



# What to do if ordered to shelter indoors?



# A

Residents within the **UPZ (5-30km radius)** should first **shelter indoors**. When the order to shelter indoors is issued, enter a building at once, such as your home, workplace, or the nearest public facility. Do not go outside until instructed to do so. Going outside may increase the risk of exposure if radioactive materials are emitted.



## Stay calm when sheltering indoors!

Wash your hands and face, and gargle.

Turn off ventilating fans.

Close doors and windows.

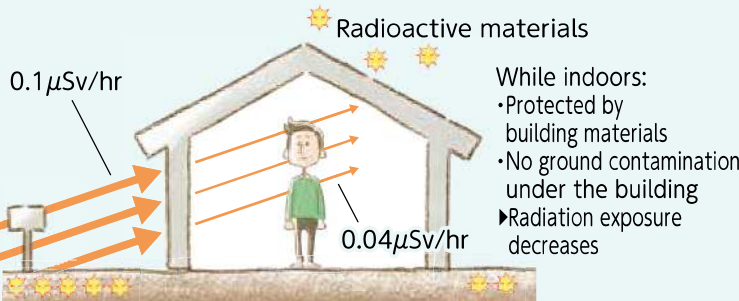


Cover food with clingwrap or lids.

Keep updated with accurate information.

### NOTE How to reduce exposure

Source: Nuclear Safety Commission "Emergency Preparedness for Nuclear Facilities" (June 1980, partially revised August 2010)



Location	Reduction Factor*
Wooden house (1-2 floors)	0.4
Concrete or brick house (1-2 floors)	0.2
1st or 2nd floor of 3-4 floor building (450~900m <sup>2</sup> per floor)	0.05
Upper floors of multi-floor building (over 900m <sup>2</sup> per floor)	0.01

\*Ratio of the indoor dose to the outdoor dose

### Basic idea of sheltering indoors during infection disease outbreaks.

When sheltering indoors, it is **most important to avoid exposure to radioactive materials** so do not ventilate. Keep windows and doors closed.



1

2 When there is a Nuclear Emergency

3

4

5

6

7



# What should I do if instructed to temporarily relocate or evacuate?



First prepare to leave, then **calmly follow the instructions from your local government.**

Residents within the UPZ will not be temporarily relocated or evacuated all at once.

If the air radiation dose in your area exceeds national standards, you will be given the order to move



1

2

When there is a Nuclear Emergency

3

4

5

6

7

## NOTE

### Air radiation doses that exceed national standards

**Temporarily Relocate** If **exceeds 20 $\mu$ Sv** per hour: **temporarily relocate within one week as instructed by the government**

**Evacuate** If **exceeds 500 $\mu$ Sv** per hour: **evacuate within several hours as instructed by the government**

#### ● If you can evacuate by car

- Drive to the emergency distribution point to get stable iodine.
- Undergo a check at the evacuation exit inspection point.
- Go to an evacuation shelter.



#### ● If you cannot evacuate by car

- Walk to the temporary assembly point.
- Board a bus to the emergency distribution point to get stable iodine.
- Undergo a check at the evacuation exit inspection point.
- Go to an evacuation shelter.



● As a general rule, evacuate by car. ● Contact your local government for more details.

## Evacuation Destinations by Municipality

Municipality	Evacuation Destination
Satsumasendai City	Kagoshima City, Kirishima City, Aira City, Yusui Town, Tarumizu City, Soo City, Minamisatsuma City, Satsumasendai City
Ichikikushikino City	Kagoshima City, Makurazaki City, Ibusuki City, Minamikyushu City
Akune City	Nagashima Town, Aira City, Isa City, Yusui Town, Ashikita Town (Kumamoto), Tsunagi Town (Kumamoto)
Izumi City	Isa City, Kirishima City, Minamata City (Kumamoto), Izumi City
Hioki City	Minamisatsuma City, Hioki City
Satsuma Town	Kagoshima City, Kirishima City, Satsuma Town
Kagoshima City, Aira City, Nagashima Town	Within each municipality



# What to do during an evacuation exit inspection?



At evacuation exit inspection points set up along the way to evacuation shelters, your car, clothes, etc. will be tested for radioactive materials.

