent Dosimeter) Serial Numbers Through		
5	Potassium Iodide (KI)		
6	Survey Meter - type		
7	Monitoring/Decontamination Report Form		
8	Equipment & Personal Property Decontamination/Accountability Record		
9	Dosimetry-KI Report Form		
10	Control PRD Form		
11	Receipt for Dosimetry-Survey Meters-KI (Bulk Issue)		
12	Acknowledgment of Receipt by Emergency Workers for Dosimetry-KI and Survey Meters (Individual Issue)		
13	Farmer/Emergency Worker Authorization Form - Industrial Worker Authorization Form		
14	Radiological Equipment/KI/Forms Inventory Record		
RECEIVED BY:		TITLE	
SIGNATURE		DATE:	

PEMA-BOP-REP-5 (DRAFT 5-2008)

[illegible]

Attachment B, Tab 6

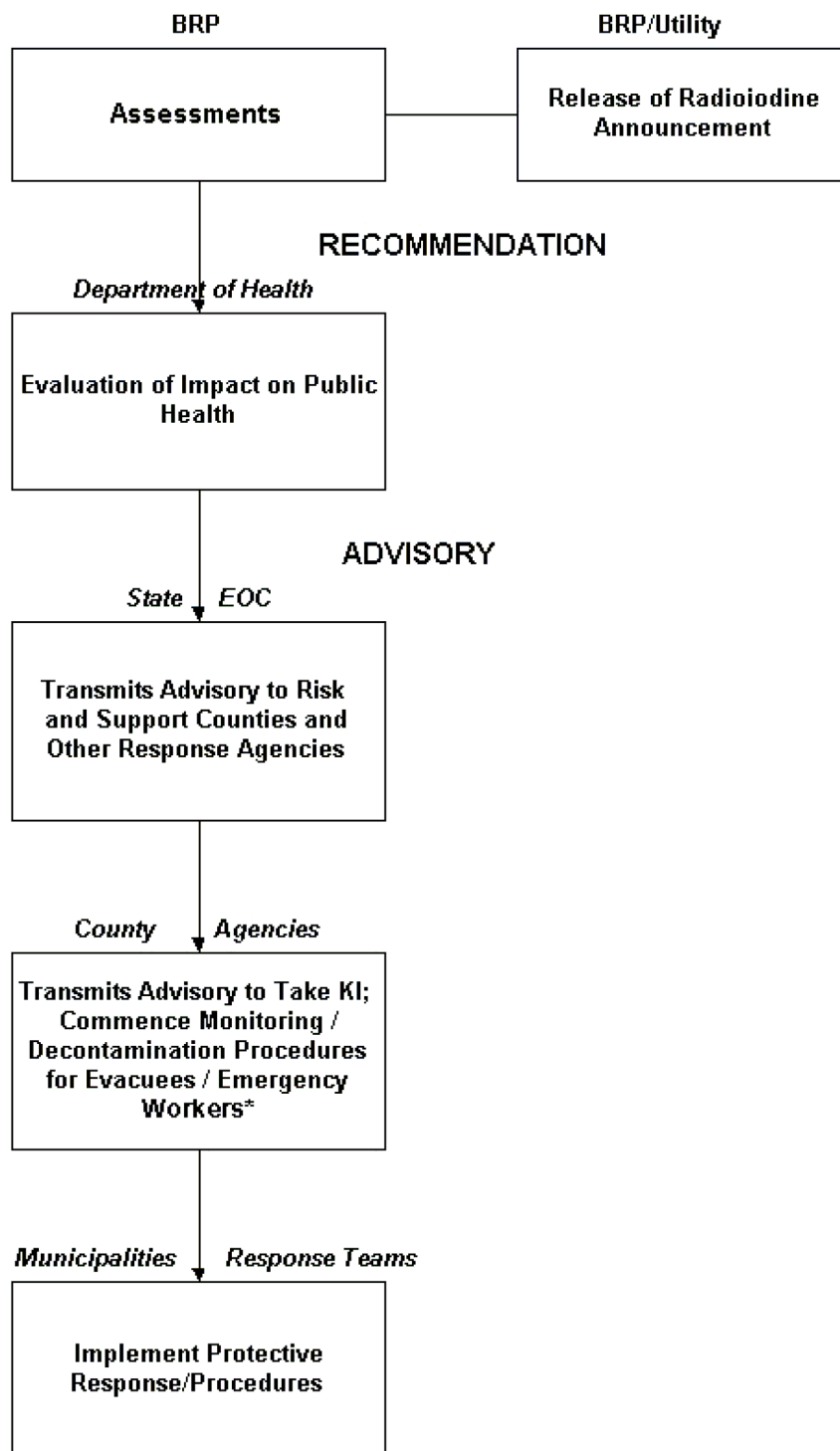
**Farmer/Emergency Worker Authorization Form
Industrial Worker Authorization Form**

This is to certify that _____, _____, is authorized access to the plume exposure pathway emergency planning zone (EPZ) surrounding the _____ nuclear power plant for the period extending from _____ am/pm to _____ am/pm. <div style="display: flex; justify-content: space-around; font-size: small;"> (date) (time) (date) (time) </div>			
This individual has been issued dosimetry and KI and is authorized access to the evacuated area for the exclusive purpose of tending to livestock or maintaining/closing down industrial or other authorized operations located at:			
(FARM LOCATION OR INDUSTRY OR OTHER LOCATION) _____ _____			
METHOD OF CONTACT:			
IDENTIFICATION DATA:		Eye Color	
Sex	<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE	Hair Color	
Height	_____ ft _____ in	State Automobile Operator's License No.	
Weight	_____ lbs.	Social Security No. (Last 4 digits)	
RADIOLOGICAL EQUIPMENT ISSUED			
Model & Serial No. of Direct Reading Dosimeter			
PRD Serial No			
Dosimetry-KI Report Form			
Potassium Iodide (KI) Quantity	To be taken only when directed by Secretary of the Department of Health. Discontinue taking KI and report to supervisor if you have adverse reaction.		
Individual's Signature			
Approving Authority			
Agriculture Representative's or County Coordinator's Signature (as appropriate)			
NOTE: LISTEN TO THE COUNTY EAS STATION WHEN INSIDE THE EPZ			

PEMA-BOP-REP-7 (DRAFT 5/2008)

Attachment B, Tab 7

KI Decision Flow Chart



* If directed

INVENTORY AND MAINTENANCE PROCEDURES

1. PURPOSE

To prescribe procedures for inventory and maintenance of the dosimetry, dosimeter chargers, survey meters and potassium iodide (KI) intended for use in response to incidents at nuclear power plants.

2. GENERAL

A. For the purpose of this attachment, the following criteria are applicable:

- 1) Inspection - A visual check for physical damage and missing accessories to include batteries for DRD chargers and survey meters which should be stored separately.
- 2) Inventory - An accounting for the equipment and material on hand.
- 3) Operational Check
 - a. Direct-reading Dosimeters - The dosimeter is operational if the hairline can be moved to or close to zero using a dosimeter charger.
 - b. Dosimeter Charger - The charger is operational if the light source for reading dosimeters is working and the charger can move the hairline on a self-reading dosimeter to or close to zero.
 - c. Survey Meter - Operational checks consist of a physical inspection of the meter and probe, battery test if applicable, and a source response check. Manufacturer's instructions should be followed.
 - d. Portal monitors and other hand-held survey meters - Follow the manufacturer's instructions
- 4) RERP Issue - Refers to dosimeters, dosimeter chargers, and survey meters that are either emergency management or commercial equipment issued to selected counties for the express purpose of response to nuclear power plants incidents.

Attachment C

3. INVENTORY AND MAINTENANCE PROCEDURES

- A. At least once each year and after each use, for an exercise or actual emergency, emergency response equipment/instruments will be inventoried, inspected, and operationally checked by each agency having RERP issue on hand.
- B. At present sufficient reserves of equipment/instruments will be maintained by utilities to replace those which are undergoing calibration or repair.
- C. The above procedures (A and B) pertain only to the RERP equipment for response to nuclear power plant incidents and in no way change or alter other established procedures for radiological equipment.

4. INSTRUMENT CALIBRATION

Frequency of calibration is as prescribed by the manufacturer. The manufacturers' standard for the CD V-700 is every four years. The calibration date must be visible on the instrument. For portal monitors and other hand-held survey meters follow the manufacturer's calibration recommendations. Calibration, repair and replacement of these instruments are the responsibility of the agency that owns them.

5. PERMANENT RECORD DOSIMETERS

Each year, based on the original issue date, PEMA will purchase and coordinate an exchange of new-for-old PRDs. After the annual replacements are received from the PRD service contractor the old PRDs will be immediately returned to the manufacturer. Failure to accomplish this return will result in an additional charge.

There are no maintenance requirements for the PRDs and all are replaced, one for one, annually.

TAB:

- 1. Radiological Equipment/KI/Forms Inventory Record
- 2. Dosimetry, Potassium Iodide, Survey Meter Distribution List

Attachment C, Tab 1

RADIOLOGICAL EQUIPMENT/KI/FORMS INVENTORY RECORD

COUNTY/MUNICIPALITY/AGENCY		
<p>I, as the person who conducted the inventory, certify that a physical inventory of radiological equipment and KI issued to this organization specifically for response to nuclear power plant incidents was conducted on _____ and the results of such inventory are as follows:</p>		
EQUIPMENT/KI/FORMS	QUANTITY ISSUED	PHYSICAL INVENTORY QUANTITY
1. 0-20R Direct-Reading Dosimeter		
2. 0-200R Direct-Reading Dosimeter		
3. Dosimeter Charger - type		
4. PRD (Permanent Record Dosimeter) Serial number _____ through _____ and _____ through _____		
5. Potassium Iodide (KI)		
6. Survey Meter - type		
7. Monitoring/Decontamination Report Form		
8. Equipment & Personal Property Decontamination/Accountability Record		
9. Dosimetry-KI Report Form		
10. Control PRD Form		
11. Receipt for Dosimetry-Survey Meters-KI (Bulk Issue)		
12. Acknowledgment of Receipt of Emergency Workers for Dosimetry-KI and Survey Meters (Individual Issue)		
13. Farmer/Emergency Worker Authorization Form - Industrial Worker Authorization Form		
14. Radiological Equipment - KI Forms Inventory Record		
NAME OF INVENTORY CLERK: (PLEASE PRINT OR TYPE)		
INVENTORY CLERK'S SIGNATURE:		DATE:
SIGNATURE OF COUNTY/MUNICIPAL COORDINATOR OR AGENCY MANAGER		DATE:

PEMA-BOP-REP-8 (DRAFT 5/2008)

Attachment C, Tab 2

**COLUMBIA COUNTY DOSIMETRY, POTASSIUM IODIDE, SURVEY METER
DISTRIBUTION LIST**

Distribution Scheme: Dosimetry, KI tablets, and survey meters are predistributed to the Columbia County Emergency Management Agency, who in turn has predistributed to the municipalities. Should an incident occur at PPL Susquehanna, LLC, municipalities will make distribution as appropriate in their municipality.

- A. In the following list, an Area Kit consists of two Direct Reading Dosimeters (DRD), one PRD, and one PRD Charger. Control PRDs will be kept at each PRD storage location.

		PRD	R PRD	DRD ar er	Ra S r e n tr ment	D	DRD	RE S	
1.	ol m ia o nt Emer enc ana ement enc e t ir t Street P o loom r P	307	1	4	4	100	134		299
a.	USDA County Agent (for farmers who keep livestock)	50		2			50		50
b.	Industrial Workers (for workers who must tend equipment)	25	1	2			25		25
c.	Mon/Decon Station at Vo-Tech ³ (for emergency workers) (2 teams) ¹¹	8			4				
d.	Re er e E ipa e	176				100	27		176
e.	m lance oin to nicipalitie nee to enter EPZ	48					32		48
1)	Beaver Township (1 ambulance)	3					2		3
2)	Berwick Borough (11 ambulances)	33					22		33
3)	Briar Creek Borough (1 ambulance)	3					2		3
4)	Mifflin Township (1 ambulance)	3					2		3
5)	North Centre Township (1 ambulance)	3					2		3
6)	South Centre Township (1 ambulance)	3					2		3
2.	mo nt or ea er o n ip	44	1	2			26	1	44
3.	mo nt or er ic oro	554	1	11			63	9	955 **
4.	mo nt or riar ree oro	12	1	2			3	1	12
5.	mo nt or riar ree o n ip	56	1	2			28	1	56
6.	mo nt or i in ree o n ip	30	1	2			18	1	30
7.	mo nt or i lin o n ip	41	1	2			18	1	41
8.	mo nt or ort entre o n ip	20	1	2			8	1	20
9.	mo nt or So t entre o n ip	65	1	2			37	1	65
	ran otal	1,129	9	29	4	100	333	17	1,522

NOTE: Electronic dosimeters may be substituted for the pocket ion chamber direct reading dosimeters.
No charger is required for electronic dosimeter.

* Area kit quantities are included in totals for PRD's, CDV-750 & DRD's.

** KI predistributed to facilities by county (410 to Berwick Hospital & 345 to East Side Manor).

PERSONNEL MONITORING PROCEDURE

This document provides guidelines for monitoring personnel for contamination in the event of an unplanned release of radioactive materials.

1. CONSIDERATIONS

Considerations include, but are not limited to the following:

- A. Setting up an Incident Command Center in accordance with applicable ORO plans and procedures.
- B. Establishing communications for responders.
- C. Evaluating other hazards that may be present in the affected area.
- D. Establishing access and egress control points.
- E. Determining how many people are affected.
- F. Establishing cold, warm and hot zones as appropriate.
- G. Establishing decontamination and staging areas for personnel and equipment.
- H. Determining which instruments will provide adequate detection capabilities for radionuclides that may be present.
- I. Determining how many monitoring teams are needed.
- J. Determining if outside agency (e.g. DEP / BRP or contract consultants) assistance is required and obtaining outside assistance as needed.
- K. Emergency workers exposed to a plume containing radioiodine shall have thyroid monitoring performed after any necessary decontamination attempts.

2. PREREQUISITES

- A. Personnel performing monitoring should be properly trained and qualified in accordance with OROs' emergency plans and procedures.
- B. Personnel should review Flow Chart Tabs A, B, C and D of the procedure prior to commencement of monitoring.
- C. Monitoring equipment must be in good physical condition.
- D. Monitoring equipment calibration must be current.
- E. Monitoring equipment pre-operational / source checks must be performed satisfactorily.
- F. Instrument audio / speaker features (if available) should be used during monitoring.

- G. Monitoring area background levels should not exceed 60 cpm if CDV-700 is used or 100 cpm if instruments with pancake detectors are used.
- H. Background levels and monitoring floor areas must be re-checked at 30 minutes intervals and after contaminated individuals are sent to shower(s) / decontamination stations.
- I. Appropriate ORO forms must be available for documentation of individuals who are contaminated.

3. PRECAUTIONS

- A. Default monitoring times/distances listed are within the body of the procedure. CDV-700s WILL NOT BE USED FOR NON-REP INCIDENTS.
- B. Soles of the shoes are the areas most likely to be contaminated and should be monitored last.
- C. Exercise care to control the spread of contamination when sending individuals to shower(s) and decontamination stations.
- D. Maintain a distance of at least ten feet between the individual being monitored and those waiting to be monitored to minimize the possibility of increasing instrument background.

4. PROCEDURE

- A. Initial Monitoring of Evacuees or Emergency Workers for Contamination Using Portal Monitors
 - 1) Ensure prerequisites of this procedure have been met.
 - 2) Determine and record the background radiation level in the monitoring area.
 - 3) Instruct individuals who are waiting to be monitored to stay at least ten feet away from portal monitor, to minimize effects on background levels.
 - 4) Instruct individuals to proceed, single file, through portal monitor.
 - 5) Release individuals who do not alarm portal monitors in accordance with ORO plans and procedures.
 - 6) Instruct individuals who alarm portal monitor to walk through monitor a second time.
 - 7) Release individuals who do not alarm portal monitors in accordance with ORO plans and procedures
 - 8) If individuals alarm the portal monitor a second time, take precautions to prevent the spread of contamination.

- 9) Instruct individuals who alarm the portal monitor twice to proceed to decontamination area(s).
- 10) Ensure portal monitor area is free of contamination after individuals are sent to decontamination area(s).
- 11) Conduct follow-up monitoring of individuals in accordance with Section 3 of this procedure.

B. Initial Monitoring of Evacuees Using Hand Held Instruments

- 1) Ensure that the prerequisites of this procedure have been met.
- 2) If instruments are equipped with audio / speaker capabilities, ensure this feature is turned on and used during monitoring.
- 3) Place a thin plastic cover over the probe(s) to prevent it from being contaminated.
- 4) Determine and record the background radiation level in the monitoring area.
- 5) Instruct individuals to line up, single file, at least ten feet away from other individuals being monitored.
- 6) Instruct individuals to proceed, one at a time, through the monitoring line.
- 7) Perform a:
 - 1 minute survey with a pancake detector/instrumentOR
 - 4 minute survey with a CDV-700 of the individual in accordance with the steps listed below.
- 8) Keep the probe approximately:
 - 1 inch away with a pancake detector/instrumentOR
 - 1/2 inch away with a CDV-700 from surface being monitored.
- 9) Beginning at the head, monitor for the presence of contamination in excess of release limits:
 - 300 cpm above background with pancake detector/instrumentOR
 - 300 cpm with a CDV-700.

- 10) Continue monitoring the hands, elbows, hips/buttock area where hands may have touched and knees.
 - 11) Monitor the soles of the shoes.
 - 12) Release non-contaminated individuals in accordance with ORO plans and procedures.
 - 13) If individual is contaminated, take precautions to prevent the spread of contamination.
 - 14) Ensure monitoring area is free of contamination.
 - 15) Instruct contaminated individuals to proceed to decontamination area(s).
 - 16) Conduct follow-up (post-decontamination) monitoring in accordance with Section 3 of this procedure.
- C. Initial Monitoring of Emergency Workers or follow-up Monitoring of Individuals Found to be Contaminated Using Hand Held Instrumentation

Note: Portal monitors may be used for this purpose.

- 1) Ensure that the prerequisites of this procedure have been met.
- 2) If instruments are equipped with audio / speaker capabilities, ensure this feature is activated.
- 3) Place a thin plastic cover over the probe(s) to prevent it from being contaminated.
- 4) Determine and record the background radiation level in the monitoring area.
- 5) Perform a :
 - 4 minute survey with a pancake detector/instrumentOR
 - 19 minute survey with a CDV-700 of the whole body of the individual in accordance with the steps listed below.
- 6) Keep the probe approximately:
 - 1 inch away with a pancake detector/instrumentOR
 - 1/2 inch away with a CDV-700 from surface being monitored.

NOTE: If individuals are contaminated, initiate proper form(s), and document all areas where contamination is in excess of release limits.

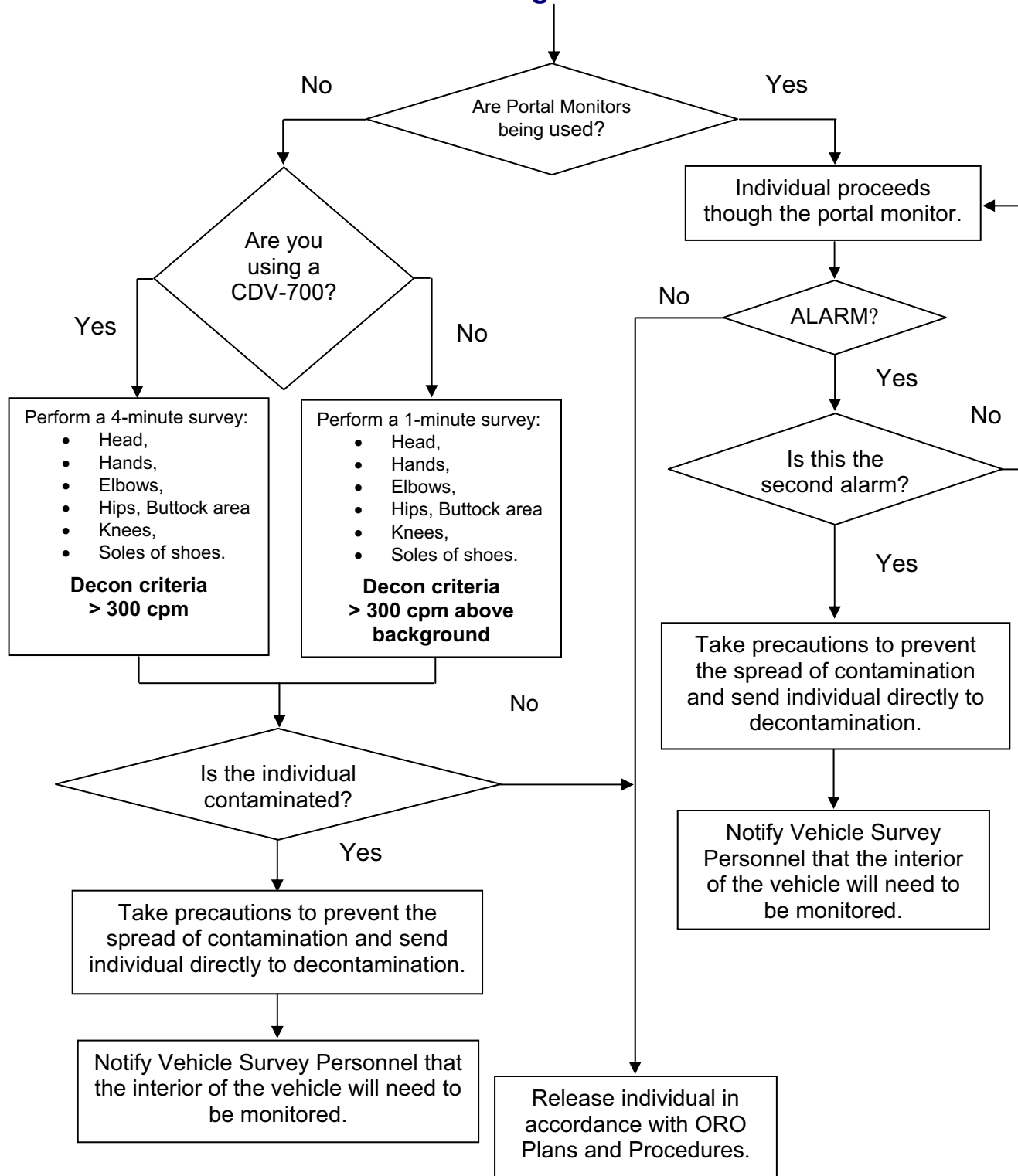
- 7) Beginning at the head, monitor for the presence of contamination in excess of release limits.
- 8) After monitoring the head, instruct the individual to extend his / her arms away from the body.
- 9) Continue monitoring the front of the whole body (neck to feet), except for the soles of the shoes.
- 10) Instruct the individual to turn around and monitor the back of the whole body.
- 11) Monitor the soles of the shoes (leaving shoe covers on, if used).
- 12) If contamination is not found, remove each shoe cover (if used) and monitor the soles of each shoe again.
- 13) If the soles of the shoes are contaminated, take precautions to prevent the spread of contamination.
- 14) Instruct contaminated individuals in decontamination methods.
- 15) Ensure that the monitoring area is free of contamination.
- 16) Release non-contaminated individuals in accordance with ORO plans and procedures.

