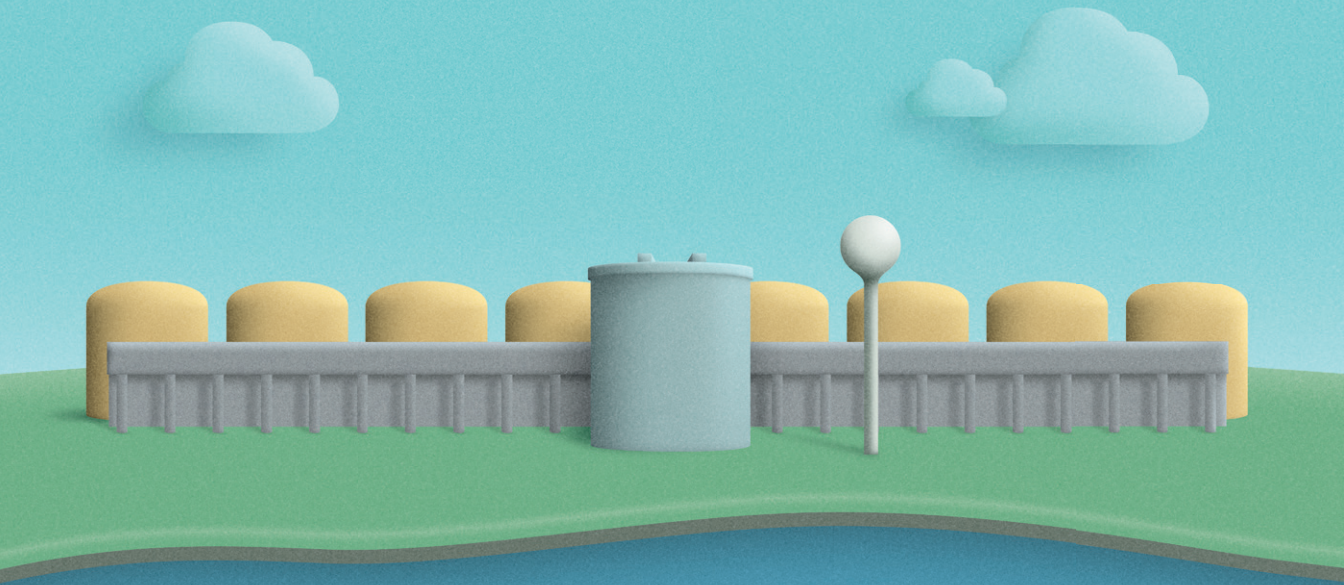


# PREPAREDNESS = POWER

Everything you need to know about nuclear safety





**Safety is the number-one priority at OPG. That's why we've created this Emergency Awareness Kit so that our surrounding communities are prepared in the unlikely event of a nuclear emergency.**

It's good to know that no member of the public has ever been harmed by our nuclear operations. The Pickering Nuclear Generating Station has never had a serious accident since it began operating over 45 years ago and the Darlington Nuclear Generating Station has operated for 30 years without an incident.

