

Nuclear Disaster Prevention

What should you do if an accident occurs at a nuclear power plant?
Here is what is necessary to know in order to protect yourself.

1 Nuclear Power Plant in Shimane Prefecture

In Shimane Prefecture, Chugoku Electric Power's Shimane Nuclear Power Plant is located in Kashimacho, Matsue-shi.



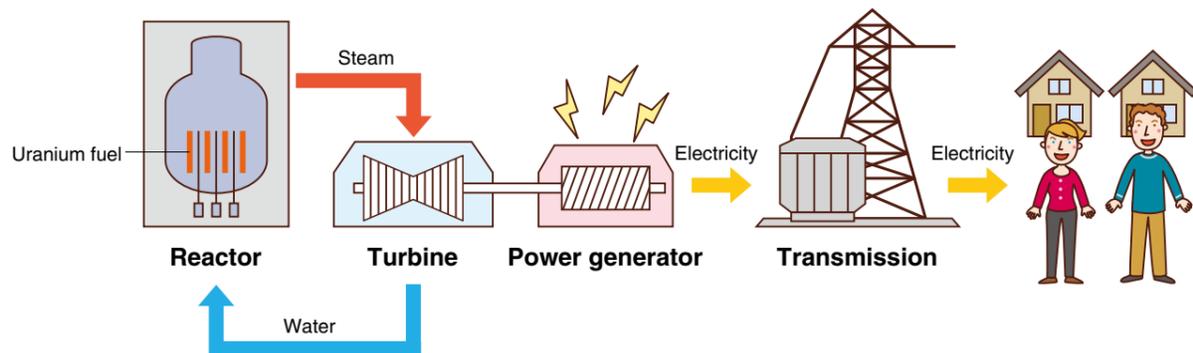
※Operation of Reactor 1 was terminated and Reactor 3 is under construction.



※The map does not necessarily represent accurate distances between regions.

2 Location of Shimane Nuclear Power Plant

At a nuclear power plant, power is generated by generating heat using uranium as fuel, and boiling water using this heat to generate steam to rotate turbines and power generators.



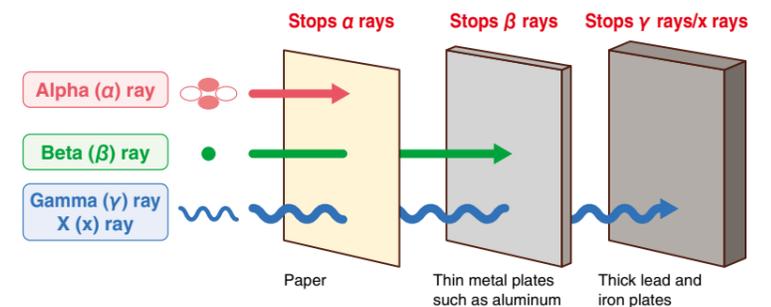
3 What are Radiation and Radioactive Substances?

When electricity is generated by nuclear power, it generates not only energy but also radioactive substances. Radiation is emitted from these radioactive substances.

Characteristics of Radiation

- Invisible, odorless, and cannot be felt by the human body.
- There are several types of radiation and its ability to pass through objects differs depending on the type of radiation.
- It can be accurately measured using specialized measuring devices.

Types of radiation and its ability to pass through objects



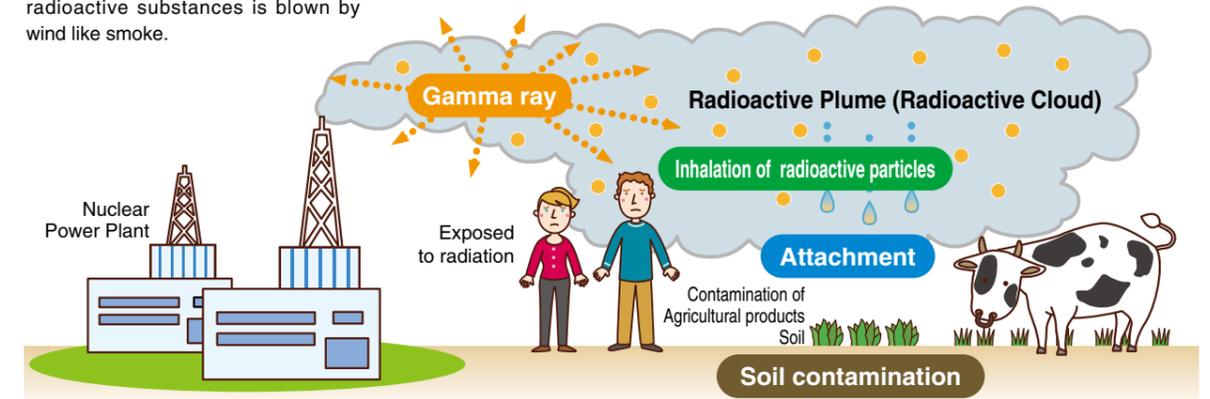
4 What is a nuclear disaster?