NOTE: Complete form(s) for individuals who are successfully decontaminated and released in accordance with ORO plans and procedures.
- 17) Monitor individuals who undergo decontamination attempt(s) in accordance with steps e through p of this procedure section.
- 18) If additional contamination is found, document on proper forms and instruct individuals to return to decontamination station(s) for a second decontamination attempt.
- 19) Monitor individuals who undergo a second decontamination attempt in accordance with steps e through p of this procedure section.

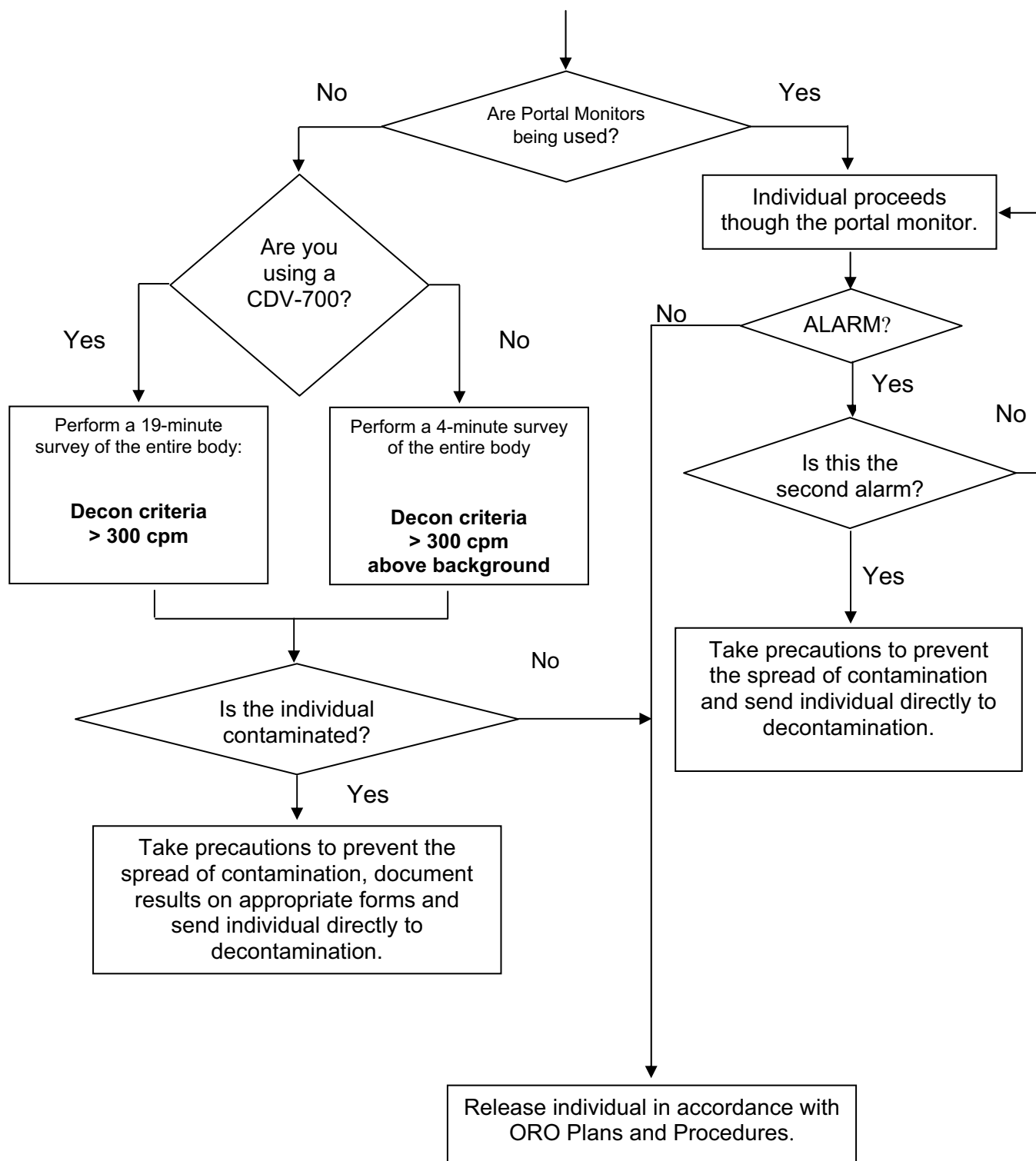
NOTE: Complete form(s) for individuals who are successfully decontaminated and released in accordance with ORO plans and procedures.
- 20) Refer individuals who are still contaminated after second decontamination effort to appropriate medical facility in accordance with ORO plans and procedures.

- D. Emergency Workers exposed to plume containing radioiodine thyroid monitoring
- 1) Check the survey meter for operability.
 - 2) Place the probe in a horizontal position across the front of the neck, just below the larynx (Adam's Apple). If the survey meter probe is a Geiger-Mueller Beta/Gamma tube type, ensure the beta shield is closed. If the probe is a Geiger-Mueller Beta/Gamma pancake type, turn it over completely and monitor with the back, or shielded side, of the probe instead of the front portion with the window.
 - 3) If the reading is less than 0.1 mR/hr with a CDV-700 or less than 300 cpm above background with a pancake probe, no further action is necessary.
 - 4) If the reading exceeds the limits in paragraph c. above, the individual's neck area should be decontaminated using standard surface decontamination techniques.
 - 5) Following decontamination, repeat the thyroid screening procedure. If the second reading exceeds limits, refer the individual to the appropriate medical facility for evaluation.
 - 6) Record the data on the form in accordance with ORO plans and procedures.

Initial Monitoring of Evacuees

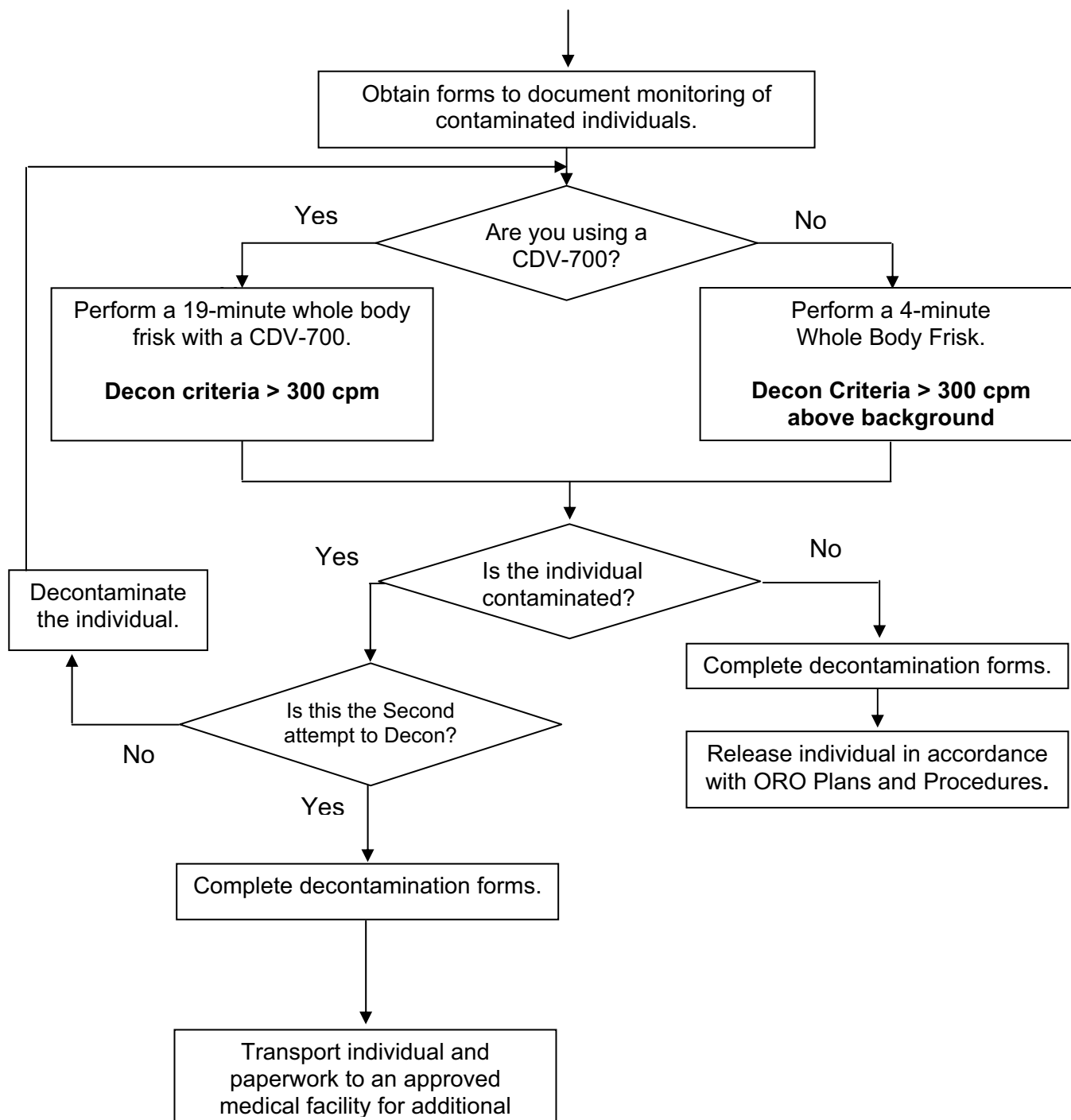


Initial Monitoring Of Emergency Workers

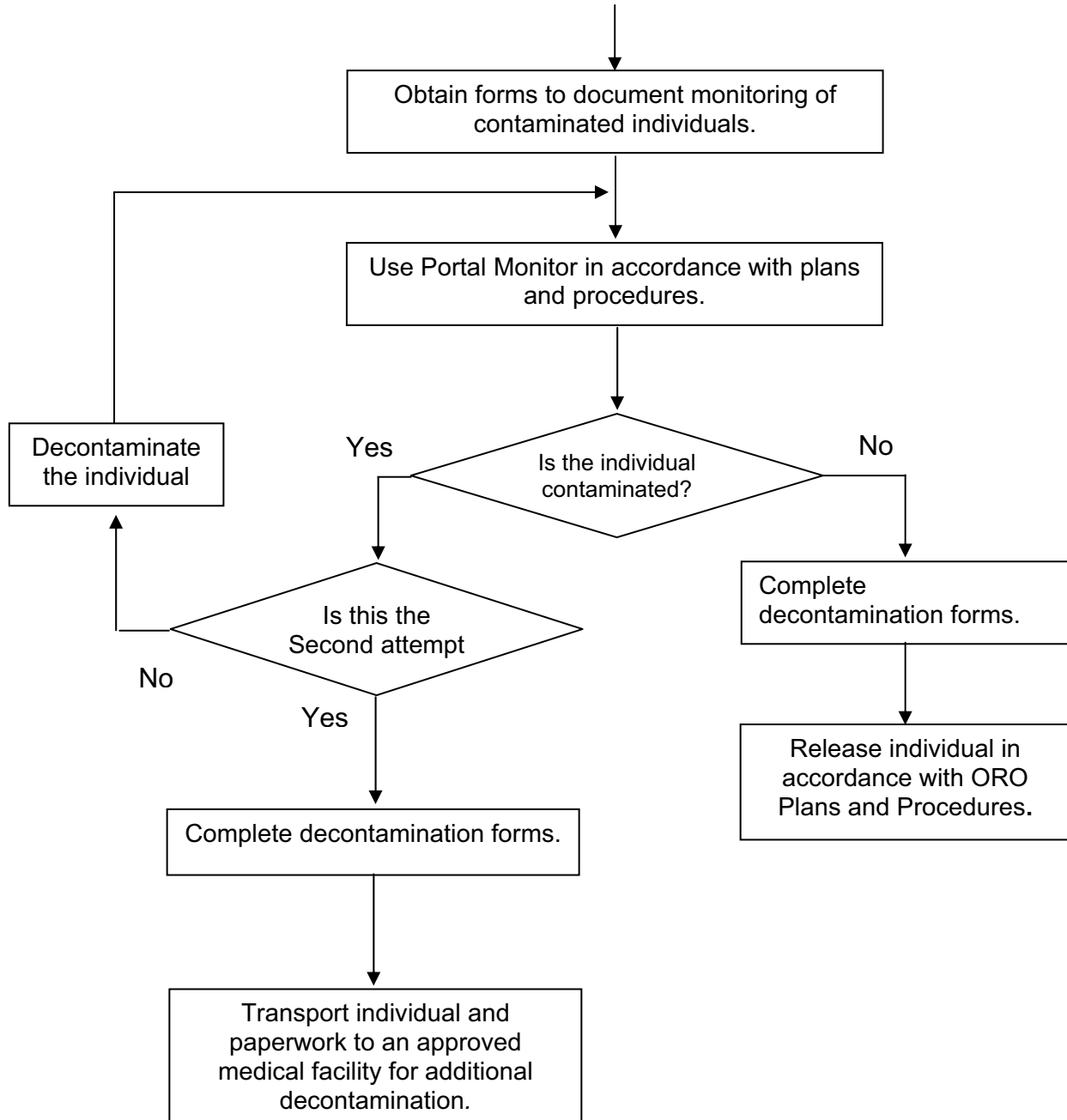


Tab C

Post Decontamination Monitoring Using Hand Held Instrumentation of Individuals found to be Contaminated



**Post Decontamination Monitoring using Portal Monitors
of Individuals found to be Contaminated**



PERSONNEL DECONTAMINATION PROCEDURE

This document provides guidelines for personnel decontamination.

1. PREREQUISITES

- A. Each individual must be fully monitored and contamination levels documented in accordance with ORO plans and procedures prior to any decontamination.
- B. Decontamination facility must be setup for contamination control.
- C. Decontamination facility must have appropriate equipment ready.
- D. Personnel performing monitoring must be properly trained and qualified in accordance with OROs emergency plans and procedures.

2. PRECAUTIONS

- A. Extreme care should be taken to prevent the spread of contamination to any skin or body opening.
- B. Lukewarm or room temperature water should be used for all washing and rinsing. Hot water causes the skin pores to open, driving contamination deeper into the skin. Cold water closes the pores, trapping contamination in the skin.
- C. Thorough washing with nonabrasive soap and lukewarm water is the best general method of decontamination of the hands and other parts of the body. If the contaminant is localized, it is often more practical to mask off the affected area, and cleanse with swabs, rather than risk the danger of spreading the contaminant by general washing. Special attention must be given to the areas between the fingers and around the nails. The outer edges of the hands are readily contaminated, and must not be neglected in the washing.

3. PERSONNEL DECONTAMINATION PROCEDURE

Note: In incidents with mass evacuees that are contaminated, it is acceptable to have individuals found to be contaminated to immediately decontaminate by disrobing and using shower facilities. After decontamination attempt individual should be fully monitored. The following procedure allows for spot and dry initial decontamination attempts.

The following steps are from the Commonwealth's Emergency Operations Plan, Annex E, "Radiological Emergency Response to Nuclear Power Plant Incidents". Refer to Annex E for additional decontamination guidance.

- A. If the identified contaminated area(s) are covered by clothing or footwear, instruct the individual to carefully remove the article of clothing or footwear while wearing exam type gloves. Have the individual place the article(s) in a bag or container

Attachment E

along with the glove(s). Move the bag/container away from the immediate monitoring field.

- B. Fully monitor the individual.
- C. If the individual is found to be free of contamination, or if the readings are below the decontamination/release criteria, release the individual in accordance with ORO plans and procedures.
- D. If the individual is found to have readings above the decontamination/release criteria, consider the use of “dry-decontamination” methods. These include:
 - 1) The removal of additional layers of clothing, if present.
 - 2) The use of a masking type tape to remove contaminants by carefully lifting the material(s) from the contaminated area(s).
 - 3) The use of an adhesive step-off pad for contaminate found on the bottoms of the shoes.
 - 4) The use of a damp “wash-cloth” or “paper towel” to dab or wipe the suspect area.
- E. Place any used “dry-Decontamination” materials in a bag or container and remove it from the immediate area. Re-monitor the individual.
- F. If the individual is found to be free of contaminants, or if the readings are below the decontamination/release criteria, release the individual in accordance with ORO plans and procedures.
- G. If contamination persists, follow the steps below:
 - 1) Contaminated persons should wash with a mild, non-abrasive soap and warm water (a thorough shower should be sufficient). Emphasis should be placed on any specific spots found to be contaminated in the monitoring process. Also, special attention should be given to the hair, hands and fingernails.
 - 2) After thorough cleansing and drying, the individual will be monitored again. If some contamination still remains, the individual should shower again, using a mild, non-abrasive soap. If monitoring after the second thorough cleansing indicates that the contamination is still present, the individual should be sent to the nearest medical facility capable of treating contaminated persons.

Attachment E

- 3) Care should be taken that persons who are decontaminated do not become re-contaminated by dressing in contaminated clothing or by touching contaminated clothing or other contaminated items. If the individual does not have contamination free clothing, clothing should be issued to the individual until such time as their clothing can be decontaminated.

4. DECONTAMINATION PROCEDURES FOR WOUNDS

Persons with contaminated wounds will be referred to an appropriate medical facility for decontamination and treatment.

5. EYE DECONTAMINATION

Any eye contamination should be directed to a physician.

6. HAIR DECONTAMINATION

Decontaminate hair by repeated application of liquid soap and rinse water, using towels to keep water from running onto face and shoulders.

VEHICLE AND EQUIPMENT MONITORING PROCEDURE

This document provides guidelines for monitoring vehicles for contamination in the event of an unplanned release of radioactive materials.

1. CONSIDERATIONS

- A. Portal monitors cannot be used for vehicle monitoring.
- B. Establish (one way) access and egress traffic flow patterns for incoming and outgoing vehicles.
- C. Assign designated parking areas for all incoming (unmonitored) vehicles.
- D. Assign (separate) designated monitoring areas for vehicles that are required to be surveyed and / or decontaminated.

2. PREREQUISITES

- A. Vehicle occupants must be monitored prior to monitoring vehicles.
- B. Privately owned vehicles and equipment whose occupants are contaminated must be surveyed prior to release.
- C. All emergency response vehicles and equipment must be surveyed prior to release or reassignment to additional crews.
- D. Personnel performing monitoring must be properly trained and qualified in accordance with OROs emergency plans and procedures.
- E. Personnel must review Flow Chart Tabs A and B of this procedure prior to commencement of vehicle monitoring.
- F. Monitoring equipment must be in good physical condition.
- G. Monitoring equipment calibration must be current.
- H. Monitoring equipment preoperational / source checks must be performed satisfactorily.
- I. Instrument audio / speaker features (if available) should be used during monitoring.
- J. Monitoring area background levels should not exceed 60 cpm as measured with CDV-700 or 100 cpm if using instrument with pancake detector hand held monitoring instruments.
- K. Background levels must be rechecked at a minimum of every 30 minutes.
- L. Appropriate ORO forms must be available for documentation of vehicles and equipment that are contaminated.

3. PRECAUTIONS

- A. Take precautions (e.g. wear gloves and do not brush against surfaces being surveyed) to prevent cross contamination of survey instruments and personnel performing monitoring, especially when surveying vehicle interiors.
- B. Default monitoring times/distances are listed within the body of the procedure.
- C. Maintain a distance of at least ten feet between vehicles that are being monitored to minimize increases in background levels from adjacent vehicles.
- D. The vehicle should be parked and the engine turned off prior to surveying.
- E. Use the following tables for decontamination criteria/release decision levels. Table 1 is for the initial surveys prior to decontamination.
- F. Table 2 may be used only after decontamination efforts have been implemented and levels remain greater than those listed in Table 1.

Table 1 - Recommended Detection Parameters for Loose plus Fixed Widespread Contamination on Vehicles, Equipment and other Possessions

Instrument Detector type	Decision criteria	Detection Parameter	
		Maximum Proximity Increase	Maximum Proximity Speed Increase
CDV-700 with side Window detector	300 cpm	1	6
Modern instruments w/pancake detector	300 cpm above background	1	24

Note: The decision criteria listed is for loose plus fixed contamination monitoring.

Table 2 - Recommended Detection Parameters for Fixed Contamination on Vehicles, Equipment and other Possessions

Instrument Detector type	Decision criteria	Detection Parameter	
		Maximum Proximity Increase	Maximum Proximity Speed Increase
CDV-700 with side Window detector	1000 cpm	1	6
Modern instruments w/pancake detector	1000 cpm above background	1	24

Note: The decision criteria listed is for fixed contamination monitoring.

4. VEHICLE MONITORING PROCEDURE

- A. Ensure prerequisites of this procedure have been met.
- B. Determine and record the background radiation level in the monitoring area.
- C. Ensure proper vehicle monitoring form(s) are available in accordance with ORO plans and procedures.
- D. Ensure vehicle is at least ten feet away from adjacent vehicles.
- E. Place an appropriate (thin ply) plastic cover over the instrument probe.
- F. Ensure that the instrument audio / speaker function is used, if available.
- G. Ensure beta shield (non pancake detector) is in the open position, if applicable.

NOTE: Any contamination levels in excess of release limits should be documented on vehicle survey form(s).

Limits:

- 300 cpm above background with pancake detector/instrument

OR

- 300 cpm with a CDV-700.

- H. Starting at the left front wheel well, place the detector probe approximately:

- 1 inch away with pancake detector/instrument

OR

- 1 inch away with CDV-700 from the wheel well.

- I. Survey wheel well, using a probe speed of approximately:

- 24 inches per second with pancake detector/instrument

OR

- 6 inches per second with a CDV-700.

- J. Survey the left rear wheel well.

- K. Survey the right rear wheel well.

- L. Survey the right front wheel well.

- M. Monitor any loose items located in the front portion of the vehicle interior (e.g. personal items) and bag items that are contaminated.

- N. Mark bagged items in accordance with ORO plans and procedures.

