Wolf Creek Emergency Preparedness

An emergency at Wolf Creek, although unlikely, is possible. A problem with pumps, valves, or pipes inside the plant could cause it to stop operating properly. If problems escalate, it is possible that radioactive material may be released to the environment. In the unlikely event this occurs, the following information outlines how Wolf Creek is prepared to communicate with the public and address the situation.

Emergency Classifications

The Nuclear Regulatory Commission established four emergency classifications for nuclear power plants: Notification of Unusual Event (NUE), Alert, Site Area Emergency and General Emergency.

An NUE is the least serious of the four classifications. Because of strict federal regulations, any event out of the ordinary is reported to federal, state, and local authorities. An NUE poses no risk to area residents. A minor problem exists, but a release of radioactive material is not likely.

An Alert is declared when an event has occurred that could reduce the level of safety at the plant, but back-up plant systems are available. Emergency agencies are notified and asked to stay in touch, but no action by the public is necessary. A release of radioactive material is not likely.

A Site Area Emergency is a more serious event. It is declared when there is a problem with plant safety systems, and a release of small amounts of radioactivity into the air or water into the area around the plant is possible.

A General Emergency is the most severe classification. It is declared when an event at the plant has caused a loss of several safety systems that could lead to radioactive material being released outside the plant. State and County officials would take actions to protect the health and safety of the public near the plant. County, state and federal officials are notified at each emergency classification. Officials will work closely with plant personnel to respond to the emergency and will keep you informed of actions you should take.

How will you be told about an emergency?

Coffey County will activate the Integrated Public Alert and Warning System (IPAWS) for a Wolf Creek emergency, tornado or natural disaster. IPAWS is a system used to alert the public which may use, but is not limited to, analog, digital and satellite radio and television via the Emergency Alert System (EAS); cell phones and mobile devices via Wireless Emergency Alerts; NOAA All Hazards National Weather Radio via the IPAWS-NOAA gateway; internet applications and websites that direct you to listen to EAS broadcasts. Be sure your phone is set to receive alert notifications.

Emergency Alert Broadcast Station

Emergency alert broadcasts are carried on the Emergency Alert System.
These area radio and TV stations broadcast EAS messages:

FM Radio	AM Radio	Television
WIBW 94.5*	**WIBW 580**	**WIBW-TV (Ch. 13)**
KSNP 97.7	**KOFO 1220**	**KOAM-TV (Ch. 7)**
KFFX 104.9	**KVOE 1400**	
KMXN 92.9		

**** Primary EAS station—broadcasts 24 hours a day.***

Should you use the phone?

During emergencies, phone lines and cellular systems are needed for official business. Do not use your telephone or cellular phone unless you need information to dispel rumors or other advice. If necessary, call: (833) 723-3800.

During an emergency, information may be viewed on the plant web site: https://www.evergy.com/landing/wolf-creek-nuclear-generating-stationk Nuclear Generating Station and on the Coffey County website: https://www.coffeycountyks.org/234/Emergency-Management.

Emergency actions you might need to take

You may be asked to shelter in place, protect your breathing or evacuate. If told to shelter-in-place, go inside your house or other building. Stay inside until radio or TV broadcasts report you can leave safely. Close all windows and doors. Turn off all outside sources of air (attic fans, window fans). Turn heating and air conditioning systems off. Put out fires in fireplaces or stoves. Close flues. Listen to an emergency broadcast radio or television station for updates. Keep pets inside.

If told to protect your breathing, cover your nose and mouth with a dampened handkerchief folded into eight layers, or towel folded into at least two layers.

If told to evacuate, leave your house as you would if leaving for a few days. Take essentials such as medications, eyeglasses, extra clothes, bedding, towels, dentures, toiletries, baby supplies, checkbook, credit cards and identification. Tie a white cloth to the outside of your front door if you live in town, or to your mailbox if you live in the country to let officials know that you have evacuated. If you need a ride, call (620) 364-2441.

What is radiation?

Radiation and radioactive materials are a natural part of our environment. They are in the air we breathe, the food we eat, the soil, our homes and even our bodies. The level of radiation naturally existing in our environment is called "background radiation." We are also exposed to sources of man-made radiation such as X-ray machines, and color televisions.

The kind of radiation nuclear power plants are concerned with is called ionizing radiation because it can produce charged particles in matter. Ionizing radiation is produced by unstable atoms. Atoms with unstable nuclei are said to be radioactive. To reach stability, these atoms give off, or emit, the excess energy or mass.

Radiation Safety

Wolf Creek personnel take radiation seriously. Many layers of redundant safety systems are used to keep radiation safely contained where it should be—inside the steel, concrete, and advanced technology of the nuclear facility. The nuclear industry has a responsibility to protect the public from radiation.

Radiation is naturally present in our environment. It can have either beneficial or harmful effects, depending on its use and control. Congress charged the NRC with protecting people and the environment from unnecessary radiation exposure as a result of civilian uses of nuclear materials. The NRC requires nuclear power plants; research reactors; and other medical, industrial, and academic licensees to use and store radioactive materials in a way that eliminates unnecessary exposure and protects radiation workers and the public.

Commercial nuclear power plants emit small amounts of radiation during routine operation. To promote safety, agencies such as the NRC, Environmental Protection Agency and Departments of Energy and Transportation, establish radiation protection regulations based on internationally recognized scientific studies at U.S. nuclear plants. The NRC sets limits in the amount of radiation that workers can be exposed to annually.

