

COOK NUCLEAR PLANT

2019 Emergency Information for Berrien County

READ THIS NOW AND THEN DISPLAY IT FOR EASY ACCESS



**INDIANA
MICHIGAN
POWER**
An AEP Company

WHAT TO DO IF YOU HEAR EMERGENCY WARNING SIRENS

In Berrien County, we use early-warning sirens and cell phone texts to alert you of a serious emergency. Such emergencies include a nuclear accident, chemical spill, severe weather or other possible dangerous condition in our county.

- ▶ **If the emergency warning siren sounds for three to five minutes, tune to any TV station or radio station listed in this section, or check your cell phone or other wireless communication device for emergency messages.** Berrien County uses a national alert and warning system to send emergency messages to you.
 - Emergency Alert System (EAS) messages are sent through TV and radio stations. All of the TV and radio stations listed here are part of the EAS. Some of the stations may experience a delay in getting emergency information out due to computerized programming or limited broadcast scheduling. Check all of the listed stations until you find one that is broadcasting emergency information.
 - Cell phones and other wireless devices receive Wireless Emergency Alerts (WEA). If your wireless carrier participates in the WEA system you will receive emergency alerts automatically. WEA messages are not charged to your wireless data plan.
- ▶ **If you hear an emergency siren that lasts for less than a minute or a siren that repeats in less-than-a-minute intervals, it is probably calling a volunteer fire department.** To be sure, tune to any radio or TV station listed here or check your cell phone for emergency messages.
- ▶ **If you notice that an emergency siren is damaged or not working, call 269-926-2638 immediately.** The Berrien County Emergency Management Office maintains the sirens. For your protection, report non-working sirens right away.

Vacationers and Visitors

If you hear emergency sirens while vacationing or visiting in the area, seek shelter indoors or in your vehicle. Tune to one of the TV or radio stations listed on this page. Follow all directions given by park officials, sheriff and police officers. **During a weather emergency, do not stay in your vehicle. It is not safe!**

Boaters and Campers

If you hear emergency sirens while boating, do not wait for further warning. Tune to the marine channel 16 (156.8 MHz) or to an area radio station listed on the right for emergency information. Marine patrol boats will also warn boaters on Lake Michigan if there is a serious emergency. You will be told the location of safe waterways and docking areas.

If you hear emergency sirens while camping, hiking, swimming or visiting in area parks, follow all emergency instructions from park officials. At Warren Dunes and Grand Mere state parks, officials will use the public address system or mobile alert units to let you know what to do. At other local parks, immediately tune to an area radio station listed on the right and follow instructions.



THE SIRENS ARE TESTED ON THE FIRST SATURDAY OF THE MONTH AT 1 P.M.

All monthly tests, except for April, consist of a short siren sound lasting less than a minute. On the first Saturday of April, we test all emergency warning sirens for three minutes at 1 p.m. as part of our comprehensive safety plan. At other times, you may hear sound-level tests also lasting less than a minute.

Area radio and TV stations

TUNE TO ONE OF THESE RADIO OR TV STATIONS FOR EMERGENCY INFORMATION

Radio			
AM	FM		
WNIL - 1290	WAUS - 90.7	WEFM - 95.9	WQLQ - 99.9
WSJM - 1400	WSJM - 94.9	WYTZ - 97.5	WCSY - 103.7
	WAOR - 95.3	WCXT - 98.3	WIRX - 107.1

TV		
WNDU - NBC 16	WSBT - CBS 22	WBND - ABC 57
WNDU - NBC 16.1	WSBT - CBS 22.1	WBND - ABC 57.1
WNDU - 16.2	WSBT - FOX 22.2	

All call letters are accurate at the time of printing. All stations are on the air 24 hours. Check your cable or satellite provider for your channel lineup.

FOLLOW ALL BROADCAST INSTRUCTIONS PROMPTLY. The radio or TV newscaster will tell you what actions you should take, if any.

WHAT TO DO IF YOU ARE TOLD TO SEEK SHELTER OR STAY INDOORS

For most emergencies, it is safer to stay indoors. The wind will blow any toxic or poisonous fumes and gases away in a short time. During a severe weather emergency, buildings offer the best protection, especially basements. While indoors, do the following:

- ▶ **Keep calm.** Panic is your worst enemy in any emergency.
- ▶ **Close all windows and doors, and bring pets inside.**
- ▶ **Turn off all air-intake systems** such as fans and air conditioners. Turn down furnace thermostat. Close fireplace dampers.
- ▶ **If your building has a basement, take a radio and go there.**
- ▶ **Do not go outside until you are told it is safe to go out or are told to evacuate.** If you must go outdoors briefly to warn someone during a nuclear emergency, cover your nose and mouth with a cloth towel or scarf.
- ▶ **Do not use the telephone or internet** unless it is absolutely necessary. It's important to keep telephone lines open for emergency use.
- ▶ **Stay out of your car or vehicle in a weather emergency.** Seek shelter in the basement of a nearby building or in a ditch until the weather emergency passes.
- ▶ **Do not pick up children from schools or day care centers.** School staff and child caregivers will keep children in school until it is safe to go out again.


B-WARN! EMERGENCY ALERTS: Sign up for Berrien County's opt-in notification system to receive emergency alerts via your landline phones, email and mobile devices. On the www.bcsheriff.org homepage, click on the **Divisions** tab and select **Emergency Management & Homeland Security Division** from the sidebar. Click the **B-WARN!** button, click the **Sign Up Today** button and fill out the form.

FUNCTIONAL NEEDS: If you might need special help in an emergency, fill out the back of the card to the right and mail it right away.

In an emergency, a person with a functional need may include anyone with vision or hearing impairments, physical or mental disabilities, or someone who has no means of transportation. If you might need help in an emergency, please fill out the Functional Needs card on the next page and mail it in today. **It is important to note that you should update and mail in your Functional Needs card each year.** The Berrien County Health Department will keep your functional needs information on file for one year. Your information will be kept confidential. Please fill out a new card and mail it in as soon as you receive your new calendar, if needed.

