

EARL TOWNSHIP
BERKS COUNTY
RADIOLOGICAL EMERGENCY RESPONSE PLAN
FOR INCIDENTS AT THE
LIMERICK GENERATING STATION



NUCLEAR REGULATORY COMMISSION

Docket No. 50-352-353-02 Official Exh. No. E46

In the matter of LIMERICK

Staff _____ IDENTIFIED ☒

Applicant ☒ RECEIVED ☒

Intervenor _____ REJECTED _____

Cont'g Off'r _____

Contractor _____ DATE 11-28-84

Other _____ Witness Panel

Reporter mm

SEPTEMBER 1984

Copy No. _____

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Draft 7

PROMULGATION

THIS PLAN SUPERCEDES ALL OTHER EARL TOWNSHIP PLANS DEVELOPED FOR EMERGENCY
MANAGEMENT IN THE EVENT OF AN INCIDENT AT THE LIMERICK GENERATING STATION.

THIS PLAN WAS APPROVED BY THE BOARD OF SUPERVISORS UNDER RESOLUTION

_____ DATED _____.

BOARD OF SUPERVISORS

PRESIDENT

VICE PRESIDENT

SECRETARY

EMERGENCY MANAGEMENT COORDINATOR

EARL TOWNSHIP

RECORD OF CHANGES

[illegible]

ANNUAL REVIEW CERTIFICATION

I hereby certify that I have reviewed the Earl Township Radiological Emergency Response Plan (RERP). All necessary changes have been coordinated through the county and incorporated into the plan. Distribution of changed pages has been made to all recorded holders of the plan.

Date	Signature

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EARL TOWNSHIP

RADIOLOGICAL EMERGENCY RESPONSE PLAN

I. INTRODUCTION

A. Authority

The Earl Township Radiological Emergency Response Plan (RERP) has been developed under the authority of, and in accordance with, the provisions of the Pennsylvania Emergency Management Services Act of 1978, P.L. 1332.

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-U654, FEMA-REP-1, Rev. 1, November 1980.
2. Berks County Radiological Emergency Response Plan for incidents at the Limerick Generating Station, dated _____.
3. Commonwealth of Pennsylvania, Disaster Operations Plan, July 1977, with changes.
4. Annex E, "Fixed Nuclear Facility Incidents," dated November 1981, to the Commonwealth of Pennsylvania Disaster Operations Plan.
5. Municipal Resolution No. _____.

C. Purpose

The intent of this document is to provide for the maximum protection of those persons who live, work, or transit Earl Township in the event of an incident at the Limerick Generating Station.

D. Scope

This plan outlines the basic procedures Earl Township will follow in the event of an incident at Limerick Generating Station. It complies with federal guidelines and details municipal actions in accordance with Annex E of the Commonwealth of Pennsylvania Disaster Operations Plan and the Berks County Radiological Emergency Response Plan.

The plan pertains to that portion of the municipality which lies within the plume exposure pathway EPZ (reference Attachment A and Attachment J). The approximate population of the Township within the EPZ is 562.

E. Definitions

Some of the terminology presented in this document, or which one might encounter during a radiological incident, is somewhat unique. Accordingly, for a better understanding of the RERP it is essential that emergency response personnel familiarize themselves with the following definitions:

1. Access Control Point (ACP) - Control Points manned primarily by State or municipal police, augmented when necessary by the National Guard, established around the perimeter of the plume exposure pathway EPZ on roads leading into it when it is evacuated or occupants are taking shelter for the purpose of controlling access into the area.
2. Activate/Activation - To place a specific plan, or portion thereof, into action.
3. Amateur Radio - Licensed volunteer radio amateur communications personnel affiliated with county emergency management organization. Such organizations include Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Services (RACES).
4. Central Resource Receiving Point - A predesignated facility operated by the county and located outside the plume exposure pathway EPZ and suitable for the reception and distribution of supplies and equipment.
5. Dosimeters - Devices that measure accumulated exposure to radiation.
6. Emergency Broadcast System (EBS) Announcements - Official announcements made at the county level for the specific purpose of providing instructions or information from the County Commissioners, or their designated representative, to the permanent and transient residents of the county. Announcements are made over the legally designated EBS Network.
7. Emergency Planning Zone (EPZ) - A generic area defined about a nuclear facility to facilitate offsite emergency planning and develop a significant response base. It is defined for the plume and ingestion exposure pathways.
 - a. Plume Exposure Pathway - The area surrounding a fixed nuclear facility 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 external 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 the fixed nuclear facility. (The exact size and configuration of each plume

exposure pathway EPZ for the respective fixed nuclear facility 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).

- b. Ingestion Exposure Pathway - That area surrounding a fixed nuclear facility 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 fixed nuclear facility.
8. Fixed Nuclear Facility Incident - An event or condition at a nuclear facility which could result in impact on public health and safety. Four incident classes have been developed to facilitate planning and responses:
- a. Unusual Event - An occurrence which indicates a potential degradation of the level of safety of the facility. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.
 - b. Alert - An occurrence which involves actual or potential substantial degradation of the level of safety of the facility. Any releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) protective action guideline exposure levels.
 - c. Site Emergency - An occurrence which involves actual or likely major failures of facility functions needed for the protection of the public. Radioactive releases are not expected to exceed the EPA protective action guideline exposure levels except near the site boundary.
 - d. General Emergency - An occurrence which involves actual or imminent substantial core degradation or melting with the potential for loss of containment integrity. Releases can reasonably be expected to exceed EPA protective action guideline exposure levels offsite for more than the immediate site area.

NOTE: The incident classifications of Site and General Emergency should not be confused with a gubernatorial declaration of "State of Disaster Emergency." See definition below.

9. Mass Care Center - Fixed facilities suitable for providing emergency lodging for victims of a disaster left temporarily homeless and capable of providing all essential social services. Feeding may be done within a Mass Care Center (in suitable dining facilities) or nearby.