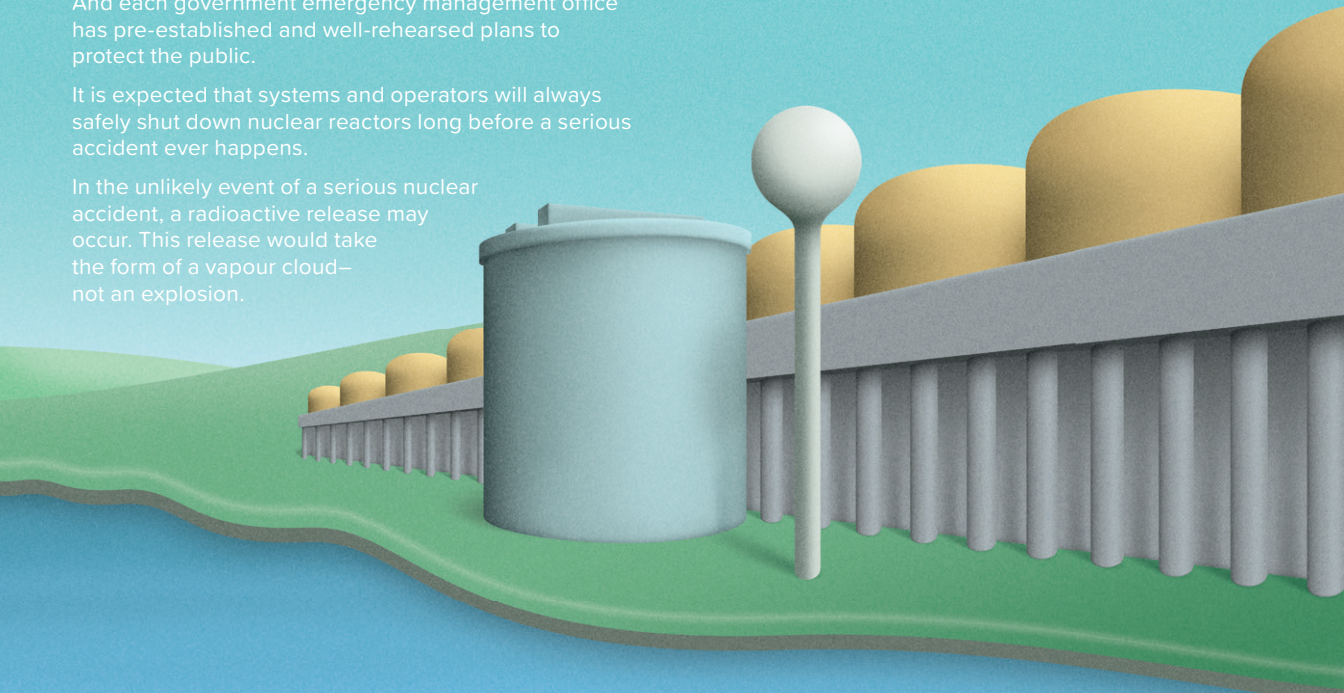


## WHAT YOU NEED TO KNOW

OPG ensures that responses to any given number of emergency scenarios are tested on a regular basis. And each government emergency management office has pre-established and well-rehearsed plans to protect the public.

It is expected that systems and operators will always safely shut down nuclear reactors long before a serious accident ever happens.

In the unlikely event of a serious nuclear accident, a radioactive release may occur. This release would take the form of a vapour cloud—not an explosion.



## WHAT YOU CAN EXPECT

If a nuclear accident where a radioactive release occurs:

- OPG will notify the provincial and municipal governments about the severity of the issue within the first 15 minutes.
- Officials will then notify the public of any actions they need to take.
- People in parks or open areas close to the facility will be alerted by OPG security.
- Warning sirens located in the 3 km radius of the station will sound. This does not mean you need to evacuate. Stay calm, go inside and tune in to local media for information.
- All landline phones in Durham within a 10 km radius of the station would be called with instructions on what to do.
- Instructions will also be broadcast on television, radio, online and through social media.
- It is important to know that in the unlikely event of a nuclear accident where a radioactive release occurs, it would take many hours and days to unfold.







## REMEMBER

Only call **9-1-1** if there's a life-threatening situation.  
The following stations will provide further information:

**94.9 The Rock FM** | **KX96 FM** | **107.7 CKDO FM**

Sign up for public alerting at [ontario.ca/emo](https://ontario.ca/emo).



# HOW TO STAY PREPARED

Keep an Emergency Kit. It will come in handy for any kind of emergency. Find a sturdy, easy-to-carry bag and include:

- A first-aid kit
- Any medications; infant formula
- Copies of important documents, such as passports, banking and insurance information, health cards and photo ID
- Cash in small bills
- Potassium iodide (KI) pills for you and your family
- A battery-powered or hand-crank radio with an extra supply of batteries
- At least four litres of water per person per day (two for drinking, two for washing) for three days.
- Extra keys for the house and car
- A three-day supply of food for each person and any pets. Choose foods that are compact, lightweight and non-perishable. They should require no refrigeration, cooking or added water.



FIRST-AID KIT



MEDICATIONS



DOCUMENTS





CASH



KI PILLS



RADIO



WATER



SPARE KEYS



NON-PERISHABLE FOOD

## FAQS

### Should I evacuate?

Not unless instructed to do so. In the unlikely event of a nuclear accident, it is important to follow the instructions provided by the Province to ensure protective actions.

Residents will be asked to evacuate to a location of their choosing. There will also be reception and evacuation centres established to provide services and accommodation. These sites will be equipped with radiation monitoring and decontamination equipment as a precaution.

Depending on the prevailing winds and the weather conditions at the time, staying inside your house with the windows closed and ventilation to the outside turned off may be safer than evacuation. This is called sheltering. You will be instructed whether to evacuate or shelter in place.

Plus, certain residents and businesses may be instructed to evacuate to areas that will not be affected by a potential radiation release. Local police will ensure that evacuation proceeds in an orderly manner.