Attachment F

- O. Survey the front (driver side) seat, floor mat, hand and foot controls.
- P. Monitor any loose items located in rear portion of vehicle interior (e.g. personal items) and bag items that are contaminated.
- Q. Mark bagged items in accordance with ORO plans and procedures.
- R. Survey the rear (driver side) seat and floor mat.
- S. Survey the rear (passenger side) seat and floor mat.
- T. Survey the front (passenger side) seat and floor mat.
- U. Decontaminate vehicle interior and exterior in accordance with ORO plans and procedures.
- V. Document decontamination of vehicle interior on appropriate form(s).
- W. If vehicle is still greater than Table 1 criteria after decontamination, OROs in accordance with plans and procedures may use limits contained within Table 2. Contamination that remains in vehicle is assumed to be fixed contamination.
- X. Release vehicles in accordance with ORO plans and procedures.

5. EQUIPMENT MONITORING PROCEDURE

Note: Examples of equipment - air packs, turn-out gear, communication gear. Priority should be given to monitoring emergency worker equipment.

- A. Ensure prerequisites of this procedure have been met.
- B. Determine and record the background radiation level in the monitoring area.
- C. Ensure proper survey form(s) are available in accordance with ORO plans and procedures.
- D. Ensure equipment is not surveyed near other contaminated equipment.
- E. Place an appropriate (thin ply) plastic cover over the instrument probe.
- F. Ensure that the instrument audio / speaker function is used, if available.

Attachment F

- G. Ensure beta shield (non-pancake detector) is in the open position, if applicable.

NOTE: Any contamination levels in excess of release limits should be documented on equipment survey form(s).

Limits:

- 300 cpm above background with a pancake detector/instrument

OR

- 300 cpm with a CDV-700.

- H. Starting at closest surface, place the detector probe approximately:

- 1 inch away with a pancake detector/instrument

OR

- 1 inch away with a CDV-700.

- I. Survey equipment, using a probe speed of approximately:

- 24 inches per second with a pancake detector/instrument

OR

- 6 inches per second with a CDV-700.

- J. Monitor remaining items surfaces and bag/wrap if found contaminated.

- K. Mark items in accordance with ORO plans and procedures.

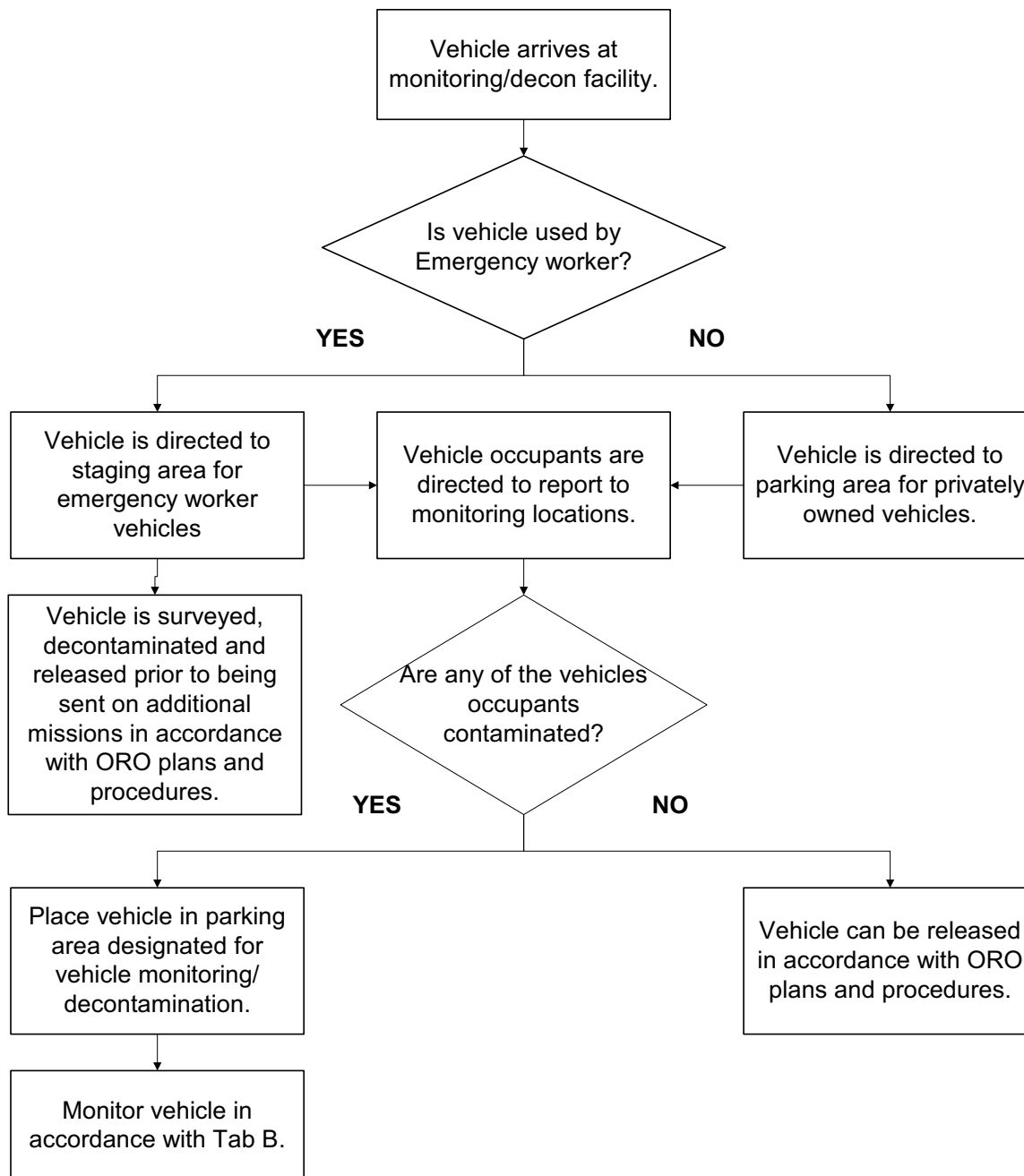
- L. If time permits decontaminate equipment in accordance with ORO plans and procedures.

- M. Document decontamination of vehicle interior on appropriate form(s).

- N. If equipment is still greater than Table 1 criteria after decontamination, OROs in accordance with plans and procedures may use limits contained within Table 2. Contamination that remains is assumed to be fixed contamination.

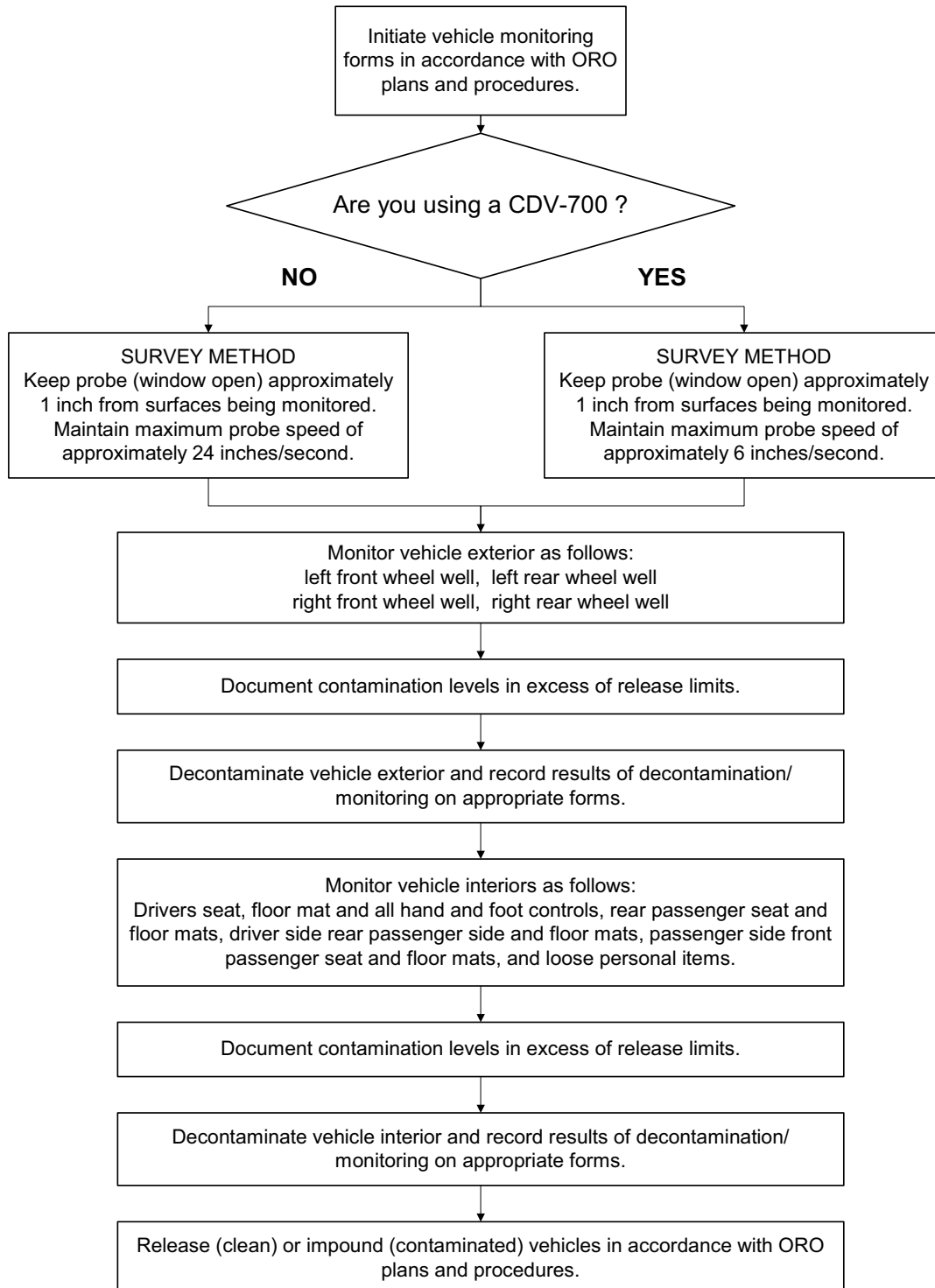
- O. Release vehicles in accordance with ORO plans and procedures.

Vehicle Processing at Monitoring/Decontamination Centers



NOTE: For Columbia County
All Vehicles arriving at the Columbia Montour Vo-Tech School Emergency Worker Monitoring Station will be monitored.

VEHICLE MONITORING



SCHOOL SERVICES

1. PURPOSE

To provide guidance for the protection of students at schools and colleges in the event of a nuclear power plant incident by delineating responsibilities for developing and reviewing response procedures needed for their safety. To establish a concept of operations for sheltering, evacuation, or modified operations should there be an incident at the nuclear power plant.

2. SITUATION

Protective actions could become necessary for the safety and welfare of students at schools and colleges if a nuclear power plant incident occurs. (Much of the following information is couched in school district terms but is applicable for college planning as well.)

3. CONCEPT OF OPERATIONS

A. General Concept

- 1) The safety of school and college students is a key factor in any protective action decision.
- 2) Two critical situations will exist when considering sheltering or evacuation of students from the plume exposure pathway EPZ.
 - a) When both the schools attended and the students' homes are located within the plume exposure pathway EPZ, students must be evacuated from the schools they attend to host schools where they will be retained under school officials' custody until they are picked up by their parents or guardians.
 - b) When the schools attended are outside the plume exposure pathway EPZ and the students' homes are inside it, students will be retained in the schools they attend under school officials' custody until they are picked up by their parents or they may be evacuated to host schools as predetermined in the plans developed by responsible school district superintendents.
- 3) During an incident school districts will not authorize early dismissal if the students' homes are within the EPZ without coordination with the respective County Emergency Management Agency and concurrence by PEMA. They will not be sent home at any time when an evacuation is imminent or in progress.

B. Actions To Be Taken Following Each Incident Classification:

1) Unusual Event

No action required.

2) Alert

a) School district superintendents, private schools, and colleges within the plume exposure pathway EPZ are notified of the situation by the County Emergency Management Coordinator.

b) The school district superintendents and principals/ directors of private schools, and college officials within the plume exposure pathway EPZ will review emergency plans and determine status of transportation resources.

c) Host school district superintendents will be notified by risk school district superintendents of the emergency. Support counties will confirm that host schools have been notified.

d) Consider placing school bus resources on standby for possible movement of students.

e) Radio communications are established with risk school districts.

3) Site Area Emergency

a) If initial notification is of a Site Area Emergency, take the response actions under Alert and those listed below. When notification is of an escalation to Site Area Emergency, review the checklist items under the Alert to ensure actions are underway or completed and then proceed with the actions under the Site Area Emergency classification.

b) School district superintendents, principals/directors of private schools, and college presidents are kept informed by the County Emergency Management Coordinators.

c) School district superintendents, principals/directors of private schools, and college presidents prepare for possible sheltering or evacuation.

d) Decision to shelter or evacuate schools and colleges will be made by the Governor in coordination with PEMA and the Department of Education, and will be announced by the State EOC through County Emergency Management Agency channels to school district superintendents and colleges.

e) Host school district superintendents will be notified by risk school district superintendents of the need to receive students. Support counties will confirm that host schools have been notified.

- f) School bus resources will be deployed by school district superintendents for possible movement of students.
 - g) If an evacuation is ordered or recommended by the Governor, or appears to be imminent, at a time when classes are not in session, the school district superintendents, principals/directors of private schools, and college officials will receive information from the State EOC through the respective risk or support County Emergency Management Coordinator advising them not to reopen the schools until the emergency is over.
 - h) Emergency Alert Stations will be notified by the county EMC to broadcast designated announcements and the appropriate municipal Emergency Operations Centers will be informed of the decision. County Emergency Operations Centers will report school closings to PEMA.
- 4) General Emergency
- a) If initial notification is of a General Emergency, take the response actions under Alert and Site Area Emergency and those listed below. When notification is of an escalation to General Emergency, review the checklist items under the Alert and the Site Area Emergency to ensure actions are underway or completed, and then proceed with the actions under the General Emergency classification.
 - b) If radiological conditions will not permit evacuation, a decision to shelter school and college students will be made by the Governor in coordination with PEMA and the Department of Education, and will be announced by PEMA through the respective County Emergency Management Agency.
 - c) If an evacuation from the school is required, teachers will accompany students to host schools and will be expected to remain with students until relieved.
 - d) Evacuated school students will remain the responsibility of the respective risk school officials until released to parents, guardians, or other duly authorized individuals.

4. RESPONSIBILITIES

A. Columbia County Emergency Management Agency

- 1) The County Emergency Management Coordinator will monitor and coordinate the development of protective action plans within the risk school districts, private schools, and colleges of Columbia County.
- 2) Include essential information concerning school evacuation in county RERP, e.g., the location of host schools (student pickup points) where parents may pick up their students following a school evacuation.
- 3) Appoint a School Services Officer to the EOC staff with responsibility to include:
 - a) Supply information and advice on school matters to the County Emergency Management Coordinator.
 - b) Notify school districts, private schools, and colleges of nuclear power plant incidents and transmit protective action decisions.
 - c) Coordinate support and resource needs of school districts, private schools and colleges.
- 4) Brief school district superintendents and directors of private schools, and colleges on pertinent information in county RERP.
- 5) Advise school district superintendents and the directors of private schools and colleges to prepare their own plans using private resources to maximum extent feasible, and to notify the County Emergency Operations Center of any unmet emergency resource requirements.

B. Risk School Districts

- 1) Develop school district Emergency Response Plans to include emergency alert/notification and protective actions for each school.
- 2) Provide guidance for the development of individual public and private school emergency plans.
- 3) Ensure that a school district plan is developed in conformance with the County EOP and this Annex.
- 4) Ensure that communications systems (radio and/or telephone) necessary for the successful implementation of the emergency plan are available or will be provided.
- 5) Coordinate the availability of school buses for transportation in the event evacuation becomes necessary.

- 6) Develop and maintain necessary agreements with designated host school districts.
- 7) Notify school principals within the school district concerning emergency actions.
- 8) Maintain communication with the County Emergency Operations Center and the appropriate Intermediate Unit.
- 9) Determine unmet needs and inform the County Emergency Management Agency.
- 10) In coordination with the county, the risk school district will exercise authority for school closure under the authority provided by the School District Board of School Directors.
- 11) Provide an alternate location for school administration in the event of an evacuation.
- 12) Maintain expense records of personnel and resource utilization in the event of a District Emergency Response Plan implementation.
- 13) After evacuation, ascertain all resources needed to return district building to normal and report them to the County Emergency Management Agency.
- 14) Provide training for district personnel used in the implementation of the Radiological Emergency Response Plan and participate in periodic exercises and drills.
- 15) Keep parents informed concerning actions to be taken by school districts to provide protection for their students in the event of an incident at PPL Susquehanna, LLC.
- 16) Provide for a one-lift evacuation of students.
- 17) Cooperate with the County Emergency Management Coordinator and the American Red Cross in the operation of Mass Care Centers in selected school facilities.

C. Host School Districts

- 1) A formal agreement must be established between the risk school district and the host school district for the assignment of host schools to receive and temporarily house evacuated students.
- 2) The host school is designated as the site where parents are to acquire custody of their evacuated students.
- 3) The staff of the host school district should assist the staff of the risk school district with the supervision of evacuated students while they are at the host school.
- 4) The host school is responsible, to the extent possible, for providing first aid and social services and to students.
- 5) The host school should consider the possibility of early dismissal for its own students.

D. Private Schools

Develop emergency plans in accordance with guidance received from the County Emergency Management Agency.

E. Colleges

Develop emergency plans in accordance with guidance received from the County Emergency Management Agency.

ATTACHMENTS:

- A. Risk Schools' Evacuees, Bus Requirements/Availability and Unmet Needs
- B. Student Pickup Points (Host Schools)
- C. Licensed Day Care Centers
- D. Licensed Group Day Care Home Services

Attachment A

Risk Schools' Evacuees, Bus Requirement, Bus Availability and Unmet Needs

District School	Evacuee	Requirement	Bus Availability Contracted Total	Unmet Need
Benton Area School District	**	0**	**	0
Bloomsburg Area School District				
Beaver/Main Elementary	120	2	Contracted: 2	0
Berwick Area School District				
Senior High	955	15	Contracted: 15	0
Middle School	875	15	Contracted: 15	0
Orange Street	401	7	Contracted: 7	0
Columbia Day Care*	75	3	Contracted: 3	0
Holy Family (St. Joseph)	67	1	Contracted: 2	0
Nescopeck Elementary	263	6	Contracted: 6	0
Fourteenth Street Elementary	237	4	Contracted: 4	0
Heritage Christian	11	1	Contracted: 1	0
Salem Elementary	451	8	Contracted: 8	0
Columbia/Montour Area Vo-Tech	711	8	Contracted: 8	0
* Includes Intermediate Unit Preschool (20), Day Care (20), and Head Start (54), for a total of 94.				
** Benton students retained at school until picked up by parent or guardian.				

The following school districts are situated outside the EPZ but have students who reside inside the 10-mile EPZ of the Susquehanna Steam Electric Station.

Benton Area School District
Park Street, Benton
570-925-2651

Number of Students: 825

Students Affected: Fishing Creek Township

Columbia/Montour Area Vocational Technical School
5050 Sweppenheiser Drive, Bloomsburg
570-784-8040

Number of Students: 711

Students Affected: Benton Area School District students who reside in Fishing Creek Township; All Berwick Area School District Students; Central Columbia School District students who reside in North Centre Township, South Centre Township, and Mifflin Township; Bloomsburg Area School District students who reside in Beaver Township.

Attachment B

STUDENT PICKUP POINTS (HOST SCHOOLS)

S	P P P
Benton Area School District	Picked up at school they attend
Berwick Area School District	
Berwick Senior High	Danville Senior High School
Berwick Middle School	Danville Middle School
Orange Street Elementary	Danville Middle School
Nescopeck Elementary	Liberty Valley Elementary
Fourteenth Street Elementary	Liberty Valley Elementary
Salem Elementary	Mahoning-Cooper Elementary
Holy Family (St. Joseph)	Liberty Valley Elementary
Heritage Christian Academy	Mahoning-Cooper Elementary
Columbia Day Care Program	Liberty Valley Elementary
Columbia/Montour Area Vo-Tech School	Picked up at school they attended
Central Columbia School District	Picked up at school they attend
Bloomsburg Area School District (except Beaver-Main)	Picked up at school they attend
Beaver-Main Elementary	Bloomsburg High School

LICENSED DAY CARE CENTERS

Facility Name	Regulation	Licensing	Status	Capacity
Berwick Area Senior High School 1100 Fowler Avenue Berwick, PA 18603 Telephone: 759-6418	County	Full	Licensed	44
Berwick Area YMCA - Fourteenth Street Elementary Market & Fourteenth Street Berwick, PA 18603 Telephone: 759-6429	Non Profit	Full	Licensed	0
Berwick Area YMCA - Orange Street Elementary Orange and Orchard Streets Berwick, PA 18603 Telephone: 759-6422	Non Profit	Full	Licensed	0
Berwick Area YMCA Day Care 231 W Third Street Berwick, PA 18603 Telephone: 752-5981	Non Profit	Full	Licensed	73
Berwick Child and Family Center 500 Line Street Berwick, PA 18603 Telephone: 759-6400	Non Profit	Full	Licensed	120
Bethany Blessings Pre-School/Day Care 116 Summerhill Ave Berwick, PA 18603 Telephone: 752-6282	Non Profit	Full	Licensed	46
Bloomsburg Children's Center I 215 East Fifth St PO Box 412 Bloomsburg, PA 17815 Telephone: 784-8618	Non Profit	Full	Licensed	96
Bloomsburg University Campus Child Care Center Elwell Hall, Lower Level Bloomsburg, PA 17815 Telephone: 389-4547	Unknown	Full	Licensed	71
EIEIO Learn and Care Center RR 2 Box 2-A Millville, PA 17846 Telephone: 458-5878	Profit	Full	Licensed	61
Good Shepherd Lutheran Church Child Care Center 1600 Fowler Avenue Berwick, PA 18603 Telephone: 752-3737	Non Profit	Full	Licensed	78

Attachment C

Facility Name Address City, State, Zip Telephone	Ownership	Licensing	Status	Capacity
Gordon Thompson Learning Center 6948 Naus Way Bloomsburg, PA 17815 Telephone: 759-9543	Non Profit	Provisional	Licensed	83
Kiddie Express 2920 Maple Lane Bloomsburg, PA 17815 Telephone: 784-7444	Profit	Full	Licensed	43
Kiddie Village 336 Main St PO Box 4 Catawissa, PA 17820 Telephone: 356-2815	Profit	Full	Licensed	48
Salem Elementary School Berwick Area YMCA Tenth and Line Drive Berwick, PA 18603 Telephone: 759-6418	Non Profit	Full	Licensed	0
Sunny Hill Preschool Kline Road PO Box 455 Mifflinville, PA 18631 Telephone: 752-3545	Profit	Full	Licensed	30
Wee Little Angels 6690 Low Street Bloomsburg, PA 17815 Telephone: 387-5222	Profit	Full	Licensed	97
Wonder Years Preschool of Bloomsburg 6410 Fourth Street Bloomsburg, PA 17815 Telephone: 387-1714	Profit	Full	Licensed	31

LICENSED GROUP DAY CARE HOME SERVICES

Facility Name	Ownership	Licensing	Status	Capacity
Barbara Williams Group Day Care Home 12 W Maple Lane Berwick, PA 18603 Telephone: 752-3743	Profit	Full	Licensed	12
Chappell Group Day Care Home 222 Maple Rd Berwick, PA 18603 Telephone: 759-3150	Profit	Full	Licensed	12
Children's Country Cottage 25 Hock Rd Bloomsburg, PA 17815 Telephone: 387-1821	Profit	Full	Licensed	12
Cynthia M. Fedder Group Home 490 Fisher Ave Catawissa, PA 17820 Telephone: 356-2777	Profit	Full	Licensed	12
Denise Latsha's Group Home 732 Extension W Sixth St Bloomsburg, PA 17815 Telephone: 387-1506	Non Profit	Full	Licensed	12
Farm Family Day Care RR 1 Box 282 Stillwater, PA 17878 Telephone: 864-3205	Profit	Full	Licensed	12
Heidi Kile 235 East First St PO Box 478 Mifflinville, PA 18631 Telephone: 759-2694	Profit	Full	Licensed	12
Hock Group Day Care Home-2 308 A Central Rd Bloomsburg, PA 17815 Telephone: 784-6008	Profit	Full	Licensed	12
Hock's Group Day Care 3 2153 Old Berwick Rd Bloomsburg, PA 17815 Telephone: 784-1985	Profit	Full	Licensed	12
Hock's Group Day Care Home-1 308 Central Rd Bloomsburg, PA 17815 Telephone: 784-6008	Profit	Full	Licensed	12

Attachment D

Facility Name Address City, PA Telephone	Ownership	Licensing	Status	Capacity
Holly Burmeister Daydreams RR 1 Box 22 Stillwater, PA 17878 Telephone: 925-5759	Profit	Provisional	Licensed	12
Jennifer Hook's Imagination Station RR 2 Box 9C Orangeville, PA 17859 Telephone: 683-5199	Profit	Provisional	Licensed	12
Kids Only Day Care and Preschool RR 3 Box 158 Catawissa, PA 17820 Telephone: 799-5661	Profit	Full	Licensed	12
Kocher Group Day Care 310 Main St Box 501 Benton, PA 17814 Telephone: 925-5499	Profit	Full	Licensed	12
Loveland Day Care 97 Drinker St Bloomsburg, PA 17815 Telephone: 389-0158	Profit	Full	Licensed	12
Lydia Long Group Day Care Home 2 1509 Freas Ave Berwick, PA 18603 Telephone: 759-3150	Profit	Full	Licensed	12

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix14-2008.doc

INGESTION EXPOSURE PATHWAY EMERGENCY PLANNING ZONE

1. PURPOSE

To describe the means to be used in Columbia County in minimizing the effects of radioactive contamination of the human food chain, including animal feeds and water, resulting from an incident at a nuclear power plant.