If you know someone with functional needs who lives within the 10-mile Emergency Planning Zone (see page 16), please volunteer to help them in an emergency. If this is not practical or possible, please discuss and/or assist them in filling out this emergency card.

2019 FUNCTIONAL NEEDS CARD

Cut along this line. 



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 10 BRIDGMAN MI

POSTAGE WILL BE PAID BY ADDRESSEE

DIVISION OF BERRIEN COUNTY SHERIFF'S OFFICE
BERRIEN COUNTY EMERGENCY MANAGEMENT
2100 E EMPIRE AVE
BENTON HARBOR MI 49022-9895



FOLD HERE

**If you have functional needs,
fill out the other side of this card.
Cut this card out, fold and seal it,
then put it into the mail.**

WHAT TO DO IF YOU ARE TOLD TO EVACUATE

Cook Nuclear Public Inquiry Line: 866-362-3105

- ▶ **Listen to the radio or TV (see page 15) for instructions.** They will give you evacuation routes and directions to open reception centers.
- ▶ **Go directly to a reception center and register.** Follow the broadcasted evacuation route instructions to the nearest open reception center. Please register when you arrive so family and friends will know where you are. After you have registered you may go to stay with friends or family who live outside the danger area. Or, if you prefer, you will be assigned to a safe, nearby gathering place.
- ▶ **Stay calm.** You and others with you should have time to get ready to leave safely.
- ▶ **Take only essential items.** Pack as if you were going on a trip for only a few days. Use the list below as a guide.
- ▶ **Do not take firearms, alcoholic beverages or illegal drugs.**
- ▶ **If you have functional needs and have sent in a postcard,** you will receive necessary assistance. If you need help, listen to a local TV or radio station listed on page 15 for the telephone number you can call.
- ▶ **Have a plan for your pets.** Currently, reception centers will only accept pets if they are service animals. Make arrangements to stay with relatives, friends or at a pet-friendly hotel outside of the area. Bring an emergency pet kit (see the checklist below). For more information, go to ready.gov/caring-animals, PetTravel.com and PetsWelcome.com.
- ▶ **Turn off small appliances, lights and water faucets.** However, leave your refrigerator and freezer on.
- ▶ **Turn off all air-intake systems** such as fans and air conditioning. Turn down furnace thermostat. Close fireplace dampers.
- ▶ **Close and lock all windows and doors.** The evacuated area will be secured and you will not be allowed to return until it is safe.
- ▶ **Check on neighbors.** Make sure they know how to evacuate and that they have transportation.

IMPORTANT: Do not pick up your children from schools or child care centers. If necessary, they will be taken to shelters outside the danger zone. Listen for directions on TV or radio stations (see page 15) about where and when they can be picked up. Do not worry if you or family members are in a hospital or other special-care facility, as they also have emergency procedures.

2019 FUNCTIONAL NEEDS INFORMATION

If you have functional needs, please fill in this card, fold, seal it with tape and mail today!
You must send in a card each year to keep our files up-to-date.

NAME: _____

STREET ADDRESS: _____

CITY: _____

ZIP: _____

PHONE: () _____

If there are special directions to your home, please contact Berrien County
Emergency Management at 269-983-7111, Ext. 4915.

IF YOU ARE A PART-TIME RESIDENT, PLEASE CIRCLE THE MONTHS YOU STAY IN BERRIEN COUNTY:

JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC

YOUR FUNCTIONAL NEED (CIRCLE ALL THAT APPLY):

VISION-IMPAIRED HEARING/SPEECH-IMPAIRED WHEELCHAIR WALKER/CANE BEDRIDDEN
VENTILATOR OXYGEN OTHER: _____

TRANSPORTATION INFORMATION:

Could a family member or friend give you transportation if you were asked to evacuate in an emergency?
YES _____ NO _____ POSSIBLY _____

PET INFORMATION:

Do you have pets at home that would require attention if you were asked to evacuate in an emergency?
If so, indicate the number of:

CATS: _____ DOGS: _____ SERVICE DOGS: _____

OTHER (DESCRIBE): _____

EMERGENCY CONTACTS:

PRIMARY: _____ RELATIONSHIP: _____ PHONE: _____

ALTERNATE: _____ RELATIONSHIP: _____ PHONE: _____

What to Bring With You

- ❑ **Basics:** this calendar, cash, portable radio, flashlight, extra batteries, keys, tool kit, credit/debit cards, checkbook, wallet, purse, cell phone and charger
- ❑ **Bedding:** blankets, pillows, sleeping bags
- ❑ **Toiletries:** soap, towels, toothpaste, toothbrushes, razors, sanitary supplies
- ❑ **Special items:** special-diet foods, baby formula and bottles, diapers, favorite toys or games
- ❑ **Health supplies:** medicines, glasses, dentures, hearing aids, first-aid kit, prescription information
- ❑ **Identification:** driver's license, credit cards, important papers
- ❑ **Pet supplies:** food, water, medicines, leashes, tags

ONCE YOU ARE IN YOUR VEHICLE

- **Drive carefully.** There is no need to speed. Follow directions of all sheriff, police and traffic officers.
- **Close all windows and vents.** Shut off heating and air conditioning.
- **Listen to the radio (see page 15).** Follow emergency instructions broadcast on your car or portable radio. You will be told when it is safe to return.

Reception Center Locations

The locations of the four reception centers are listed below. Listen to an area radio or TV station (see page 15) to learn which reception centers are open.