### **What should I do if there's no power?**

In the event of a total blackout, it is important to keep battery-powered or hand-crank radios in your house to receive important information.

### **What if my children are in school?**

Every school within the 10 km zone of the nuclear station follows its own emergency and evacuation procedures, which you should receive at the beginning of each school year. If schools are evacuated, local radio and television stations will announce when and where parents can pick up their children. School personnel will supervise the children until parents can pick them up.



### **What if I have a family member in a nursing home?**

If you have a family member in a nursing home or hospital within a 10 km radius of a nuclear station, do not try to pick them up. These facilities have their own evacuation and sheltering procedures. Please contact the institution for details.

### **What if I have pets or livestock?**

If you're asked to evacuate, household pets may be brought with you. If you have livestock, place the animals in an enclosed shelter with adequate ventilation to prevent overheating and suffocation. If you must leave your livestock or pets, leave enough water and food for several days.



## POTASSIUM IODIDE PILLS

If a severe nuclear accident occurs, radioactive iodine may be released and could accumulate in the thyroid gland. If there is a potential for such a release, you may be instructed to ingest potassium iodide, or KI pills to block radioactivity from entering the thyroid. If taken immediately before or during an accident, potassium iodide will help reduce the dose of radiation.

KI pills are distributed to schools, daycares, and healthcare facilities, located within a 10 km radius of the nuclear stations and are also available free of charge to individuals living within 50 km of both Pickering and Darlington nuclear stations.

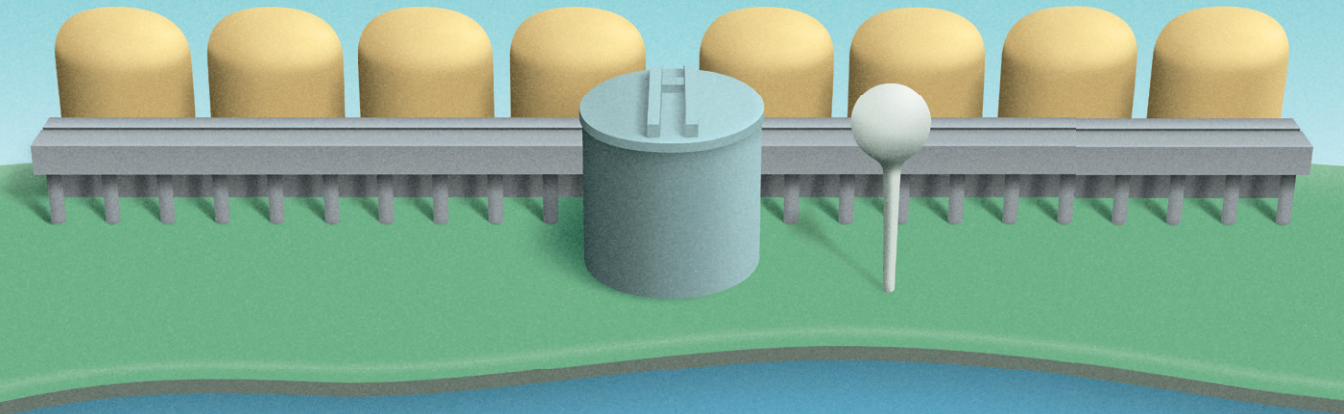
**There's no such thing as being too prepared.  
Order your KI pills at [preparetobesafe.ca](http://preparetobesafe.ca).**



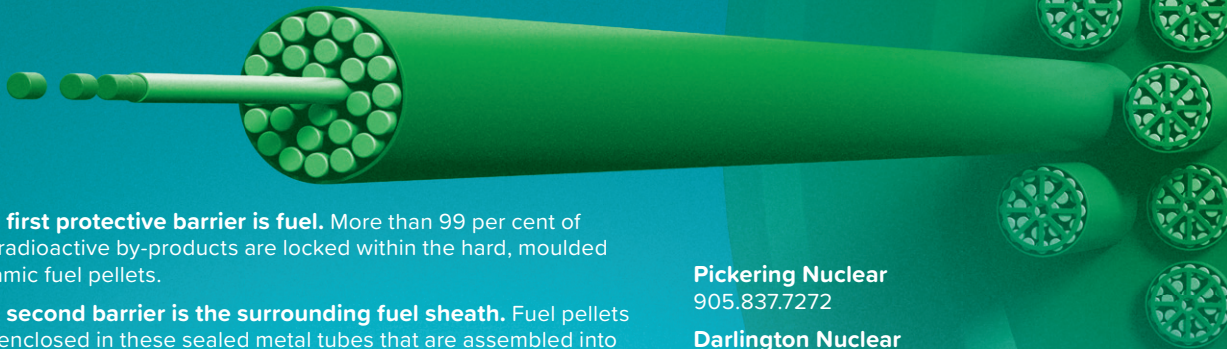
See the tear-away in the back for a list of pharmacies.