2. SITUATION

A. Pennsylvania Nuclear Power Plants

There are five 50-mile radius ingestion exposure pathway emergency planning zones (EPZ) associated with the five nuclear power plants within the Commonwealth. The EPZ for the Susquehanna Steam Electric Station lies entirely within Pennsylvania. The Three Mile Island Nuclear Generating Station EPZ extends into Maryland; the Peach Bottom Atomic Power Station EPZ extends into Maryland, Delaware, and New Jersey; the Limerick Generating Station EPZ extends into Maryland, Delaware, and New Jersey; and the Beaver Valley Power Station EPZ extends into Ohio and West Virginia. (See Appendix 24)

B. Out of State Nuclear Power Plants

Portions of Pennsylvania also lie within the 50 mile ingestion exposure pathway EPZs of four nuclear power plants located beyond the boundaries of the Commonwealth. These four plants are the Artificial Island Nuclear Generating Station and Oyster Creek Nuclear Generating Station in New Jersey; the Indian Point Nuclear Power Station in New York; and the Perry Nuclear Power Plant in Ohio. (See Appendix 24)

C. Counties within the 50-mile EPZs

There are 49 counties within Pennsylvania that lie wholly or partially inside the 50-mile radius of one or more nuclear power plants. Additionally, as a result the Chernobyl disaster in 1986, the Governor has determined that all 67 counties within the Commonwealth are to be designated as ingestion counties. (See Appendix 24)

D. Columbia County

Columbia County lies wholly within the 50 mile radius of PPL Susquehanna, LLC.

E. Ingestion

In the event of a radioactive release from the above mentioned nuclear power plants, the deposition of radiocontaminants on crops, other vegetation, bodies of surface

water, and ground surfaces could occur and result in the ingestion of contaminated food products, milk and water.

F. County Response

Affected counties have the responsibility to take protective actions in the event that a radiological incident causes contamination of human food and animal feeds. They are assisted by PEMA and the County Emergency Board (CEB) in the discharge of that responsibility.

3. CONCEPT OF OPERATIONS

A. General

- 1) Emergency response operations within the ingestion exposure pathway EPZ involve the identification of areas in which food and/or water may have become contaminated. Once contaminated areas are identified, protective actions will be taken to minimize further contamination in those areas and to place restrictions appropriate for protecting the public health upon the use of contaminated food or water.
- 2) At the State Level, PEMA serves as the operative arm in responding to and recovering from the ingestion exposure problem. Emergency response operations will be coordinated through the State EOC. The Pennsylvania Department of Agriculture (PDA), State Emergency Board, as well as the USDA component of the Federal Radiological Monitoring and Assessment Center (FRMAC), will provide assistance in the form of personnel and agricultural expertise.
- 3) At the County Level, the county EMA serves as the operative arm in responding to and recovering from the ingestion exposure problem. The USDA Services located in the county - Agricultural Stabilization and Conservation Service (ASCS), Cooperative Extension Service (CES), Farmers Home Administration (FmHA), and the Soil Conservation Service (SCS) - will provide assistance in the form of personnel and agricultural expertise. Collectively, these services comprise the county Food and Agriculture Council (FAC). The term County Emergency Board (CEB) is used to denote these services in their emergency work to assist the agricultural community within the county. A member of the CEB (usually the ASCS County Executive Director) serves as the Agricultural Staff Officer on the County EOC staff. In this document, the terms FAC and CEB will be used interchangeably.

B. Protective Actions

- 1) The United States Food and Drug Administration (FDA) recommends two levels of protective response which apply to all food pathways. They are:
 - a) Preventive protective actions - Actions taken to prevent or reduce contamination of milk and food products.

- b) Emergency protective actions - Actions taken by public officials to isolate food to prevent its introduction into commerce and to determine whether condemnation or other disposition is appropriate.
- 2) Protective actions, as announced by PEMA, may require modifications of food production, processing, and distribution cycle pathways in affected areas both within and outside of the ingestion exposure pathway EPZ.
- 3) Protective actions will be based upon known releases to the environment, radiological measurements, laboratory analyses, and/or integrated dose projections.
- 4) Protective actions will not be taken without verification by PEMA in coordination with BRP and federal agencies involved, of the measured levels for both preventive or emergency protective actions and a consideration of the health, economic, and social impacts of such actions.
- 5) In this appendix "protective action" is used in the generic sense unless specifically referred to as "preventive" or "emergency" protective action.

C. Notification

The public in both the plume and ingestion exposure EPZs will be notified about initial preventive and emergency protective actions by means of broadcast and print media. These include commercial radio and television stations, cable TV systems, National Oceanic and Atmospheric Administration (NOAA) radio, and newspapers. The Emergency Alert System (EAS) can be used in those counties having appropriate alerting systems (e.g., primary route alerting or sirens). Agricultural organizations such as Grange Associations and County and Community Farmers Committees can provide an alternate means of notification.

D. Target Audiences

Target audiences for public information concerning radiocontamination through ingestion exposure are farmers, food processors and distributors, feed processors and distributors, water suppliers, and members of the general public located within the ingestion exposure EPZ.

4. ORGANIZATION AND RESPONSIBILITIES

A. Organization

1) Pennsylvania Emergency Management Agency

The Pennsylvania Emergency Management Agency serves as the lead state agency in coordination with State and Federal agencies in the public education of and response to problems associated with the ingestion exposure pathway emergency planning zone. PEMA also provides direction and control over the ingestion response and recovery activities (through its Area Offices for support and ingestion counties, and directly for risk counties) of all counties in the Commonwealth.

2) PEMA Area Offices

The PEMA Area Offices provide overall direction and control over the ingestion response and recovery activities of support and ingestion counties located within the boundaries of their respective operational areas. This includes the initial and follow-up notification of ECLs.

3) Pennsylvania Department of Agriculture (PDA)

The Pennsylvania Department of Agriculture serves as the state coordinating agency in problems relevant to the agricultural community. The PDA works in close coordination with the State Emergency Board (SEB), PEMA, BRP, and the Pennsylvania Department of Health (DOH) in the development and issuance of guidance to counties concerning response procedures and action necessary to evaluate and prevent radioactive contamination of agricultural, dairy and food products. The PDA also issues guidance (through PEMA) concerning the control and disposition of such products should they become contaminated.

4) Bureau of Radiation Protection (BRP)

The Bureau of Radiation Protection provides accident assessment and ingestion exposure information as it relates and pertains to the food chain to PEMA, PDA, DOH, and other appropriate bureaus of the Department of Environmental Protection (DEP). This information will guide the PDA and Bureau of Community Environmental Control in the conduct of initial sampling procedures and in continuing operations. BRP also reviews laboratory test results and consults with PEMA, PDA, and DOH in developing ingestion protective action recommendations.

5) State Emergency Board (SEB)

The State Emergency Board is chaired by the ASCS State Executive Director and provides advice, leadership, and coordination to the county emergency boards (CEBs). The ASCS State Executive Director (or his/her designated representative) serves as a member of the Agricultural Response Cell in the State EOC. In this capacity, he/she assists and provides information to State government officials and coordinates USDA radiological emergency programs at the State level. He/she is also the primary emergency contact for State officials in the event that Federal agricultural assistance is required.

6) Columbia County Emergency Management Agency

The Columbia County Emergency Management Agency serves as the lead county agency in coordination with state and county agencies in the public education of and response to problems associated with the ingestion exposure pathway emergency planning zone.

7) Columbia County Emergency Board

The Columbia County Emergency Board is chaired by the ASCS County Executive Director and assists and provides agricultural information to local governments in the event of a radiological incident. The CEB also coordinates emergency programs at the local level. The ASCS County Executive Director (or his/her designated representative) serves as the Agricultural Staff Officer on the Columbia County EOC staff. In this capacity, he/she assists and provides information to county government officials and coordinates USDA radiological emergency programs at the county level. He/she is also the primary emergency contact for county officials in the event that State CEB agricultural assistance is required.

B. Responsibilities

1) Pennsylvania Emergency Management Agency

- a) Act as lead agency in coordination with Federal and Commonwealth agencies and departments in public education of and response to problems associated with the ingestion exposure pathway EPZ.
- b) Provide overall direction and control during ingestion response and recovery operations.
- c) Establish procedures and the capability to disseminate information on preventive and emergency protective actions to cope with the effects of radiological contamination of human food, water, and animal feed. This will be accomplished annually for risk counties.

- d) In coordination with BRP, DOH, and PDA/USDA, issue guidance to ingestion exposure pathway counties on procedures and actions necessary to prevent or mitigate radioactive contamination of milk, food and water.
 - e) Maintain (in coordination with PDA/USDA) files cross-indexed to maps showing agricultural land use, e.g.; farms, dairies, slaughter houses, and meat processing plants within the ingestion pathway EPZs.
 - f) Maintain (in coordination with PDA/USDA) files cross-indexed to maps showing names and locations of all facilities processing milk products, large amounts of food, or agricultural products (to include fertilizer, feed or seed) originating anywhere in the 50-mile ingestion pathway EPZs.
 - g) At General Emergency, disseminate to the target audience in the ingestion exposure pathway EPZ, public education information about radiation hazards in the ingestion pathway; protective actions to take; and, locations of contact points where additional information on the subject may be obtained. This will be accomplished at Site Area Emergency for risk counties.
 - h) In coordination with PDA/USDA, DMA, and PSP, assist BRP in the transportation of milk, food/feed products, and water samples to the Bureau of Laboratories (BOL) or Federal Radiological Monitoring and Assessment Center (FRMAC).
- 2) PDA/State Emergency Board
- a) Develop and issue (through county emergency boards) guidance to county EMAs and the agricultural community concerning response procedures and actions necessary to prevent radioactive contamination of agricultural, dairy and food products.
 - b) Develop and issue (through county emergency boards) guidance to county EMAs and the agricultural community concerning the control and disposition of radiologically contaminated agricultural, dairy, and food products.
 - c) Maintain (in coordination with the appropriate CEB) a site-specific list and map of the location of dairy herds within the ingestion exposure pathway EPZ of nuclear power plants located within the boundaries of the Commonwealth.
 - d) Maintain (in coordination with the appropriate CEB) a site-specific list and map of the location of food and foodstuff processors handling agricultural, dairy, and other food products grown or raised within the ingestion exposure pathway EPZ of nuclear power plants located within or beyond the boundaries of the Commonwealth.

- e) Develop plans and/or response procedures to implement control of the processing or use of the above mentioned products should they become contaminated during an incident.
 - f) Develop (in coordination with PEMA and BRP) guidance to ingestion exposure counties on procedures and actions necessary to prevent or mitigate radio-contamination of milk, food, and feed products.
 - g) Develop/distribute (in coordination with PEMA, BRP and the appropriate CEB) information about radiation hazards in the ingestion pathway and protective actions to take.
 - h) Assist (in coordination with PEMA, BRP, and the appropriate CEB) in the development and execution of an agricultural sampling plan aimed at determining the safety of the food supply.
 - i) Provide field personnel for sampling agricultural, dairy, and food products for BRP analysis and in support of BRP radiological monitoring efforts.
 - j) Coordinate (with PEMA, BRP, and affected county EMAs) the delivery of agricultural and water samples to the Bureau of Laboratories or FRMAC.
 - k) Train and maintain a pool (at least two per county) of trained agricultural samplers.
 - l) Establish (in coordination with PEMA) procedures and the capability to conduct surge training for additional agricultural samplers.
- 3) Bureau of Radiation Protection
- a) Provide (to PEMA, PDA, DOH, and other appropriate Bureaus of DEP) accident assessment and plume exposure information as it relates and pertains to the food chain.
 - b) Prioritize the analytic and sampling efforts to be conducted.
 - c) Develop and issue guidance (through PEMA and PDA) to ingestion exposure pathway counties regarding initial and continuing agricultural product sampling.
 - d) Develop and issue guidance (through the BRP Emergency Response Coordinator) to CEC and WQM regarding initial and continuing water sampling.
 - e) Review laboratory test results and consult with PEMA, PDA, and DOH in developing protective action recommendations.

- f) Develop and issue guidance (through PEMA and PDA) to ingestion exposure counties regarding actions necessary to prevent or mitigate radioactive contamination of milk, food, and water.
 - g) Recommend preventive or emergency protective actions, if required, to be taken within the ingestion exposure pathway EPZ.
 - h) Prepare (in coordination with PEMA, PDA, and DOH) public education information about radiation hazards in the ingestion exposure pathway EPZ.
- 4) Bureau of Community Environmental Control (CEC)
- a) Alert affected water suppliers.
 - b) Collect (as directed by BRP) appropriate public drinking water samples for incident assessment.
 - c) Coordinate (with PEMA, BRP, and affected county EMAs) the delivery of water samples to the Bureau of Laboratories or FRMAC.
 - d) Collect other samples as directed.
- 5) Bureau of Water Quality Management (WQM)
- a) Collect (as directed by BRP) appropriate surface water samples for incident assessment.
 - b) Coordinate (with PEMA, BRP, and affected county EMAs) the delivery of water samples to the Bureau of Laboratories or FRMAC.
 - c) Collect other samples as directed.
- 6) Pennsylvania State Police (PSP)
- Provide (upon request of PEMA) aerial delivery of agricultural samples from affected counties to the FRMAC or DEP's Bureau of Laboratories within capabilities.
- 7) Columbia County EMA
- a) Act as lead county agency in coordination with State and County agencies and departments in public education of and response to problems associated with portions of the County located within the ingestion exposure EPZ.
 - b) Provide overall direction and control during county ingestion response and recovery operations.

- c) Develop/maintain a working relationship with the County Emergency Board and attend quarterly FAC/CEB coordination meetings.
- d) Understand the capabilities available from the USDA Services which comprise the CEB.
- e) Develop a working knowledge of the agricultural entities within the county which could be affected by the introduction/ deposition of radionuclides.
- f) Maintain (in coordination with the CEB) files cross-indexed to maps showing the location of all farms, dairies, slaughter houses, and meat processing plants within the ingestion exposure EPZ. This information should be contained in the appropriate electronic data base (i.e., EIS-c/e) and backed-up with hard copy media.
- g) Maintain (in coordination with the CEB) files cross-indexed to maps showing the names and locations of all facilities processing milk products, large amounts of food, or agricultural products (to include fertilizer, feed or seed) within the ingestion exposure EPZ. This information should be contained in the appropriate electronic data base (i.e., EIS-c/e) and backed-up with hard copy media.
- h) Establish (in coordination with PEMA and the CEB) procedures and the capability to disseminate information on preventive and emergency protective actions to cope with the effects of radiological contamination of human food, water, and animal feed.
- i) Issue (in coordination with PEMA and the CEB) guidance on procedures and actions necessary to prevent or mitigate radiological contamination of human food, water, and animal feed.
- j) Issue (in coordination with PEMA and the CEB) instructions concerning the control and disposition of radioactively, contaminated agricultural, dairy, and food products.
- k) Assist the CEB, when applicable, in the registration of farmers requesting authorization to reenter restricted areas for the purpose of tending livestock.
- l) Assist the agricultural sampling effort by:
 - (1) Providing a PRD and radiological situation report for incoming agricultural samplers.
 - (2) Providing incoming agricultural samplers with a mobile communications source.
 - (3) Providing a guide to assist incoming agricultural samplers with navigation.

NOTE: Amateur Radio provide an excellent source in the accomplishment of (2), (3) above.

- (4) Providing sample-taking equipment (plastic bags, bottles), if necessary.
- (5) Conducting radiological monitoring of agricultural samplers upon mission completion.
- (6) Designating/coordinating agricultural sample drop-off points with PEMA, PDA, and BRP.

8) County Emergency Board

a) Agricultural Stabilization and Conservation Service (ASCS)

- (1) Develop and maintain a working relationship with the appropriate County EMA.
- (2) Develop and maintain files cross-indexed to maps showing the names and locations of all farms, dairies, slaughter houses, and meat processing plants within the county. Ensure the County EMA has access to same.
- (3) Develop and maintain files cross-indexed to maps showing the names and locations of all facilities processing milk products, large amounts of food, or agricultural products (to include fertilizer, feed or seed) within the county. Ensure the County EMA has access to same.
- (4) Maintain local information on crop production, acreage, and farm capability.
- (5) Develop and maintain a list of food, feed, or seed processing facilities located within the county which receive raw materials from sources located outside the county. Identify the location of those sources.
- (6) Maintain contact with local food processing storage and wholesale distribution facilities and determine availability and disposition of supplies.
- (7) Provide an Agricultural Staff Officer to the County EOC upon notification of the General Emergency ECL.
- (8) Designate (if required) local FAC personnel to assist in agricultural sampling of the affected area.
- (9) Serve as the primary point of contact for incoming agricultural sample-taking personnel and assist the sampling effort by:

- (a) Ensuring sample takers understand their mission instructions and have the necessary equipment.
 - (b) Providing pertinent information concerning sample locations (name of owner, location of farm, point of contact, etc.).
 - (c) Contacting sample location owners and informing him/her that sample takers are enroute.
- b) Cooperative Extension Service (CES)
 - (1) Disseminate (in coordination with the County EMA) guidance to the agricultural community concerning response procedures and actions necessary to prevent radioactive contamination.
 - (2) Disseminate (in coordination with the County EMA) guidance to the agricultural community concerning the control and disposition of radiologically contaminated agricultural, dairy, and food products.
 - (3) Disseminate (in coordination with the County EMA) information to the agricultural community concerning radiation hazards in the ingestion exposure pathway EPZ and the protective actions that should be taken.
- c) Farmers Home Administration (FmHA)

Provide temporary housing for farm family evacuees who have been displaced from their homes as a result of a radiological incident, if requested.
- d) Soil Conservation Service (SCS)

Estimate (in coordination with the SEB and BRP) the effects of radiation on soils and the agricultural water supply.

5. REFERENCES

A. Federal Guidelines

- 1) Federal Register, October 22, 1982, pages 47073-47083 Department of Health and Human Services, Food and Drug Administration:
Accidental Radioactive Contamination of Human Food and Animal Feeds and Recommendations for State and Local Governments.
- 2) U. S. Department of Health and Human Services:
Background for Protective Action Recommendations: Accidental Radioactive Contamination of Food and Animal Feeds, HHS Publication, August 13, 1998

- 3) U. S. Environmental Protection Agency:

National Interim Primary Drinking Water Regulation, EPA Publication 57019-76-003, Appendix B.

- 4) Federal Emergency Management Agency:

Guidance on Offsite Emergency Radiation Measurement Systems, Phase I - Airborne Release, FEMA-REP-2, July 1987.

Guidance on Offsite Emergency Radiation Measurement Systems, Phase 2 - The Milk Pathway, FEMA-REP-12 September 1987.

Guidance on Offsite Emergency Radiation Measurement Systems, Phase 3, Water and Non-Dairy Food Pathway, WINCO - 1012, October 1984.*

Guidance Memorandum IN-1: The Ingestion Exposure Pathway, February 26, 1988.

B. Commonwealth of Pennsylvania Guidelines

- 1) Department of Agriculture, Plan for Nuclear Power Generating Station Incidents, February 1980.
- 2) Department of Environmental Resources, Emergency Management Plan, January 1983 (Revised).
- 3) Department of Environmental Resources, Bureau of Radiation Protection. "Technical Assessment and Protective Actions," January 1988.
- 4) Commonwealth of Pennsylvania, Department of Health, Disaster Preparedness and Recovery Plan, November 1982.
- 5) PEMA Emergency Management Directive D 93-5, Pennsylvania Emergency Incident Reporting System (PEIRS), July 1, 1993.