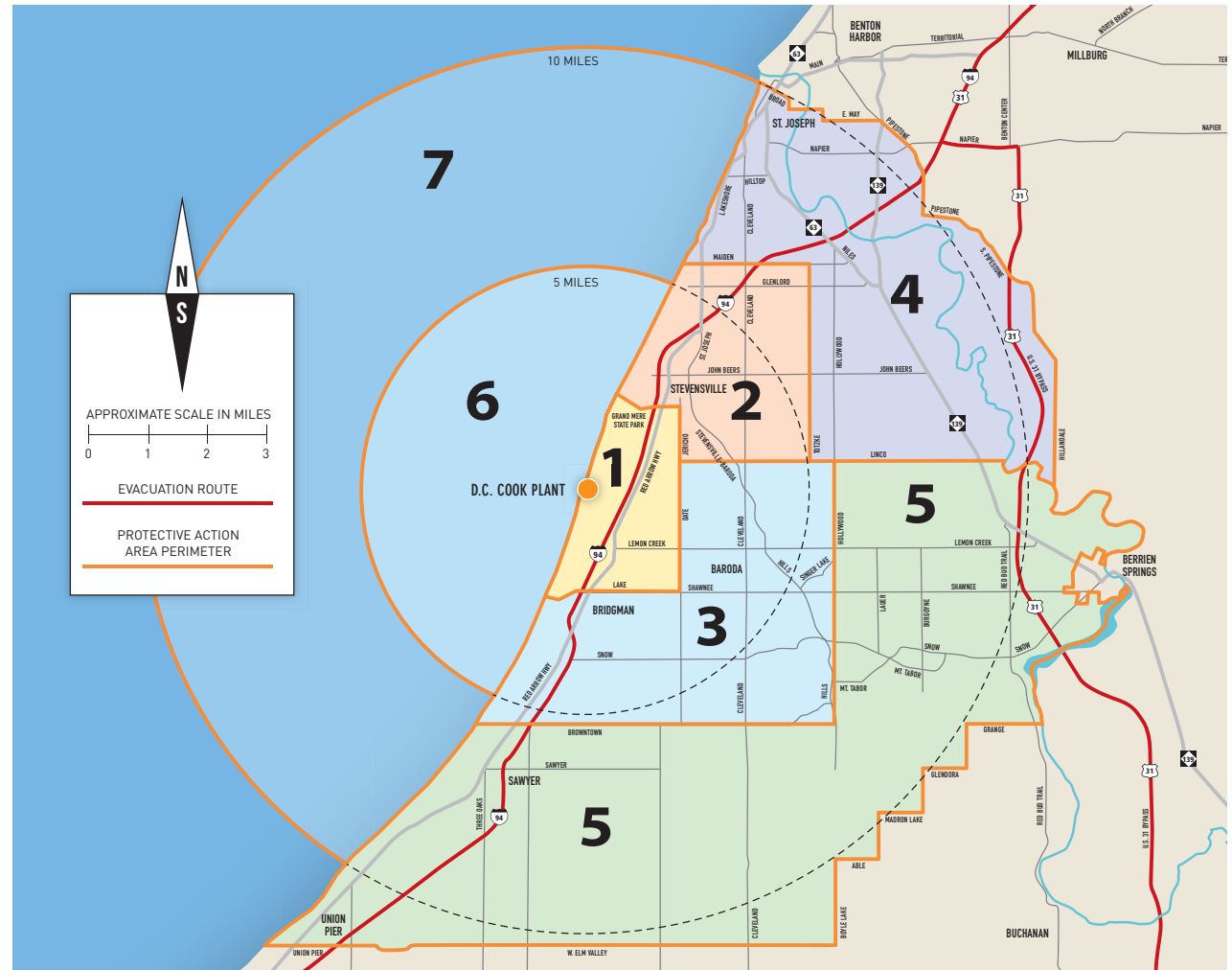
<p>BRANDYWINE HIGH SCHOOL 1700 Bell Road, Niles (South of Niles & East of M-51)</p>
<p>COLOMA HIGH SCHOOL 300 W. St. Joseph Street, Coloma (Red Arrow Highway)</p>
<p>NEW BUFFALO HIGH SCHOOL 1112 E. Clay Street, New Buffalo (South of US-12)</p>
<p>WATERVLIT HIGH SCHOOL 450 E. St. Joseph Street, Watervliet (Red Arrow Highway)</p>

Cook Nuclear Plant Emergency Planning Zone

The circled area in the map is a 10-mile radius surrounding Cook Nuclear Plant in Bridgman known as the Emergency Planning Zone (EPZ). The early-warning siren system for Berrien County is within the EPZ. When necessary, area TV and radio stations (see page 15) will alert people living inside the EPZ when there is an emergency.

Inside the EPZ are the Protective Action Areas for the Cook Nuclear Plant. During an emergency, these areas will be identified by the numbers shown in the map. For example, the TV or radio station may say, "Protective Action Area 1 must evacuate," or, "Protective Action Area 2 must take shelter." Know which Protective Action Area you live, work or are boating in so you can respond promptly to instructions.

During an emergency, listen to area TV or radio stations and follow the official evacuation instructions to the reception center you are to use.



IMPORTANT NUCLEAR EMERGENCY TERMS AND RADIATION FACTS

Nuclear Emergency Terms

In the unlikely event that there is an emergency at the Cook Nuclear Plant, four terms will be used to describe each situation. Those four terms are explained below. They are listed in order of least serious (1) to most serious (4).

Because of the many safeguards and highly skilled people operating the Cook Nuclear Plant, it is very unlikely that a serious event will ever occur there. Chances of you having to seek shelter or evacuate because of a nuclear emergency are very remote. In most cases, evacuation is ordered as a safety measure before any danger can come to you or your family. Federal law, however, requires that the public be told what to do in case of a significant release of radioactive material from the Cook Nuclear Plant. Please keep this Emergency Information Calendar handy and become familiar with its contents.

Sometimes you will hear news about a drill or an exercise involving the Cook Nuclear Plant. That is because federal, state, county and plant officials are required by law to participate regularly in drills and exercises so they are prepared in case of an emergency.

Remember, you will hear early-warning sirens if shelter or evacuation is necessary. See page 15.

If the sirens sound, listen to an area TV or radio station for emergency information (see list on page 15) and follow instructions.

- 1. UNUSUAL EVENT:** a minor problem at the Cook Nuclear Plant that varies from normal or routine operations. No release of radioactive material is expected. Cook Plant officials will notify federal, state and county officials. You will not have to do anything.
- 2. ALERT:** an abnormal plant condition that could result in a small release of radioactive material inside the plant. This is still considered a minor event. Cook Plant officials will notify federal, state and county officials to stand by. It is not likely that you will have to do anything.
- 3. SITE AREA EMERGENCY:** a more serious situation that could result in a release of radioactive material around the plant site. All federal, state and county officials will be ready to help if needed. Protective measures may be required to ensure the safety of the public in a limited area near the plant site boundary. If so, the sirens may sound. Tune in immediately to an area TV or radio station (see page 15) to learn whether you will need to seek shelter or evacuate.