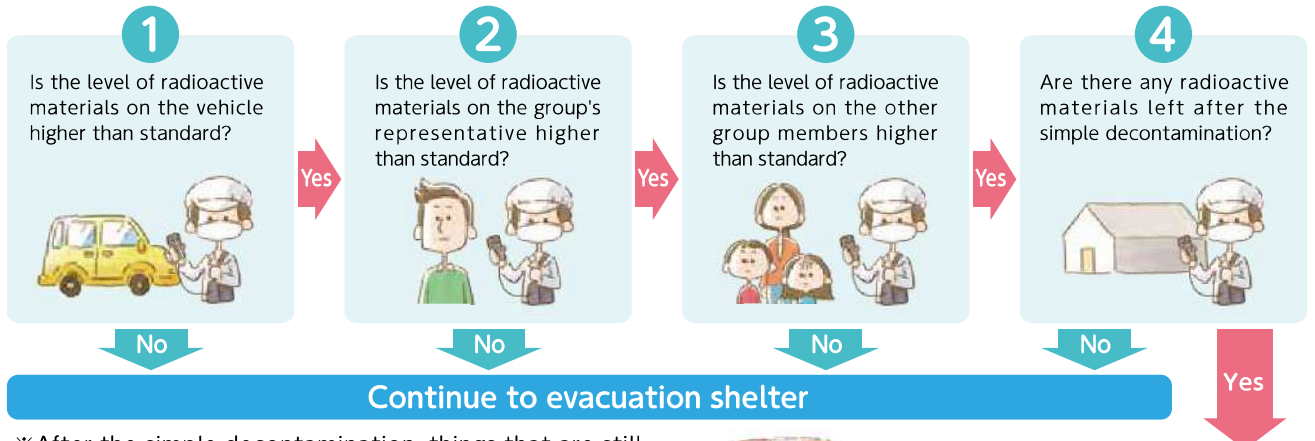
If the test results is more than the standard radiation level, a simple decontamination will be done.

Stable iodine will also be given along the way to those who do not have it.



When evacuating by private car or bus, the vehicle is first tested for radioactive materials.

If the radioactive material on the vehicle does not exceed the standard level, or the level is below the standard for simple decontamination, you may continue to an evacuation shelter.



※After the simple decontamination, things that are still contaminated with higher than standard levels of radioactive materials will be temporarily kept at the inspection site.



Go to a medical institution for decontamination

## Medical System in the Event of a Nuclear Emergency

### Nuclear Emergency Core Hospital

2 medical institutions  
(Kagoshima University Hospital, Saiseikai Sendai Hospital)

During a nuclear emergency, all sick or wounded patients will be admitted (whether they are contaminated with radioactive materials or not). In such cases, suitable medical treatment will be provided.



Support

- Advanced Radiation Emergency Medicine Support Centers
- Nuclear Disaster Medical Care and General Support Centers

National Institutes for Quantum and Radiological Science and Technology, Nagasaki University

- Provides specialized medical care that cannot be provided by the Nuclear Emergency Core Hospitals.
- Provides specialized advice for treatment at the Nuclear Emergency Core Hospitals.



Cooperation

### Nuclear Emergency Medical Cooperative Institutions

16 medical institutions  
(Kagoshima City Hospital, Kagoshima Medical Center, etc.)  
17 other facilities  
(prefectural public health centers, etc.)

They support the nuclear emergency medical care and response measures of the prefecture.



1

2

When there is a Nuclear Emergency

3

4

5

6

7



## Evacuation Exit Inspection Points

UPZ

# Where are the inspection points during an evacuation?



There are 21 possible locations which are near evacuation routes.