C. Information for Farmers

- 1) The Cooperative Extension Service, Pennsylvania State University in cooperation with the Extension Service, U.S. Department of Agriculture and the Defense Civil Preparedness Agency, Department of Defense, "Disaster Handbook for Extension Agents", March 1983.
- 2) United States Department of Agriculture and Federal Emergency Management Agency, Radiological Emergency Information For Farmers, Food Processors, and Distributors, November 1989.

* WINCO is the acronym for Westinghouse Idaho Nuclear Company

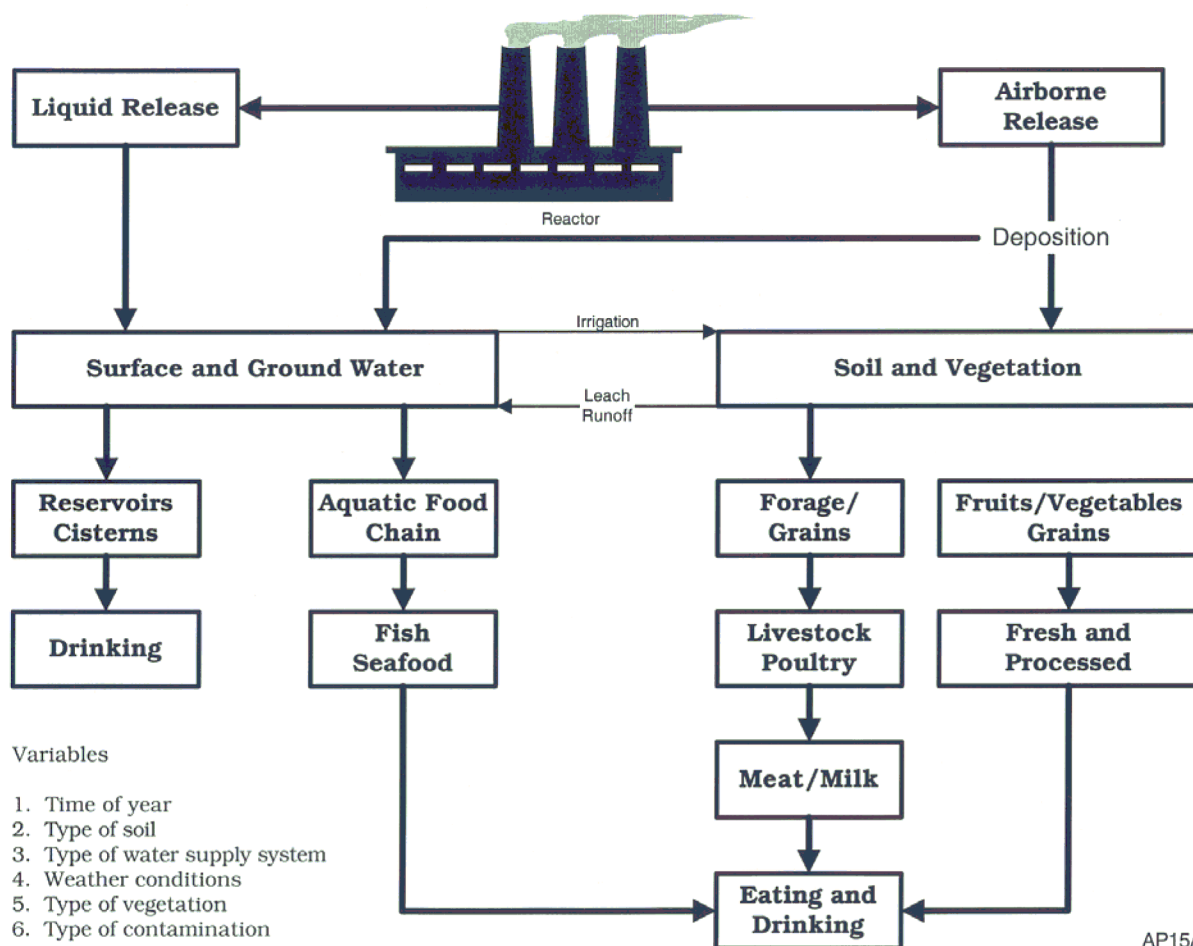
ATTACHMENTS:

- A. Pathways for Ingestion
- B. Preventive and Emergency Protective Actions
- C. Information for Farmers
- D. Food Protection

Attachment A

PATHWAYS FOR INGESTION

PATHWAYS FOR INGESTION



PREVENTIVE AND EMERGENCY PROTECTIVE ACTIONS

1. INTRODUCTION

- A. Protective Actions for the ingestion exposure pathway EPZ are designed to reduce opportunities for consumption of radiologically contaminated food and water by humans and livestock.
- B. The need to apply protective actions in the event of a nuclear power plant accident will be determined on a case-by-case basis.
- C. Protective action recommendations are designed to be implemented within hours or days from the time the incident is recognized. The recommended actions should be continued long enough to avoid most of the projected dose.
- D. Determination of when to cease a protective action must be made on a case-by-case basis considering the nuclear incident and the food supply contaminated.

2. GENERAL INFORMATION

- A. Protective Action Guides (PAGs)
 - 1) PAGs represent FDA judgments on the level of food contamination resulting from radiation incidents at which protective action should be taken to protect public health.
 - 2) A basic assumption in the development of protective actions is that the condition requiring their implementation is unusual and should not occur frequently.
 - 3) A Protective Action Guide never implies an acceptable dose. The PAG is based on a dose and is used to minimize the risk from an event. If an event has occurred, PAGs should be implemented to ameliorate the impact on already exposed or yet to be exposed populations. The minimization of effects implies that the radiation exposure under consideration is avoidable. Protective actions should be implemented as soon as possible to be most effective.
 - 4) To permit flexibility of actions in reducing radiation exposure to the public via the food pathway caused by a nuclear incident, the FDA (47 FR 47073, October 22, 1982) adopted Preventive and Emergency PAGs for an exposed individual in the population. See paragraphs B.(1).a. and b. below.
- B. Response Levels Equivalent to PAGs
 - 1) The basic PAG recommendations are given in terms of projected dose equivalents. It is more convenient to use specific radionuclide concentrations

Attachment B

upon which to initiate protective actions. The Food and Drug Administration (FDA) derived response levels equivalent to the PAGs for radionuclides of interest in the ingestion exposure pathway EPZ. They are accepted by the Commonwealth and will be used in any ingestion exposure incident for both Preventive and Emergency PAGs.

a) Response levels for Preventive PAGs:

Preventive PAGs for the ingestion of food, water, and milk are 0.5 Rem projected dose to the whole body, bone marrow, or other organ, and 1.5 Rem projected dose to the thyroid.

b) Response levels for Emergency PAGs:

Emergency PAGs for the ingestion of food, water, and milk are 5 Rem projected dose to the whole body, bone marrow, or other organ and 15 Rem projected dose to the thyroid. For these PAGs the infant values are used for the general population, while the adult values are offered to permit flexibility in cases where the higher exposures can be limited to adults only.

c) Response levels for Drinking Water PAGs

The basis for criteria for drinking water concentration is the USEPA National Interim Primary Drinking Water Regulations, EPA-570/9-76-003, Appendix B.

C. Implementation

BRP will perform the procedure for estimating projected total intake for targeted radionuclides and recommend the implementation of preventive or emergency protective actions as necessary.

D. Implementing Protective Actions when PAGs exceeded:

Actions are appropriate when the health benefit associated with the achievable reduction in dose outweighs the undesirable health, economic, and social factors. Protective actions listed below should be considered for implementation in order to reduce the consequences in the ingestion pathway if the preventive or emergency PAGs are exceeded. Several of the actions are easily implemented and may be considered for implementation as precautionary measures during the time period when post-plume data are being evaluated, or when it is reasonable to assume from early field data that the level of radioactive material in the environment is likely to approach or exceed the PAGs. Once protective actions are initiated, they continue for a time period sufficient to mitigate the radiological consequences via the ingestion pathway.

1) Preventive Protective Actions

- a) For pasture: Removal of lactating dairy cows from contaminated pastures and substitute uncontaminated stored feed.

Attachment B

Substitute source of covered uncontaminated water. Do not use surface waters.

- b) For milk: Withholding of contaminated milk from the market. Disposition of the milk would be addressed depending upon the situation at the time of the incident and after evaluation by BRP and the Department of Agriculture in coordination with PEMA. Storage for prolonged times at reduced temperatures also is feasible provided ultrahigh temperature pasteurization techniques are employed for processing.

- c) For fruits and vegetables: Washing, brushing, scrubbing, or peeling to remove surface contamination.

Preservation by canning, freezing, and dehydration or storage to permit radioactive decay of short-lived radionuclides.

- d) For grains: Milling and polishing.

- e) For drinking water: Avoid use of surface water (streams, lakes, ponds) for human and animal consumption.

Limit ingestion of potable water until source has been approved for consumption.

Use bottled water and canned beverages and juices as water sources.

- f) For other food products: Process to remove surface contamination.
- g) For meat and meat products: Intake of Cesium-134 and Cesium-137 by an adult via the meat pathway may exceed that of the milk pathway; therefore, levels of cesium in milk which approach the "response level" should cause surveillance and protective actions for meat as appropriate.
- h) For animal feed other than pasture: Action should be on a case-by-case basis taking into consideration the relationship between the radionuclide concentration in the animal feed and the concentration of the radionuclide in human food.
- i) For fish and shellfish: Suspend fishing operations of commercial fish firms and charter fishing boats until resumption is recommended.

Check the catch made on the day of the accident.

Attachment B

2) Emergency Protective Actions

Responsible officials from the Department of Agriculture will isolate food containing radioactive material to prevent its introduction into commerce and determine whether condemnation or another disposition is appropriate. Before taking this action, the following factors will be considered.

- a) The availability of other possible protective actions.
- b) The relative proportion of the total diet by weight represented by the item in question.
- c) The importance of the particular food in nutrition and the availability of uncontaminated food or substitutes having the same nutritional properties.
- d) The relative contribution of other foods and other radionuclides to the total projected dose.
- e) The time and effort required to implement corrective action.

E. Recovery

Consideration will be given to removing restrictions on harvesting, processing and consumption of food, and consumption of water, on a case-by-case basis. Criteria include termination of the release on a measurable and consistent decline in concentrations and commodities. Removal of restrictions will be directed by the Governor or his designee, based upon recommendations from PEMA in coordination with BRP and the Departments of Agriculture and Health. In addition, the assistance of Federal Agencies, including EPA and FDA, will be used, as needed.

INFORMATION FOR FARMERS

1. INTRODUCTION

This attachment provides information for farmers that will assist in the protection of their livestock and crops from radiocontamination.

2. GENERAL INFORMATION

- A. PEMA, in coordination with the licensee, BRP, and other state agencies, will provide specific information following an incident concerning amounts and types of radiocontaminant releases. This information will contain available warning time, the probable duration of discharge, the quantities of radiocontaminant discharged, and the mix of radiocontaminant discharge. Generally, in a nuclear power plant incident radioiodine will be the major contaminant, although it is possible that other radiocontaminants will be released also.
- B. Experience has shown that the time from the depositing of radioiodines on the pasture to the appearance of significant quantities of radioiodine in cow's milk may be as short as the time lapse between milkings (12 hours). It is extremely important, therefore, that actions to minimize milk contamination be taken at the earliest possible time.
- C. Several options are available for the protection of the public from exposure to radioiodine through the milk food chain.
 - 1) Removal of dairy cattle and other milk producing animals from the pasture in the affected area as soon as possible and provide feed and water from sources that are not contaminated.
 - 2) Disposal of contaminated milk, as determined by an analysis of a sample to be taken by the appropriate state agency.
- D. Suggested priorities for sheltering and feeding farm animals with stored food and water.
 - 1) Dairy cattle and other milk producing animals.
 - 2) Egg producing fowl.
 - 3) Breeding stock.
 - 4) Other livestock and poultry.
- E. No attempts should be made to evacuate farm animals from the ingestion exposure pathway EPZ.

Attachment C

- F. A shelter can be a barn, shed, garage, or other building. If these are not available, a roadway underpass or a wooded area can be better than no cover at all.
- G. Crops that have been harvested before the accident should be covered or put in a covered area, if possible. An emergency supply of water should also be kept in covered containers, e.g., barrels, cisterns, and wells.
- H. The Emergency Alert System (EAS) will broadcast the Pennsylvania Department of Agriculture advisories and guidance through EMA channels in coordination with BRP and PEMA. If more information is needed, the farmer should ask the county EMA for help.

3. FARMERS AS EMERGENCY WORKERS

Protection of Farmers as Emergency Workers in the Event of Evacuation will consist of the following:

- A. Although everyone will be asked to evacuate the affected area, farmers may be allowed to reenter the area to take care of their livestock.
- B. Dosimetry and KI will be available for those personnel who reenter. The procedure for acquiring dosimetry and KI along with the authorization to reenter through access control points is described in Appendix 13 - Radiological Exposure Control.

FOOD PROTECTION

1. INTRODUCTION

This attachment is intended to serve as guidance and be an information source to be used at the time of an emergency. It contains protective action information which may be used by the general public as a precaution to minimize exposure to contaminated agricultural, dairy, and other food products through ingestion. When considering public information releases on food protection measures, careful thought should be given to the possibility of arousing undue and unnecessary public concern regarding the suitability of consumption of food. On the other hand, where food contamination has occurred, the public must be warned and issued appropriate protective action information. (See Attachment C to this Appendix.)

2. GENERAL INFORMATION

- A. Foods stored in the home will virtually always be free of radiocontamination and therefore suitable for immediate use. This pertains to food stored in a normal manner (i.e., food stored in the refrigerator, cabinets, and containers or packages), but not necessarily to foods in the open such as fruit, cookies, or candy in uncovered dishes. Therefore, unless advised otherwise, the public can assume that no special measures are necessary in preparing stored foods for consumption.
- B. Food not stored indoors or similarly protected, such as garden vegetables, fruit on trees, or food products obtained outside the home after the incident, could be contaminated. Contamination, however, does not render such foods unusable. Most foods can easily be decontaminated by fairly simple food preparation procedures. These procedures are described in Tab 1 to this Attachment.
- C. In nuclear power plant incidents involving the release of radioiodine, cows may ingest the contaminant and produce milk with some degree of contamination. Only milk produced after any exposure of the cows to contaminated feed (not milk stored in the home or already packaged milk at the dairy or store) is subject to radioiodine contamination. The Pennsylvania Department of Agriculture, in coordination with BRP and PEMA, will issue advisories on the amount of contamination, if any, and the suitability of the milk for consumption. Specific information intended for use by farmers and food processors on protective actions for milk is contained in Attachment C to this Appendix.
- D. The "Department of Agriculture Plan for Nuclear Power Generating Station Incidents" also contains information pertaining to food protection and will be a valuable reference at the time of an incident.

3. INFORMATION FOR FOOD PROCESSORS

The primary objective of the food processor must be to prevent the contamination of the public through the processing of contaminated food. Guidance is provided in the Departments of Agriculture and Environmental Resources Plans for Nuclear Power Generating Station Incidents. Questions not answered in the referenced documents should be addressed to the emergency management agency at the county EOC.

TABS:

1. Recommended Protective Action for Food

RECOMMENDED PROTECTIVE ACTION FOR FOOD

The following procedures for various food types are generally considered to be effective protective measures in assuring that food is free of contamination and suitable for consumption.

<u>PE</u>	<u>D</u>	<u>RE</u>	<u>E</u>	<u>DED</u>	<u>PR</u>	<u>E</u>	<u>E</u>
a.	Root Crops (potatoes, carrots, etc.)	Thoroughly wash, brush, scrub or peel to remove surface contamination. Root crops are the least susceptible to contamination since the soil protects the edible portion from immediate contamination. Care should be taken in digging and storing to prevent contact with contaminated surface.					
b.	Fruits and Vegetables	Thoroughly wash, brush, scrub, or peel to remove surface contamination. These food products are susceptible to contamination due to the exposure surface area of the edible portion.					
c.	Canned or packaged foods	Thoroughly clean the surface of the package by washing, vacuuming, or using a damp cloth to remove surface contamination prior to opening.					
d.	Frozen Foods	Frozen foods packaged prior to an incident involving radioactive contamination will be safe as long as they were kept in a freezer. If the surface becomes contaminated, or is suspected of being contaminated, it should be thoroughly cleaned off prior to opening to prevent contaminating the contents.					
e.	Unpackaged stored foods	These foods will be safe to eat if outside air has been excluded from the storage area. If the storage area has become contaminated, they may be able to be salvaged by washing, scrubbing, peeling, etc. This will depend upon the type of food item involved.					

RECOVERY

(RE-ENTRY, RETURN, AND RELOCATION) (REFER TO STATE EOP ESF-14)

1. PURPOSE

To designate criteria governing the relaxation of protective actions in the plume and ingestion EPZs; outline the scope of recovery operations; identify activities which must be carried out to return the affected offsite area around the nuclear power plant to its pre-incident condition (as nearly as possible); provide guidance for state and local efforts to seek reimbursement of public and private costs incurred in response to a nuclear power plant incident.

2. SITUATION

- A. An incident at a nuclear power plant involving the uncontrolled release of radiocontaminants to the offsite area has occurred requiring the implementation of protective actions. The uncontrolled release has stopped and further uncontrolled release of radiocontaminants from the site is unlikely.
- B. There may have been a Presidential Declaration of Emergency.
- C. Responsible federal and state agencies have determined that the criteria designated herein governing relaxation of protective actions against exposure to radiation from the release have been met. (See paragraph 3.D.)
- D. The Governor determines that recovery operations may begin.

3. CONCEPT OF OPERATIONS

- A. The Chairman of the State Emergency Management Council or Director of PEMA, acting on behalf of the Governor of Pennsylvania, shall create a State Recovery Task Force to develop a plan to guide recovery of offsite areas affected by an incident at a nuclear power plant. The structure, functions, and responsibilities of the State Recovery Task Force are described in Paragraphs 5 and 6, this Appendix.
- B. Counties affected by the evacuation ascertain the operability of essential public services in their municipalities and inform PEMA of their status. Residents of municipalities will not be authorized to return to their domiciles until essential public services are operable. Essential public services include electric, gas, sewage treatment, heating fuel delivery, trash removal, telephone, mail service, road clearance, and appropriate social services (i.e., visiting nurses, homebound meal delivery, etc.)

C. Until the Governor declares that recovery operations may commence, reentry to evacuated areas shall be restricted to those initially designated volunteer and professional emergency workers as well as certain farmers, industrial workers, institutional workers, onsite personnel, and others who apply and qualify for emergency worker entry authorization. Evacuated residents will not routinely be admitted.

D. Recovery Dose Limits:

1) General

The principle of As Low As Reasonably Achievable (ALARA) applies, as appropriate, to the criteria found herein in relation to radiation dosage.

2) Reentry

a) Emergency Workers

The following Protective Action Guides (PAGs) will apply:

(1) Whole Body Exposure

- (a) The protective action guide (PAG) for whole body exposure specified by the Environmental Protection Agency (EPA) and Bureau of Radiation Protection (BRP) is 25 Rem.
- (b) The BRP specifies an upper limit of 75 Rem whole body dose for life saving missions, but this limit is subject to special approval, conditions, and measures.

(2) Selected Evacuated Residents

- (a) NRC and State BRP evaluations have determined that no further unauthorized radioactive release requiring protective action is likely.
- (b) Projected radiation exposure over a three-month period will not be in excess of 1.25 Rem.
- (c) Recovery Workers

Radiation exposure will be limited to current Radiation Protection Guides for occupationally exposed individuals as given in 10 CFR 20.

3) Return - General Public

- a) NRC and State BRP evaluations have determined that no further radioactive release requiring protective action is likely.
- b) Projected radiation exposure above background over a one year period will not exceed 0.5 Rem.
- c) Essential public services, e.g. public water, electricity, sewage treatment, etc. are operable.
- d) The counties and municipalities have reestablished governmental functions.

4. DEFINITIONS

- A. Controlled Entry Points (CEPs) - Locations through which authorized access to and egress from exclusionary and restricted zones can be accomplished.
- B. Essential Public Services - That group of operating systems which together form the basic framework for societal support. These include fire, police, EMS, water and sewage treatment, gas and electric utilities, trash removal, telephone and mail service, social services, and road clearance.
- C. Selected Evacuated Residents - Relocated adults with proof of former residence who wish to retrieve personal property.
- D. Exclusionary Zone - That region, usually within the plume EPZ, in which the full extent of radiocontamination has not been verified. (In the early stages of the incident, this may include the entire plume EPZ.) Emergency workers will be the only personnel authorized access to exclusionary zones.
- E. Recovery - The generic term used for the overall process of decontamination and/or restoration of essential services and infrastructure to allow for resumption of normal activity in areas in which protective actions have been implemented.
- F. Recovery Operations - Activities carried out to return the offsite area around the nuclear plant as nearly as possible to its pre-incident condition.
- G. Recovery Workers - Non-pregnant adults performing governmental functions or public service; farmers, institutional, industrial, or commercial employees.
- H. Reentry - The temporary return of those authorized by the Governor for a prescribed period into the exclusionary or restricted zones.
- I. Relocation - A protective action implemented during the recovery whereby evacuees or sheltered individuals residing in areas exceeding relocation PAGs are removed and/or excluded from return to restricted zones until directed by the Commonwealth and are accommodated at a new location for an extended period - months to years.

- J. Restricted Zone - That region expected to meet or exceed plume PAGs up to four days after termination of the incident or exceed relocation PAGs for continuous occupancy as defined in Annex E. It may also include a buffer zone to prevent radiocontaminants from being deposited in unrestricted areas.
- K. Restoration Activities - Equivalent to recovery operations.
- L. Return - The permanent return of citizens, businesses, governments, and institutions to their dwellings, places of employment, or operating sites after restricted areas have been determined by the Commonwealth to be safe for occupancy.

5. ORGANIZATION

A. State Recovery Task Force (SRTF)

Membership

The State Recovery Task Force is chaired by the Chairman of the State Emergency Management Council, or in his/her absence, the Director of Pennsylvania Emergency Management Agency (PEMA) and consists of one or more representatives from each of the following agencies or organizations:

State Representatives (Primary)

Office of Administration (Geospatial Technologies Bureau)

Department of Aging

Department of Agriculture

Office of Attorney General

Department of Banking

Office of the Budget

Department of Community and Economic Development

Department of Conservation and Natural Resources

Department of Education

Department of Environmental Protection

Department of Health

Department of Insurance

Department of Labor and Industry

Department of Public Welfare

Department of Revenue

Department of Transportation

Pennsylvania Emergency Management Agency

Public Utility Commission

Department of Corrections

Department of General Services

Department of Military and Veterans Affairs

Fish and Boat Commission

Game Commission
Liquor Control Board
Office of General Counsel
Pennsylvania Human Relations Commission
Pennsylvania State Police
Pennsylvania Turnpike Commission
PENNVEST
American Red Cross
U.S. Department of Agriculture
Federal Emergency Management Agency

State Representatives (Secondary)

County Representatives

Appropriate representation from each of the affected counties will be included on the task force. Representatives of counties may be requested to participate based upon actual effects of radiation deposition resulting from the accident.