4. GENERAL EMERGENCY: the most serious situation possible at the Cook Nuclear Plant. It could result in the release of a large amount of radioactive material outside the plant boundary. All federal, state and county officials will provide help as needed. Protective measures may be required to ensure the safety of the public as far as 10 miles from the plant. The sirens will sound and you will be told by area TV and radio stations (see page 15) if shelter or evacuation is necessary.

TWO OTHER KEY TERMS: RADIATION AND CONTAMINATION

- ▶ **Radiation** refers to the particles and waves given off by radioactive material. It is a form of energy that occurs naturally and artificially. We are exposed to it every day. However, radiation could be harmful to your health and safety if the levels are high enough and the exposure lasts long enough.
- ▶ **Contamination** is when radioactive material is where it is not supposed to be. Food, water or air is considered contaminated if it contains more or different types of radioactive material than would be normally present. Our bodies, for example, contain very small amounts of the radioactive elements potassium-40, carbon-14 and tritium. We are not considered to be contaminated because these elements exist within us naturally. However, the presence of strontium-90 (a possible by-product of a nuclear power plant emergency) in food, air or water can indicate contamination.

Facts About Radiation

RADIATION IS A NATURAL FACT OF LIFE

Radiation is a form of energy like light or sunshine. There is radiation all around us. We are exposed to small amounts of radioactive materials every moment of our lives.

HOW WE MEASURE RADIATION

You cannot see, taste, hear or smell ionizing radiation. But we can measure it with special instruments. We use a unit called a millirem (mRem) to measure ionizing radiation.

On average, a person living in the U.S. receives about 620 mRem per year from all radiation sources. A person living within 10 miles of the Cook Nuclear Plant receives about 485 mRem because we live at a low elevation that is not near any radioactive rock formations. About 310 mRem of the total we receive comes from man-made sources, primarily medical testing. Only a tiny fraction of one percent of the man-made radiation would come from the Cook Plant.

NATURAL BACKGROUND RADIATION IS IN THE AIR WE BREATHE

The sun covers our planet with cosmic radiation. Some rocks and minerals give off small amounts of radiation. One source you may be familiar with is radon gas. Many building materials contain radiation. In fact, radioactive particles are in the air we breathe, the food we eat and the water we drink. Even our bodies are slightly radioactive. These sources of radiation are called natural background radiation.

Natural background radiation sources (measured in mRem per year)		
Air: 200	Cosmic rays: 30	Earth & rocks: 46
Food & water: 40	Building materials: 7	

WE MAKE AND USE RADIOACTIVE SOURCES EVERY DAY

Besides naturally occurring radiation, there is also artificial (man-made) radiation. Radioactive materials are used in medical and dental X-rays. They are used to help diagnose and treat diseases such as cancer. Science and industry use radioactive materials for research and to do such things as X-ray welds. Other sources of radioactive materials are TVs, smoke detectors, some luminous-dial watches and clocks. Very small amounts of radiation come from generating electricity with nuclear power.

Artificial radiation sources (measured in mRem per year)	
Chest X-ray: 10	Coast-to-coast airline flight: 2.5
Viewing TV 1 hour/day: 1	Living by the Cook Plant: < 1

Types of Radiation

Radiation includes such things as light, heat and radio waves. However, when we speak of radiation we usually mean "ionizing" radiation. This radiation can produce high-energy, charged particles called "ions" in the materials it strikes.

THE MAIN TYPES OF IONIZING RADIATION ARE:

- Alpha particles, which can be stopped by a sheet of paper.
- Beta particles, which can be stopped by a thin sheet of metal.
- Gamma rays, which can be stopped almost completely by three feet of concrete.
- Neutron particles, which can be stopped by water, concrete and metal.

Effects of Radiation

Just as too much exposure to the sun can cause painful sunburn, too much exposure to certain levels and types of radiation can have harmful effects. You would, however, have to be exposed to radiation doses over 20,000 mRem within a day to produce effects measurable by a trained doctor. Very large doses of 50,000 to 100,000 mRem are required before you would feel any ill effects.

The amount of exposure from radiation depends on:

- Length of time you are exposed.
- How far you are from the source of radiation.
- Which part of your body is exposed.
- How much material you inhale or take into your body.

Your health or physical condition can affect your reaction to radiation exposure. For example, you should be aware that **unborn babies and very young children are more likely to be harmed by radiation exposure.**

The less radiation you are exposed to, the less chance you have of receiving any harmful effects. That is why it is so important to have an emergency plan in place near a nuclear power plant. We need to treat radiation with both caution and common sense.

Cook Nuclear Plant workers regularly check radiation levels both inside and outside the plant. In the unlikely event of a serious nuclear accident at the plant, state and federal health experts would be called in to take radiation readings beyond the plant site boundary. These readings would determine what steps, if any, you, your family and co-workers would need to take to protect yourselves.

State of Michigan Potassium Iodide Distribution

Radioactive iodine (radioiodine) is one of the products that could be released in the unlikely event of a serious nuclear power plant accident. Potassium iodide (KI) is a non-radioactive form of iodine that may be taken to reduce the amount of radioactive iodine absorbed by the body's thyroid gland. KI offers protection only to the thyroid gland and its use would be to supplement evacuation and in-place sheltering. Evacuation and in-place sheltering are the primary means of protection in a radiological emergency.

State and county officials will use the Emergency Alert System (EAS) to notify the public of the need to evacuate, to seek shelter in place, or to take KI. KI is available to persons within 10 miles of Cook Nuclear Plant through the Michigan Department of Health and Human Services (MDHHS). **Detailed instructions on the MDHHS distribution of KI can be found on page 19 of this calendar or www.michigan.gov/KI.** It is necessary to pick up your KI prior to an emergency situation at the plant. Complete your voucher and pick up your KI at a participating pharmacy at your earliest convenience. **You will NOT be able to get KI from the pharmacy during a nuclear plant emergency.**

People who are allergic to iodine should not use KI. In the event of an allergic reaction, contact a doctor.