1

2

When there is a Nuclear Emergency



### NOTE

To have a smooth evacuation process during an emergency, these locations are chosen by considering:

- distance to be within 30km of evacuation shelters
- the evacuation routes
- how easy to reach from evacuation routes
- the size, and so on



## Possible locations of evacuation exit inspection points

3

4

5

6

7

### Nagashima Town

- ① Open space outside the former Sunset Nagashima
- ② Nagashima Town Jokawauchi Athletic Ground
- ③ Kawatoko Community Athletic Ground

### Izumi City

- ④ Izumi City Sports Park and Gymnasium
- ⑤ Hokusatsu Regional Promotion Bureau, Izumi Office

### Satsumasendai City (Kamikoshikishima Island)

- ⑥ Nakakoshiki Fishing Harbor
- ⑦ Along Pref. Road 348 (Nakano, Kamikoshiki-cho)

### Satsuma Town

- ⑧ Kashiwabarū Ground
- ⑨ Satsuma General Sports Park
- ⑩ Miyanojo General Sports Park

### Aira City

- ⑪ Aira City Kamo Gymnasium
- ⑫ Kagoshima Prefectural Forestry Technology Center

### Hioki City

- ⑬ Ijuin General Sports Park
- ⑭ Hioki City General Gymnasium and Central Community Center
- ⑮ Hiyoshi General Gymnasium
- ⑯ Hioki City Fukiagehama Park Gymnasium
- ⑰ Hioki City Fukiagehama Central Community Center
- ⑱ Kagoshima Prefectural College of Agriculture

### Kagoshima City

- ⑲ Koriyama General Sports Park
- ⑳ Matsumoto Hiranooka Sports Park
- ㉑ Kagoshima Prefectural Soccer and Rugby Grounds



During Storms or Typhoons

PAZ

UPZ

# What should I do during a storm or typhoon?



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A

During a complex disaster (nuclear emergency + typhoon or storm), **physical safety is the most important. You should shelter indoors until weather conditions are better.**

**Then, you should temporarily relocate or evacuate.** (Those within the PAZ with increased health risks should shelter indoors at a designated facilities.)



2

3

During a Complex Disaster

When typhoons or storms happen and Japan Meteorological Agency issues emergency warnings



Once the weather is better



Within the PAZ



## When ordered to evacuate (for those who need special care)

Prepare to evacuate, and shelter indoors at home.\*



• Evacuate **by mobility/welfare vehicle** to an evacuation shelter outside the UPZ.



• Those who have risks of health problems by evacuating should shelter indoors at a facility with radiation protection.

• When transport is ready, go to an evacuation shelter outside the UPZ.



## When ordered to evacuate (for residents)

Prepare to evacuate, and shelter indoors at home.\*



### [Evacuate by car]

• Evacuate **by car** to an evacuation shelter outside the UPZ.



### [Evacuate by bus]

• Walk to the temporary assembly point.

• Evacuate **by bus** to an evacuation shelter outside the UPZ.



4

5

6

7

Within the UPZ



## When ordered to temporarily relocate or evacuate (for residents)

Shelter indoors at home.\*



### [Evacuate by car]

• **Drive** to the emergency distribution point to receive stable iodine.

• Do a check at the evacuation exit inspection point.

• Go to an evacuation shelter outside the UPZ.



### [Evacuate by bus]

• Walk to the temporary assembly point.

• **Take a bus** to the emergency distribution point to receive stable iodine.

• Do a check at the evacuation exit inspection point.

• Go to an evacuation shelter outside the UPZ.



\*If the local government issued an evacuation order related to landslides, floods, etc., evacuate indoors to a safe location (such as a designated emergency evacuation site).



When it is Difficult to Shelter Indoors (earthquakes etc)

UPZ

# What should I do if sheltering indoors is difficult due to earthquakes, etc.?



If your home is damaged or destroyed by an earthquake, etc., you should evacuate to a nearby evacuation shelter for your safety. If you are sheltering indoors and there are aftershocks which make it **difficult to stay where you are**, you should quickly evacuate to a shelter.

**It is most important to escape from the earthquake.**



1

2

3

During a Complex Disaster

4

5

6

7

Earthquake

Alert

Site Area Emergency  
(prepare to shelter indoors)

General Emergency  
(order to shelter indoors is issued)

Case 1

If sheltering at home becomes difficult due to earthquakes, etc.



Prepare to shelter indoors



Shelter indoors at home



If your home is damaged, shelter at a nearby evacuation shelter, etc.



Evacuate by car or bus



Aftershocks occur

If sheltering indoors becomes difficult

Case 2

If your home is damaged and you are at an evacuation shelter, but staying indoors becomes difficult due to earthquakes, etc.