Utility Representatives

Representatives of the affected utility and its insurers may be requested to participate.

Federal Representatives

Federal representation on the State Recovery Task Force may include some or all of the following agencies identified in the Federal Radiological Emergency Response Plan (FRERP), as provided by the Federal Emergency Management Agency (FEMA) and the Federal Radiological Preparedness Coordination Committee (FRPCC):

Federal Emergency Management Agency
USDA (State Food and Agriculture Council (FAC) Chairperson or designee)
Department of Commerce
Department of Energy
Centers for Disease Control, Department of Health and Human Services (HHS)
Food and Drug Administration, HHS
Department of Housing and Urban Development
Department of Transportation
Environmental Protection Agency
Nuclear Regulatory Commission
Department of the Interior
Department of Homeland Security

Representatives of such other federal agencies as deemed appropriate by the Governor to complete the responsibilities of the Task Force may be requested once the Task Force is convened.

Adjacent Affected State Representatives

The emergency management agencies of adjacent affected states may provide a liaison to the Task Force.

B. Staff Support for the Task Force

Administrative and public information support for the Task Force shall be provided by PEMA, with additional assistance to be provided, upon request, from other participating state agencies.

C. Radiological Technical Support for the Task Force

The Incident Manager, BRP, with assistance from appropriate federal agencies, shall both serve on and be the principal radiological technical advisor to the State Recovery Task Force.

D. Task Force Meetings

The task force once convened will meet as necessary. Such meetings shall generally take place in or near the State EOC or the Disaster Field Office or other designated location.

E. Duration of Task Force Operations

The State Recovery Task Force shall continue to function until recovery operations are complete, or until the Governor, as advised by the Task Force Chairman, determines that overall recovery management functions can be completed through the individual statutory responsibilities of Pennsylvania State and local governments.

6. RESPONSIBILITIES

A. **General**

1) State Recovery Task Force (SRTF)

The State Recovery Task Force is responsible for coordination and implementation of existing plans and for development of modifying instructions based on the realities and circumstances of the time. Policies, plans, and procedures to be established shall include:

- a) Guidance for the restoration of affected areas (as closely as possible) to their pre-incident condition.
- b) Development of a prioritized list of restoration activities in affected counties and identification of state and federal agencies or organizations responsible to assist.

- c) A decontamination and restoration plan which includes the appropriate types of decontamination actions or activities to recover the area and establishes priorities for decontamination and restoration actions.
- d) The identification/tasking of individuals or organizations who will carry out decontamination and restoration activities and the determination of their roles and responsibilities, which include coordination between the federal, state, and county levels.
- e) Assign decontamination and restoration projects including, but not limited to the following:
 - (1) Decontaminating and restoring buildings and equipment used to provide basic services such as general government, fire, law enforcement, postal, water, electricity, and sewage.
 - (2) Decontaminating and restoring hospitals, nursing homes, prisons, businesses, and industrial and agricultural sites, buildings, and equipment.
 - (3) Removing and disposing of materials, equipment, soils, farm animals and pets, food products, farm or garden produce, and other items which cannot be decontaminated or which have perished or spoiled while the area has been evacuated.
 - (4) Decontaminating or otherwise restoring agricultural lands to productive use.
 - (5) Determining limitations on area hunting and fishing (e.g. length of seasons, bag limits, etc.).
- f) Return and/or relocation assistance to evacuated individuals, businesses, and industries.
- g) Guidelines for tracking and recovering costs incurred for all activities associated with the incident and proposing a system to accomplish cost tracking and recovery.
- h) An approach to providing continuing information about recovery actions, activities, and timetables to the public through the media.
- i) Determining in consultation with the appropriate federal authorities the disposition of contaminated materials which must be removed from the area during restoration.
- j) Determining which areas (if any) must remain restricted on a long-term or permanent basis due to radiological considerations.

2) Task Force Chairman

The Chairman of the Emergency Management Council or Director of PEMA, acting on behalf of the Governor, shall chair the State Recovery Task Force. The responsibilities of the task force chairman shall include but not be limited to the following:

- a) Organizing and convening the State Recovery Task Force.
- b) Coordinating the development of task force procedures for the direction of the recovery effort and for coordination among all of the involved entities.
- c) Issuing directives for the Governor.
- d) Making recommendations to the Governor.
- e) Acting under the direction of the Governor in the execution of his emergency powers when a State of Disaster Emergency is in force.
- f) Setting up a task force meeting schedule and the agenda for such meetings.
- g) Coordinating information collection and research to support task force decision-making.

3) Pennsylvania Emergency Management Agency (PEMA)

- a) Coordinate with the Task Force regarding federal and state agency support of recovery operations.
- b) Provide public information support to the SRTF. (The PEMA Press Secretary will function as the SRTF media point of contact and will supervise SRTF media activities.)
- c) Assist affected counties in the conduct of a coordinated damage assessment which considers the broadest context of damage, both tangible and intangible.
- d) Maintain records and reports acquired during the incident.
- e) Participate in incident response critiques and develop (with the assistance of all affected agencies) a detailed after action report focusing on lessons learned and methods to improve performance.
- f) Provide the Task Force a plan to assist claimants in documenting their losses.

- g) Provide the Task Force a plan to assist claimants in settling claims with and recovering damage from the utility and its insurers under the provisions of the Price-Anderson Act or in seeking assistance under the provisions of the Stafford Act (PL 100-707).

4) Pennsylvania Department of Agriculture (PDA)

- a) Coordinate the mitigation of radiological contamination of agricultural, dairy, and food products.
- b) Coordinate with the Department of Health (DOH), USDA, and DEP for the collection of product samples and the disposition of contaminated food products based on FDA criteria.
- c) Provide field teams for the purpose of taking samplings of agricultural, dairy, and food products for BRP analysis.
- d) Impound or dispose of contaminated food products as appropriate.
- e) Divert fluid milk to processing of manufactured milk products, as appropriate.
- f) Inform the Governor, through the Task Force, on the status of operations in regard to food chains.

5) Department of Environmental Protection (DEP)

- a) Provide field teams for the purpose of taking water samples of public reservoirs, water intake points, water treatment plants, sewage treatment plants, ground water, and surface water for the purpose of BRP analysis.
- b) Provide to the task force an assessment of the environmental impacts and a plan for recovery.

6) Department of Insurance

Provide the SRTF Chairman with professional advice and assistance in matters relating to loss compensation.

7) Department of Health (DOH)

- a) Provide to the Task Force, in coordination with BRP, an assessment of the physiological impacts regarding recovery and a plan for recovery.
- b) Provide an action plan to aid the recovery of special needs populations.

8) Department of Public Welfare (DPW)

- a) Provide an assessment of the psychological impacts of recovery to the Governor through the Task Force.

- b) Provide an assessment of welfare needs based on accident results.
 - c) Develop a plan to provide for welfare of special needs and general population groups.
- 9) Department of Transportation (PennDOT)
- a) Provide an assessment of selected transportation networks to the Task Force.
 - b) Coordinate with BRP and DMA on transportation aspects concerning collection, storage, and disposal of contaminated waste material.
- 10) Bureau of Radiation Protection (BRP)
- a) Coordinate Federal augmentation of state sampling operations and analysis of radiocontamination.
 - b) Develop a recommended short/long-term monitoring and sampling plan for evacuated areas which identifies numbers and locations of samples to be taken.
 - c) Reassess the need for monitoring and sampling personnel, identify roles and responsibilities of participating agencies and organizations. Make field assignments based on the State Recovery Task Force's recovery plan.
 - d) Provide for the radiological exposure control of monitoring and sampling personnel to include protective clothing, dosimetry, personnel and vehicle decontamination sites, stay times, etc.
 - e) Direct and conduct continuous monitoring of radiation levels and environmental sampling in accordance with the state recovery plan.
 - f) Coordinate, direct, and conduct continuous sample evaluation, dose assessment, and dose projection.
 - g) Periodically reevaluate the public health effects of current radiation levels.
 - h) Identify areas where current radiation levels or cumulative dose values remain too high for recovery activities to take place, either temporarily or permanently.
 - i) Periodically reconsider, revise, and relax (where possible) protective action recommendations (PARs).
 - j) Provide revised PAR information to the Task Force public information function so the public can be informed of changing radiological conditions.

- k) Develop a decontamination and restoration plan for the approval of the Task Force which includes the appropriate types of decontamination actions or activities to recover the area and establishes priorities for decontamination and restoration activities.
 - l) Identify individuals or organizations who will carry out decontamination and restoration activities and determine their roles and responsibilities.
 - m) Coordinate and arrange for the radiological exposure control of decontamination/ restoration personnel including protective clothing, dosimetry, personnel and vehicle decontamination site, stay times, etc. (This can be done in conjunction with the development of similar provisions for monitoring and sampling personnel.)
- 11) Fish and Boat Commission
- a) Provide representative fish specimens for laboratory analysis.
 - b) Provide the Task Force with a plan to limit area fishing (e.g. length of seasons, creel limits, etc.), if necessary.
 - c) Establish river access control points as required.
- 12) Game Commission
- a) Provide representative game specimens for laboratory analysis.
 - b) Provide the Task Force with a plan to limit area hunting (e.g. length of seasons, bag limits, etc.), if necessary.
- 13) Department of Military Affairs
- a) Augment federal and state decontamination resources within mission capabilities.
 - b) Assist in the removal of soils and other items which cannot be decontaminated.
- 14) Affected Counties
- a) Provide overall direction and coordination of recovery operations within the specific county.
 - b) Expedite re-establishment of normal county and municipal government organization and functions.
 - c) Coordinate support of municipal recovery operations.
 - d) Realign (if necessary) staff responsibilities in order to encompass recovery duties.

- e) Maintain controlled entry points to evacuated areas.

15) Affected Municipalities

- a) Provide overall direction and coordination of recovery operations within the respective municipality.
- b) Expedite re-establishment of normal municipal government organization and functions.

B. Reentry Phase

1) Pennsylvania Emergency Management Agency (PEMA)

- a) In coordination with affected counties, revise and implement plans for maintaining access control to exclusion zones. During the decontamination and restoration period, develop provisions for controlled access to evacuated areas by monitoring and sampling teams, decontamination and restoration personnel, and other specially identified groups such as farmers, critical industry workers, hospital workers, etc. Develop procedures for permanent or long-term access control to remaining restricted areas.
- b) Coordinate with the State agencies regarding the identification of tasks requiring access control, determine the agencies roles and responsibilities.
- c) Provide information updates about areas still under access control to the Task Force public information staff so the public can be informed through the media.
- d) Realign (if necessary) agency staff responsibilities in order to assist the Task Force in the discharge of reentry- related duties.
- e) In coordination with BRP and the Department of Insurance provide the SRTF Chairman with such property damage information as may be available.
- f) Provide communication support to American Nuclear Insurers by procuring additional telephone lines for installation in designated claim centers.

2) Pennsylvania Department of Agriculture (PDA)

- a) Provide field teams for the purpose of taking samplings of agricultural, dairy, and food products for BRP analysis.
- b) Effect necessary coordination with USDA.
- c) Inform the Task Force on the status of operations in regard to food chains.

3) Department of Environmental Protection/Department of Conservation and Natural Resources

Provide field teams for the purpose of taking water samples of public reservoirs, water intake points, water treatment plants, sewage treatment plants, ground water, and surface water for the purpose of BRP analysis.

4) Department of Insurance

- a) Establish and maintain an insurance customer service hotline to provide information and assistance to evacuated residents.
- b) Furnish PEMA with professional advice and assistance in the evaluation of property damage information and reports.
- c) Assist American Nuclear Insurers in the establishment of claim centers.

5) Department of Transportation (PennDOT)

- a) In coordination with PSP and DMA, develop plans to establish controlled entry points and traffic routes around contaminated areas.
- b) Provide Commonwealth and county maps as necessary.

6) Bureau of Radiation Protection (BRP)

- a) Determine Bureau needs that can be met by the Federal Radiological Monitoring and Assessment Plan (FRMAP).
- b) Request and coordinate federal offsite monitoring and assessment support.
- c) Develop environmental monitoring strategy and, in coordination with the FRMAC, dispatch teams to verify deposition areas and collect in-place PRDs and particulate samples as necessary.
- d) Verify deposition footprint, establish radiological zones, and transmit locations of restricted and exclusion areas to the State EOC.
- e) Recommend to the Task Force when recovery activities should commence.
- f) Provide health physicists and technicians to support Controlled Entry Point operations.

7) Fish and Boat Commission

Maintain river access control points as required.

8) Department of Military Affairs (DMA)

- a) Assist the State Police and risk counties, upon request by the State EOC, with access control and security of evacuated areas.
- b) Provide decontamination support within unit mission capabilities.

9) Pennsylvania State Police (PSP)

- a) Develop plans for maintaining access control to all restricted and exclusion areas in coordination with affected counties.
- b) Provide personnel to operate Access Control Points (ACPs) to prevent unauthorized reentry into evacuated areas.

10) Affected Counties

Establish controlled entry points (CEPs) to evacuated areas in coordination with PSP to include a monitoring station at each CEP.

11) Affected Municipalities

- a) Maintain communications with affected county EMA.
- b) Expedite re-establishment of normal municipal government organization and functions.
- c) Assess the operability and safety of public services such as public water, electricity, waste water treatment, etc.

C. Return

1) Task Force

- a) Provide to the Governor a comprehensive evaluation of the potential impact of return on the public.
- b) Advise the Governor when preparations are completed to the extent that return of the public is feasible.
- c) In coordination with affected counties, revise and implement human services and economic assistance plans and procedures to aid the physical return of resident individuals, business, and industries to previously evacuated areas. These plans and procedures will include what kind of support will be offered, who will provide it, and how, when, and where such support will be provided.
- d) Identify agencies and organizations which will be managing the return effort and determining their roles and responsibilities, to include coordination between federal, state, and county governmental agencies.

- e) Establish an economic assistance hotline to provide information to businesses and individuals concerning where this type assistance can be obtained.
- f) Provide periodic information updates to media outlets on the progress of return activities so the public will remain informed.
- g) Provide information and advice to individuals, business, and industries about further personal decontamination activities that need to take place upon return to their facilities.

2) PEMA

- a) Notify (based on the Governor's decision) appropriate State Area EOCs and counties when evacuees can return to their municipalities.
- b) Realign staff responsibilities (if necessary) in order to encompass recovery duties.

3) Pennsylvania Department of Agriculture (PDA)

- a) Coordinate with the Departments of Health and Environmental Protection for the collection of product samples.
- b) Provide field teams for the purpose of taking samples of agricultural, dairy, and food products for BRP analysis.
- c) Coordinate food product and agricultural sampling activities with USDA.

4) Department of Banking

Provide the Task Force with an assessment of the readiness to reopen banks in the affected areas.

5) Department of Commerce

- a) Provide the Task Force with an assessment of the economic short and long-term impacts of the incident.
- b) Assist the Task Force in developing an economic plan and procedures to support returning businesses and industries.
- c) Provide the Task Force with an estimate of time to return to economic normalcy.
- d) Provide personnel to assist in the manning of a Commonwealth economic assistance hotline which will provide information about where economic assistance to individuals, businesses, and industries can be obtained.

- e) Assist public and private sector agencies and organizations in the development of new marketing techniques and other ways of restoring economic confidence in the affected area and its goods, products, and services.

6) Department of Corrections

Provide the Task Force with an assessment of the readiness to reoccupy state and county correctional facilities.

7) Department of Education

Provide the Task Force an assessment of the readiness to reopen educational institutions.

8) Department of Environmental Protection/Department of Conservation and Natural Resources

- a) Reestablish the use of natural and recreational areas.
- b) Provide field teams for the purpose of taking water samples of public reservoirs, water intake points, water treatment plants, sewage treatment plants, ground water, and surface water for BRP analysis.

9) Department of Health

- a) Provide (in coordination with BRP) the Task Force an assessment of the physiological impacts of recovery.
- b) Provide the Task Force an assessment of the readiness to reoccupy affected hospitals.
- c) Provide assistance to individuals with long-term medical problems associated with real or perceived radiation exposure.
- d) Assist with the return of special populations to institutions and facilities.

10) Department of Insurance

- a) Provide the SRTF Chairman with such property damage claims information as may be available.
- b) Maintain close coordination with American Nuclear Insurers and Mutual Atomic Energy Liabilities Underwriters.

11) Department of Public Welfare

- a) Provide the Task Force an overall assessment (short and long-term) of the psychological impact of the incident.

- b) Coordinate individual and family counseling for stress and/or other evacuation-related emotional or psychological problems or conditions.

12) Department of Transportation

Provide the Task Force an assessment of the transportation system and readiness to reopen all or selected roadways.

13) Bureau of Radiation Protection

- a) Advise the Task Force of the classifications and locations of the non-restricted areas and when the return of the general public to those areas may commence.
- b) Develop a long-term environmental monitoring program for each zone of classification.
- c) Develop (in coordination with PDA) a long-term ingestion pathway monitoring program for each zone of classification.
- d) Set stand-down and/or cutoff dates with the Federal Radiological Monitoring and Assessment Center for sampling programs as the need for assessment diminishes.
- e) Provide for radiological monitoring of emergency worker monitoring and decontamination stations and reception and mass care centers.
- f) Assist in and support decontamination of emergency worker monitoring and decontamination stations and reception and mass care centers and certify them for return to public use.

14) Fish and Boat Commission

Provide representative fish specimens for BRP analysis.

15) Game Commission

Provide representative game specimens for BRP analysis.

16) Department of Military Affairs

Provide personnel to augment PSP traffic control activities.

17) Pennsylvania State Police

Provide for the orderly return of evacuees from host areas to their municipalities along major Commonwealth routes.

18) American Red Cross

Close mass care centers as they are emptied.

19) Affected Counties

- a) Notify PEMA when affected municipalities report that they are prepared for return of evacuees with consideration for the following items:
 - (1) Establishment of public services - police, fire, EMS.
 - (2) Establishment of public utilities - electric, gas, water, telephone, sewage plants, and waste disposal.
 - (3) Reopening of essential commercial services - gas stations and supermarkets.
 - (4) Reopening of hospitals and nursing homes for the return of patients and residents.
 - (5) Public information announcements which provide clear and concise information/instruction concerning all facets of the return effort (affected jurisdictions, return routes, effective date/time, exposure reducing measures to be taken upon return, etc.)
- b) Provide overall direction and coordination of return operations within the respective county.
- c) Inform PEMA of the status of return of evacuees from mass care centers.
- d) Coordinate the provision of law enforcement in returning jurisdictions.
- e) Provide assistance (as needed) for the transportation of evacuees back to their homes.
- f) Coordinate the return of evacuated special needs populations to institutions and facilities (e.g. nursing homes, hospitals, correctional institutions, etc.).
- g) Provide information to returning evacuees.
- h) In coordination with BRP prepare and release appropriate public information.
- i) Provide information and advice to businesses and industries about further decontamination activities that may be necessary after they return to their facilities.

20) Affected Municipalities

- a) Notify respective county EMA when prepared for return of evacuees.
- b) Provide overall direction and coordination of return operation within the respective municipality.
- c) Provide law enforcement, traffic control, and information services to returning evacuees.
- d) Assist (as needed) with the transportation of evacuees back to their homes.
- e. In coordination with affected counties provide information and advice to residents.

D. Relocation

1) Task Force

- a) Refine and implement human services and economic assistance plans and procedures to aid the relocation of individuals, businesses, and industries who, as a result of radiocontamination, cannot return to previously evacuated areas. These plans and procedures will include what kind of support will be offered, who will provide it, and how, when, and where such support will be provided.
- b) Identify agencies and organizations which will be managing the relocation effort and determining their roles and responsibilities, to include coordination between federal, state, and county governmental agencies.
- c) Assist with the identification of temporary or permanent housing and jobs in other areas and with a resettlement effort, if it becomes necessary.
- d) Assist with the resettlement of evacuated special populations into other equivalent institutions or facilities (e.g. nursing homes, hospitals, correctional institutions, etc.).
- e) Assist with the identification of buildings or facilities which can support resettled businesses or industries.
- f) Provide information about where economic assistance to relocated individuals, business, and industries can be obtained.
- g) Provide periodic information updates to media outlets regarding relocation activities in order that they remain informed.

2) PEMA

Realign staff responsibilities (if necessary) in order to support relocation activities.

3) Department of Commerce

- a) Coordinate the identification of buildings or facilities which can support relocated businesses or industries.

4) Department of Community Affairs

- a) Assist the Task Force in developing a human services assistance plan to aid the physical relocation of evacuated individuals.
- b) Coordinate the identification of temporary or permanent housing in unaffected areas.

5) Department of Corrections

Provide the Task Force a plan to relocate evacuated state and county correctional facility inmate populations.

6) Department of Education

Provide the Task Force a plan to relocate evacuated educational institution populations into suitable facilities.

7) Department of Health

- a) Provide the Task Force a plan to relocate evacuated nursing homes and hospitals into other equivalent institutions or facilities.
- b) Provide the Task Force a plan to assist individuals with long-term medical problems associated with real or perceived radiation exposure.

8) Labor and Industry

Provide the Task Force a plan to identify temporary or permanent jobs in other (unaffected) areas and to match relocated individuals with those jobs.

9) Department of Public Welfare

Provide the Task Force a plan to provide individual and family counseling for stress and/or other relocation-related emotional or psychological problems or conditions.

10) American Red Cross

Close (in coordination with the county EMA) remaining mass care shelters as they are emptied.

E. Loss Compensation

1) State Recovery Task Force

- a) In coordination with federal, state, and local governments, the utility, and its insurers, take appropriate action to ensure that the extent of utility, public, and private liability is determined and that compensation actions are underway.
- b) Develop (in conjunction with American Nuclear Insurers and the Mutual Atomic Energy Liabilities Underwriters) an insurance information system. Provide periodic information updates on the progress of loss compensation to media outlets so the public can remain informed.

2) PEMA

- a) Provide the Task Force a plan to assist claimants in documenting their losses.
- b) Provide the Task Force a plan to assist claimants in settling claims with and recovering damage from the utility and its insurers under the provisions of the Price-Anderson Act or in seeking assistance under the provisions of the Stafford Act (PL 100-707).

3) Office of the Attorney General

Provide the Task Force a plan to assist injured parties with litigation, if necessary, to recover damages sustained from the incident.

4) Department of Insurance

- a) Assist PEMA in the development of a plan to assist claimants in documenting their losses.
- b) Provide loss compensation assistance to affected residents.
- c) Continue coordination with ANI and MAELU.