NOTICE TO FARMERS, FOOD PROCESSORS AND DISTRIBUTORS

HOW YOU WILL BE NOTIFIED IN A NUCLEAR EMERGENCY

The State of Michigan will evaluate the seriousness of a nuclear accident. It will order actions to protect the public and the food supply.

- ▶ **If you live within 10 miles of the Cook Nuclear Plant**, your first warning may be the sounding of emergency sirens. If you hear a siren for three to five minutes, tune to a radio or TV station listed on page 15 for emergency information.
- ▶ **If you live farther than 10 miles from the plant**, you will be notified by area radio and TV stations (see page 15). The news report will let you know if you need to take protective action, or a Cooperative Extension Service official will contact you. Please follow the emergency instructions right away.
- ▶ **If you have questions about a real or potential emergency**, please contact the Michigan Department of Agriculture and Rural Development at 800-292-3939 during business hours (8 a.m.-5 p.m.). After hours, call 517-373-0440.

WHAT TO DO IF YOU ARE TOLD TO SEEK SHELTER

During a nuclear emergency, it is very important to limit your outdoor activities as much as possible. Please stay indoors and follow the instructions provided in radio and TV messages (see page 15).

WHAT TO DO IF YOU ARE ORDERED TO EVACUATE YOUR FARM

If you live within 10 miles of the Cook Nuclear Plant, you may be told to evacuate. You may be permitted, with directions from the state, to reenter the evacuated area temporarily to tend to the needs of your farm. You will receive instructions on what routes to use, safety precautions and decontamination procedures.

Your Cooperative Extension Service agent can provide animal health and feeding guidelines.

HOW CAN A NUCLEAR EMERGENCY CONTAMINATE FOOD?

During a nuclear emergency, dust-sized, radioactive materials can fall onto fruits, vegetables or grains. This food could enter the food supply and be eaten by the public. For example: Cows could eat grass covered with radioactive iodine-131. Traces of the iodine could be passed through to the milk and then to people who drink it. Iodine-131 has the potential to concentrate in the human thyroid gland where it could cause thyroid cancer.

PROTECTING THE FOOD SUPPLY DURING A NUCLEAR EMERGENCY

Following a nuclear emergency, the public could be exposed to radioactive material in several ways. At first, particles and gases released into the air could be ingested or inhaled directly. Additional exposure could result from eating or drinking food or milk contaminated by traces of radioactive material. Farmers, food processors and distributors will be required to take steps to protect the food supply. Every step will be taken to minimize or avoid contamination. Please read this page and the next to learn how to protect the food supply in the event of a nuclear emergency.

SAMPLES WILL BE COLLECTED TO DETERMINE PROTECTIVE ACTION

In the event of an accidental release of radioactive material, State of Michigan emergency workers will determine what protective steps you will need to take. Emergency workers will collect samples of air, water and soil to see whether there is radioactive contamination, where it is located and the amount. Samples of milk, forage, crops and processed foods also may be taken. Field data and other factors will be used by the state to determine the best course of action to protect the public and the food supply.

Samples may be taken from as far away as 50 miles from the plant site. State of Michigan emergency workers will give farmers, food processors and distributors outside of the 10-mile radius of the Cook Nuclear Plant specific instructions on how to collect and test samples.

SAMPLES ARE BEING TAKEN NOW TO GIVE US A BASELINE

Radioactive materials occur naturally in the environment. So Indiana Michigan Power and State of Michigan emergency workers continually take samples of the air, water, milk, vegetation and animal life near the Cook Nuclear Plant. This gives them a "natural" baseline for comparison in the event of a nuclear emergency.

HOW TO PROTECT YOUR WATER SUPPLY IN A NUCLEAR EMERGENCY

Store as much water as you can for your livestock. Cover open wells, tanks and other storage containers. Close off the intakes from contaminated ponds, streams or cisterns. In general, water from wells and water heaters should be safe to use.

Radioactive contaminants deposited on the ground usually will travel very slowly into the soil. If contaminants fall onto the surface of lakes and rivers, the radioactive materials may get into the ground water supplies. It takes just a few hours for streams and lakes to carry the contaminants many miles.

HOW TO PROTECT YOUR LIVESTOCK OR POULTRY IN A NUCLEAR EMERGENCY

The first priority is to protect dairy animals because radioactive materials can quickly enter the food chain through milk and other dairy products. If sheltering is required, shelter your dairy animals first.

Shelter livestock in covered barns or sheds unless the weather is extremely hot or other factors make sheltering impossible. Provide your animals with stored feed such as hay, silage and bagged grain. Whenever possible, draw water for your animals from a well. Avoid using water from ponds, rivers and creeks. This will help to minimize the amount of radioactive material ingested by your animals.

Poultry are more resistant to radioactive contamination than other farm animals. Keep them in your enclosed facility and continue to give them stored feed and well water. If your poultry are normally kept outdoors, bring them inside if possible. Eggshells provide natural protection from contamination.

IMPORTANT: Do not destroy any animals, crops, milk or feed supplies unless directed by authorities to do so.

DO NOT DESTROY YOUR ANIMALS

Destroy your animals only if you get orders from state or federal authorities. Do not slaughter any animals except for immediate food needs. Generally, animals that are exposed to radioactive contaminants and radioactive rainwater will survive. Many will be marketable and safe for humans to eat. However, do not allow animals to graze in open fields unless the State of Michigan, your Cooperative Extension Service agent or another government official gives you permission.

WHAT TO DO IF FEED IS RADIOACTIVELY CONTAMINATED

Only in extreme emergencies may you feed your livestock contaminated grain or hay. If you must use the contaminated feed, you may be able to reduce the level of contamination. For example, if the feed is stored outside, the contamination may be greater at or near the surface of the feed pile. You may be able to reduce the contamination level significantly by removing the top portion. Government officials may restrict the movement of feed products and withhold them from the marketplace if they are suspected to be contaminated, until they are assessed to be safe.

