

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

RADIOLOGICAL EMERGENCY PREPAREDNESS TRAINING MODULE

AUDIENCE: SCHOOL TEACHERS AND STAFF

SLIDE

I. INTRODUCTION

Good (morning/afternoon/evening), my name is _____ and I represent Energy Consultants. Our purpose today is to prepare you for a possible implementation of the emergency response plan developed by your school district.

Slide - Energy
Consultants

During an emergency your prime consideration should be directed towards the safety of your students who will look to you for guidance and emotional support. Your leadership abilities will be extremely important while dealing with the emergency response as a professional staff member.

Response procedures must be implemented for both natural and man-made emergencies. Today's society faces many potential hazardous situations that were not as prevalent with past generations. Fortunately, pre-planning an emergency response system can alleviate confusion and direct individuals and/or agencies towards a more concise standard operating procedure.

Slide - Disaster
Collage

School Districts routinely evaluate their fire drill exercises, which are also pre-planned emergency response systems, and place you, the educator, in the role of leadership during emergency evacuation procedures. Our goal today is to expand this leadership role to provide additional training which will give

Slide - Fire
Drill

you the knowledge required to provide for another type emergency response.

Today we will consider how these school emergency plans affect your response to an emergency situation, and in particular, a possible emergency situation created by an event at the Limerick Generating Station.

Slide - Limerick

To enable you to understand your pre-assigned role within the emergency response system, we will discuss:

Slide - Topics

1. The basic operational concepts of a nuclear power station.
2. A brief description of radiation and its effects.
3. General protective actions.
4. An overview of the emergency response plan.

At the conclusion of this training session, each of you should have sufficient knowledge to execute the emergency response plan in a calm, efficient manner.

II. CONCEPTS OF A NUCLEAR POWER STATION

A. Nuclear Reactor Concept and Design

1. The nuclear-electric power plant produces commercial electric power using the conventional heat-to-steam method. The energy source, however, is the nuclear fuel contained within the nuclear reactor. Basically, the nuclear

Slide - heat-to-steam

fuel in the reactor core provides the heat to turn water into steam which turns the electric turbine generator that produces the electricity. The reactor, serving as the furnace, provides the environment for the generation of heat through the fission process. The fission process involves the splitting of atoms and results in the release of energy.

(keep brief)

Slide - fission
process

2. The initial reactor core weighs about 100 tons. The fuel contained in the core is slightly enriched uranium dioxide which is in the form of small cylindrical pellets. These pellets are placed in thin metal tubes to form fuel rods. A number of fuel rods bundled together make up the fuel assembly, a number of fuel assemblies make up the reactor core. The core is contained in a massive 6 1/2 inch thick steel cylinder, known as the reactor vessel, through which cooling water flows.

Slide - pellets
Slide - fuel rods
Slide - fuel
assembly

Note: Stress
differences
between reactor
and bomb.

3. The two most common types of commercial reactors used in the United States are the pressurized water reactor and the boiling water reactor.

The basic difference is the primary coolant system.

- a. The Limerick Generating Station is a boiling water reactor. The boiling water reactor primary cooling system does not employ a heat exchanger. Instead, the water is permitted to boil in the reactor

Slide - BWR

vessel. The steam generated in the reactor vessel is fed directly to the turbine-generator which converts the thermal energy of the steam to ultimately electrical energy.

- b. In both types of reactors, the cooling water that flows through the cooling towers is isolated from the primary system water; therefore, it contains no radioactivity other than the natural radioactivity present in all water.

Slide - cooling towers

B. Reactor Safety Features

- 1. Equipment and instrumentation continuously monitor and indicate plant conditions. The information from the equipment and instruments is provided to the control room operators through visual and audible means and to the reactor's computer system electronically.

Slide - Control Room Simulator

The computer system is designed to automatically activate reactor safety systems at the first sign of an unsafe condition. Additionally, control room operators can manually activate safety systems in the event of computer failure.