## WHAT ARE THE SAFETY SYSTEMS?

Pickering and Darlington Nuclear Generating Stations employ many lines of defense to reduce the chance of an accident. These systems are monitored by the Canadian Nuclear Safety Commission. In the unlikely event of an accident, further measures are in place to reduce any harm to the community.







**The first protective barrier is fuel.** More than 99 per cent of the radioactive by-products are locked within the hard, moulded ceramic fuel pellets.

**The second barrier is the surrounding fuel sheath.** Fuel pellets are enclosed in these sealed metal tubes that are assembled into fuel bundles.

**The third barrier is the fuel bundles** found inside the cooling system pressure tubes. Water is pumped through these tubes to cool the hot fuel bundles.

**The fourth barrier is enclosed within the airtight reactor building.** The building has concrete walls at least four feet thick.

The reactor building is connected to a large vacuum building that will suck up any radioactive steam release to condense it into a liquid. The station is equipped with flood guards and emergency backup power generators that could keep the fuel cool and safe.

For further information about OPG's facilities, nuclear safety, radiation or other nuclear issues, please visit [opg.com](http://opg.com), or call:

**Pickering Nuclear**  
905.837.7272

**Darlington Nuclear**  
905.623.7122

**Canadian Nuclear Safety Commission**  
1.800.668.5284 or [cnsccsn.gc.ca/eng](http://cnsccsn.gc.ca/eng)

**Office of the Fire Marshal  
and Emergency Management**  
416.314.3723 or [ontario.ca/emo](http://ontario.ca/emo) (Public Alerting)

**Region of Durham—  
Emergency Management Office**  
905.430.2792 or [durham.ca](http://durham.ca)

**City of Toronto—  
Office of Emergency Management**  
416.392.4554 or [toronto.ca/oem](http://toronto.ca/oem)

## AND REMEMBER, IF AN EMERGENCY OCCURS:

If you live within 10 km of Pickering or Darlington Nuclear Generating Station, please keep this information handy.

### 1. STAY CALM.

### 2. DON'T EVACUATE—unless advised to do so.

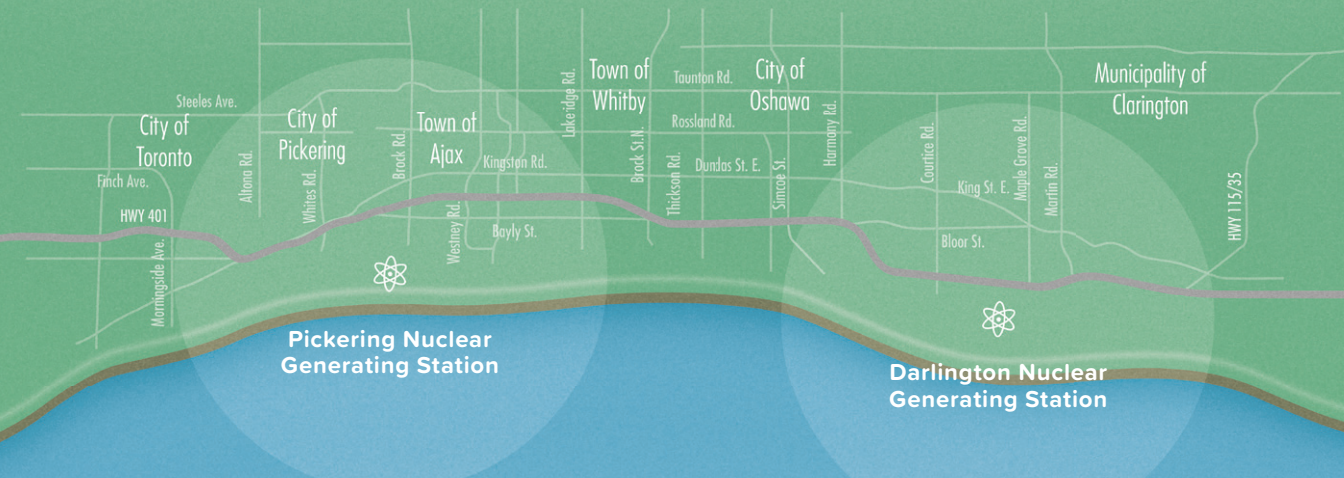
### 3. GO inside and turn on your radio, television or hand-held device.