F. Long-Term Impact

1) Task Force

- a) Develop and implement a process for monitoring and tracking the long-term effects of the incident on the population, the economy, and the environment in the affected area by the responsible agencies as a part of their continuing functions.
- b) Establish, as appropriate, study groups with federal, state, and local representation for documentation and analysis of the incident.

- 2) Pennsylvania Department of Agriculture
 - a) Provide a process for long-term agricultural and land management practices (e.g. soil removal, crop rotation, tillage) which will further reduce future contamination of feed and food crops.
 - b) Provide a process to reduce the long-term impacts of the incident on markets for state and local agricultural products and goods.
- 3) Department of Commerce
 - a) Provide a process to assess the long-term impacts on markets for state and local products, goods, and services.
 - b) Provide a process to reduce the long-term impact on state and local tourism and travel.
- 4) Department of Environmental Protection/Department of Conservation and Natural Resources
 - a) In coordination with the Fish and Boat Commission, provide a process to mitigate the long-term impacts on the affected area's indigenous wildlife.
 - b) In coordination with the Game Commission, evaluate the potential for the spread of contamination as a result of wildlife migratory patterns.
- 5) Department of Health

Provide a process to study long-term health risks and to provide a program of periodic follow-up health monitoring of the affected populations.
- 6) Department of Revenue

Provide a process to determine the long-term impact on local property values.
- 7) Bureau of Radiation Protection

Provide a process to develop a long-term environmental monitoring program and identify responsibilities for its execution.

ATTACHMENT:

- A. Exclusionary and Restricted Zone Operating Procedures

Exclusionary and Restricted Zone Operating Procedures

1. GENERAL

- A. Access to evacuated areas in which the full extent of radiocontamination has not been verified will be limited to emergency workers.
- B. After the Governor declares that recovery operations may commence, reentry to evacuated areas shall be limited to recovery workers and, on a case by case basis, to evacuated residents.
- C. Businesses located within a restricted zone could resume operations on a regular schedule if, at their specific location, exposure rates to employees would not exceed the relocation PAGs over the course of a year.

2. CONTROLLED ENTRY POINTS (CEPs)

- A. Access to and egress from exclusionary and restricted zones will be controlled through the use of controlled entry points (CEPs).
- B. Once the EPZ has been evacuated, and until ground deposition footprint has been verified, each risk county (at a minimum) will establish at least one CEP for use by emergency workers. Initial CEPs are to be colocated with established ACPs. NOTE: Fire, police, and EMS personnel engaged in emergency operations are not required to use CEPs if doing so would jeopardize their mission.
- C. All CEPs are to have a monitoring capability as part of their make-up. In addition, each CEP will be staffed by a health physicist (provided by BRP). Initially, PSP personnel will serve as the CEP security element. Once called to State active duty, PAARNG personnel will assume this mission until otherwise relieved.

3. RADIOLOGICAL EXPOSURE CONTROL

A. General

- 1) Radiation exposure to recovery workers will be limited to current Radiation Protection Guides for occupationally exposed individuals as listed in 10 CFR 20.
- 2) Radiation exposure to evacuated residents will be limited to current relocation PAGs for the general public.
- 3) The management of radiation protection (to include record keeping) for recovery workers and evacuated residents who desire access to the restricted zone will require a full time health physicist assisted by several technicians. Affected counties may be requested to provide assistance.

B. Equipment Requirements

- 1) Each individual desiring access to restricted zones must be provided with a PRD, a 0 - 200 mR pocket dosimeter, and a 0 - 5 R pocket dosimeter for determining actual dose during each access mission.
- 2) Dosimetry requirements for emergency workers are contained in Appendix 5 (Radiological Exposure Control), Annex E, Commonwealth of Pennsylvania EOP.
- 3) Individuals desiring access to restricted zones must receive training on radiation safety and the use of dosimetry prior to entry into the zone.

C. Record Keeping

- 1) Separate records of radiation exposure resulting from accessing restricted zones must be prepared for each individual. Copies of these records shall be furnished to the individual and his physician upon request. The record must consist of the name of the individual (to include social security number), the date and time interval for each access, and the exposure resulting from each access. A cumulative sum of an individual's total exposure will be maintained.
- 2) In the case of recovery workers, separate records, similar to NRC Form 4, (and in addition to those referenced in paragraph 3.C.1 above) must be maintained for each individual.

4. INSTRUCTIONS TO EVACUATED RESIDENTS

- A. Follow instructions of the Health Physicist for access to and egress from the restricted zone.
- B. All individuals and vehicles leaving the restricted zone must undergo a radiation survey.
- C. All items removed from the restricted zone must be double bagged in plastic. The outer bag is removed and retained at the exit point. The singly bagged item must be surveyed prior to release.
- D. Do not eat, drink, or smoke while in the restricted zone.
- E. Clothing worn in the restricted zone should be laundered as soon as possible.
- F. After exiting the restricted zone, shower and change clothing as soon as possible. Wash hands prior to eating, drinking, or smoking.

5. INSTRUCTIONS FOR EMERGENCY WORKERS

- A. Follow instructions of the Health Physicist or mission commander regarding access to and egress from the exclusionary or restricted zone, stay times, and other information.

Attachment A

- B. All individuals leaving the exclusionary or restricted zone must report to an emergency worker monitoring and decontamination station to be surveyed.
- C. Emergency response personnel (fire, police, EMS) are required to wear double clothing (or appropriate protective gear) while in the exclusionary or restricted zone. All others are required to bring a change of clothing (to include shoes) in a plastic bag.
- D. Non-emergency response personnel are required to have in their possession a battery operated commercial radio. This radio must be on and tuned to the appropriate EAS station at all times while in the exclusionary zone.
- E. Do not eat, drink, or smoke while in the exclusionary or restricted zone.
- F. Clothing worn by non-emergency personnel should be washed as soon as possible.
- G. Upon exiting the exclusionary or restricted zone, all personnel should shower prior to eating, smoking or drinking.

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix16-2008.doc

RESOURCE REQUIREMENTS

1. PURPOSE

To indicate the number and type of additional resources required to implement the Columbia County Radiological Emergency Response Procedures for PPL Susquehanna, LLC. Resource requirements of the state government are the responsibility of the state government; resource requirements of the federal government response team are addressed in the Commonwealth Emergency Operations Plan, Annex E.

2. RESPONSIBILITIES

- A. The County Emergency Management Coordinator is responsible for determining the personnel and equipment requirements which cannot be provided from existing county resources.
- B. The Emergency Management Services Coordinators will keep the county emergency management coordinator advised of new logistical requirements and the need to replenish exhausted county resources.
- C. Municipal emergency management coordinators will determine the additional requirements necessary to execute municipal emergency response plans. All requirements will be reported to the County Emergency Management Coordinator.

3. CONCEPT OF OPERATIONS

- A. Where possible, unmet municipal needs will be fulfilled at the county level.
- B. Columbia County will meet all requirements possible. Unmet requirements will be reported to the Pennsylvania Emergency Management Agency.
- C. Municipal coordinators will maintain current lists of personnel and equipment shortages and report these unmet needs to the county on an annual basis.
- D. Additional requirements are shown in each municipal plan and compiled in Attachment A. These figures represent the maximum that would be required.
- E. Mass care center managers shall report all resource unmet needs to the county mass care coordinator.
- F. Municipal emergency management coordinators will report all resource unmet needs to the County EOC.
- G. All support supplies required from outside Columbia County in support of this plan will be delivered to the Central Resource Receiving Point at the Bloomsburg Fairgrounds, West Main Street, Bloomsburg, PA.
- H. Additional personnel to secure the Central Resource Receiving Point may be provided by the Pennsylvania National Guard when activated.

ATTACHMENTS:

- A. Supply Request Form
- B. Municipal Supply Requisition
- C. Resource Index List

Attachment A

SUPPLY REQUEST FORM

- A. LOCATION: _____

- B. PURPOSE OF REQUEST: _____

- C. NUMBER OF PERSONNEL REQUIRED: _____
- D. EQUIPMENT REQUIRED: _____

- E. SLEEPING QUARTERS AND FOOD ARE/ARE NOT AVAILABLE? _____

- F. PERSON TO REPORT TO: _____
PLACE: _____
TELEPHONE: _____

MASS CARE CENTER MANAGER

Note: Request may be telephoned.

MUNICIPAL SUPPLY REQUISITION

[illegible]

Note: Request may be telephoned.

S RE E S ER

RESOURCE INDEX LIST

The purpose of the Columbia County Resource Inventory is to provide the County EOC staff with the status of county resources. The Resource Inventory is maintained in the County EOC.

TRAINING

1. PURPOSE

- A. To describe a comprehensive radiological emergency response training program for state, county and municipal agencies, as well as organizations having response roles for nuclear power plant incidents.
- B. The Columbia County Emergency Management Agency will promote and coordinate the participation of appropriate county and municipal officials; emergency management, fire, police, ambulance, and rescue personnel; and health care, schools, and special facilities staff in those training activities sponsored by the county, Commonwealth, and federal governments and the Susquehanna Steam Electric Station Nuclear Power Plant designed to train persons who will be called upon to assist in radiological emergency response operations. Training will include information on radiation, nuclear power generation, Radiological Emergency Response Procedures (RERP) and protective actions.

2. SITUATION

A variety of training programs to a diverse audience must be provided in order to ensure that the appropriate agencies and organizations are prepared to function effectively in the event of a nuclear power plant incident.

3. CONCEPT OF OPERATIONS

- A. PEMA will manage, implement, and conduct emergency management agency training and education programs (see Attachment A) for State Departments/Agencies, County Emergency Management Coordinators and staff members, elected and appointed officials at all levels of government, and the general public.
- B. State Departments/Agencies will conduct formal training programs in support of their areas of expertise in emergency management.
- C. County emergency management agencies will manage and conduct appropriate emergency response training for municipalities and supporting agencies annually. Nuclear power plants may assist in the provision of this annual training per Federal requirements and State and county agreements.
- D. Professional in-service training of each emergency management coordinator rests with each successive higher political subdivision of government than the one in which the coordinator is functioning.
- E. County coordinators will attend and successfully complete a certification process prescribed by PEMA.

- F. Basic and advanced seminars, workshops, and training conferences will be conducted by PEMA on a scheduled basis.
- G. PEMA's response to the FEMA evaluation report of the offsite biennial exercise with the respective nuclear power plants will be prepared by the Bureau of Plans and Preparedness. The PEMA Bureau of Training and Education will review the comments of the evaluation report to determine training required for correcting deficiencies, areas requiring corrective action, and areas recommended for improvement. This Bureau will implement the identified supplementary training, regular on-going training, assist the counties in presenting the required training, and will monitor its effectiveness.
- H. All courses approved and registered to meet these requirements will have a Plan of Instruction (POI) on file in the PEMA Training and Education Bureau. The courses on the attached list (Attachment A) are agreed to by PEMA, Department of Health, DEP/BRP, the nuclear power plants, and the counties.

4. RESPONSIBILITIES

- A. The Pennsylvania Emergency Management Agency (PEMA) has the overall responsibility for oversight and for providing radiological response training programs in the Commonwealth. PEMA will:
 - 1) Assess agencies' and emergency management coordinator's training needs to assure effective response to nuclear power plant incidents.
 - 2) Develop programs designed to enable county governments to initiate and maintain internal training.
 - 3) Design, develop, review, and/or produce the necessary training materials for conducting emergency management training courses.
 - 4) Provide emergency management training, disaster preparedness training, and education for county Emergency Management Coordinators and their staff throughout the Commonwealth.
 - 5) Promote emergency management programs through conferences, seminars, and other relationships with civic organizations and a wide variety of professional persons.
 - 6) Plan and direct a statewide in-service training program for volunteers and agency staff personnel, as appropriate, carried out through state, county conferences and seminars, and by preparation and distribution of educational and informational materials.
 - 7) Direct and supervise the maintenance of a library of training courses, audio-visual aids and films, and loans of these materials to emergency management and disaster preparedness organizations and interested civic groups.
 - 8) Monitor training presented by power plant trainers or their consultants.

- B. County Emergency Management Coordinators (assisted by the nuclear power plants as required or when agreed) are responsible for:
- 1) Preparing an annual training program for emergency radiological response.
 - 2) Providing refresher training as required for the county and municipal emergency operations staff.
 - 3) Training the requisite number of monitoring/decontamination teams for mass care centers and monitoring/decontamination stations for off-site emergency workers.
 - 4) Conducting training programs for municipal emergency management coordinators, emergency operations staffs, and supporting organizations.
 - 5) Participation in emergency management training, seminars, and conferences scheduled by PEMA and Federal agencies.
 - 6) Participation in off-site and on-site training provided by the nuclear power plants as specified in Appendix 9, Annex E, State EOP.
 - 7) Conducting training programs in basic radiological safety for responders.
 - 8) Submitting to PEMA annually, a listing of courses presented relative to radiological response, the location of the training and number of participants.
- C. The Nuclear Power Plants will:
- 1) Participate in incident training exercises and drills.
 - 2) Coordinate with concerned risk county(ies) regarding the plans, deployment, and training of emergency forces needed to respond to an onsite emergency.
 - 3) Assist in emergency response training annually for county and municipal EMAs, plus other offsite organizations associated with response to nuclear power plant incidents.
 - 4) Provide a semiannual report to PEMA indicating the type training conducted, location, number of participants.

ATTACHMENTS:

NOTE: A list of approved training programs is available from PEMA.

EXERCISES AND DRILLS

1. PURPOSE

To describe the exercise and drill program for state, county, and municipal governments, school districts, and supporting organizations that have responsibilities for radiological emergency response during incidents at nuclear power plants.

2. SITUATION

Periodic exercises and drills are undertaken in order to ensure that all levels of government and supporting organizations are prepared for optimal functioning during an actual incident.

3. CONCEPT OF OPERATIONS

A. General

- 1) PEMA will conduct, manage, and monitor the exercise program for state, county, and municipal agencies, as well as organizations having response roles for nuclear power plant incidents.
- 2) PEMA Bureau of Plans will monitor the conduct of drills by counties, municipalities, agencies, and other emergency response organizations.
- 3) The Columbia County Emergency Management Agency will promote and coordinate the participation of appropriate county and municipal officials; emergency management, fire, police, ambulance, and rescue personnel; and health care, schools, and special facilities staff in those exercises and drills sponsored by the county and Commonwealth.

B. Exercises

- 1) Exercises will be conducted to test whether State, county, municipal, and school district emergency operations plans and response procedures are comprehensive and effective. Exercises will include mobilization of selected State, county, and municipal personnel and resources to adequately respond to an incident scenario as required.
- 2) The scheduling of exercises will be coordinated by PEMA, the risk and support counties, the FEMA and NRC Regional Offices, and the affected licensee.
- 3) State Department and Agencies will fully participate in biennial exercises for each of Pennsylvania's five nuclear power plants on a rotational basis.

- 4) Within a six-year period, the following will be accomplished:
 - a) All major plan elements will be tested on a site specific basis.
 - b) Provisions will be made to conduct exercises under various seasonal weather conditions as appropriate.
- 5) When not fully participating in the offsite biennial exercise at a nuclear power plant, the State will partially participate in the respective plant onsite exercises to support county and municipal governments.
- 6) For the nuclear power plants within Pennsylvania, the State will fully participate, on a rotational basis, in an ingestion exposure exercise at one site once every six years. This requirement will be satisfied by either:
 - a) Fully demonstrating both plume and ingestion response measures during the same exercise, usually over a two-day period.
 - b) Partially demonstrating plume measures, and then after an appropriate simulated time advance (i.e., three to five days) fully demonstrate ingestion response measures.
- 7) The State will partially participate in the ingestion exposure exercises conducted by contiguous states with power plants having ingestion zones that extend into Pennsylvania.
- 8) Procedures outlined above for meeting the ingestion exposure requirements are in accordance with Exercise Evaluation Criteria.
- 9) PEMA will head a scenario development team from the risk and support counties to work with nuclear power plant and Federal officials for the purpose of designating the exercise objectives and events. (See Attachment A.)
- 10) The biennial exercises of each nuclear power plant will be assessed by Federal evaluators from FEMA. PEMA liaison officers and observers will participate at county and municipal level and other locations being evaluated. (See Attachment B.)
- 11) Columbia County will be responsible for participation in exercises as follows:
 - a) A full-participation exercise is one in which Commonwealth, County, and municipal government emergency personnel are engaged in sufficient numbers to verify the capability to respond to the actions required by the accident scenario; the integrated capability to adequately address and respond to an accident at SSSES, and the implementation of the observable portions of Commonwealth, Columbia County, and municipal plans is tested.

- b) A full participation exercise involving the SSES Nuclear Power Plant, the risk municipalities located in the designated EPZ, and Columbia County will be scheduled biennially.

C. Drills

- 1) Counties, municipalities, agencies, and organizations will conduct drills in addition to or in conjunction with those conducted as part of the full participation biennial or partial participation annual exercises. The type and frequency of drills are listed in Attachment C.
- 2) The responsible offices and organizations will inform PEMA's Bureau of Plans and Preparedness of the participants and the dates the drills were conducted the preceding calendar year.

4. RESPONSIBILITIES

A. State Departments and Agencies

- 1) For biennial exercises, fully participate in a joint exercise for each of Pennsylvania's five nuclear power plants on a rotational basis.
- 2) For the nuclear power plants within Pennsylvania, fully participate in an ingestion exposure exercise at one site once every six years.
- 3) Partially participate in the ingestion exposure exercises as scheduled by the respective contiguous out-of-state nuclear power plants.
- 4) PEMA will designate exercise objectives and scenario events in coordination with risk and support counties, the nuclear power plant, and Federal officials.
- 5) PEMA Bureau of Plans will:
 - a) Prepare an assessment report of the biennial exercise within 30 days of the exercise date. (See Attachment B.)
 - b) Prepare a response to the draft report submitted by FEMA, Region III.
 - c) In coordination with the Bureau of Operations will monitor drills by counties, municipalities, and other emergency response organizations.
 - d) Prepare and submit to FEMA, by January 30 of each year, an Annual Letter of Certification for each nuclear power plant to include data on exercises and drill participation. (See Attachment C.)

B. Risk Counties and Municipalities

Each risk county and municipality will fully participate in a joint exercise with the respective licensee and the State every two years. Those counties that have planning and response responsibilities for more than one facility, may seek an exemption through PEMA to DHS.

C. Nuclear Power Plants

Each nuclear power plant is required by the NRC to exercise its onsite emergency preparedness plans annually regardless of the extent of participation by State, county and municipal governments.

5. DEFINITIONS AND TERMS

- A. Full Participation Exercise - One in which State, county, and municipal government emergency personnel are engaged in sufficient numbers to verify the capability to respond to the actions required by the accident scenario; the integrated capability to adequately assess and respond to an accident at a nuclear power plant is tested; and the implementation of the observable portions of State and/or county and municipal plans is tested.
- B. Partial Participation Exercise - One which engages State, county, and municipal government emergency personnel in an exercise sufficient to adequately test direction and control functions for protective action decision making related to emergency action levels and communications capabilities among State, county, and municipal governments and the licensee.
- C. Remedial Exercise - One that tests deficiencies of a previous joint exercise that are considered significant enough to impact on the public health and safety.
- D. Drill - A supervised instruction period, often a component of an exercise, aimed at testing, developing, and maintaining skills in a particular operations.
- E. Site - The location of a nuclear power plant.
- F. Liaison Officers - PEMA staff members assigned to risk and support counties for the purpose of participating as an integral part ("players") of the response effort.
- G. Observer - PEMA staff members and qualified county emergency management personnel from non-participating counties assigned to risk municipalities and other key locations for the purpose of reviewing an operation and formulating favorable comments as well as recommendations for improvement. Observers will not be players in the exercise.

ATTACHMENTS:

- A. Scenario Development
- B. Biennial Exercise Assessment
- C. Drills

SCENARIO DEVELOPMENT

1. A team of PEMA and county representatives will be formed prior to each biennial exercise to work with the plant and Federal officials for the purpose of designating the exercise objectives and scenario events. The team will be headed by an assigned member of the PEMA staff. Each risk and support county should name a person not participating in the exercise to serve on the team. PEMA will assign one nuclear power plant planner. The Bureau of Radiation Protection of the Department of Environmental Protection may assign a member. The licensee will also be invited to participate.
2. This team will be the core of off-site controllers for the exercise. Prior to the exercise PEMA staff and county EMA staff will be designated as observers at assigned field sites.
3. The scenario team will review reports of previous exercises for the site being tested and other recent nuclear power plant exercise reports.
4. PEMA relies on FEMA guidance in the development of the offsite exercise scenarios. The offsite exercise scenarios prepared by PEMA and the onsite scenario developed by the licensee are submitted for review and acceptance by FEMA and NRC respectively.
5. The scenarios are designed to trigger free flow exercise actions based on the responses, decisions, and implementing actions of the exercise players. The level of participation of emergency management personnel is determined by the manpower and resources necessary to demonstrate the capability to respond to the incident scenario.
6. Scenarios will include but are not limited to:
 - A. The objectives of each exercise, together with appropriate observation criteria. The objectives for the offsite portion of the exercise are based upon Exercise Evaluation Areas, April 25, 2002.
 - B. The date(s), time period, place(s), and participating organizations.
 - C. The demonstrated and simulated events.
 - D. A time schedule of real and simulated initiating events.
 - E. A narrative summary describing the conduct of the exercise to include such things as simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities.
 - F. Adequate time will be provided in the scenario to realistically portray emergency activities.

7. In order to minimize disruption, selected activities may be demonstrated in each biennial exercise during other than actual scenario time. Risk school districts, milk sampling teams, air monitoring teams, and water sampling teams for example, may, if necessary, participate out-of-sequence at times which do not adversely impact on their normal operations. Simulation will, however, be kept to a minimum.