For more information on the industry's radiation guidelines and safety standards, see the NRC's Radiation Protection Web page or the EPA's Radiation Protection Web page:

- http://www.nrc.gov/about-nrc/radiation.html
- http://www.epa.gov/radiation

The Health Physics Society is a nonprofit organization of professionals in various fields of science who aim to promote radiation safety. It provides information to organizations that deal with radioactive materials, from academia to medicine to government to the nuclear industry. The society's Radiation Answers website provides detailed information on where radiation comes from and how it is used and debunks common myths. For more information check out their Web page: http://www.hps.org/

How is radiation measured?

The dose people receive from radiation exposure is measured in millirem. The average background radiation dose received by a person living in the United States is about 620 millirem per year. This includes dose received from medical, consumer products, occupational and environmental sources. Persons living near a commercial nuclear power station receive less than one additional millirem per year from normal plant operation.

Annual U.S. Estimated Radiation Dose per Person
Average annual effective dose (mrem)

- **Radon and other radionuclides we eat, drink, or breathe 257**
- **Radiation from soils, rocks, building materials 21**
- **Cosmic radiation 33**
- **Human-made sources 311**
- **Total 622**

Most of the radiation dose we receive is from naturally occurring sources—most of this is from radon. The next largest dose is from medical radiation. The smallest dose we receive (less than one percent) is from nuclear power plant emissions and fallout from past atomic bomb detonations.

Effects of radioactive deposits on food and water

Radiological effects on people, animals, crops, land and water depend on the amount of radioactive material released into the atmosphere, time of year and weather conditions.

Of initial concern is the condition of fresh milk from dairy animals grazing on pasture and drinking from open water sources. A later concern is the possible contamination of vegetables, grains, fruits and nuts.

Contamination of drinking water supplies is not likely. If it occurs, it will probably affect only surface water supplies and not ground wells or underground water sources.

If you have questions about radiological emergency preparedness in Kansas, contact:

Adjutant General's Department
Kansas Division of Emergency Management
Technological Hazards Section
State Defense Building
2800 SW Topeka Blvd. Topeka, KS 66611-1287
(785) 646-2000

Effects of radioactive deposits on livestock

During an emergency, livestock may require shelter and protected food. Leave a supply of food and water available for animals. Place food and water in covered areas to minimize potential radioactive contamination. The Coffey County Agricultural Extension Office will answer questions and can help with your livestock and agricultural protection planning. Contact them at:

Coffey County Courthouse
110 S. 6th Street
Burlington, KS 66839
(620) 364-5313
https://www.coffeycountyks.org/234/Emergency-Management

If you evacuate, stop at the Lyon County Reception Center. This helps emergency officials and family members find you and know you are safe. Notify the facility staff if you need medical care or special help. Directions will be provided at the reception center for those who need shelter.

The Lyon County Reception Center is located at Hartford High School, 100 Commercial St., Hartford. This facility is a reception center for monitoring, registration and evacuee decontamination if needed. Other routes may be preferred depending on a given situation, location, or road condition. Officials at the reception center will guide you through the monitoring process.

The Woodson County Reception Center is located at 809 West Mary St., Yates Center. Travel south on US Hwy. 75 south to Yates Center. At the intersection of Hwy. 75 and W. Washington Street, turn right (west). Travel approximately two blocks to the Woodson County Rural Fire Station.

Other routes may be preferred depending on a given situation, location, or road conditions. If you encounter an obstruction in an evacuation route, follow the posted detour or directions of emergency workers.

Both reception centers provide monitoring, registration and evacuee decontamination if needed. Officials at the reception center will guide you through the monitoring process.

As you leave your home, check on neighbors and friends to make sure they are aware of the emergency. Patients in hospitals and residents in nursing homes will be taken to Emporia. Listen to area radio and television for exact housing locations. Coffey County prisoners will be taken to Emporia and housed in appropriate facilities.

Children in public school will be taken to the Reception Center at Hartford School. Private schools, day care providers and babysitters should have evacuation plans that they communicate to parents in case of an emergency at Wolf Creek.

Family readiness

Prepare a list of the items your family will need if you are asked to evacuate. The list will help you quickly gather:

* important papers	* bedding	* dentures
* portable radio	* medicines	* checkbook
* extra clothing	* tool kit	* eyeglasses
* prescription drugs	* flashlight	* baby supplies
* credit/debit cards	* identification	

For more information on preparing a list, check out: **https://www.ready.gov/kit.**

Potassium iodide (KI)

KI is used in certain situations to protect the thyroid gland from taking in radioactive iodine. If taken before or within an hour of exposure to radioactive iodine, KI can block about 90 percent of the radioactive iodine from being absorbed by the thyroid gland.

After careful consideration of all factors involved in the distribution of a thyroid-blocking agent such as KI, the State of Kansas determined that potassium iodide provides no significant enhancement to public protection beyond that which can be effectively achieved through the implementation of the existing and modified protective actions defined within the emergency plan.

The State will not stockpile and administer KI to the general public. The State's strategy is that the general public can be adequately safeguarded by timely implementation of other protective actions such as evacuation and/or in-house sheltering. While the State does not intend to recommend the use of KI by the general public, it acknowledges that individual members of the public may elect to obtain and use the drug voluntarily if they so desire.

For more information about KI, visit the Federal Drug Administration Web page:

https://www.fda.gov/drugs/bioterrorism-and-drug-preparedness/radiation-emergencies
or call 888-463-6332.

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https://www.evergy.com/landing/wolf-creek-nuclear-generating-station
www.coffeycountyks.org
www.kansastag.gov