### 4. LISTEN to media reports for emergency information.

### 5. FOLLOW instructions provided by the Province for:

- Evacuation
- Shelter in place
- Taking KI pills
- Reporting to a reception centre for monitoring

OPG works with provincial and municipal governments to make your safety the number-one priority. Now that you're better informed, remember to keep this Awareness Kit and flashlight on hand to prepare for an emergency.







## RED ALERT INFORMATION:

During a nuclear emergency, the Province also issues a Red Alert to recommend immediate actions to protect citizens, their families and others when there is an imminent threat to life, public safety or property.

**Be sure to sign up for Red Alerts at [ontario.ca/emo](https://ontario.ca/emo) (Public Alerting)**

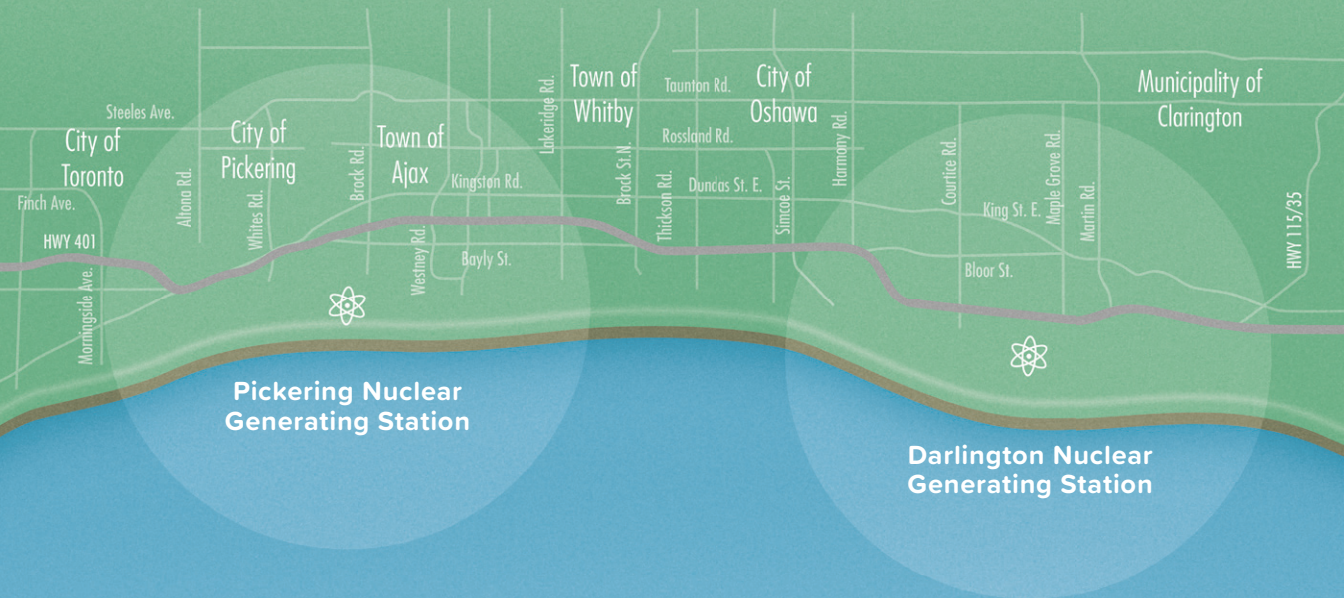
Your emergency checklist:

- ☐ Have a nearby friend, family member or neighbour with whom to communicate.
- ☐ Ensure you have at least one working flashlight and extra batteries.
- ☐ Ensure you have a battery-powered radio and extra batteries.
- ☐ KI pills.
- ☐ Store a three-day supply of food for each person and pet. Select foods that are compact, lightweight and non-perishable, and require no refrigeration, cooking, preparation or added water.
- ☐ Store at least four litres of water per person per day (two for drinking, two for washing) for three days.





If you live in Durham Region or East Toronto, KI pills are available free of charge. **Please visit [preparetobesafe.com](https://www.preparetobesafe.com)**





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1.800.668.5284 or  
[cnscccsn.gc.ca/eng](http://cnscccsn.gc.ca/eng)

**Office of the Fire Marshal and  
Emergency Management**

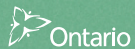
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**ONTARIOPOWER**  
GENERATION