If your home is damaged, shelter indoors at a nearby evacuation shelter, etc.



Continue to shelter indoors at a nearby evacuation shelter



Evacuate by car or bus



Outside the UPZ

Go to evacuation shelter



# How should I prevent infection during an emergency?



When evacuating:

- Avoid the "Three Cs" (closed spaces, crowded places, and close contact situations).
- Wear masks.
- Disinfect your hands properly and often.
- Keep a suitable distance from others.



## Stopping infectious diseases from spreading during a nuclear emergency

### At time of evacuation

- Do a health check in advance
- Wear a mask
- Wash or disinfect hands often
- Avoid talking unless important
- Lessen time spent eating or drinking



### When in contact with infected patients

- Patients with fever or cough
- Contact your doctor or health care center if you suspect you may be infected



### On evacuation buses

- Sit with your family
- Keep a suitable distance from others



### At temporary assembly points

- Keep a distance from others



### At the evacuation shelters

- Keep a distance from others



### When sheltering indoors

- Do not ventilate (Keep doors and windows closed)





## At the Evacuation Shelters

# What should I do at the evacuation shelter?



Each area keeps a stock of food and daily items in case of an emergency. Staff will help with evacuation, so it is important to cooperate and remain calm.



1

2

3

4

5

At the Evacuation Shelter

6

7

## What to do

### 1 Registration

- Arrive at the evacuation shelter
- Follow the instructions of the staff
- Fill in the information correctly
- Finish registration



### 2 Follow staff instructions

- The staff will give updates and important information
- Follow their instructions and act calmly



### 3 Health consultation

- Health care professionals will be there to help with any health concerns at the evacuation shelter



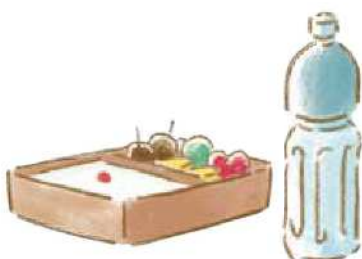
### 4 Exercise moderately

- Do some exercise and remember to drink water
- This is to prevent economy-class syndrome (blood clots from not moving for a long time)



### 5 Food and drinks

- Food, drinks, and everyday items will be given at the evacuation shelter



### 6 Keep good hygiene

- To lower the spread of infections and food poisoning
- Eg. by washing your hand often



※To estimate internal radiation exposure, simple measurements of the thyroid gland may be taken.



# Summary



## What to do during a nuclear emergency (summary)

Humans cannot detect radiation, so it is important to act calmly and follow the government's instructions.

1

2

3

4

5

6

What to do during a nuclear emergency (summary)

7

Step 1

Alert

### Within the PAZ (5km radius)

- **Prepare to evacuate** people who need early evacuation in a Site Area Emergency\*  
\*Elderly people, persons with disabilities, infants, and those who need special care
- **Pick up** children from schools and daycares



Step 2

Site Area Emergency

- **Start to evacuate** those who need early evacuation in a Site Area Emergency  
\*Those who risk increased health concerns should shelter indoors **Details on p.14**



- **Prepare to evacuate**
- **Prepare to take** stable iodine
- For children who could not be picked up from schools/daycares, start to evacuate them by bus.
- Parents/guardians should pick them up at the evacuation shelter



Step 3

General Emergency

- Take stable iodine
- Began to evacuate



Official information will be broadcast via TV, radio, emergency loudspeaker, broadcast vehicles, Genshiryoku Bosai app, etc.



### Within the UPZ (5~30km radius)

- Stay updated with accurate information
- **Pick up** children from schools/daycares



- **Prepare to shelter indoors**



- Continue to pick up children from schools/daycares



- **Shelter indoors** at your home, workplace, nearby public facility, etc.

