

What to do if an Emergency Occurs on the Oak Ridge Reservation

Emergency Preparedness Booklet

Updated February 2021

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Developed by the Tennessee Emergency Management Agency in coordination with the following agencies:



Anderson County Emergency Management Agency



City of Oak Ridge Fire Department



Knox County Emergency Management Agency



Loudon County Emergency Management Agency



Roane County Emergency Services

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How Safe is the Oak Ridge Reservation?

The Department of Energy (DOE) is committed to the safety of their employees, the public, and the environment. Their missions are complex. Transformational research, science, national security, environmental cleanup and the next generation of nuclear energy technology are performed at the two hazardous material sites on the Oak Ridge Reservation:

- Oak Ridge National Laboratory (ORNL)
- Y-12 National Security Complex (Y-12)

Although the East Tennessee Technology Park (ETTP) is a recognized site on the Oak Ridge Reservation (ORR), ETTP does not have the hazards that would require citizens to take protective actions. Therefore, the ETTP is not addressed further in this booklet.

The risk of a major emergency is very low. That's because of extensive environmental, safety and health programs in place at the sites to protect the health and safety of employees and the public. If something happens, DOE, State and local government agencies are trained to respond and ensure public safety and environmental protection.

The following sections highlight actions you should take in the event of an emergency along with background information about facilities at the ORR. Preparation is crucial, so please take a moment to become familiar with what you will need to do if an emergency occurs on the ORR.



Oak Ridge Reservation

Key Emergency Information

What do I do if there is an emergency?

DOE, State and local agencies are committed to public safety in the event an emergency arises. You will be informed of an emergency through the radio, television, and/or social media updates, and, depending on the level of emergency, the warning siren system and Emergency Alert System (EAS) messages.

If an emergency occurs, emergency responders are dispatched to the scene and trained technical and management staff are called to the Emergency Operations Center. Conditions are assessed to determine what actions are necessary to protect the public and environment. Information about the emergency will be provided through social media, news releases, and Emergency Alert System messages. The Emergency Alert System messages will provide specific protective actions the public should take, if necessary, as directed by the Tennessee Emergency Management Agency (TEMA).

Often emergency events are confined to a building or site and only impact the employees working in the immediate area. Should an event impact the area beyond the site boundaries, warning

sirens will sound to notify the public within two miles of ORNL or Y-12. If you live in a potentially affected area, you may be asked to shelter-in-place or evacuate. The key is to stay tuned to the television, radio, and social media for instructions and the latest information.

The following pages of this booklet describe this process in detail. You will know the types of emergencies declared, some background on the DOE sites, and a map of the sectors. By reading this publication, you will know what to do if an emergency occurs on the ORR.



Key Emergency Information

How We Notify the Public

For less severe emergencies, where there is not a hazardous materials release or the release is not causing a level of concern off the Oak Ridge Reservation, news releases will be issued. Protective actions by the public may not be necessary.

If there is a release of hazardous materials resulting in a level of concern offsite, a combination of resources are utilized to notify the public to take protective actions. These include the Public Warning Sirens, the Emergency Alert System, social media, and news releases.

Categorization and Classification of Events

The following describes how emergencies are classified at DOE sites. These levels increase in severity based on the emergency. You will hear these terms used during public announcements.

Events that do not involve the release of harmful levels of hazardous materials but require significant response by the site (such as evacuation of buildings and response by the Fire Department) are categorized as an **Operational Emergency**.



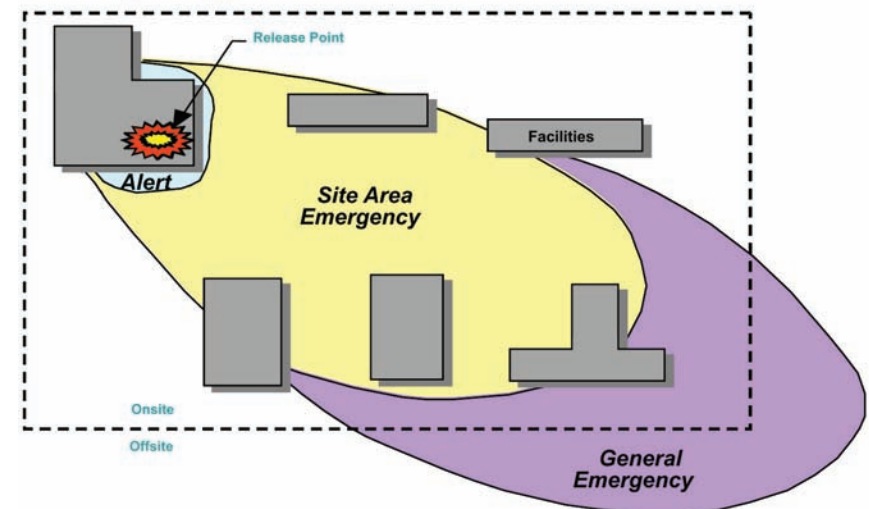
ORNL Fire Protection

Key Emergency Information

Events resulting in the airborne release of hazardous materials are further classified into one of three levels in order of increasing severity (*Alert*, *Site Area Emergency*, or *General Emergency*).

