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Outline of Emergency Operations Plan Requirements

All community water systems in Tennessee shall prepare an emergency operations plan that is approved by the Division of Water Supply. The EOP shall include but not be limited to the following information:

- A. System specific information including the following:
 - 1. Water System Information
 - a. System Name
 - b. PWSID #
 - c. Owner
 - d. Complete Street and Mailing Addresses, County
 - e. Phone Numbers, Fax Numbers, e-mail Addresses and Websites for Office, Water Plants and Emergency Operations Center (if applicable)
 - f. Main Contact Person for the Water System
 - g. Emergency Response Coordinator
 - h. Number Certified Water Plant Operators
 - i. Number Certified Distribution Operators
 - j. Population Served
 - k. Number Service Connections
 - l. Utility Companies for Electric, Natural Gas, Phone, Cell Phone
 - 2. Maps—The location and contact person for all maps and/or other secure documents should be listed in the EOP.
 - a. Water Sources (supply wells and intakes)
 - b. Distribution System Map (size and location of all water lines)
 - c. Storage and Pumping Facilities
 - d. Valves and Hydrants
 - e. Water Treatment Plant Site Map
 - 3. Data Sheets of Critical Information (quantities, capacities, description, basic information):
 - a. Water Treatment Processes (include overall process flow diagrams)
 - b. Pumping Facilities
 - c. Storage Facilities (include overflow elevation, capacity)
 - d. SCADA System
 - e. Chemical Inventory
 - f. Materials/Parts Inventory (include pipes, pumps, hydrants, blowoffs, valves, etc. that are available for system repair)
 - g. Critical Customers
 - h. Largest Customers
 - i. Security Equipment
 - j. Communication Equipment
 - k. Office Computer Equipment
- B. Roles and Responsibilities.
 - 1. Lead person or Emergency Response Coordinator (ERC) in an emergency response

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2. Alternate lead person or ERC in an emergency response
 3. Chain-of-command List for all water system personnel
- C. Communication. Contact lists should include name, title, address, daytime phone, 24-hour emergency phone, cell phone, pager, fax, e-mail, and radio or other contact numbers.
1. Internal Water System Personnel
 2. External Personnel
 - a. Local Emergency Management Agencies or LEPC
 - b. Police or Sheriff's Department
 - c. Fire Department
 - d. HAZMAT Response Team
 - e. TEMA
 - f. TN Highway Patrol
 - g. TN Divisions of Water Supply
 - h. TN Department of Health
 - i. Hospitals
 - j. Media (TV, Radio, Newspapers)
 - k. TN Homeland Security
 - l. Neighbor Water System(s)
 - m. Chemical Supplier(s)
 - n. SCADA System Vendor(s)
 - o. Approved Drinking Water Testing Laboratories
 - p. Others (List all contacts that may require communication during an emergency response. Template A-24 contains a more complete list of possible external contacts.)
 3. An Emergency Communications Plan. An alternative communication plan and equipment should be available in case primary phones (cell and/or land phones) are out of service.
 4. Communications (Media and Public) Guidelines.
 - a. Primary media spokesperson
 - b. Alternate media spokesperson
 - c. A sample public notice for "Boil Water Notice" due to low pressure, broken water mains, or positive total coliform/fecal coliform/E.Coli
- D. Personnel Safety. A Personnel Safety Checklist should include, but not be limited to the following items:
1. Evacuation plan
 2. Assembly area and accountability procedure
 3. Designate shelter area in building and off-site
 4. List and location of emergency equipment and first aid kits

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E. Alternate Water Sources. An Alternate Water Sources List should identify the following:

1. Adjacent water systems
 - a. Emergency water contracts or agreements
 - b. Location of connections (metered or nonmetered) and capacity (MGD)
2. Other short-term water sources (bottled water companies, tanker truck delivered water, etc.)

F. Equipment and Spare Parts. List all items that are available for use in an emergency response. Identify VIN numbers or serial numbers, quantity and location:

1. Vehicles
2. Heavy equipment
3. Generators
4. Large tools
5. Water testing equipment
6. Spare parts
7. Welders
8. Portable water pumps
9. Chemical (other than plant treatment chemicals)
10. 2-way radios
11. Other

G. Property Protection. Standard operating procedures for the following:

1. Lock down the water plant and other buildings
2. Secure the perimeter of the grounds
3. Preserve a crime scene

H. Water Sampling and Monitoring Plans

1. MOR of all sampling and analytical testing requirements
2. Sampling procedures including:
 - a. Determine tests to run and sample sites
 - b. Location and/or source of test kits and sample containers
 - c. # of samples and volume required for each sample
 - d. Proper collection procedures

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- e. Responsible party for collection of samples
- 3. List of TN DWS approved water testing laboratories
- I. Threat Identification Checklist—A telephone threat identification checklist should be located near every telephone.
- J. EOP Training Exercises—The water system should plan one or more of the following training exercises each year:
 - 1. General training session
 - 2. Tabletop exercise
 - 3. Full-scale drill
 - 4. Other (e.g., run plant with auxiliary power, bypass main storage tank)
- K. EOP Approval and Distribution—The water system should have the following:
 - 1. EOP Approval list
 - 2. EOP Distribution list
- L. Action Plans—Emergency action plans should be written for any major events that pose a potential threat to your water system. In order to comply with the Bioterrorism Act of 2002, we recommend you write an action plan for each item under section 1. At minimum, four more additional action plans should be written for accidental events or natural disasters.
 - 1. Response to Vulnerability Assessment and Terrorist Threats (the Bioterrorism Act of 2002 requires an action plan for the following threats)
 - a. Contamination of water system
 - b. Structural damage/physical attack to the water system
 - c. Cyber attack to SCADA system
 - d. Intentional release of hazardous chemical
 - 2. Natural Disasters:
 - a. Flood
 - b. Tornado/Very high winds
 - c. Ice storm/Heavy snow
 - d. Drought
 - e. Waterborne disease (e.g., Giardia or Cryptosporidium)
 - f. Earthquake
 - 3. Accidental Events:
 - a. Fire
 - b. Electrical power outage
 - c. Mechanical failure, e.g., major pump, line break
 - d. Cross connection
 - e. Chemical spill

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f. Radiation contamination from leak at nearby nuclear facility

4. Human-caused Events:

- a. Bomb threat over phone
- b. Personnel problem
- c. Vandalism (e.g., broken locks on storage tank hatch)

The water system should write action plans to any other major events that are real threats to your specific water system.

M. LEPC Requirement—The water system should coordinate with existing Local Emergency Planning Committees or Emergency Management Agencies when preparing or revising their EOP. Document this action by completing an Emergency Operations Planning Partners List.

N. 5-Year Requirement—The EPA requires that the water system keep a copy of the ERP for five (5) years after submitting the ERP certification to the EPA. (The Bioterrorism Act of 2002 required the submittal of a one-time ERP (or EOP) certification to the EPA.)