- Children who could not be picked up from schools/daycares will **shelter indoors** at school



#### More than 20μSv/hr

- ▶ **Temporarily relocate within one week** if orders are given in your area

#### More than 500μSv/hr

- ▶ **Evacuate within several hours** if orders are given in your area

- Children who could not be picked up from schools/daycares **should be picked up at the relocation or evacuation facility**

# Q

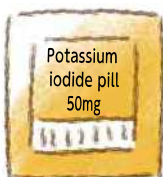
## Stable Iodine

# What is Stable Iodine?

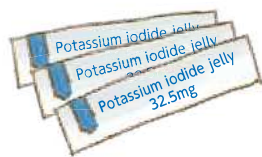


# A

- When a nuclear emergency happens, radioactive iodine can sometimes be released.
- If it enters the body, it will gather in the thyroid gland and can increase the risk of thyroid cancer next time.
- Stable iodine can block the thyroid gland from absorbing the radioactive iodine.



Potassium iodide pill



Potassium iodide jelly

### Important!

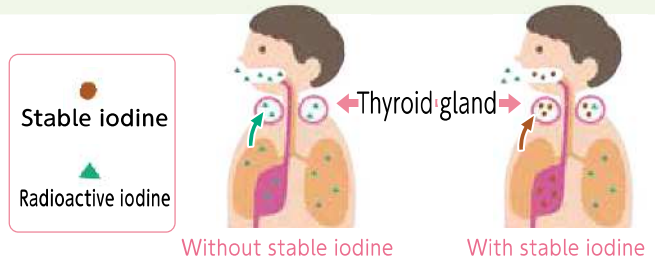
- Stable iodine prevents internal exposure to radioactive iodine only and no others.
- The iodine in mouthwash or disinfectant products is not stable iodine.
- They should not be used as a replacement.

### NOTE

## Ingredients and Side Effects

### ● Stable iodine = potassium iodide

- Form: pills, jellies, or powder
- If in powder form, it is prepared as a liquid and can be given to children under 3 years old and by those who find it hard to swallow pills.



### Dosage

Under 3 years old	<b>Newborns:</b>	1 x 16.3mg jelly pack
	<b>1 month-3 years old:</b>	1 x 32.5mg jelly pack
Above 3 years old	<b>3-13 years old:</b>	1 x 50mg pill
	<b>Over 13 years old:</b>	2 x 50mg pill

- In general, take only 1 dose
- It is more important to evacuate to a place without radiation instead of taking the second dose
- Instructions for taking stable iodine will be given by the government following the Nuclear Regulation Authority
- When to take the stable iodine is very important for it to be effective
- Take it only when given directions by the relevant authorities

- Side effects:**
- General hypersensitivity: rashes, etc.
  - Digestive system issues: nausea/vomiting, stomach pain, diarrhea, burning sensation in mouth/throat, metallic taste, toothache, gum pain, bloody stools, etc.
  - Others: hypothyroidism, headache, shortness of breath, cold-like symptoms, irregular heartbeat, rashes, fever, and/or swelling in the neck or throat

**Do not take if:** you have a pre-existing history of hypersensitivity to the ingredients of stable iodine or iodine.

**Be careful if:** you are undergoing medical treatment, and check with your doctor about using stable iodine

### How is it distributed

**Residents within the PAZ (<5km radius)**

- Distributed in advance
- Please attend the explanatory meetings

**Residents within the UPZ (5-30km radius)**

- It would be distributed urgently when in need, from stockpiles in the city and public health centers.
- It can be distributed in advance on request by those who are eligible (eg. those with disability and illness, and will be difficult to receive during an emergency).
- For more information on how to apply for this advance distribution, there will be instructions on pamphlets etc. given out to residents within the UPZ.