The figure below provides a representation of the classification levels. Classifying the event into a severity level activates the needed resources for the given condition.

Emergency Classification



Alert

Harmful airborne release not exceeding the facility boundary.

Site Area Emergency

Harmful airborne release that goes beyond the facility but is still onsite.

General Emergency

Harmful airborne release that has the potential to or has gone offsite.

Site is defined as within the boundaries of either ORNL or Y-12.

If You Hear the Sirens

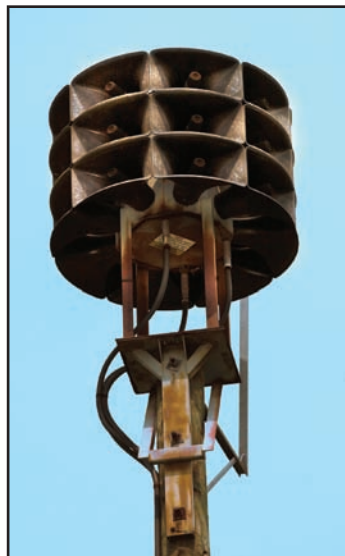
Public Warning Sirens

In the unlikely event that a release of hazardous materials causes a level of concern beyond the site's boundary, warning sirens will sound within two miles of the affected site. A steady wailing sound will be heard for three to five minutes.

Upon hearing the sirens, immediately go indoors or into a vehicle and tune to one of the local radio or television Emergency Alert System (EAS) stations for specific instructions. If you are on a lake or river, travel away from the sound of the sirens and tune to a local EAS station for specific instructions.

Emergency Alert System (EAS)

The EAS is a network of radio and television stations that provide emergency instructions to the public. The radio and television stations in the Oak Ridge area that broadcast EAS messages are listed on this page. EAS messages providing specific protective action instructions may also be sent over weather alert radios.



Protective Actions

Protective actions are taken to avoid or minimize the exposure of individuals to the hazard. During emergencies, the local authorities may direct the public to take protective actions. The two primary protective actions are to shelter-in-place or evacuate. These are described in further detail on the following pages.

Note: Public warning sirens are tested monthly, usually the first Wednesday between 11 a.m. and 2 p.m.

Tune to an EAS Radio or TV Station

EAS Radio

WJXB.....FM 97.5 

WIVKFM 107.7 

Local Television News

WATE (regional ABC affiliate)..... Channel 6



WVLT (regional CBS affiliate).....Channel 8



WBIR (regional NBC affiliate)Channel 10



WTNZ (regional FOX affiliate).....Channel 43



Monitor Social Media

During an emergency, TEMA will post real-time information about the emergency on the following social media sites:

TEMA Home page: www.tn.gov/tema

Facebook: [TNDisasterInfo](https://www.facebook.com/TNDisasterInfo)

Twitter: [@T_E_M_A](https://twitter.com/T_E_M_A)

Local Agency Notifications: To get emergency notifications on your cell or smart phone, contact your local emergency management agency (listed on Page 12).

If an emergency situation requires continuous updates to the public, a Joint Information Center will be opened for the media to obtain the latest information for broadcast to the public. A citizen's hotline will also be activated at (865) 362-8600 to answer questions from the public.

If You Are Advised to Shelter-in-Place

Sheltering-in-place provides protection from potential airborne hazardous materials that may have been released.

If you are asked to shelter-in-place at work or at home, follow these instructions:

- Bring everyone inside (including pets).
- Close all doors and windows.
- Turn off or close all ventilation systems, including:
 - Air conditioning
 - Attic & exhaust fans
 - Furnaces
 - Fireplace dampers
 - Heating/cooling systems
- Determine what sector you are in (see *Page 6*).
- Continue to shelter-in-place and listen to one of the EAS stations.
- When the outside air is no longer dangerous, the EAS will announce that sheltering-in-place has ended, and that it is safe to open and ventilate your home or building.
- Shelters (reception centers) may be opened for individuals who cannot return home because a shelter-in-place has been ordered for the area in which they live. If you are affected in this manner, please listen to EAS stations for announcements of shelters being opened or go to the home of a friend or relative that is outside the area of concern.