10. Mobilize - The act of bringing a staff, department, or agency to the strength required to accomplish its mission on a 24-hour basis; including the pre-positioning or movement of equipment or personnel.
11. Municipality - For the purposes of this 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.
12. Notify - To inform or report the occurrence of an incident.
13. Parent County - The county in which the facility is physically located.
14. Potassium Iodide (chemical symbol KI) - A drug that offers some protection to the thyroid gland from injury due to accumulation of radioiodine.
15. Protective Action - An action taken to avoid or reduce a projected dose of radiation. Some of the basic actions are:
 - a. Sheltering - Action taken by the public to take advantage of the protection against radiation exposure afforded by remaining indoors, away from doors and windows, and shutting off all sources of outside air during and following the passage of the radioactive plume. Motorists should close all windows and vents.
 - b. General Evacuation - The relocation of the entire population from the plume exposure pathway EPZ.
 - c. Selective Evacuation - The relocation of specific elements of the population, such as pregnant women, pre-school children or the infirm.
16. Protective Action Guide (PAG) - A pre-established projected radiation dose to individuals which warrants protective action.
17. Projected Radiation Dose - An estimate of the radiation dose which affected individuals could potentially receive if protective actions are not taken.
18. RACES or ARES - Radio Amateur Civil Emergency Service or Amateur Radio Emergency Service. Licensed amateur radio operators who are trained and volunteer to provide back-up radio communications as requested by state and county emergency management agencies.
19. REACT - Radio Emergency Action Citizens Team. Licensed citizens band radio operators affiliated with county emergency management agencies.

20. RECALL - The RECALL system is a computer based telephone notification system developed specifically for emergency services and emergency management applications.

Within the application for the Limerick radiological emergency response plans (RERP), the system is located at the County Office of Emergency Management and is programmed with the telephone numbers and message(s) of the key individuals, institutions and special facilities which require notification during the implementation of the RERP.

The system is activated by the county and it sequentially and simultaneously contacts the parties by telephone, provides a pre-recorded message and awaits an acknowledgement code. The system then provides a management report to indicate the calls which have been made, the status (no answer, answer, busy, etc.) and other information. If the called party does not furnish the acknowledgement code, the system will continue to call the party until the code is received or another parameter is reached. Busy lines will be re-tried and alternate numbers are used for after hours or in the event a contact cannot be made at the primary number due to busy, no-answer, or failure to acknowledge.

21. Reception Center - A predesignated site outside the plume exposure pathway EPZ through which evacuees will pass to obtain information and directions to Mass Care Centers.
22. Risk County - A county with area located partially or wholly within the plume exposure pathway EPZ of a nuclear facility.
23. Risk Municipality - A municipality with area located partially or wholly within the plume exposure pathway EPZ of a nuclear facility.
24. Route Alerting - As a supplementary alert/notification procedure route alerting will be conducted as necessary each time the public alert system is activated. Route alerting is a municipal responsibility and is to be accomplished by pre-designated route alert teams travelling along pre-assigned routes delivering the following message: "There is an emergency at the Limerick Generating Station; please tune to your Emergency Broadcast Station."
25. Standby Status - The term used to describe state of readiness. Standard operating procedures have been reviewed; material, communications and required supplies are available and adequate for initial operations; and sufficient personnel are on hand to commence operations. Augmentation personnel necessary for sustained operations are alerted and ready to report for duty when called.
26. State of Disaster Emergency - A state of disaster emergency exists whenever the Governor issues a declaration 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 state of disaster emergency continues until the Governor finds that the threat or danger has passed and terminates it by executive order or proclamation, but no state of disaster emergency may continue for longer than 90 days unless renewed by the Governor. The term "state of disaster emergency" is not to be confused with the emergency classification terms called Site Emergency and General Emergency.

27. Support County - The county or counties outside the plume exposure pathway EPZ of a nuclear facility that, through prior agreement, 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.
28. Traffic Control Points (TCP) - Police traffic control established at critical road intersections for the purpose of controlling or limiting traffic.
29. Unmet Needs - Capabilities and/or resources required to support emergency operations but neither available nor provided at the respective levels of government.

F. Objectives

1. Define responsibilities, clarify lines of authority, and establish lines of communication.
2. Ensure that planned actions are current and in consonance with those of surrounding jurisdictions, as well as with the Berks County RERP.
3. Identify personnel, resource, and facility requirements necessary for the safe and efficient execution of the Plan.
4. Provide a basis for functional implementing procedures.
5. Ensure that the population of Earl Township is informed as to the basic concepts of the Plan and their possible protective actions.

II. BASIC PLAN

A. General

Because a variety of local government jurisdictions are found within the plume exposure pathway EPZ of the Limerick Generating Station (reference Attachment A), all of which might be expected to implement their respective RERP's simultaneously, the safety of the public can best be served through an emergency plan that is in consonance with those of surrounding jurisdictions, as well as with the Berks County RERP. Accordingly, the Earl Township RERP has been developed in such a manner that it will function harmoniously with other plans without risk of conflict.

B. Municipal Government Emergency Operations

1. Municipal Government - Emergency Organization Structure

- a. See Emergency Organization Chart (reference Attachment B)

2. Responsibilities

- a. Provide an emergency operations center (EUC) with a qualified person (emergency management coordinator) to coordinate the center.
- b. Develop radiological emergency response plans in consonance with the county plan.
- c. Supplement the public alert system to alert the population within the municipality who may not have received the initial alert.
- d. Provide for municipal security to include security of the area if evacuation has occurred.
- e. Provide for fire and rescue protection to include continued fire protection if the area has been evacuated.
- f. In the event of a general emergency classification, ensure that municipal traffic control points are manned in preparation for evacuation.
- g. Provide training for all volunteers operating in the emergency management agency of the municipality.
- h. Ascertain unmet needs and report these to the county emergency management agency.
- i. Maintain a current list of the location of homebound invalids and handicapped persons requiring special medical care and provide for the special needs of these persons including transportation.

- j. Upon direction of the County, ensure pre-designated Access Control Points (ACP's) are manned.
- k. Facilitate return of evacuees after reentry is recommended.