Do not dispose of contaminated feed or hay unless spoilage has made it inedible. Generally, contaminated products may be salvageable after adequate time passes and they are properly processed. Please keep contaminated feed supplies separate from other feed so the contamination does not spread. Your Cooperative Extension Service agent can provide you with specific information.

WHO PAYS FOR LOST OR DESTROYED FARM PRODUCTS?

Farmers, food processors and distributors could face serious financial losses following a nuclear emergency. Under federal law, you will be reimbursed for any of these losses.

The Price-Anderson Act, enacted by Congress in 1957, requires the operators of nuclear power plants and certain other nuclear facilities to purchase nuclear liability insurance policies for the protection of the public. As a result, no-fault insurance pools are in place to pay claims promptly without lengthy court hearings. Claimants need only prove that the injury or property damage resulted from the nuclear emergency. Commercial insurance policies exclude coverage for nuclear emergencies because the Price-Anderson Act makes coverage unnecessary.

WHAT TO DO WITH FOOD AND PRODUCTS CONTAMINATED IN A NUCLEAR EMERGENCY

After an event, there may be additional guidance from government officials on food, fruits and vegetables, feed, and animal health.

Crops in the field

Let your standing crops grow to maturity. The level of radiation exposure they will receive should not affect their growth. Most contaminants will be washed off in the rain. Or, over time, the crops will return to safe levels as they grow. If special harvesting procedures are required, your Cooperative Extension Service agent will give you instructions. Government officials may restrict the movement of crops and agricultural products and withhold them from the marketplace if they are suspected to be contaminated, until they are assessed to be safe.

Roots and tubers

Potatoes, carrots and plants that mature under the ground generally are safe to eat. Make sure to thoroughly wash and peel these products to remove soil particles and contaminants.

Fruits and vegetables in the field

Unprotected plants may have particles of radioactive contamination on their surfaces. Before eating them, wash thoroughly. Then brush, scrub or peel the outer layers. Some leafy vegetables may be eaten after you remove the outer layers.

If your crops do not need to be harvested immediately, leave them in the field or on the trees. They should be able to be harvested once your area is declared safe again.

You may lose some ripe fruits and vegetables to spoilage. Contamination levels in your area may be too high for field workers to harvest your crop in a timely manner. You will be reimbursed for crop losses. Government officials may restrict the movement of crops and agricultural products and withhold them from the marketplace if they are suspected to be contaminated, until they are assessed to be safe.

Honey and apiary products

Following a nuclear emergency, State of Michigan emergency workers will need to take samples and analyze honey and beehives in the Protective Action Areas. Contact your Cooperative Extension Service agent for guidance.

NOTICE TO FARMERS, FOOD PROCESSORS AND DISTRIBUTORS *CONTINUED*

IMPORTANT: Do not destroy any animals, crops, milk or feed supplies unless directed by authorities to do so.

Farm products

If radioactive particles or material are present in large amounts, you may be advised not to use, eat or sell garden produce or animal products until samples are taken and analyzed. State of Michigan emergency workers will conduct the sample tests and analysis. Please follow their orders to protect the public's and your safety.

Milk

Milk contaminated at low levels of iodine-131 may be converted to powdered milk or cheese. Then it will be stored until the iodine's radioactivity diminishes to safe levels. It may also be used in animal feed.

Wildlife and plants

After a nuclear emergency, wild game such as deer, rabbit, squirrel, pheasant and partridge may eat food and water contaminated with radioactive particles. State of Michigan emergency workers may advise you not to eat wild game until it has been sampled and assessed to be safe. Wild edible plants, such as native herbs, mushrooms, dandelion greens, spearmint, peppermint or wintergreen may have particles of contamination on their surfaces, too. Before eating, be sure to wash, brush, scrub or peel to minimize contamination.

HOW SOON WILL THE RADIOACTIVITY REACH SAFE LEVELS?

The speed that radioactivity diminishes depends on several things. Inert gases released from a nuclear power plant lose their radioactivity within minutes. Wind or heavy rain tend to remove radioactive material from plants very quickly. In some cases, however, a hard rain after a nuclear emergency may splash contaminated soil onto plant surfaces. This will increase the amount of radioactive material on low-standing plants.

WHAT STEPS CAN BE TAKEN TO RESTORE CONTAMINATED SOILS?

There are several steps that can be taken to restore soils contaminated in a nuclear emergency. One is not to use the soil for a period of time. In a worst-case situation, heavily contaminated soil may need to be removed and sent to an approved radioactive waste disposal facility. Such drastic action may not be possible for large fields, but may be used for small plots or areas such as walkways near buildings where people come in close contact with it.

In less severe situations, fiber crops may be planted instead of fruits and vegetables. Deep plowing may be used to keep the radioactive contaminants below the root zone until the radioactivity decays to safe levels over time. Liming may also be used to limit the absorption of specific radioactive elements by crops.

Farmers will receive guidance from the United States Department of Agriculture's Natural Resources Conservation Service on how to restore valuable soils to productive use.

WHAT SHOULD FOOD PROCESSORS AND DISTRIBUTORS DO IN A NUCLEAR EMERGENCY?

After a nuclear emergency, government officials may restrict the movement of contaminated food products or withhold them from the marketplace. These products should not be released until they are considered safe for consumption or a decision is made to dispose of them. State of Michigan emergency workers will instruct you on how to safely handle and dispose of contaminated food products.

The environmental damage caused by a nuclear reaction may be short-lived. Steps can be taken to make a full recovery.

For more information, contact:

MSU-BERRIEN COUNTY COOPERATIVE EXTENSION SERVICE

269-944-4126

1737 Hillandale Road

Benton Harbor, MI 49022

<http://msue.anr.msu.edu/county/info/berrien>

If you have questions about a real or potential emergency, you may also contact:

MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

800-292-3939

www.michigan.gov/mdard



Potassium iodide (KI) is available at no cost to people who live or work within 10 miles of the Cook Nuclear Plant in Berrien County, Michigan. This insert explains what KI is used for and how you can get it. To get your KI tablets, please read the information in this calendar, complete the voucher on the next page and take it to one of the participating pharmacies listed. Please get your tablets now so you are ready if you are ever asked to take them. You will NOT be able to get KI from the pharmacy during a nuclear plant emergency.