If the plant has a problem, the first priority is to shut down the nuclear reaction. Basically, this is accomplished by the raising of control rods into the core. The control rods absorb neutrons. Neutrons cause fission to occur. By absorbing all of the neutrons,

Slide - Control rod drive (PWR)

the reaction is stopped. Control rods can be inserted into the core automatically by the reactor computer system or manually by the operators.

Once the reaction is stopped, it is still necessary to keep the reactor core cool. Heat is still being generated by the highly radioactive fission products in the fuel. In addition to the primary means of heat removal (the turbine), there are backup systems provided to remove heat from the core and provide cooling water in the event the primary system fails.

2. All reactor safety systems which provide protection for the public have backups. An example of this design philosophy is the multibarrier concept used to contain the radioactive fuel. The fuel is contained in the fuel rods; the fuel rods are contained in the steel pressure vessel; the vessel is surrounded by the steel and concrete primary containment; which is contained within a secondary containment. For the radioactive fuel to reach the public all the barriers--the rod, the vessel and both containments--must be breached.

Slide - Multibarrier
Concept

Slide - Limerick
Containment
Building

C. Previous Nuclear Reactor Safety Problems

1. The "defense in depth" philosophy is one reason the nuclear industry (when compared to other commercial industries), has a relatively safe history. However, safety

systems can fail and accidents happen. This is why emergency planning is necessary.

2. The incident at Three Mile Island received a great amount of media coverage. The Three Mile Island Unit 2, through a series of mechanical failures and human misjudgments, experienced damage that resulted in a minor release of radiation that amounted to less radiation than that of a person smoking two packs of cigarettes in a lifetime.

Slide - TMI
Media Coverage

----- OPTIONAL -----

The accident began when a blockage occurred in a transfer line to a resin regeneration tank. This blockage caused a loss of condensate flow that lead to a trip of the main feedwater pump. At that point the turbine also tripped. Automatically, the emergency feedwater pump started; however, since the line was blocked, it could not deliver the water to the steam generators.

The loss of feedwater to the steam generators caused the primary coolant water to become hotter, and therefore, increased the pressure to such a degree that the pressurizer relief valve opened. High reactor coolant pressure caused the control rods to trip. The control room operators then realized that the emergency feedwater block valves were closed and opened the valves thus restoring the flow of coolant water to the steam generators.

Slide - PWR
schematic
(Presentation of this material depends upon the make-up of the audience. Explain or point out on schematic all equipment mentioned in narrative.)

The insertion of the control rods slowed down the rate of fission and reduced the pressure. At this point, the pressurizer relief valve should have closed but it remained open. As the coolant continued to discharge through the pressurizer relief valve, the primary coolant pressure decreased. In addition, the coolant was being discharged into and filled the drain tank in the bottom of the containment building. A rupture disk burst in the drain tank and the primary coolant flowed to the containment building sump.

Another error occurred when the operators cut back the high-pressure injection system that had begun pumping borated water. The operators were unaware that a loss of cooling accident was in progress and considered the use of the emergency core cooling system to be inappropriate.

The two reactor coolant pumps were turned off due to severe vibrations that occurred because the pumps were then handling steam instead of pressurized water. A bubble formed in the core leaving uncovered fuel. While a portion of the core was uncovered, the zirconium cladding became very hot and melted. Simultaneously, conditions produced a large amount of hydrogen.

The operators finally isolated the open relief valve and began efforts to provide coolant to the core.

Primary coolant was inadvertently pumped from the containment sump to auxiliary building lower levels--severely contaminating the auxiliary building and allowing releases to atmosphere via auxiliary building ventilation.

If anyone is interested in discussing how and why the accident occurred, we will be glad to do so at the end of the training session.

3. Prior to this accident, many people were convinced that accidents such as this could not happen. However, since the accident at Three Mile Island, public officials, and the nuclear industry as well, have realized the heightened need for protecting communities located near reactors.
4. During the last four years, many advances have been implemented to improve the safety record of the nuclear reactors and better protect community residents.

Slide - Industry
Safety Improve-
ments

- a. Development of comprehensive plans regarding the utility's and communities' response to an accident, demonstrated during response to the 1981 incident at the Ginna Nuclear Steam Generation plant located outside Rochester, NY.
- b. Implementation of training programs for utility employees and community emergency response organizations.