3. Emergency Services

a. Direction and Coordination

- (1) The Board of Supervisors has the responsibility for the safety and protection of the public within Earl Township, as well as providing direction and control of the emergency organization.
- (2) Under a declaration of disaster emergency, the ultimate direction of emergency services (i.e., firefighting, police, medical and health, rescue, etc.) is the responsibility of the municipality (reference P.L. 1332).
- (3) Supplemental emergency support personnel shall be under the operational control of the municipality.
- (4) Support forces furnished by other political subdivisions shall be under the operational control of the jurisdiction furnishing the force (reference P.L. 1332).
- (5) Because of the multi-jurisdictional scope of a radiological emergency, the county shall exercise responsibility for coordination and support to the area of operations (reference P. L. 1332).
- (6) Normal dispatch and operational procedures will be used whenever possible.
- (7) Coordination between the counties involved shall be accomplished by the Pennsylvania Emergency Management Agency (PEMA).

b. Functional Areas

The following functional areas and associated tasks are essential:

- (1) Emergency Management
 - (a) Develop and maintain the Earl Township RERP.
 - (b) Coordinate emergency operations in accordance with the approved RERP and as directed by the Board of Supervisors.

- (c) Develop and maintain any necessary Letters of Agreement (reference Attachment C).
- (d) Determine unmet needs as a result of RERP implementation and inform the County EOC.
- (e) Maintain expense records of personnel and resource utilization resulting from RERP implementation.
- (f) Establish and maintain EOC security during RERP implementation.
- (g) Participate in training, drills, and exercises.

(2) Law Enforcement (Police Services)

Note: This function assigned to the Emergency Management Coordinator

- (a) Ensure that designated Traffic Control Points (TCP's) and Access Control Points (ACP's) located within the municipality are manned when necessary (reference Attachment U and Attachment Q).
- (b) Provide continued area security, conditions permitting, during the emergency.
- (c) Assist in traffic control during reentry, as necessary.

(3) Fire Services

- (a) Provide for adequate fire/rescue emergency coverage during a radiological emergency.
- (b) Provide for route alerting of the population (reference Attachment E).

(4) Medical/Ambulance Services

Note: This function assigned of the Transportation Officer

- (a) Provide for adequate ambulance coverage during a radiological emergency.
- (b) Prepare and maintain a list of non-institutionalized residents having special medical requirements (reference Attachment F).
- (c) Provide guidance to outside ambulance resources upon their arrival at the municipality.

- (d) Monitor movement of non-ambulatory individuals requiring transportation by ambulance and/or provision of special medical equipment.

(5) Public Works

- (a) Maintain current listing of equipment resources.
- (b) Assist law enforcement in obtaining material for traffic control purposes.
- (c) When directed by the Board of Supervisors, ensure that municipal roadways are kept clear.

(6) Radiological

Note: This function assigned to the Fire Services Officer.

- (a) Receive, prepare for distribution, and distribute to emergency workers dosimeters and radioprotective drugs when necessary.
- (b) Assist in the administration of the County's Radiological Exposure Control Program.
- (c) At termination of the emergency, collect dosimeters, forms, and unused radioprotective drugs from emergency workers, inventory, and prepare for return to the County EOC.
- (d) Ensure the training of municipal EOC personnel and emergency workers in the use of dosimeters and KI.

(7) Transportation

- (a) Prepare and maintain a list of those residents who lack transportation (reference Attachment G).
- (b) Provide for the direction and control of outside transportation resources upon their arrival at the municipality.

(8) Communications

Determine requirements for reliable communications with the county and within the municipality specific to RERP implementation.

4. Emergency Operations Center (EOC)

- a. The Earl Township EOC is located at the Earl Township Fire Department, R. D. #3, Boyertown. See EOC floor plan (reference Attachment H).

- b. It shall be activated when directed by the Emergency Management Coordinator (EMC) or by the Board of Supervisors.
- c. When activated, it shall be staffed by:
 - (1) Emergency Management Coordinator
 - (2) Transportation Officer
 - (3) Communications Officer
 - (4) Public Works Officer
 - (5) Fire Services Officer
- d. The EOC shall function as a central point for coordinating the operations of the Earl Township emergency response personnel.
- e. For incident classifications of "Site Emergency" and higher, operations shall be conducted 24-hours a day. Sufficient personnel should be available to maintain 24-hour operation.

C. Communications

1. Telephone

The primary means of communicating to/from the Township Emergency Operations Center (EOC) will be the telephone.

2. Two-Way Radio

The usual police and emergency service radio nets will be used for the dispatch of emergency services and the dissemination of information.

3. RACES

The County will provide a RACES operator and radio to the EOC at an emergency classification of Alert or immediately if the initial classification is higher. This system will provide back-up communications capability.

4. Rumor Control

Rumor control will be handled at the County level. The telephone number is 374-4809.

D. Alert/Notification Systems

1. Municipality/Emergency Response Personnel

- a. In the event of an incident at the Limerick Generating Station, initial notification will be provided to the Earl

Township Emergency Management Coordinator (EMC) or his designated alternate(s) via the RECALL system as activated by Berks County Communications.

- b. The Earl Township elected officials and EOC staff will be notified by the EMC and or designated alternate (reference Attachment I).
- c. Incident classification and protective action information will normally be provided by the County via RACES and confirmed by a County-initiated telephone call.

2. Public

a. Public Alert System

- (1) When required, the public will be alerted through a public alert system installed and maintained by Philadelphia Electric Company.
- (2) The system consists of approximately 165 high output mechanical sirens strategically located throughout the approximate ten-mile emergency planning zone. Those sirens located within Berks County will be activated by the County EMA.
- (3) The siren coverage areas for Earl Township are depicted in Attachment E, Tab 1.
- (4) In coordination with PEMA, the public alert system may be activated (a) when there is significant information that will reassure the public of their safety; (b) when the public is to be informed of a plant status that may lead them to implement specific actions on their own; or (c) when specific actions (to include protective actions) are to be taken by the public. The purpose of the public alert system is to alert the public to tune to their Emergency Broadcast System (EBS) radio or TV station for information and instructions.
- (5) Notification is accomplished through the EBS. Pre-written EBS announcements are contained in Annex D of the Berks County RERP.

b. Route Alerting

- (1) Route alerting involves the use of vehicles/personnel traveling predesignated routes within the municipality. Public address systems are used to instruct residents to tune to their EBS station. This procedure is used as a supplement to the public alert system where there is a known system failure or area of inadequate coverage.

(2) The municipality has been divided into sectors facilitating route alert team assignments (reference Attachment E).