If you already have KI tablets from this program, check the expiration date on the box. If it has expired, go to one of the pharmacies listed on the next page to replace your KI with a new supply.

The Michigan Department of Health and Human Services (MDHHS) runs the KI program. For more information, contact:

Phone: 517-335-8150
(8 a.m. to 5 p.m.)
Email: mdhhs-ki@michigan.gov
Online: www.michigan.gov/KI

Potassium Iodide (KI) Facts

What is KI?

KI (the chemical name for the drug is “potassium iodide”) is a non-prescription iodine pill. Iodine is an element that is found in nature and is also an important part of your diet. Because iodide is so important to your health, it is added to table salt. Table salt cannot be used as a replacement for KI.

How does KI work?

In the unlikely event of a serious accident at a nuclear power plant, one form of radiation, radioactive iodine, could be released into the air. This type of radiation can be stored in your thyroid gland. This can cause thyroid cancer or other thyroid problems over time. Children are most at risk of thyroid injury from exposure to radioactive iodine. KI protects your thyroid by filling it up with a safe form of iodine so that it can't take in radioactive iodine.

Keeping your thyroid gland healthy is important because it produces hormones that manage your heart rate, blood pressure, temperature and other essential body functions. It is important to know that KI does not protect your whole body from radioactive material – it only protects the thyroid.

How can I get KI?

Take the enclosed voucher to one of the participating pharmacies. The pharmacy will give you the amount of KI that you need. Place it in a safe, dry location and keep it in its foil packet. You should keep it on hand as part of your emergency supply kit. Be sure to get your KI now. You will not be able to get it from the pharmacy during a nuclear power plant emergency.

When should I take KI?

Take KI only if a “General Emergency” has been declared at the Cook Nuclear Plant. If the emergency sirens sound for three minutes or more, tune to your local radio or television station. Follow the instructions given by emergency officials. You may be instructed to shelter-in-place or evacuate. You should only take KI if the announcements say that the power plant

Use the information in this chart to take the correct amount for one dose.

AGE	WEIGHT	DOSE
18+ years	Any weight	Two (2) 65 mg tablets <i>Including pregnant or breastfeeding women</i>
12-18 years	150 lbs. or more	Two (2) 65 mg tablets
12-18 years	Less than 150 lbs.	One (1) 65 mg tablet
3-12 years	Any weight	One (1) 65 mg tablet
1 month-3 years	Any weight	Half (1/2) 65 mg tablet, crushed into a liquid. <i>Instructions for crushing and mixing will be provided by the pharmacy and can be found at www.michigan.gov/ki</i>
Birth-1 month	Any weight	Quarter (1/4) 65 mg tablet crushed into a liquid. <i>Instructions for crushing and mixing will be provided by the pharmacy and can be found at www.michigan.gov/ki</i>

has declared a “General Emergency,” the most serious type of plant emergency. If you are told to evacuate and don't have your KI readily available, don't waste time searching for it. Evacuating or sheltering-in-place is the best way to protect yourself from harm due to radiation.

How much KI should I take?

One dose protects the thyroid for 24 hours. You should be safely evacuated within 24 hours. Taking more than the recommended dose will not help you and may increase the risk of side effects. See the chart above for dose guidelines.

What side effects could I have from taking KI?

KI can cause minor side effects. You could have an upset stomach or swelling in your mouth. If you have a serious reaction such as fever, joint pain, swelling of the face or body or trouble breathing, get medical help right away.

Who should NOT take KI?

You should not take KI if:

- You are allergic to iodine. A shellfish allergy may

not mean that you are allergic to iodine. Talk to your doctor if you have a shellfish allergy and are unsure if you should take KI.

- You have dermatitis herpetiformis (DH) or hypocomplementemic urticarial vasculitis (HUV) syndrome, two very rare skin conditions.

Check with your doctor if you already have a thyroid condition or you are unsure whether or not to take KI.

How does this program apply to businesses?

Businesses with more than 200 employees, clients or patients should contact MDHHS to arrange for delivery of KI. If your business chooses to participate in the program, it is responsible for having a dispensing plan that complies with these instructions. If your business chooses not to participate or has less than 200 employees, clients, or patients, you can provide a copy of this fact sheet to your employees to obtain their personal supply of KI at one of the designated pharmacies.

Read this information before signing the KI voucher.

Signing the voucher means that you understand and agree to the following:

I UNDERSTAND THAT:

- KI is an over-the-counter, non-prescription drug.
- KI is to be taken only when a General Emergency has been declared at the Cook Nuclear Plant.
- KI is NOT a substitute for evacuation or sheltering-in-place.
- KI only protects the thyroid gland from radioactive iodine. It does not protect the rest of the body. In a nuclear power plant emergency, there could be health risks from other forms of radiation.
- Although taking KI is usually safe, it can cause problems in people who have thyroid disease or are allergic to iodine. People who have dermatitis herpetiformis or hypocomplementemic urticarial vasculitis (HUV), two very rare skin diseases, should talk to their doctor before taking KI.

I AGREE THAT:

- I have read the potassium iodide (KI) fact sheet and will follow all instructions on how to use KI.
- I will follow the instructions of emergency officials.
- I will hold the pharmacy harmless from all liability, claims, suits or actions related to the use, delivery, labeling and packaging of KI.

Additional agreements for businesses

- I own or represent the business/institution named on the voucher.
- This business/institution will provide information on dosing and medical contraindications to all employees/clients prior to distributing KI. This information is provided in each box of KI and on the MDHHS website at www.michigan.gov/ki.

To qualify to receive KI tablets for your household or business, you must:

- Live or work within 10 miles of the Cook Nuclear Plant.
- Be 18 years or older.
- Present a government-issued photo ID.

Participating Pharmacies

YOU MAY PICK UP YOUR KI TABLETS AT THE FOLLOWING PHARMACIES:

- Meijer Pharmacy 1920 Pipestone Rd., Benton Harbor, MI
- Meijer Pharmacy 5019 Red Arrow Hwy., Stevensville, MI
- Meijer Pharmacy 5150 S. Franklin St., Michigan City, IN
- Meijer Pharmacy 1223 Phoenix St., South Haven, MI

Cut along this line. 