- Comprehensive plans
- Training Programs
- Designed Reactor Safety Features
- Communications Systems

- c. Provision of additional reactor safety features.
- d. Development of communications systems to notify public officials and alert the general public of any possible accidents.

Mention Crystal
River, Failed PORV.

III. RADIATION CONCEPTS

Radiation is a form of energy transmission and anything that blocks radiation absorbs the energy of the beam. One form is ionizing radiation which can disrupt atoms and cause damage to cells and thus tissue damage.

Slide - Types of
Radiation

Alpha particles are the positively charged particles emitted from the nucleus of an atom. An alpha particle can be stopped by a sheet of paper or thin clothing. The potential hazard of alpha radiation is by breathing or swallowing the particles.

Slide - Alpha

Beta particles are negatively charged particles and are capable of penetrating a sheet of paper but can be stopped by heavy clothing. Beta radiation at very high doses can cause damage to the skin similar to a burn but cannot penetrate through the skin to cause damage to internal organs. The primary hazard of beta radiation is by breathing or swallowing, internal contamination through open wounds, or exposure to the lens of the eye.

Slide - Beta

Gamma rays are emitted spontaneously by a radioactive substance. They are extremely penetrating. A gamma ray is virtually the same as an X-ray except that X-rays come from a different part of the atom. Gamma

Slide - Gamma
Slide - Comparison
of Alpha, Beta,
and Gamma

rays easily pass into and through the human body and contain sufficient energy to cause cellular damage.

IV. TERMS ASSOCIATED WITH RADIATION

- | | | |
|-------------------|---|------------------------------------|
| A. Exposure: | Exposure occurs when an object or person is subjected to radiation. Exposure does not contaminate the object or person. | Slide - Contamination vs. Exposure |
| B. Contamination: | Contamination is radioactive material where it is not wanted. Exposure from the radioactive material will continue until contamination is removed, usually by washing with water. | Slide - Watch & Calendar |
| C. Dose: | Exposure to radiation results in a radiation dose. The effects of the radiation dose depends upon:

1. Intensity of the radiation.

2. The length of time exposed.

3. Type of radiation. | Slide - Mass, Distance, Time |
| D. Roentgen: | The standard unit of measurement for the amount of radiation (gamma) traveling through a small volume of air. | Slide - Roentgen |

SLIDE

- E. REM: A way of expressing radiation in terms of its impact upon humans. This term is an abbreviation for roentgen equivalent man which represents the radiation deposited in living tissue. Slide - Rem
Slide - 1 Roentgen = 1 Rem
- F. MILLI: A prefix used in the metric system, one thousand milli equals one, therefore, 1,000 millirems = 1 REM. Slide - 1000 milli = 1

V. BIOLOGICAL EFFECTS OF RADIATION

Damage to a human cell caused by ionizing radiation, if left unrepaired, could result in the damaged cell reproducing and eventually leading to a colony of cells retaining the identical defect of the original cell. The most common effect of radiation damage is cell "inactivation," or in other words the cell loses its ability to reproduce and eventually dies. As long as the number of cells inactivated or damaged is kept to reasonable numbers, the body can withstand the harm done to it. However, it should be emphasized that all radiation has some effect on the cells of the body. Controlled doses for limited periods of time are tolerated well, but any exposure to radiation involves some risk of cellular damage and future effects such as cancer.

Slide - Comparison of Radiation Levels

VI. BACKGROUND RADIATION

People have always been exposed to minute amounts of radiation through cosmic rays and naturally occurring radioactive minerals. This radiation occurs as a

Slide - Natural
Slide - Man-made
Pass around Fiesta

natural part of our environment as a constant source and this common occurrence should be no cause for alarm.

ware, Coleman lantern mantles, & survey meter & discuss with class

VII. RADIOACTIVITY

- A. Ionizing radiation originates from an atom. The atom is the smallest component of an element. Atoms that spontaneously emit energy in the form of radiation are radioactive. Every different type of radioactive atom decays (emits radiation) at a characteristic rate. The term "half-life" is used to describe the time it will take for one-half of the radioactive atoms of a particular type to decay. For example Kr-85 has a half-life of 10.7 years; Kr-89 has a half-life of 3.2 minutes; Potassium - 40 has a T 1/2 of 1.3 billion years.