(3) Route alert teams will be dispatched via normal dispatch procedures to those areas where there is a known failure of the public alert system.

c. Hearing Impaired (reference Attachment F)

Additional personnel will be charged with alerting the hearing impaired. They will be dispatched by the municipal EMA to the residences of previously identified hearing-impaired persons immediately upon the activation of the public alert system. The hearing-impaired will be provided a pre-printed card which indicates that an emergency situation exists, directs them to review their public information brochures and requests them to establish contact with a relative, friend or neighbor who can provide them with information being provided over the EBS network (reference Attachment E).

E. Protective Actions

1. Sheltering

The nature of an incident may be such that the most effective measure to protect the public would be to have them go indoors, stay away from windows and doors, and shut off all sources of outside air (air conditioning, vents, etc.); motorists would be instructed to close windows and vents.

2. Evacuation

Evacuation is a protective action option which involves movement of the population from the plume exposure pathway EPZ. It may be accomplished on a selective or general basis.

a. Selective Evacuation

Selective evacuation involves the relocation of specific categories of persons, such as pregnant women, pre-school children, and others who may be highly susceptible to the hazards of radiation.

b. General Evacuation

General evacuation involves the relocation of the entire population from the plume exposure pathway EPZ.

c. Authorization and Control

(1) The Governor, or his constitutionally designated successor, has the sole authority and responsibility

for directing and compelling a selective or general evacuation.

- (2) The Governor, or the highest ranking elected county or municipal official in authority may recommend an evacuation for their respective jurisdictions.
- (3) PEMA has the primary responsibility for directing and controlling an evacuation order made by the Governor.

d. Evacuation Routes

- (1) When necessary, Earl Township will be evacuated via local roads to Rt. 562 West (reference Attachment J and Attachment Q). Those persons who require mass care support should go to the reception center located at the Oley Valley High School where they will be directed to an appropriate mass care center.
- (2) There will be no changes in normal traffic patterns in and out of the EPZ during an evacuation. This is necessary to accommodate the movement of support resources, i.e. buses, ambulances, etc., into the area.

e. Transportation

- (1) The primary means of evacuation will be the private automobile. Evacuees will be urged to use any available means of private transportation.
- (2) Information concerning persons without a source of private transportation is found in Attachment G. Unmet transportation resource requirements will be reported to the county transportation officer.
- (3) Individuals without transportation should contact the Earl Township EUC at 367-9673 to arrange for pickup.
- (4) Transportation resources will be assembled at the Municipal staying area located at the EUC (reference Attachment Q). An emergency worker will be assigned to each vehicle for the purpose of providing directions to the residences of those persons requiring assistance. These individuals will be taken to the designated reception center; from there they will be taken to a mass care center.
- (5) Transportation requirements for hospitals, nursing homes and public and private schools have been prearranged and will be coordinated by the county. Transportation resources allocated for evacuation of the aforementioned facilities are identified in the county RERP and are not considered as municipal transportation resources.

- (6) Individuals requiring evacuation by ambulance or other special vehicle (reference Attachment F) will be relocated to St. Joseph's Hospital in Reading. Unmet ambulance resource requirements will be reported to the county medical officer.

f. Traffic Control Points (TCP)

State Police personnel will establish Traffic Control Points within the municipality assisted by local Fire Police (reference Attachment D).

g. Public/Private Schools

- (1) Separate school plans have been developed to provide for the safety of school children. A copy can be found in the Municipal EOC.
- (2) If school is in session at the time evacuation is recommended, children attending schools located within the emergency planning zone will be transported by bus to designated host schools outside the area. They will remain under school supervision until picked up by parents or guardians. These host schools have been planned to coincide with main evacuation routes.
- (3) Students whose homes are inside but who attend school outside the emergency planning zone will not be sent home if a protective action is advised. They will remain at the school they attend under school supervision until picked up by parents or guardians.
- (4) Specific information concerning host schools will be provided to parents by school officials.

h. Health Care Facilities

Separate plans have been developed for hospitals and nursing homes located within the Plume Exposure Pathway EPZ. A copy can be found in the Berks County EOC. There are no health care facilities located in Earl Township at this time.

i. Access Control Points/Area Security

In the event of either protective action recommendations (sheltering and/or evacuation), Access Control Points will be established around the perimeter of the EPZ (reference Attachment D). These points are described in the Berks County RERP. Additionally, conditions permitting (based upon information received from the County EOC), police personnel will provide security patrols throughout the municipality during the emergency.

j. Emergency Fuel Supplies

Designated gas stations along main evacuation routes will be open to provide emergency supplies of gasoline and diesel fuel to evacuees. These stations are identified within Annex K of the county RERP.

k. Roadway Clearing

- (1) Removal of disabled vehicles from evacuation routes shall be accomplished by services dispatched through the County.
- (2) Snow and other debris on evacuation routes shall be removed by the Township and PennDOT.
- (3) The National Guard will provide supplemental support, as necessary.

l. Continued Fire Protection

In the event a fire is reported in Earl Township, the department having jurisdiction, if available and conditions permitting, will be dispatched by the County EOC. Normal turnout gear should provide adequate external contamination protection; respiratory protection should prevent the inhalation of radioactive material. See Annex M of the County RERP for additional information.

m. Agriculture

If evacuation becomes necessary, the Berks County EMA, through the USDA County Agent, will certify farmers as emergency workers. This will allow them to return to the EPZ in order that they may tend to their livestock. See Annex O of the County RERP for additional information.

F. Radiological Exposure Control

If it is determined that a potential radiation hazard exists from an incident at the Limerick Generating Station, steps must be taken to protect both the public and emergency workers. Procedures for radiological exposure control are addressed in Annex M of the County RERP. Municipal actions relevant to radiological exposure Control follow:

1. Municipal Emergency Workers

- a. When advised by the Berks County EMA that a Site Emergency has been declared, municipal emergency workers will be issued dosimeters and potassium iodide (KI), a radioprotective drug. A unit of dosimetry-KI contains the following:

* one (1) CD V 730 or DCA-622 self-reading dosimeter having a scale of 0 to 200.