Oak Ridge Emergency Operations Center

If You Are Asked to Evacuate

Evacuation

An evacuation may be conducted when there is a concern that hazardous materials may impact people in a certain area. If you are directed to evacuate from your home or while at work, follow these guidelines:

- Write down the evacuation route and designated shelter provided by the EAS stations. These instructions will depend on what sector you are currently in (see map and shelter list) and what site is involved in the emergency.
- If you do not have transportation, call a neighbor or co-worker for assistance. **DO NOT CALL 911.**
- Keep your vehicle windows closed and turn off air systems to eliminate the possible intake of outside air into your vehicle.
- Tune your vehicle's radio to one of the EAS stations listed on *Page 3*.
- Secure your home or workplace. Before leaving home, tie a white cloth or towel on your front door to indicate to emergency officials that you have evacuated.



Emergency Planning

- If you are at home, gather items you will need for a short stay away from home, such as:
 - ☐ This booklet
 - ☐ Medicine and all prescriptions
 - ☐ Personal health products
 - ☐ Special diet food and supplies
 - ☐ Food, water, and pet food
 - ☐ Blankets, pillows, and/or sleeping bag
 - ☐ Cash, checkbook, debit and credit cards, and important papers
 - ☐ Items for baby
 - ☐ Items for children
 - ☐ Change of clothing
 - ☐ Cell phone and charger

Children in School during an Emergency

Every school in the potentially affected area has an emergency plan that will be implemented to ensure your children are kept safe.

Affected schools will be notified of the DOE emergency by local officials. Your children will be sheltered in their school until it is safe to leave.

In the event of a relocation, your children will be transported by school officials to a safe facility outside of the affected area.

[PARENTS: DO NOT pick up your children until you are told it is safe to do so]



School administration will handle emergency actions at their facilities.

What Schools are in the Five-Mile EPZ?