Radioactive decay is the return of stability by emitting alpha, beta particles, gamma rays and neutrons and protons. The event is called disintegration.

- B. In the event of an accident occurring at a nuclear power plant, public officials would immediately become concerned about possible releases of radioactive material. One of those concerns would center around which radioactive elements might be released.

Slide - Radionuclides

The following are examples of radionuclides that could be released during an incident at the Limerick Generating Station.

1. Iodine-131 - A radioactive form of iodine, with a half-life of 8.1 days. The thyroid gland of the human body has an affinity for

Radionuclide: a radioactive form of an element.

SLIDE

iodine, and would tend to absorb any radioactive iodine ingested or inhaled by a person.

The different nuclides or isotopes are determined by the number of neutrons in the nucleus of the atom.

2. Krypton-85 - A radioactive noble gas, with a half-life of 10.7 years. Krypton's major hazard is external irradiation since it cannot be absorbed by body tissues and is soon eliminated by the body if inhaled or ingested.
3. Strontium-90 - A radioactive form of strontium, with a half-life of 28 years. Strontium-90 emits beta radiation and can cause internal damage to bones and lungs if ingested.
4. Xenon-133 - A radioactive noble gas with a half-life of 5.3 days that is not absorbed by the body tissues and is soon eliminated by the body if inhaled or ingested.
5. Cesium-134 (half-life of 2 years) and Cesium-137 (half-life of 30 years) - radioactive form of cesium which emits both gamma and beta radiation. Internally, the major hazard associated with cesium is internal damage to muscles.

VIII. PROTECTIVE ACTIONS

Slide - Protective action

It may be necessary to recommend a protective action for the general public due to a release of radioactive material during an incident at the Limerick Generating Station.

A protective action can best be defined as "action taken to avoid or reduce the projected radiation exposure that could affect the general populations."

A plume exposure pathway emergency planning zone (EPZ) has been developed which establishes a ten-mile radius around the Limerick Generating Station for emergency planning purposes. Appropriate emergency protective actions have been recommended by local and state officials for implementation within the EPZ.

Slide - 10-mile EPZ

There are several protective actions that have been recommended. The appropriate protective action depends upon the existing conditions for each particular incident and selection of the protective action will be based upon the action which would give you the greatest distance from the source of radiation, and minimize the time of exposure to radiation.

The three protective actions that may be implemented are:

A. Shelter

Slide - Sheltering

The general public would be advised to take shelter in a permanent, reasonably airtight structure, such as a home, commercial building, or office building. The location that you select, in the building, should allow for the maximum distance between you and the outside of the building.

You will be instructed to close all doors and windows and to reduce outside air intake for heating and/or cooling systems.

Slide - Closing
windows

Persons traveling by motor vehicle, within the risk area, will be advised to close windows and vents, and to turn off heating and/or cooling systems.

Slide - Person in
car

B. Selective Evacuation

Selective evacuation procedures may include specific portions of the general population which would include pre-school children, expectant mothers, and chronically ill persons.

Slide - Selective
Evacuation

Slide - Day Care
Center

C. General Evacuation

When a general evacuation is recommended/ordered, all members of the general public will be advised to leave the risk area following pre-planned evacuation routes and to remain outside the risk area until it has been determined that all danger has passed.

Slide - General
Evacuation

Only the Governor has the authority to order the evacuation of any risk area should such an evacuation be deemed necessary. County Commissioners, on the other hand, can recommend a protective action.

Slide - Traffic

IX. EMERGENCY PLANNING TERMINOLOGY

Within the radiological emergency response plans for incidents at the Limerick Generating Station, certain key words or terminology is used. In order to permit a clearer understanding of the plans and terms, this list with explanations is provided.