1

2

3

4

5

6

7

Reference



## Monitoring Air Radiation

# How is air radiation monitored?

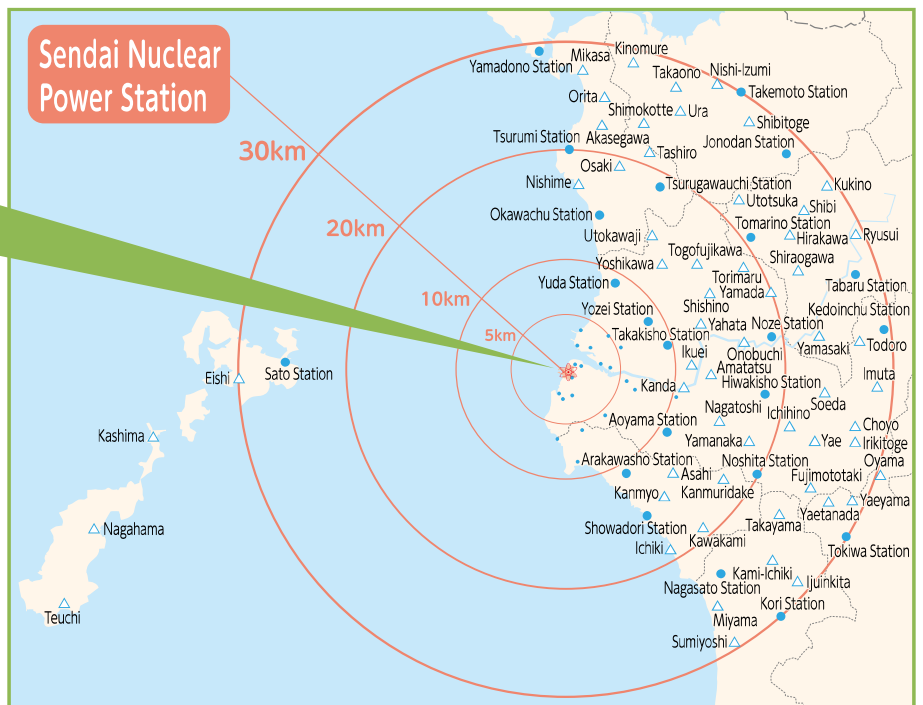
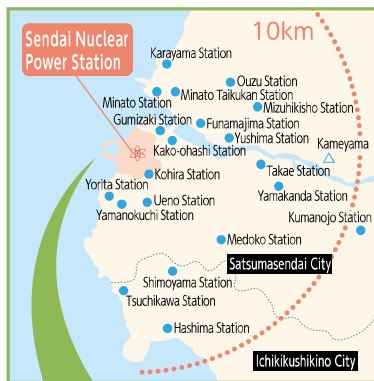


# A

Kagoshima Prefecture measures the air radiation at monitoring posts around the nuclear power plant for 24 hours a day. The environmental radiation levels are monitored during normal times. This tells us how it affects the people and area around the Sendai Nuclear Power Plant.



## Air Radiation Monitoring Points



●...Prefectural monitoring points    △...Prefectural electronic dosimeters    ●...Kyushu Electric Power monitoring points

### NOTE

## Emergency Monitoring



- 1 Setting up a monitoring system for emergencies via monitoring centers operated by the national and prefectural governments, Kyushu Electric Power, etc.
- 2 Monitoring using the monitoring points and electronic dosimeters at 100 places around the nuclear power plant, and using this data for protective purposes.

### Check the air radiation on your phone!



Genshiryoku Bosai app shows the air radiation at the monitoring point closest to you.

Real-time air radiation data can be seen here

Kagoshima environmental radiation monitoring information



<http://www.env.pref.kagoshima.jp/houshasen/>

※There may be differences due to changes since 2022.



[Android]



[iPhone]



1

2

3

4

5

6






7





Reference

## Contact Details of Disaster Management Offices

※If you cannot scan the QR code, cover the nearby QR codes and try again.

### [City/Town Halls]

Name	Tel. #	Website
Satsumasendai City Hall (Disaster Prevention and Safety Division)	<b>0996(23)5111</b>	
Ichikikushikino City Hall (Urban Policy and Disaster Prevention Division)	<b>0996(32)3111</b>	
Akune City Hall (General Affairs Division)	<b>0996(73)1210</b>	
Kagoshima City Hall (Crisis Management Division)	<b>099(216)1213</b>	
Izumi City Hall (Safety and Security Promotion Division)	<b>0996(63)2111</b>	


Name	Tel. #	Website
Hioki City Hall (General Affairs Division)	<b>099(273)2111</b>	
Aira City Hall (Crisis Management Division)	<b>0995(66)3111</b>	
Satsuma Town Hall (General Affairs Division)	<b>0996(53)1111</b>	
Nagashima Town Hall (General Affairs Division)	<b>0996(86)1111</b>	