- * one (1) CD V 742 self-reading dosimeter having a scale of 0 to 200R.
 - * one (1) thermoluminescent dosimeter (TLU) which is a machine-read crystalline dosimeter mounted in a card.
 - * one (1) Dosimetry-KI Report Form (reference Attachment K).
 - * one (1) bottle containing a fourteen day supply of potassium iodide (KI) tablets.
- b. PEMA will supply, when available, the County Emergency Management Agency with enough dosimeters and KI for designated emergency workers within its portion of the plume exposure pathway EPZ. These resources will be stored in the County EUC. Attachment M lists emergency worker dosimetry-KI resource requirements.
- c. Distribution of the dosimeters and KI is as follows:
- (1) Upon notification of an Alert (or any higher classification of emergency should it be initial notification), the county will deliver the necessary radiological equipment to the Municipal EUC.
 - (2) Upon receipt at the Municipal EUC, the equipment will be prepared for distribution to municipal emergency workers (reference Attachment L). Distribution will commence upon declaration of a Site Emergency or higher emergency action level.
 - (3) Upon notification of a Site Emergency, dosimeters and KI will be distributed to municipal emergency response organizations identified in Attachment M. A signed receipt shall be obtained from each organization (reference Attachment L). Emergency organizations will maintain property control by having each worker sign for the property (reference Attachment N).
 - (4) Emergency workers will take KI only upon the direction of the Secretary of the Pennsylvania Department of Health, notification of which will be received through emergency management channels.
- d. Dosimetry Reading Procedures and Related Actions
- (1) Dosimeters are to be worn in the pocket of an outer garment from the time of issue until the worker is dismissed from duty. In no case should the TLU be worn by more than one person since there is no way of ascertaining later how much of the dose recorded on the TLU was received by each individual if more than one person was involved.

- (2) Each emergency worker is responsible for completing the Dosimetry/KI Report Form (reference Attachment K) and for reading the self-reading dosimeters at least once every thirty minutes. The protective action guide for whole body exposure is 25 rem. Therefore an emergency worker should seek to be relieved or complete the assigned task and then evacuate to an emergency worker decontamination station before receiving 25 R.
- (3) Life Saving Missions - If a life saving mission would become necessary, the Earl Township elected official in charge may, under conditions shown below, authorize volunteer emergency workers to exceed the established 25 Rem whole body limit. In no instance, however, should the emergency worker be authorized to exceed an absolute upper limit of 75 rems. This authorization may be given in advance to avoid the possibility of delay in performing life saving missions. When authorizing volunteer emergency workers to exceed the 25 rem limit, the elected officials should ensure that the following conditions are met:
- (a) It is a life saving situation and alternative courses of action cannot be taken to accomplish the mission.
 - (b) The emergency workers are healthy adult male volunteers, preferably over 45 years of age.
 - (c) The emergency workers selected are persons whose normal duties might involve such missions, e.g., policemen and firemen with suitable protective clothing and respiratory equipment.
 - (d) The mission will be accomplished in the least amount of "stay time."
 - (e) The emergency workers are knowledgeable of and accept the increased risk in exceeding the 25 rem limit.
- e. Upon completion of emergency tasks during a contamination incident, each emergency worker is to report to a decontamination station. Emergency workers in Earl Township are to report to Oley Valley High School, Main Street, Oley, PA. Specifics relevant to monitoring and decontamination are contained in Annex M of the County KERP.
- f. When the emergency is terminated, all dosimeters-KI should be returned to the Municipal EUC for forwarding to the County.

2. Public

The protective actions outlines in Section II, E, are intended to provide the necessary radiological exposure control for the general public. In addition, decontamination monitoring teams will service all mass care centers and host health care facilities for the purpose of monitoring evacuees. A list of decontamination stations is provided in the County RERP.

G. Continuity of Government

1. Government

In the event of a general evacuation, the Board of Supervisors shall continue to transact required business at the Township Building.

2. Municipal Services

- a. All services are located outside the 10 mile EPZ.
- b. All services will remain available to respond to emergencies within the EPZ, radiation levels permitting. Dispatch will be accomplished through the County EOC.

3. EOC

The EOC shall not be relocated.

H. Training

1. The Berks County EMA is responsible for coordinating radiological emergency response training as outlined in Annex R of the County RERP.
2. The Earl Township Emergency Management Coordinator shall ensure that local emergency response personnel are familiar with their responsibilities.

I. Concept of Operations

The following offers a list of general actions to be performed in the event of an incident.

1. Unusual Event

As per County policy, notification to Municipal EMC's will not take place.

2. Alert

- a. The Earl Township Emergency Management Coordinator (EMC) will receive notification from Berks County EMA. The EMC in turn, notifies municipal officials and key staff personnel.

- b. The EMC and key staff will report to the Municipal EOC. Security measures will be implemented to restrict admittance.
 - c. Communications systems will be tested. The County will be notified when RACES communications are established.
 - d. Confirm that dosimeters/KI are being delivered by the County to the Township EOC. Upon receipt, dosimeters/KI will be prepared for distribution.
 - e. Non-ambulatory residents shall be contacted to verify special requirements.
 - f. The EMC shall notify certain public and private institutions/facilities located within the municipality of the emergency. In some instances, this will be a verification of a notification previously received through a county-initiated procedure. A listing of these facilities is maintained in the Township EOC.
 - g. Route alert teams will be placed on standby.
 - h. If the public alert system is activated, the hearing impaired will be notified and route alert teams dispatched as necessary.
 - i. Local TCP and ACP personnel will be notified.
 - j. The local EBS stations.
 - k. Review Township and County Radiological Emergency Response Plans.
 - l. Ensure all messages which provide information or require a response are verified and logged. Pertinent data will be posted on the status board.
 - m. The County Municipal Liaison will be notified upon completion of tasks as well as for additional unmet needs.
 - n. In the event of reduction of classification or termination of incident, all parties previously notified will be informed.
3. Site Emergency
- a. Same actions as Alert.
 - b. Additional emergency response personnel will be mobilized, including full EOC staff.
 - c. Dosimeters and KI will be distributed to emergency workers and organizations.

- d. Resource inventories (reference Attachment U and Attachment P) will be reviewed to verify that those resources indicated as being available are, in fact, available.
- e. Road conditions will be reviewed, reporting any detours or construction areas to the County Municipal Liaison.
- f. Local TCP and ACP personnel will be placed on standby. Earl Township ACP's and TCP's will be manned if local conditions dictate.
- g. Drivers and transportation assets needed for persons without transportation will be placed on standby by the County.
- h. In the event of reduction of classification or termination of incident, all parties previously notified will be informed; dosimeters and KI will be prepared for return to the County.