2019 Potassium Iodide (KI) Voucher

By signing this form, I agree that I have read the KI information provided and that I am obtaining KI for people who live or work within 10 miles of the Cook Nuclear Plant.

PLEASE COMPLETE SECTION 1 OR 2

1. REQUESTING KI FOR HOUSEHOLD USE

NAME: _____

STREET ADDRESS: _____

CITY: _____ ZIP: _____

COUNTY: _____ PHONE: () _____

NUMBER OF PEOPLE LIVING AT THIS ADDRESS: _____

AGES OF PEOPLE LIVING AT THIS ADDRESS: _____

2. REQUESTING KI FOR BUSINESS USE

NAME OF BUSINESS: _____

CONTACT NAME: _____

STREET ADDRESS: _____

CITY: _____ ZIP: _____

COUNTY: _____ PHONE: () _____

NUMBER OF EMPLOYEES/PATIENTS/RESIDENTS/CLIENTS AT THIS ADDRESS: _____

SIGNATURE: _____ DATE: _____

PHARMACY USE ONLY		
# OF BOXES DISPENSED:	LOT #:	DATE DISPENSED:
PHARMACY NAME:	PHARMACY #:	
CITY:		

PREPARING FOR AN EMERGENCY EVENT

Emergency situations often catch people off guard. A good way to stay safe in an emergency is to know what to do ahead of time. Here are five steps you can take now to make sure you, your family and your co-workers are prepared to handle any emergency.

1. After you read this Emergency Information Calendar, please share it with your family or co-workers. Then display it where you can find it quickly when you need it.

2. Keep the following items together in a safe, easy-to-get-to place:

- | | | |
|---|--|--|
| <input type="checkbox"/> Emergency cash | <input type="checkbox"/> Checkbook | <input type="checkbox"/> Pet supplies |
| <input type="checkbox"/> Important papers | <input type="checkbox"/> Debit cards | <input type="checkbox"/> Credit cards |
| <input type="checkbox"/> First-aid kit | <input type="checkbox"/> Portable radio | <input type="checkbox"/> Personal identification |
| <input type="checkbox"/> Extra keys | <input type="checkbox"/> Extra batteries | <input type="checkbox"/> Potassium iodide (KI) |
| <input type="checkbox"/> Prescription medicines | <input type="checkbox"/> Flashlight | if obtained in advance |

3. Make a list of personal instructions that you, your family or co-workers will need to follow in an emergency. Keep a list of supplies you may need with the instructions. Include on your supply list the items in step 2 above and the evacuation supplies listed on page 16.

4. Keep your vehicle in good running order. Fill your gas tank whenever it gets below half. If you do not have a car or do not have someone to drive you in an emergency, fill out the Functional Needs card on pages 15 and 16. **Mail the card right away.** You do not need a stamp.

5. If you know people who have functional needs, make sure they mail in a Functional Needs card. This may include anyone with vision or hearing impairments, physical or mental disabilities, or someone who has no means of transportation. Please help them fill out the Functional Needs card and return it right away (see pages 15 and 16). We have an emergency team ready to help people reach safety. If you know someone who is vision impaired or has difficulty reading, please assist them with the information in this calendar. Help display it in a visible location if others need it to assist.

For additional emergency preparedness tips and an online planning guide:

On the www.bcsheriff.org homepage, click on the **Divisions** tab and select **Emergency Management & Homeland Security Division** from the sidebar. Then click **Resources & Guides** for links to helpful Federal, State and local websites.

IMPORTANT PHONE NUMBERS AND EMERGENCY INFORMATION

List all the phone numbers and emergency information you or a member of your household or business may need in an emergency. Please include names and numbers for your:

Doctor:	Sheriff:
Hospital:	School:
Ambulance:	Child caregiver:
Dentist:	Neighbor:
Police:	Pharmacist:
Fire:	Work:

NAME OF PERSON OR SERVICE	TELEPHONE NUMBER
Berrien County Emergency Services	911
Cook Nuclear Public Inquiry Line	866-362-3105

Use the space below to also list any special health or medical information that an emergency team member may need to know about you, your family members or co-workers.

SPECIAL HEALTH NEEDS OR EMERGENCY INFORMATION:

CONGRATULATIONS TO OUR 2019 GRAND PRIZE WINNER

Ryan Lemke is the \$500 Grand Prize winner of the 2019 Cook Calendar Photo Contest.

After narrowing the selection from 576 photos down to 12 finalists, we asked our Facebook followers to pick their favorite. Ryan's photo *Fire Droplets* received the most "Likes." See it on the July page in this calendar.



COOK EMPLOYEES BREAK UNITED WAY DONATION RECORD

CHRISTMAS IN JUNE GETS AN OVERWHELMING RESPONSE

During the summer months, the shelves at Southwest Michigan food pantries grow bare. But many low-income, hardworking families in our communities still need help putting food on their tables. So, the United Way of Southwest Michigan (UWSM) organized a "Christmas in June" Day of Action on June 20, 2018, to help restock area food pantries. Cook Plant's goal was to bring in 1,900 items. Not only did Cook employees exceed their goal, but they also broke last year's record and generously donated 10,876 of the 20,000 items UWSM collected area wide!



Start taking photos NOW for the 2020 Cook Nuclear Plant Emergency Information Calendar!

To be considered for the \$500 prize, eligible photos **must be**:

- ▶ Taken in Berrien County
- ▶ Shot in landscape mode (horizontal)
- ▶ 3300 x 2550 @ 8 megapixels (11" x 8.5" @ 300 dpi) minimum
- ▶ Provided in .jpg or .tif format
- ▶ Limited to 4 submissions per photographer

Complete contest guidelines for 2020 will be posted in May at www.CookCalendarPhotos.com.

ON THE COVER: Late summer aerial view of the Cook Nuclear Plant and Lake Michigan shoreline.

All photographs © 2019 Cook Nuclear Plant. This calendar replaces all previous issues.