A. Alert and Notification System

A specific system comprised of separate and distinct components assembled for the goal of providing a signal and an informational or

2. Ingestion Exposure Pathway EPZ

A fifty-mile radius surrounding a nuclear plant site where the main source of exposure would be from eating or drinking contaminated foods or water. Health officials would perform sampling in this area to ensure that no contaminated meats, crops or milk would be present.

8. Public Alert/Notification System

- 1. If an accident were to occur at the LGS, emergency public information activities would be initiated to inform the public of the nature and severity of the accident. Emergency public information will be coordinated through news releases by the State, in addition to facility and key response organization spokespersons.
2. The Nuclear Regulatory Commission requires that a warning system be installed around every operating nuclear power plant. The system must provide the capability for alerting and providing information to residents of the plume exposure pathway EPZ.
3. The public alert/notification system refers to sirens primarily for the alert and the Emergency Broadcast System for notification of the general public. Monitors, mobile loudspeakers, and other special provisions for alerting supplement the sirens for public alert.

Slide - siren 181

Slide - EBS system
54E

Instructor Note

4. The siren is designed to alert the population at risk to tune to their Emergency Broadcast System (EBS) for important emergency information. The sounding of sirens does not mean that the public should take shelter or evacuate. The sirens only indicate that people should turn to the EBS for information or instructions.
5. Specifically, this system has been designated for the capability to provide both an alert signal and an informational or instructional message to the population throughout the plume exposure pathway EPZ, within 15 minutes.
6. Philadelphia Electric Company, following discussions with County and State officials, will purchase sirens to be installed as the alert portion of the public alert/notification system.
7. The siren system would be activated from County Offices. The siren system would produce a 3-5 minute steady tone and would be sounded to advise persons living, working or traveling in risk portions of the County to tune to the EBS stations for further information.
8. Should any of the sirens fail to sound, the system would indicate County officials. Route alert teams would then be dispatched to provide public alert through the use of public address systems or bullhorns.

200 sirens will be installed by PECO. They will be placed on top of 50-foot utility poles. The sirens will rotate and can each be heard for a distance of about 4,000 feet. Installation will begin about Feb. 1, 1983, and should be completed by July 1, 1984.

Cost of the system will be about \$4 million.

9. County officials would activate the public alert/notification system.
10. After the activation of the alert/notification system, the County, in coordination with the State, would provide continuing emergency public information through a County Public Information Officer to be located at the County's Media Center.
11. If conditions change, the public alert/notification system would again be activated for the purpose of disseminating such recommendations to the public.
12. During the next several months, both Philadelphia Electric Company and County officials will be conducting a public education program. The public alert/notification system concept will be extensively discussed throughout the public education program.

VI. PROTECTIVE ACTIONS

Those actions taken to avoid or reduce projected exposures to radiation. The selection of a particular protective action by State and county officials depends upon the conditions of the emergency. Protective actions are based on Mass, Distance, Time concepts.

Slide - Protective
Action 15.10

Slide - Mass,
Distance, Time
15A

A. For the general public

1. Sheltering

Slide - "Sheltering"
15C

instructional message to the population on an area-wide basis throughout the 10-mile EPZ.

1. Alert: This attention signal is provided by means of a special device or group of devices capable of gaining the attention of the public. Alert devices include acoustic sirens, telephone ringing systems, route alert teams and socialization or contact by neighbors, etc.

2. Notification: The public is notified by means of an informational or instructional message through the Emergency Broadcast System EBS either by radio or TV. Specific instructions and directions are communicated.

B. Main Evacuation
Routes:

Roadways identified, in advance, as the principle routes for evacuation of persons located within the risk area. Local conditions would determine actual evacuation routes.

Slide - EPZ with
main evacuation
routes

C. Traffic Control

Points:

Locations on the main evacuation routes that would be staffed by police personnel in order to provide ease of access and continued movement of traffic.

Slide - Route 100 w/T.C. and A.C. points

D. Access Control

Points:

Pre-designated locations staffed by police personnel in order to prevent authorized entry into the risk area.

E. Host School:

Pre-designated schools which will accept staff and students evacuated from the risk area. Provisions will be made to reunite these individuals with their families from this location.