4. General Emergency

- a. Same actions as Alert and Site Emergency.
- b. Access Control Points will be mobilized.
- c. Alerting of special population groups, i.e., hearing impaired, will begin at the time the public alert system is activated.
- d. Route alerting will commence in those areas of known public alert system failure or areas of inadequate coverage. Information identifying the specific areas involved will be provided by the County.
- e. If sheltering is recommended:
 - (1) Increase security measures will be provided, conditions permitting.
 - (2) Access control points will be manned.
- f. If evacuation is ordered:
 - (1) Drivers and transportation assets needed for persons without transportation will be mobilized by the County.
 - (2) Guidance to transportation resources dispatched through County transportation staging areas will be provided by the Township to assist those without transportation.
 - (3) Homebound invalids will receive evacuation assistance.
 - (4) Traffic control points and access control points located within the Township will be manned.

- g. When directed by Pennsylvania Department of Health, instruct emergency workers to take KI.
- h. In the event of reduction of classification or termination of incident, all parties previously notified will be informed; dosimeters and KI will be prepared for return to the County.

5. Reentry

- a. Authorization for reentry will come from the Governor upon determination that it is safe to do so.
- b. The Earl Township officials and Emergency Management Coordinator shall:
 - (1) Report damage caused by evacuation and reentry, as well as costs of support operations to County EOC.

J. Plan Maintenance and Distribution

1. Maintenance

- a. The Earl Township Emergency Management Coordinator is responsible for ensuring the currency of the Township RERP, including the development and distribution of all changes, as well as accomplishing an annual review.
- b. All changes to the Earl Township RERP shall be coordinated through the Berks County Emergency Management Coordinator.
- c. All changes to the Earl Township RERP which involve policy or procedure shall be approved by Board of Supervisors.
- d. The current date shall be placed on any page that is changed.

2. Distribution

- a. Berks County EOC (copies to accommodate distribution to PEMA and Philadelphia Electric Company).

Copy numbers 1-4 4 copies

- b. Earl Township elected officials

Copy numbers 5-7 3 copies

- c. Emergency Management Coordinator and key staff

Copy numbers 8-17 10 copies

d. Fire Department

Copy number 18

1 copy

e. Municipal library

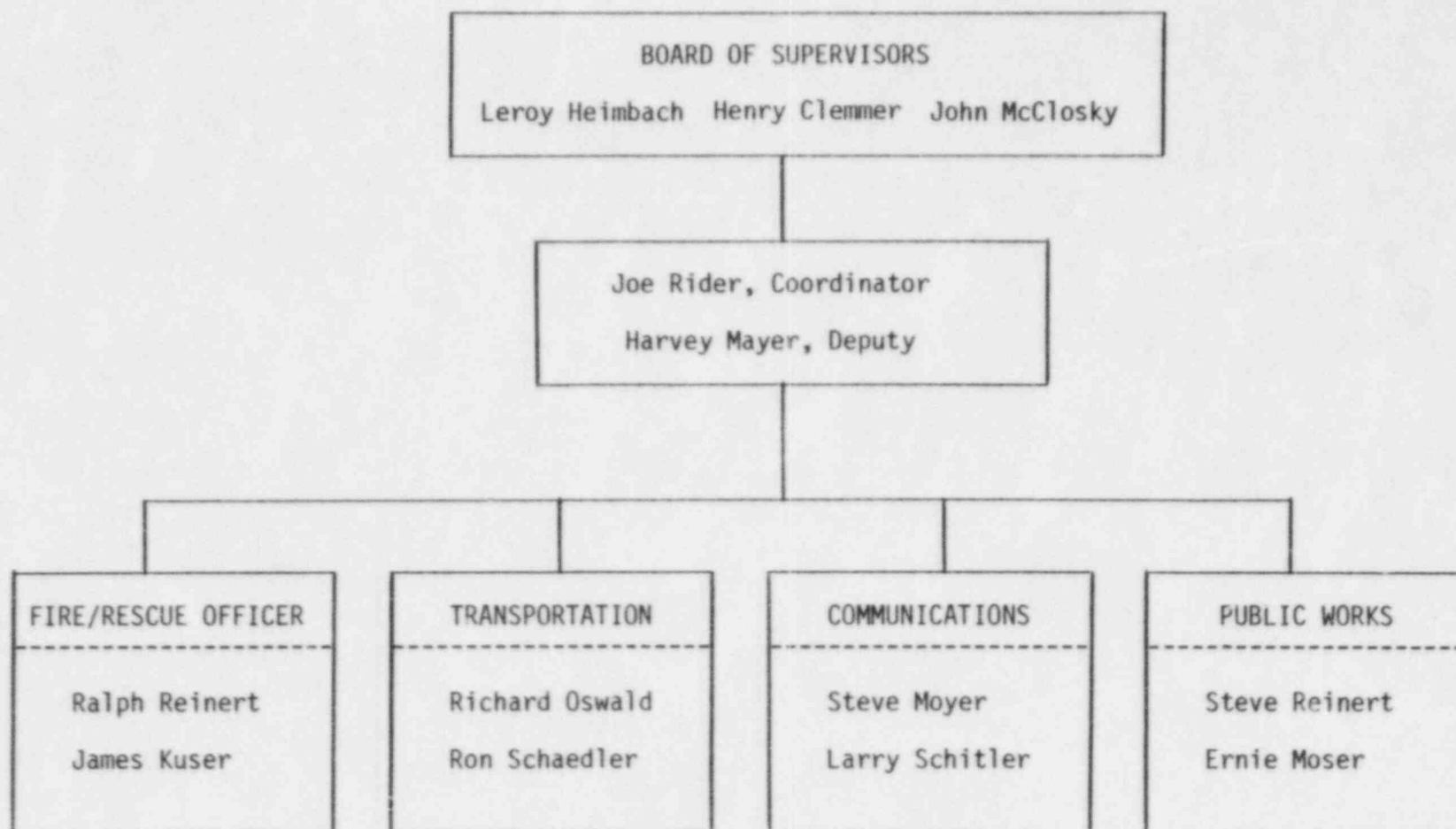
Copy number 19

1 copy

Additional copies of the plan can be made available upon specific request and justification to the Earl Township Emergency Management Coordinator. As revisions are made to the plan, properly identified change pages will be sent to all organizations, agencies and individuals holding a copy of the plan.

