

# Nuclear Power Plant Emergencies



## CERT Basic Training Hazards

# A Nuclear Power Plant...

- Conforms to national safety guidelines
- Is typically a safe and secure operation
- Can, however, be an epicenter of disaster should an accident occur

# Radiation Exposure

- Daily exposure from natural sources
- Small traces present in food and water
- Radiation released from manmade sources
- Radiation has cumulative effect
  - Longer person exposed to radiation, greater risk of adverse effects
- High exposure to radiation can cause serious illness or death

# Radiation

- Potential danger from accident at nuclear power plant is exposure to radiation
- Area affected by radioactive material release is determined by:
  - Amount of radiation released from plant
  - Wind direction and speed
  - Weather conditions

# Major Hazards

- Major hazards to people in the vicinity of the plume
  - Radiation exposure to the body
  - Inhalation of radioactive materials
  - Ingestion of radioactive materials



# Emergency Planning Zones

- EPZ within a 10-mile radius of the plant
  - Possible that people could be harmed by direct radiation exposure
- EPZ within 50-mile radius from the plant
  - Radioactive materials could contaminate water supplies, food crops, and livestock

# Minimizing Exposure

Minimize radiation exposure by:

- Time
- Distance
- Shielding



# Nuclear Emergency Terms

- Notification of Unusual Event
- Alert
- Site Area Emergency
- General Emergency



# During an Emergency

- Listen to warning
- Stay tuned to local radio or television
- Evacuate, if advised to do so
- If not advised to evacuate, shelter in place

# During an Emergency

- Shelter livestock; give them stored feed
- Do not use telephone
- If you suspect exposure, shower thoroughly
  - Change clothes and shoes
  - Put exposed clothing in plastic bag
  - Seal bag, and place it out of way
- Put food in covered containers

# After an Emergency

- If told to evacuate, return home only when local authorities say that it safe
- If advised to stay in home, remain inside
- Get medical treatment for any unusual symptoms