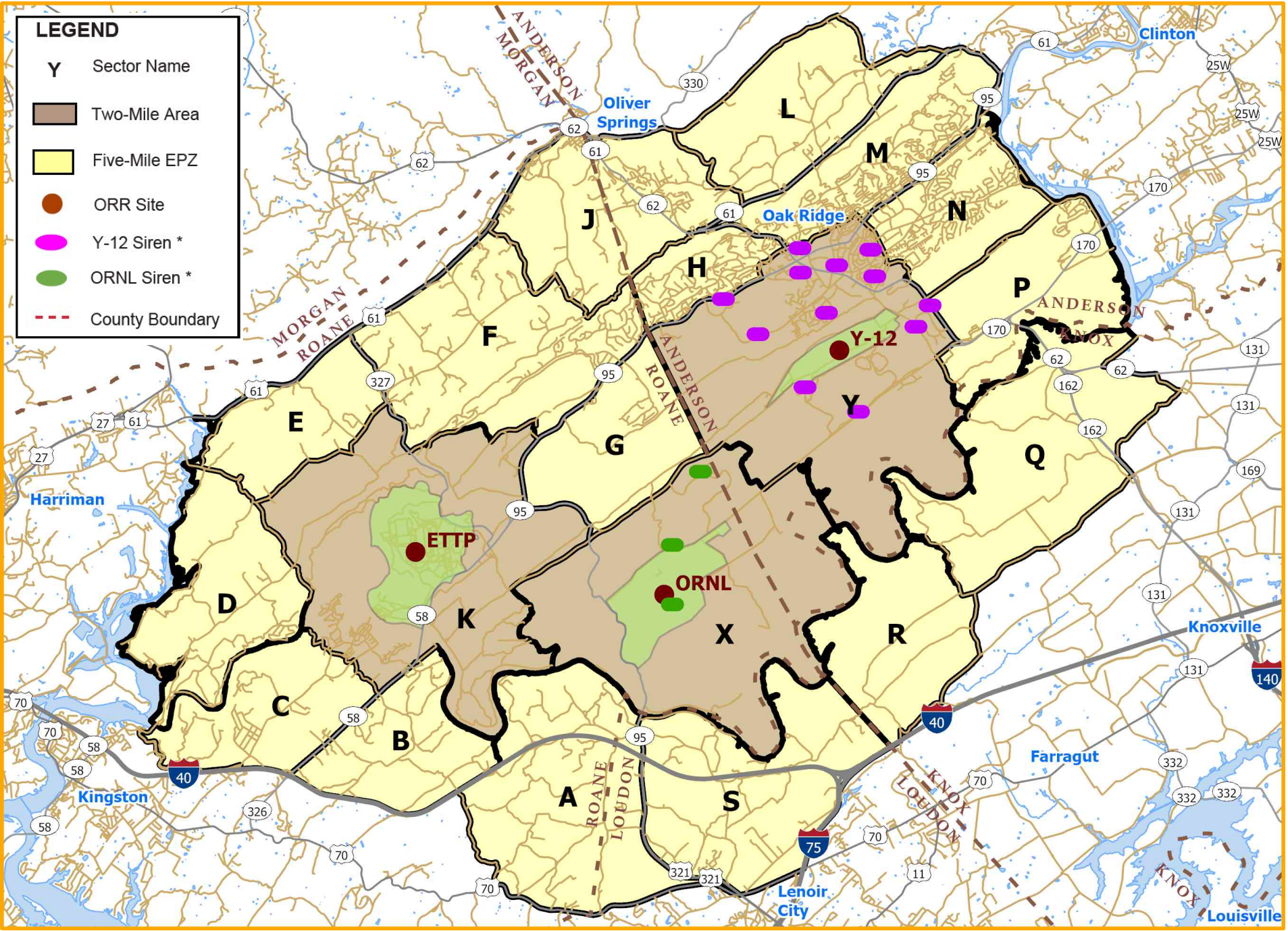
School Name	Sector (School District)
Linden Elementary.....	Sector H (Oak Ridge)
Willow Brook Elementary.....	Sector H (Oak Ridge)
Norwood Elementary.....	Sector J (Anderson County)
Norwood Middle School.....	Sector J (Anderson County)
Oliver Springs High School.....	Sector J (Roane County)
Oliver Springs Middle School.....	Sector J (Roane County)
Dyllis Springs Elementary.....	Sector J (Roane County)
Grand Oaks Elementary.....	Sector M (Anderson County)
Glenwood Elementary.....	Sector M (Oak Ridge)
Preschool.....	Sector M (Oak Ridge)
Christian Academy of Oak Ridge.....	Sector N (Private)
Jefferson Middle School.....	Sector N (Oak Ridge)
Hardin Valley Academy	Sector Q (Knox County)
Hardin Valley Elementary.....	Sector Q (Knox County)
Hardin Valley Middle.....	Sector Q (Knox County)
Eaton Elementary.....	Sector S (Loudon County)
North Middle School.....	Sector S (Loudon County)
St. Mary's School	Sector Y (Private)
Oak Ridge High School.....	Sector Y (Oak Ridge)
Robertsville Middle School.....	Sector Y (Oak Ridge)
Woodland Elementary School.....	Sector Y (Oak Ridge)

Emergency Planning Sectors: Where do I Live and Work?

I live in Sector _____

I work in Sector _____

* Note: Sirens are installed only in the first two miles of the five-mile EPZ. If an emergency requires protective actions beyond the two-mile area, citizens will be alerted via EAS messages, social media, or local notification systems.



Where are the Shelters ("Reception Centers") Located?



Clinton Community Center
101 Hicks Street
Clinton, TN 37716



Karns High School
2710 Byington Solway Road
Knoxville, TN 37931



Oak Ridge High School
127 Providence Road
Oak Ridge, TN 37830



Loudon High School
1039 Mulberry Street
Loudon, TN 37774



**Roane State Community College
Harriman Campus**
276 Patton Lane
Harriman, TN 37748

Oak Ridge National Laboratory (ORNL)

The Oak Ridge National Laboratory (ORNL), originally Clinton Laboratories, was established in 1943 to pioneer a method for producing and separating plutonium. Today, ORNL is the largest DOE science and energy laboratory. ORNL's mission is to deliver scientific discoveries and technical breakthroughs that will accelerate the development and deployment of solutions in clean energy and global security while creating economic opportunities for the nation. Building on signature strengths in neutron scattering, high-performance computing, advanced materials, and nuclear science and engineering, ORNL's research and development (R&D) portfolio includes forefront science using neutrons; leadership-class computing, data infrastructure, and data analytics for science; advanced materials for energy applications; next-generation nuclear power; biological, environmental, and earth system science; sustainable solutions for buildings, transportation, manufacturing, and energy generation and consumption; isotopes for medicine, research, energy exploration, and industry; and science and technology for national security.

ORNL Quick Facts

Location:

- Sector X in both Anderson and Roane Counties.
- Approximately seven miles from the population center of the City of Oak Ridge.