PLUME EXPOSURE PATHWAY EPZ MAP

Map will be inserted in final draft.



LETTERS OF AGREEMENT

I. Purpose

To document the arrangements made between Earl Township and those agencies providing the personnel and resources needed to successfully implement this plan.

II. Agreement providing and Maintenance

The Earl Township Emergency Management Coordinator shall be responsible for:

A. Determining the need for specific letters of agreement.

B. Developing their general content.

C. Updating them as necessary.

III. Specific Agreements

None required.

TRAFFIC CONTROL POINTS

<u>Post Number</u>	<u>Location</u>	<u>Responsible Police Organization</u>	<u># Men Assigned</u>
E-1	Rt. 562 & Powder Mill Hollow Rd. (in Amity Twp. - manned by Earl)	Earl Township Fire Police	1

ACCESS CONTROL POINTS

<u>Post Number</u>	<u>Location</u>	<u>Responsible Police Organization</u>	<u># Men Assigned</u>
106	Powder Mill Hollow Rd. & Fancy Hill Rd.	PSP	1
107	Powder Mill Hollow Rd. & Sandy Hill Rd.	PSP	1
108	Pine Rd. & Mountain Rd.	PSP	Barricade
109	Pine Lane & Hauseman Rd.	PSP	Barricade
110	Old State Rd. & Ironstone, Jr.	PSP	Barricade
111	Valley Rd. & Willow Rd.	PSP	Barricade

ROUTE ALERTING

At least two (2) persons will be named to each alert team.

Each route alert team will be supplied with a map of the assigned sector (reference Tab 1). Alert teams will issue the following message:

"There is an emergency at the Limerick Generating Station; please tune to your Emergency Broadcast System Stations.

Additional route alert personnel will directly contact: (1) any individuals along their designated route who have been identified as hearing impaired in this plan to ensure they have received notification, (reference Tab 2); and (2) transient locations to ensure notification has been received.

Sector No. 19-A Alert Team: Earl Fire Department

Leader: ** _____

Assistant: ** _____

Transient Location: None.

Hearing Impaired Individuals*:

Sector No. 19-B Alert Team: Earl Fire Department

Leader: ** _____

Assistant: ** _____

Transient Location: None.

Hearing Impaired Individuals*:

*There are 2 hearing impaired individuals in that portion of the municipality within the EPZ. Their names and addresses are on file in the Municipal EOC.

**Route alerting will be conducted by fire department personnel. Sufficient, trained members will be mobilized at the time of the incident to man the sector teams. Specific assignments will be made at the time of mobilization from availability lists maintained in the Township EOC.

ROUTE ALERT

SECTOR MAPS

Maps will be inserted in final draft.

MESSAGE - HEARING-IMPAIRED

There is an emergency at the Limerick Generating Station.

Please contact a relative, friend or neighbor so that you can receive important information being broadcast over the emergency broadcast system.

Please review your public information brochure for incidents at the Limerick Generating Station for additional important information.

If you do not have a relative, friend or neighbor nearby to assist you, please tell the individual who gave you this information immediately.

RESIDENTS WITH SPECIAL MEDICAL REQUIREMENTS

- A. There are no* residents requiring ambulance support in the event of an evacuation at this time.
- B. There is 1* residents who may require special assistance in the event of protective actions. Their names, addresses, and telephone numbers are on file in the municipal EOC.
- C. There are 2* hearing impaired individuals in the municipality. Their names and addresses are on file in the Municipal EOC.

*Based upon public survey data.

Note: These individuals will be contacted by the Communications Officer at Alert to confirm the status of their medical needs. This list should be updated every six (6) months.

PERSONS REQUIRING TRANSPORTATION ASSISTANCE

There are 6* residents who require transportation assistance in the event of evacuation. Their names and addresses are on file at the municipal EOC.

It is understood that there may be additional individuals who will require transportation assistance on the time of evacuation. These individuals are to contact the municipal EOC to arrange for pickup.

*Based upon public survey data.

FLOOR PLAN - EARL TOWNSHIP EUC

To Be Developed

EMERGENCY NOTIFICATION LIST*

1. Elected Officials

a. Leroy Heimbach

Home Phone: _____
Bus. Phone: _____

b. Henry Clemmer

Home Phone: _____

c. John McCloskey

Home Phone: _____
Bus. Phone: _____

2. Coordinator Joe Rider

Home Phone: _____
Bus. Phone: _____

Deputy Harvey Moyer

Home Phone: _____

3. Fire/Rescue Officer Ralph Reinert

Home Phone: _____

Deputy James Kuser

Home Phone: _____
Bus. Phone: _____

4. Transportation Richard Oswald

Home Phone: _____

Deputy Ron Schaedler

Home Phone: _____
Bus. Phone: _____

5. Communications Steve Moyer

Home Phone: _____
Bus. Phone: _____

Larry Schitler

Home Phone: _____
Bus. Phone: _____

6. Public Works Steve Reinert

Home Phone: _____
Bus. Phone: _____

Ernie Moser

Home Phone: _____
Bus. Phone: _____

*These numbers are maintained in the Municipal EOC and updated quarterly.

EVACUATION PLAN MAP

Map will be inserted in final draft.

Emergency Worker's Name:

Home Address:

Social Security Number:

Emergency Worker's Organization: _____

County:

Emergency Worker's Signature: X

MISSION		CD V-730 or DCA-622 (0-20R)			CD V 742 (0-200R)			TLD (thermoluminescent dosimeter)			
No.	Description	Date	SERIAL #	BEFORE AFTER	MISSION TOTAL	SERIAL #	BEFORE AFTER	MISSION TOTAL	Serial # of TLD:		
				R			R			DATE/TIME	PERSON/ ORGANIZATION
1.				R	R		R	R	Issued		By:
				R			R		Turned In		To:
2.				R	R		R	R	READING OF TLD		
				R			R		m/Rem		
3.				R	R		R	R	Date of Reading		
				R			R				
4.				R	R		R	R			
				R			R				
5.				R	R		R	R			
			TOTAL		R	TOTAL		R	POTASSIUM IODIDE (KI) RECORD		

DOSIMETRY INSTRUCTIONS: Read the CD V-730 (DCA-622) and CD V-742 each half hour, not exceed 25 R cumulative total. The TLD gives an accurate reading of total dose and therefore should be used only by one person. Forward the TLD with this form (see form distribution below).