Slide - Host Schools/Reception Centers/Mass Care Centers

F. Reception Center:

Pre-designated sites, outside of the risk area, at which evacuees will be directed to mass care centers, if desired.

G. Mass Care Center:

Facilities established well beyond the risk area for the purpose of providing food, lodging,

and medical care for persons evacuating the risk area. If release of radiological materials had occurred, people would be monitored for contamination and decontaminated if necessary.

X. INCIDENT CLASSIFICATIONS

Proper protective actions undertaken during an emergency depend upon the seriousness of the incident at the power plant.

Slide - Incident Classifications

It is the responsibility of plant personnel to provide accurate information to county and state officials concerning the level of the incident classification.

The four incident classifications are:

A. Unusual Event:

A minor change has occurred in the normal plant operating procedures. No release of radioactive material is expected.

Slide - Unusual Event

B. Alert:

An abnormal plant condition exists and very small amounts of radiation may be released.

Slide - Alert

C. Site Emergency:

Plant functions needed to protect the public may

Slide - Site Emergency

fail. Releases of radioactive materials are expected to be in small amounts.

D. General Emergency:

A threat to the general public either currently exists, or is likely to occur in the near future.

Slide - General
Emergency

XI. SCHOOL RESPONSE ACTIONS

Slide - School
Response Actions

Depending on the level of classification assigned to an incident, the school response may differ. The following actions are required to meet the needs for each incident classification.

A. Unusual Event

No action required.

B. Alert

1. School Superintendent

Slide - Superintenden

- a. Verify that the school district's telecommunications system is operational.
- b. Notify school principals of Alert.
- c. Request School Transportation Officer to:
 - (1) Place drivers on standby status

- (2) Inventory and ready available transportation resources.
- (3) Review appropriate assignments and maps
- d. Order district-wide cancellation of:
 - (1) Special activities
 - (2) Extracurricular activities
 - (3) Sporting events
 - (4) Competitions
 - (5) Meetings
 - (6) Class trips
 - (7) After school activities
- e. Verify that private and parochial schools, in the district, have been notified of the Alert.
- f. Monitor emergency broadcast system.

2. Principal

Slide - Principal

- a. Prepare an immediate update of school attendance for the Superintendent.
- b. Review the situation with appropriate staff.

- c. Determine minimum emergency staffing requirements.
- d. Implement procedures for parental pick-up of students.
- e. Implement cancellation of special activities ordered by Superintendent.

3. Teaching Staff

Slide - Teaching Staff

- a. Update class attendance records.
- b. Cancel special activities ordered by principal.
- c. Prepare shelter activities.

C. Site Emergency

1. School Superintendent

Slide - Superintendent

- a. Complete all actions outlined for Alert.
- b. Notify Building Principals of Site Emergency.
- c. Report to the administrative office.
- d. Request school Transportation Coordinator to prepare vehicles for evacuation.
- e. Review host school building locations and evacuation routes with principals.

- f. Authorize implementation of emergency staffing.
- g. Report any unmet needs to County EMA.

2. Principal

Slide - Principal

- a. Complete all procedures for Alert and notify and brief staff.
- b. Confirm resources necessary for sheltering.
- c. Initiate emergency staffing as directed by Superintendent.

3. Teaching, Food Services, Maintenance and Nursing Staff

Slide - Teaching Staff
Food Services/
Maintenance/School
Nurse

- a. Complete all procedures outlined for Alert and maintain state of preparedness.

D. General Emergency

1. School Superintendent

Slide - Superintenden

- a. Complete all actions outlined for Site Emergency.
- b. Position buses at schools.
- c. Confirm assignment mobile communications units.
- d. Establish temporary district headquarters.

- e. When received, provide Protective Action Recommendations (sheltering or evacuation) to principals.

2. Principal

Slide - Principal

- a. Complete all procedures for Site Emergency.
- b. Immediately suspend any non-classroom special activities and recall students to building.
- c. Notify staff of Protective Action Recommendations.

E. Recommended Action - Sheltering

Slide

1. Superintendent

- a. Coordinate sheltering of students.
- b. Order suspension of sheltering advisory.
- c. Excuse staff upon completion of student dismissal.