Size:

- Total land area of nearly 16,285 acres.
- The Laboratory proper encompasses 330 acres, with outlying facilities and waste management storage encompassing another 1,135 acres.
- The remaining acres are mostly undeveloped eastern deciduous forestland including the Oak Ridge National Environmental Research Park.

Workforce:

- UT-Battelle, LLC (UT-Battelle), is the primary contractor for ORNL.
- Some facilities are managed and operated by other contractors such as Isotek Systems, LLC (Isotek), North Wind Solutions, LLC (NWSol), and URS | CH2M Oak Ridge, LLC (UCOR, an Amentum-led partnership with Jacobs).
- Average of 4,000–5,000 individuals, the majority of whom are UT-Battelle employees.
- Approximately 3,200 research guests annually.

Additional Information:

<https://www.ornl.gov/>



Oak Ridge National Laboratory, Laboratory proper.

Y-12 National Security Complex (Y-12)

Constructed in 1943 as part of the World War II Manhattan Project, Y-12 provided the enriched uranium for Little Boy, the atomic bomb dropped on Hiroshima, Japan. In the years following World War II, Y-12 evolved into a high-precision manufacturing assembly and inspection facility while maintaining the nation's uranium and lithium technology base.

Y-12's current missions include production and rework of complex nuclear weapon components; receipt, storage, and protection of special nuclear materials; supplying the U.S. Navy with material for fabrication of reactor fuel; preventing the spread of weapons of mass destruction; and support to DOE and other Federal agencies.

Y-12 Quick Facts

Location:

- Sector Y in the City of Oak Ridge, Anderson County.
- About three miles southwest of the main business district of the City of Oak Ridge and about 20 miles west-northwest of Knoxville.
- The closest residents to Y-12 are in the City's Scarboro neighborhood.

Size:

- About 811 acres, with 2.5 miles between its east and west boundaries.
- Approximately 630 acres enclosed by perimeter security fencing.

Workforce

- Total personnel onsite is about 6,000.
- Consolidated Nuclear Security, LLC (CNS) manages and operates Y-12 along with the Pantex Plant in Texas under a single contract from the U.S. Department of Energy/NNSA.

Additional Information:

- www.y12.doe.gov
- Y-12 Emergency Public Information link:
www.y12.doe.gov/about/emergency-public-information
- Follow Y-12 on Facebook and Twitter.



Y-12 National Security Complex: Looking westward

Where can I get more Information?

Local Emergency Management Agencies

Your first stop to get more information about emergency preparedness or response should be your local emergency management agency.

The contacts below will allow you to submit a special needs request if you or someone in your household has special needs, such as hearing or physical impairments that would prevent taking protective actions.

These links also provide instructions on how to register for timely notifications of an emergency over your smartphone or other digital device.

Anderson County Emergency Management Agency

(865) 457-6765 or (865) 457-6767

anderson-county.com/mayor/emergencymanagement/

Knoxville-Knox County Emergency Management Agency

(865) 215-1166

knoxvilletn.gov/government/city_departments_offices/knoxville-knox_co_emergency_management_agency

Loudon County Emergency Management Agency

(865) 458-7298

loudoncountyemergencymanagement.org/

Roane County Office of Emergency Services

(865) 717-4115

roanecountytn.gov/office-of-emergency-services/

City of Oak Ridge Fire Department

(865) 425-3520

oakridgetn.gov/department/FireDept/Home

Tennessee Emergency Management Agency

Tennessee state law and the Governor's executive authority empowers the Tennessee Emergency Management Agency (TEMA) to protect the public from disasters and emergencies. The foundation for this authority is Tennessee Code Annotated (TCA) 58-2-101 through TCA 58-2-124. TEMA is the lead state agency during a State of Emergency and ensures the Governor's orders are implemented to protect lives and property until the emergency has passed.

TEMA supports local jurisdictions during a DOE emergency in managing the flow of assets, services, and teams to address the emergency; if necessary, activate the State Emergency Operations Center to coordinate and communicate with critical emergency functions; and reach out for mutual aid from other departments or agencies of the state, from local jurisdictions, from other states, and from DOE to provide federal government assistance.

After the DOE emergency has passed, TEMA then works with local jurisdictions to conduct damage assessments, to ensure local needs are met, and to coordinate any federal assistance programs provided as a result of the disaster to help people recover.

For more information on how to prepare for emergencies, or to learn more about TEMA's role in protecting citizens during emergencies and disasters, please visit the TEMA website at:

<https://www.tn.gov/tema.html>

TEMA's Mission: *To coordinate preparedness, response, and recovery from man-made, natural, and technological hazards in a professional and efficient manner in concert with our stakeholders.*