THYROID GLAND SCREENING CHECK

Upon completion of the mission, or as directed, each emergency worker is to undergo "decontamination monitoring" at a decontamination monitoring station or a mass care/decontamination center. Monitoring personnel at these stations will complete a "Decontamination Monitoring Report Form" for you. Additionally, emergency workers are to be screened 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 the CD V 700 survey meter.

CD V 700 Serial #: _____ Reading: _____ mR/hr

Signature of Monitor: X

POTASSIUM IODIDE (KI) RECORD

	Date	Time	Amount Taken
Day 1			1 tablet/130mg
Day 2			1 tablet/130mg
Day 3			1 tablet/130mg
Day 4			1 tablet/130mg
Day 5			1 tablet/130mg
Day 6			1 tablet/130mg
Day 7			1 tablet/130mg
Day 8			1 tablet/130mg
Day 9			1 tablet/130mg
Day 10			1 tablet/130mg
Day 11			1 tablet/130mg
Day 12			1 tablet/130mg
Day 13			1 tablet/130mg
Day 14			1 tablet/130mg

DOSIMETRY-KI REPORT FORM DISTRIBUTION: Forward this completed form with the TLD through emergency management channels to BRP. When the self-reading dosimetry indicates total exposure of 25R or more, expedite delivery to BRP. BRP will forward to the individual and to the County EMA the TLD reading as well as an explanation of the reading. When expedited delivery is made to BRP and where otherwise warranted, BRP will report the TLD reading within 24 hours. Routine reporting may take a week or more.

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

RECEIPT FORM FOR DOSIMETRY-SURVEY METERS-KI

ISSUED BY _____ ISSUED TO _____
 ADDRESS _____ ADDRESS _____
 RESPONSIBLE INDIVIDUAL _____
 TELEPHONE _____

INSTRUCTIONS: During a nuclear power plant incident, use this form to maintain property control when distributing the items listed below to municipalities and decontamination monitoring teams. This form should be used for transfer of these items in bulk form from: (1) the county emergency management agency to risk municipalities and decontamination monitoring teams; and (2) the municipalities to their local emergency response organizations (such as fire, police, and ambulance associations).

LINE NUMBER	DESCRIPTION	QUANTITY
1.	CD V-742 Self-Reading Dosimeter (0-200R)	
2.	CD V-730 Self-Reading Dosimeter (0-20R)	
3.	DCA-622 Self-Reading Dosimeter (0-20R)	
4.	CD V-750 Dosimeter Charger	
5.	TLD (Thermoluminescent Dosimeter) Serial Numbers _____ THROUGH _____	
6.	Potassium Iodide (KI) Tablets (Bottles of 14 Tablets Each)	
7.	CD V-700 Survey Meter	
8.	Dosimetry-KI Report Form	
9.	Decontamination Monitoring Report Form	
10.	Receipt Form for Dosimetry-Survey Meters-KI	
11.	Acknowledgement of Receipt by Emergency Workers for Dosimetry-KI and Survey Meters	

RECEIVED BY: _____ TITLE _____
 SIGNED BY: X _____ DATE _____

EMERGENCY WORKER DOSIMETRY-KI LIST

<u>AGENCY</u>	<u>NUMBER OF EMERGENCY WORKERS</u>
A. Emergency Management Agency	
Emergency Operations Center	10
Township Building	
R. D. #3 Boyertown	
B. Fire Companies	
Earl Township Fire Co.	25
R. D. #4	3 fire police
Boyertown, PA	
C. Public Works	
Township Building	5
R. D. #3	
Boyertown, PA	

Total Units of Dosimetry-KI Required 43

ACKNOWLEDGMENT OF RECEIPT BY EMERGENCY WORKERS FOR HOSHINTRY-KI AND SURVEY METERS

INSTRUCTIONS FOR DISTRIBUTION: Enter (1) or (0) in columns 2 and 3. Record the serial number of the MCA-622 in column 2 and the serial number of the TLD in column 3. By signing column 8, the individual accepts responsibility for each item indicated on the respective line and agrees to return these items (less the KI authorized to be used) upon request and automatically when the nuclear power plant incident is terminated.

DATE *

NAME OF EMERGENCY ORGANIZATION

RESPONSIBLE INDIVIDUAL:

ORGANIZATION ADDRESS

[illegible]

CONSOLIDATED RESOURCE LIST

	TOTAL REQUIRED	LOCALLY AVAILABLE	UNMET NEED
A. <u>VEHICLES</u>			
1. Buses ¹	1 ²	0	1
2. Ambulances	0	0	0
3. Vehicles with Loudspeakers	2	2	0
4. Other	0	0	0
B. <u>PERSONNEL</u>			
1. Route Alerting	4	4	0
2. Transportation	1	1	0
3. TCP	1	1	0
4. Special Assistance	1	1	0
5. Ambulance	0	0	0
6. RACES	2	0	2
7. Fire Police	3	3	0
C. <u>EQUIPMENT</u>			
1. Communications (by type)	Telephones: 2 RACES: 1	Telephones: 2 RACES: 0	Telephones: 0 RACES: 1
2. Other			

¹Resource planning for buses excludes those required for evacuation of schools.

²Based upon an estimate of 40 persons/bus.

Note: Unmet needs will be supplied through the County/PEMA.

MUNICIPAL POLICE/FIRE/AMBULANCE RESOURCES

<u>Fire Department</u>	<u>Equipment</u>	<u>Manpower</u>
Earl Township Fire Co.	2 pumpers 1 jeep	25

Police

None in Township
Coverage by State Police

Ambulance

None in Township
Coverage by Boyertown Ambulance



LEGEND:

--- TOWNSHIP BOUNDARIES

— HIGHWAYS

▨ POPULATION AREAS

--- COUNTY BOUNDARIES

□ TRAFFIC CONTROL POINTS

△ ACCESS CONTROL POINTS

○ TRANSPORTATION STAGING AREA

→ EVACUATION ROUTE

○ EMERGENCY OPERATION CENTER

▨ EPZ

BERKS COUNTY EARL TOWNSHIP

Attachment Q

EVACUATION SUPPORT MAP

SUPPORTING PLANS

Boyertown School District RERP*

*On file in the Municipal EOC.