### [Fire/Police Departments]

Name	Tel. #	Website
Satsumasendai City Fire Department	<b>0996(22)0119</b>	
Ichikikushikino City Fire Department	<b>0996(32)0119</b>	
Akune Fire Department	<b>0996(72)0119</b>	
Kagoshima City Fire Prevention Bureau	<b>099(222)0119</b>	
Izumi City Fire Department	<b>0996(63)0119</b>	
Hioki City Fire Department	<b>099(272)0119</b>	
Aira City Fire Department	<b>0995(63)3287</b>	
Satsuma Town Fire Department	<b>0996(52)0119</b>	
Akune Fire Department East Detachment Office	<b>0996(86)0119</b>	

Name	Tel. #	Website
Kagoshima Prefecture Police Headquarters (Security Division)	<b>099(206)0110</b>	
Satsumasendai Police Station	<b>0996(20)0110</b>	
Ichikikushikino Police Station	<b>0996(33)0110</b>	
Akune Police Station	<b>0996(73)0110</b>	
Kagoshima Nishi Police Station	<b>099(285)0110</b>	
Izumi Police Station	<b>0996(62)0110</b>	
Hioki Police Station	<b>099(273)0110</b>	
Aira Police Station	<b>0995(65)0110</b>	
Satsuma Police Station	<b>0996(53)0110</b>	

### [Prefectural/National]

Name	Tel. #	Website
Kagoshima Prefectural Government (Nuclear Safety Affairs Division)	<b>099(286)2543</b>	
Kagoshima Hokusatsu Regional Promotion Bureau (General Affairs and Planning Division)	<b>0996(25)5106</b>	
Kagoshima Prefecture Sensatsu Public Health Center	<b>0996(23)3165</b>	

Name	Tel. #	Website
Kagoshima Prefecture Environmental Radiation Monitoring Center	<b>0996(20)2230</b>	
Nuclear Regulation Authority, Sendai NRA Regional Office	<b>0996(23)1947</b>	

1

2

3

4

5

6

7

Reference

# Preparing for Emergencies

## (Resident Checklist)

### Install the Genshiryoku Bosai app

[Android]  
(Google Play Store)



[iPhone]  
(App Store)



### Fill in your designated emergency assembly site and evacuation shelter

Emergency assembly site

Evacuation shelter

### Emergency Kit Checklist

These should also be brought along during natural disasters, so have them ready at all times.

- Evacuation shelters may not have some things (eg. everyday items), so when packing your kit, it is important to put in things which are difficult to get.
- Face masks, hats, and raincoats help lessen the radioactive materials you breathe in or touch.
- Protect your things from contamination by putting them in an emergency backpack and covering with a plastic bag.
- As a general rule, evacuate by car, and always keep your fuel tank full.

#### Valuables/ Important Documents

- Cash (including coins)
- Bankbook, personal seal
- Health insurance card, driver's license
- Passport
- Maternal and Child Health Handbook
- Disability Recordbook



#### Daily Items

- Disposable heat pack
- Gloves, slippers
- Lighter/matches
- Writing utensils
- Disposable toilet
- Change of clothes, toothbrush
- Picnic sheet/tarp

#### Emergency Items

- Mobile phone and charger
- Portable battery
- Portable radio
- Flashlight
- Spare batteries, chargers
- Helmet
- Protective hood



#### Nonperishable Food

- Hardtack, canned goods
- Dietary supplements
- Drinking water
- Candy/chocolate



#### First Aid

- First aid kit
- Medicine
- Medicine Recordbook



#### Infection Prevention

- Masks
- Hand sanitizer
- Thermometer
- Liquid soap
- Towels, disinfectant sheets
- Plastic bags



Write down any other things you may need in an emergency.

It is difficult to make phone calls during a disaster.

## Disaster Emergency Message Recorder: Dial 171

#### How to use:

Call

1 7 1

Follow the instructions:  
To record a message,

press

1

(○○○○) □□-□□□□

→ Leave your message

Enter your home phone number or the number of the person you want to contact (starting with the area code). Only landline numbers can be used (no mobile phone numbers).

To listen to a message,

press

2

(○○○○) □□-□□□□

→ Listen to someone else's message

Other disaster message services are also provided by mobile service providers. Please contact your carrier for more details.

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