2. Principal

Slide - Principal

- a. Supervise movement of personnel to shelter areas.
- b. Suspend student pick-up by parents.
- c. Secure personnel records and student files.

- d. Transfer authorization for pick-up forms to shelter area.
- e. Determine status of unmet transportation resources and inventory buses available; notify superintendent of unmet needs.
- f. Upon receipt of suspension of shelter advisory, prepare students for a delayed dismissal.

3. Teaching Staff

Slide - Teaching Staff

- a. Close windows.
- b. Move students to a shelter area.
- c. Verify attendance records.
- d. Upon notification by the principal prepare your students for a delayed dismissal.

4. Food Services

Slide - Food Services
(Sheltering)

- a. Secure cafeteria area.
- b. Provide sufficient food for an 8:00 p.m. dismissal.

5. Maintenance

Slide - Maintenance
(Sheltering)

- a. Shut down heating, ventilating, and air conditioning systems and close all ducts receiving outside air.

- b. Ensure that all exterior doors and windows are closed.
- c. Verify that no students are present in non-shelter areas.

6. School Nurse

Slide - School
Nurse (Sheltering)

- a. Obtain additional resources as needed.
- b. Secure student health records.
- c. Assemble required health supplies in shelter area.

F. Recommended Action - Evacuation

1. Superintendent

- a. Order evacuation and monitor process.
- b. Report progress/problems to County EMA.
- c. Supervise closing of host schools and movement of remaining students to designated mass care centers after 8:00 p.m.
- d. Request principals to reduce staff, as appropriate.
- e. Excuse principals/staff upon completion of student pick up.

- f. Receive student evacuation records from principals.
- g. Remain in contact with County EMA.

2. Principal

3 Slides - Principal
(Evacuation)

- a. Notify all faculty and staff.
- b. Update attendance records.
- c. If in shelter, reunite students with assigned faculty member, and update attendance.
- d. Immediately terminate any special activities.
- e. Supervise movement of students to transportation vehicles and monitor loading and seating of students and staff.
- f. Provide drivers with maps to host schools and/or mass care centers.
- g. Assign staff to accompany students in each transportation vehicle.
- h. Request unassigned staff to accompany buses in their private vehicles.
- i. Assure communications capability of at least one transportation vehicle per convoy.

- j. Provide staff with attendance records and assure recording of students in each vehicle.
- k. Supervise movement to host school.
- l. Before disembarking, verify student attendance.
- m. Assign staff to remain with students at host school until all students in staff's charge are picked up by parent or guardian.
- n. Report completion of student pickup to superintendent.
- o. Excuse remaining staff and provide superintendent a means of future contact for receipt of reentry information.

3. Teaching Staff

2 Slides - Teaching Staff (Evacuation)

- a. Verify attendance records.
- b. If already in shelter process, reunite students with assigned faculty member.
- c. Assist movement of students to transportation vehicles, monitor loading, and assign seating arrangements.
- d. Accompany your assigned students in assigned bus.

- e. Unassigned staff members should accompany buses in their private vehicles.
- f. Before disembarking from bus, verify attendance.
- g. Remain with assigned students at host school until all students are picked up by a parent or guardian.
- h. Maintain student pick-up completion forms.
- i. Report to principal for further duties.

4. Food Services

Slide - Food Services
(Evacuation)

- a. Secure cafeteria area.
- b. Report to principal for further instruction or dismissal.

5. Maintenance

Slide - Maintenance
(Evacuation)

- a. Complete items required for shelter procedures.
- b. After students and staff have evacuated the building lock all external doors.
- c. Report to principal for further instructions or dismissal.

6. School Nurse

Slide - School Nurse
(Evacuation)

- a. Assemble required health supplies in a pre-designated vehicle.
- b. Accompany buses to host school.
- c. Establish a nursing center at the host school.
- d. Report to principal upon completion of duties for further assignments or dismissal.

XII. CONCLUSION OF TRAINING PROGRAM

This concludes the training module and we now would be happy to answer any of your questions as they relate to our training program.