BIENNIAL EXERCISE ASSESSMENT

1. Federal evaluators will be assigned to designated locations at the State, counties, municipalities, school districts, reception and mass care centers, and other demonstration sites. The Federal evaluators should be given free access to information and be notified in time to observe and evaluate key actions taken by emergency personnel in response to the simulated incident.
2. The Director of PEMA will assign PEMA liaison officers to risk and support counties. Liaison officers are PEMA personnel who participate fully in the exercise, and serve as a conduit between PEMA and county EOCs.
3. PEMA observers may be assigned to risk and support counties, municipalities, and other key locations to review exercise activities. They are to be provided with copies of the exercise objectives, the jurisdictions plan, exercise report forms, and other relevant materials.
4. Briefing and Corrective Actions:
 - A. When an exercise is terminated, the FEMA exercise evaluator should hold an exit interview with the participants in order to provide them with a brief assessment of their performance.
 - B. A briefing will be presented by the FEMA Regional Assistance Committee (RAC) Chairman, the NRC representative, other RAC members, and Federal evaluators, as appropriate, within 48 hours after the biennial exercise. The briefing will be attended by State, County, and Municipal participants in the exercise as well as by the licensee. The purpose of the briefing is to provide a general overview of the exercise. No attempt, however, will be made to evaluate the exercise as to deficiencies or inadequacies.
 - C. FEMA 44 CFR 350 plan approval process has been completed for the PPL Susquehanna, LLC offsite program.
 - D. A written draft evaluation report will be developed by RAC, Region III, and submitted to the State for review and comment. PEMA is responsible for preparing the comments which will be forwarded to DHS which determines the final report. This report is then submitted to the NRC with a copy to DHS which forwards the report to PEMA.
 - E. A report which consolidates the observations and comments of the PEMA liaison officers and State observers will be prepared by PEMA following each biennial RERP exercise and sent to the County EMCs of the appropriate risk and support counties. A detailed report summarizing the performance of participating risk and support counties, municipalities, mass care centers, monitoring/decontamination centers/stations, school districts, and other demonstration sites will be sent only to the respective County EMC.

- F. Remedial exercise may be required to correct deficiencies observed by DHS in exercises. Should this occur, DHS will determine the participation required from the State, county or municipal governments.
- G. Upon receipt of the DHS exercise evaluation report, identified issues will be forwarded to appropriate agencies/coordinators for corrective action. That agency director/coordinator then becomes responsible for the corrective actions. Corrective actions or rebuttals will be submitted to PEMA.
- H. County Emergency Management Coordinators will forward applicable issues to other agencies within the county (e.g. school districts, hospitals.) Corrective actions requiring changes to county plans will be returned to the county for appropriate adjustments. County Coordinators will forward corrective actions or rebuttals to PEMA. County plans changes, if any, will be forwarded to PEMA.
- I. Remedial training will be scheduled as necessary and included in the county REP Training Plan submitted with the ACT 31 of 2007 Annual Report. Appropriate PEMA staff members will attend/participate in the training as appropriate. Area's Requiring Corrective Actions (ARCA) will be demonstrated at the next biennial exercise.

DRILLS

1. Counties, municipalities, agencies, and organizations will conduct drills to be listed with and monitored by PEMA in addition to, or in conjunction with, the full participation biennial or partial participation annual exercises at the frequencies indicated below:
 - A. Communications Drills - Communications drills will be conducted which test both the adequacy of communications links and response agency understanding of emergency action levels and message content.
 - 1) Communications from PEMA's Bureau of Operations to the risk counties will be tested monthly.
 - 2) Communications from the county to municipal governments within the plume exposure pathway EPZ are to be tested periodically.
 - 3) Communications among the Federal emergency response organizations, PEMA, and states within the ingestion exposure pathway EPZ will be tested at least quarterly.
 - 4) Communications from each nuclear power plant to PEMA and the respective risk counties emergency operations centers and between BRP and its field assessment teams will be tested at least once a year.
 - B. County Responsibility - Medical Emergency Drill

A drill, conducted by the county, involving simulated contaminated individuals and containing provisions for participation by county and municipal support service agencies, i.e. ambulance and offsite medical treatment facilities, will be conducted annually (may be in conjunction with the biennial exercise) by each risk county. In accordance with FEMA Guidance Memorandum MS-1, "Medical Services," November 13, 1986, the simulated contaminated injured person should be transported directly to a designated medical facility for the public.
 - C. State Government Responsibilities
 - 1) Radiological Monitoring Drills - Monitoring drills will be conducted annually (may be in conjunction with the biennial exercises) for both the plume exposure pathway EPZ and the ingestion exposure pathway EPZ. These drills, which involve the Bureau of Community Environmental Control, DEP, and the Department of Agriculture, shall include collection and analysis of all sample media (e.g., water, vegetation, soil, and air), and provisions for communications and record keeping.

Attachment C

- 2) Health Physics Drills - Drills will be conducted semi-annually (during biennial exercises) by BRP with licensees at any site, on a rotating basis, to test response to and analysis of simulated, elevated airborne and liquid samples and direct radiation measurements in the environment.
2. By January 10 of each year the responsible offices and organizations will inform PEMA's Bureau of Plans and Preparedness of the participants and the dates the drills were conducted the preceding calendar year so that the Annual Letter of Certification can be prepared and submitted to FEMA by January 30 of each calendar year as required in accordance with FEMA Guidance Memorandum PR-1, "Policy on NUREG-0654/FEMA-REP-1 and 44 CFR 350 Periodic Requirements," dated October 1, 1985.

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix19-2008.doc

AGREEMENTS AND STATEMENTS OF UNDERSTANDING

Columbia County has entered into Agreements, Letters of Intent, or Statements of Understanding with the organizations listed below. The complete documents are on file in the Columbia County EOC. Below is a summary of the documents.

1. Bloomsburg Chapter of the American Red Cross

Agreement between the Columbia County Emergency Management Agency and the Bloomsburg Chapter of the American Red Cross. Provides details of ARC performing mass care function.

2. Berwick Area School District

Agreement by the Berwick Area School District for the ARC to use its facilities for mass care centers.

3. Columbia Montour Area Vocational Technical School

The Vocational Technical School agrees that its facilities may be used for mass care and for monitoring/decontamination.

4. Emergency Alert System (EAS)

The Emergency Alert System (EAS) and the procedures to utilize the System are covered in the Middle Susquehanna Valley Area Plan. This plan is in accordance with the Federal Communications Commission Rules and Regulations.

5. Berwick/Danville School Districts

Agreement grants permission to Berwick School District to utilize Danville School District facilities as temporary holding facilities for school children in the event of an emergency situation at SSES.

6. Amateur Radio

The Columbia County Amateur Radio Club agrees to provide communications assistance to the Columbia County Department of Emergency Services.

7. Transportation Provider (Documentation of Intent)

FC Transportation, Joe & Jan's Charter, provide the requisite number of buses in the event of a declared radiological emergency and evacuation from PPL Susquehanna, LLC. Whitebread agrees to provide 1 bus in the event of a declared radiological emergency and evacuation from PPL Susquehanna, LLC.

8. Central Columbia School District

The President of the Board of Education authorizes the Central Columbia Schools to be used as mass care centers.

SUPPORTING PLANS AND IMPLEMENTING PROCEDURES

1. The following plans or procedures support or provide implementation for the Columbia County Radiological Emergency Response Procedures. These plans and procedures are either a part of this document or are maintained on file in the county EOC.
 - A. Berwick Hospital/Retirement Village Emergency Response Plan
Berwick Hospital Corporation
 - B. School District Emergency Response Plans:
 - 1) Berwick Area School District
 - 2) Bloomsburg Area School District
 - 3) Central Columbia School District
 - 4) Benton Area School District
 - 5) Columbia Montour Vo-Tech Plan
 - C. Pennsylvania National Guard Emergency Response Plan.
 - D. Pennsylvania State Police, Troop P, Wyoming, PA
Radiological Emergency Response Plan for PPL Susquehanna, LLC
 - E. Support County Plans
 - 1) Union County
 - 2) Lycoming County
 - 3) Northumberland County
 - 4) Montour County
 - 5) Schuylkill County

On file in Columbia County EOC.
 - F. Luzerne County Radiological Emergency Response Plan, dated May 1994 as revised.

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix21-2008.doc

MUNICIPAL RADIOLOGICAL EMERGENCY RESPONSE PLANS

1. The following radiological emergency response plans for the eight municipalities wholly or partially within the plume exposure pathway are in support of this plan. They are:
 - A. Beaver Township
 - B. Berwick Borough/Briar Creek Borough
 - C. Briar Creek Township
 - D. Fishing Creek Township
 - E. Mifflin Township
 - F. North Centre Township
 - G. South Centre Township

Copies of these plans are in the Columbia County EOC.

G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix22-2008.doc

INDUSTRIAL RELATIONS

1. PURPOSE

To outline procedures for coordination with major industries, public utilities, county parks, and recreation areas.

2. SITUATION

- A. Columbia County EMA notifies County, State, and Federal parks and recreation facilities, designated major industries, and public utilities located within or serving the county portion of the EPZ.

Note: Verification of notification will be made by municipal EMA.

- B. EMA encourages development of emergency procedures for affected industries and utilities.
- C. EMA provides a means to register identified industrial workers to allow required access during protective action.
- D. EMA responds to unmet needs of industries, utilities, parks, and recreation areas.

3. CONCEPT OF OPERATIONS

- A. Major industries and public utilities are advised of the situation (ALERT, SITE AREA EMERGENCY, and GENERAL EMERGENCY).
- B. Industries or utilities determine resources required to shut down or close (ALERT).
- C. Industrial workers required to effect shut down are identified to EMA and registered (SITE AREA EMERGENCY).
- D. County, State, Federal parks, and recreation areas in the EPZ are advised of the situation (ALERT, SITE AREA EMERGENCY, and GENERAL EMERGENCY).
- E. A recommendation to close affected county parks and recreation areas is disseminated (SITE AREA EMERGENCY and GENERAL EMERGENCY).
- F. Unmet needs are coordinated (ALERT, SITE AREA EMERGENCY, and GENERAL EMERGENCY).
- G. Should SHELTERING be recommended, major industries, public utilities, parks, and recreation areas in the EPZ shelter employees and guests.

H. Should EVACUATION be recommended:

- 1) Major industries and public utilities complete shutdown.
- 2) Identified industrial workers required to effect shut down are registered.
- 3) Parks and recreation areas close and guests evacuate.
- 4) Transportation resources required to evacuate parks and recreation areas are assigned, as required.

NOTE: Should protective actions be recommended or ordered at SITE AREA EMERGENCY, consult the appropriate procedures for GENERAL EMERGENCY.

ATTACHMENTS:

- A. Identified Industries in the EPZ
- B. Utilities
- C. Farmer/Emergency Worker Authorization Form/Industrial Worker Authorization Form
- D. Park and Recreation Areas Located in the EPZ

NOTE: All previous versions of the above forms will be used until supply is exhausted.

Attachment A

IDENTIFIED CRITICAL INDUSTRIES IN THE EPZ

Company Name	Municipality
Wise Foods	Berwick Borough
B.I.D.A.	Berwick Borough
Columbia Industries	South Centre
Kleardex	Berwick Borough
Berwick Weaving	Berwick Borough
Milco Industries	Berwick Borough
Dollar Tree Warehouse	Briar Creek Borough
Helena Chemical	Mifflin Township
Raisio Chemical	Berwick Borough
Deluxe Homes	South Centre
Thompson Mailing	South Centre
Berwick Offray	Berwick/Salem

Attachment B

UTILITIES

Utility	Municipality
PA American Water Company	Berwick Borough
PPL Substations	Berwick Borough Briar Creek Borough
UGI	Berwick Borough Briar Creek Borough Briar Creek Township
Berwick Sewage Plant	Berwick Borough
Williams Pipeline	Berwick, North Centre

Attachment C

**Farmer/Emergency Worker Authorization Form
Industrial Worker Authorization Form**

This is to certify that (name) _____, (address) _____, is authorized access to the plume exposure pathway emergency planning zone (EPZ) surrounding the _____ nuclear power plant for the period extending from _____ am/pm to _____ am/pm. <div style="display: flex; justify-content: space-around; font-size: small;"> (date) (time) (date) (time) </div>			
This individual has been issued dosimetry and KI and is authorized access to the evacuated area for the exclusive purpose of tending to livestock or maintaining/closing down industrial or other authorized operations located at:			
(FARM LOCATION OR INDUSTRY OR OTHER LOCATION) _____ _____			
METHOD OF CONTACT: _____			
IDENTIFICATION DATA:		Eye Color	
Sex	<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE	Hair Color	
Height	_____ ft _____ in	State Automobile Operator's License No.	
Weight	_____ lbs.	Social Security No. (Last 4 digits)	
RADIOLOGICAL EQUIPMENT ISSUED			
Model & Serial No. of Direct Reading Dosimeter			
PRD Serial No			
Dosimetry-KI Report Form			
Potassium Iodide (KI) Quantity	To be taken only when directed by Secretary of the Department of Health. Discontinue taking KI and report to supervisor if you have adverse reaction.		
Individual's Signature			
Approving Authority			
Agriculture Representative's or County Coordinator's Signature (as appropriate)			
NOTE: LISTEN TO THE COUNTY EAS STATION WHEN INSIDE THE EPZ			

PEMA-BOP-REP-7 (DRAFT 5/2008)

PARKS AND RECREATION AREAS LOCATED IN THE EPZ

Parks and Recreation Areas located in the EPZ are addressed in respective municipal plan.

| G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix23-2008.doc

MAPS

1. MAPS

The following maps are a part of the Columbia County Radiological Emergency Response Procedures. These maps are contained in the pocket immediately following this Appendix.

- A. Plume Exposure Pathway EPZ (with sectors).
- B. Sector Map of the Ingestion Exposure Pathway EPZ (showing 50 mile radius and sectors).
- C. Evacuation Plan Map. The plume exposure pathway EPZ for PPL Susquehanna, LLC is identified by the white area on the map and is approximately a ten mile radius.
- D. Siren Locations.

2. VERBAL DESCRIPTION OF PLUME EXPOSURE PATHWAY EPZ

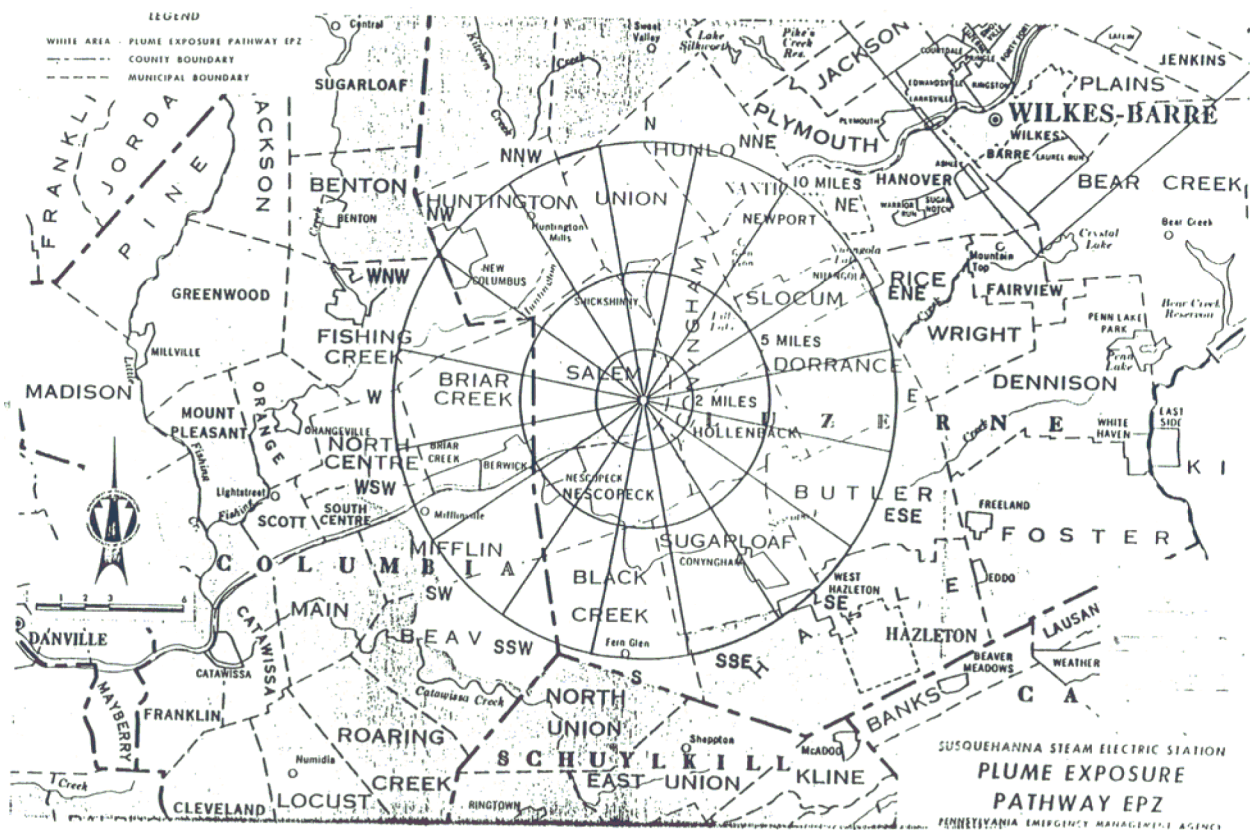
The written description of the plume exposure pathway EPZ is shown at Appendix 10 to this annex.

ATTACHMENTS:

- A. Plume Exposure Pathway EPZ (with sectors)
- B. Map of Risk Areas (Plume Exposure and Ingestion Pathway EPZ)
- C. Evacuation Plan Map
- D. Siren Locations

Attachment A

Plume Exposure Pathway EPZ (with sectors)



Attachment B

MAP OF RISK AREAS

PPL Susquehanna, LLC

Plume Exposure Pathway EPZ and Ingestion Exposure Pathway EPZ

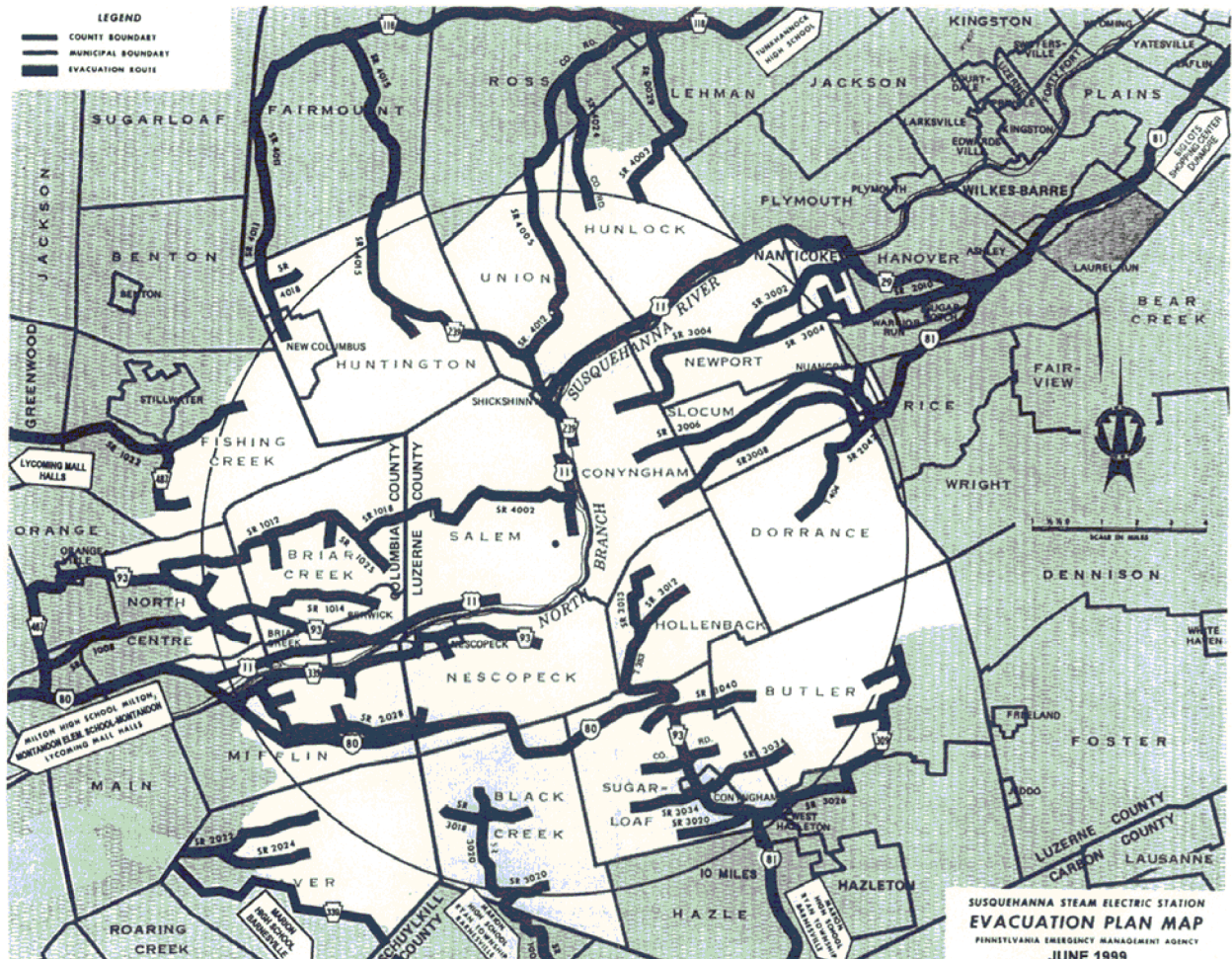


Risk Counties: Columbia, Luzerne

Plume Exposure Pathway EPZ

The 50 Mile Radius Designates The Ingestion Exposure Pathway EPZ

EVACUATION PLAN MAP



Attachment D

SIREN LOCATIONS

Maintained in EOC

| G:\Procs\EPlan-Offsite\County\Risk\ColumbiaCounty\ColumbiaCounty 2008\ColumbiaAppendix24-2008.doc

ANNEX MAINTENANCE AND CONCURRENCE

Responsibility for the Radiological Emergency Response Procedures Annex has been assigned to the Radiological Officer by the Columbia County Board of Commissioners. The Annex will be revised and updated as necessary, but at least annually. Whenever the Annex is implemented during an emergency response or for an exercise, a review will be conducted to determine what changes, if any, are necessary. Reviews and updates by the Radiological Officer will be coordinated with all parties assigned responsibilities in this Annex, for example, municipalities, school districts, and holders of letters of intent, and with the County Emergency Management Coordinator.

Development, maintenance, and implementation of this Annex will be in accordance with and under the auspices of the Columbia County Emergency Operations Plan, developed in consonance with the Commonwealth of Pennsylvania's Emergency Management Services Code and Radiation Protection Act, the Federal Civil Defense Act of 1950, and Disaster Relief Act of 1974, as amended, the Federal Superfund Amendments and Reauthorization Act of 1986 (SARA), Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (NUREG-0654, FEMA-REP-1), and other applicable regulations of the Federal Emergency Management Agency and the Nuclear Regulatory Commission. This Annex is part of and to be used with the basic County Emergency Operations Plan.

We, the undersigned, adopt, accept, concur with, and support the provisions of this Annex as part of the Columbia County Emergency Operations Plan.

Radiological Officer

Date

Columbia County Emergency Management Coordinator

Date

Chairman, Columbia County Board of Commissioners

Date

Eastern Area Director
Pennsylvania Emergency Management Agency

Date