A nuclear disaster is the emission of a large amount of radioactive substances outside of a nuclear power plant.

If we breathe in a large amount of radioactive substances or are exposed to radiation emitted from radioactive substances, our bodies will be adversely affected.

※A radioactive plume is the condition in which a mass of air containing radioactive substances is blown by wind like smoke.

※Image figure depicting a disaster (Radioactive plume is invisible.)



External radiation exposure and internal radiation exposure

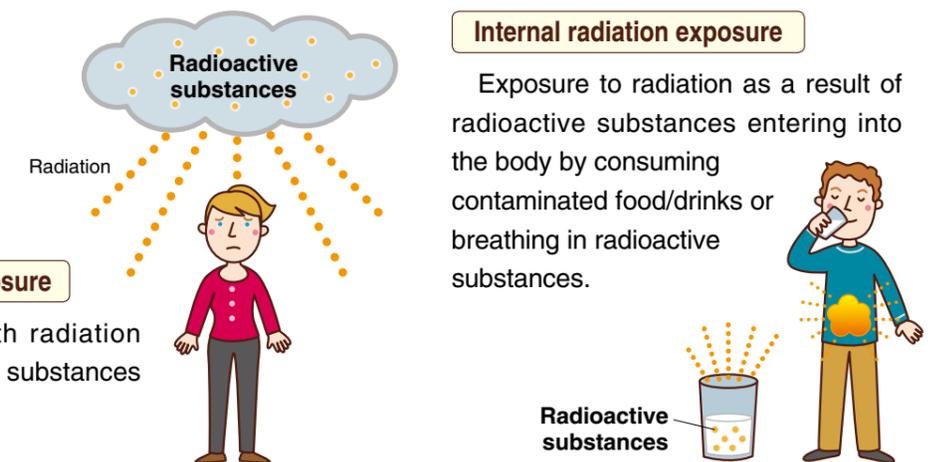
If radiation enters or contacts the body, it is referred to as "radiation exposure."

External radiation exposure

Being in contact with radiation emitted from radioactive substances outside of the body.

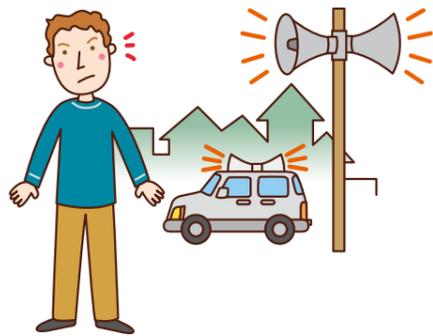
Internal radiation exposure

Exposure to radiation as a result of radioactive substances entering into the body by consuming contaminated food/drinks or breathing in radioactive substances.



5 When an accident occurs

Listen to announcements carefully



- Do not panic and listen to the announcements carefully. In the case of being outdoors, public announcement vehicles will provide you with information.
- Check what you should do by watching or listening to broadcasts and TV programs from the city.

Stay calm



- Listen to instructions carefully, and take action on whether to stay home or evacuate to a distant location.

When instructed to stay home or indoors



- Close windows and doors and turn off ventilation fans so that outside air will not enter.
- Keep away from windows.
- If you come in from outdoors, wash hands and face and change clothes. Place the changed clothes in a plastic bag.



Radiation exposure can be reduced by simply staying indoors.

- Unlike heavy rain and earthquakes, you cannot feel radiation on your body. (Invisible, odorless and you cannot feel it on your skin.)
- You cannot know the magnitude of damage on your own.

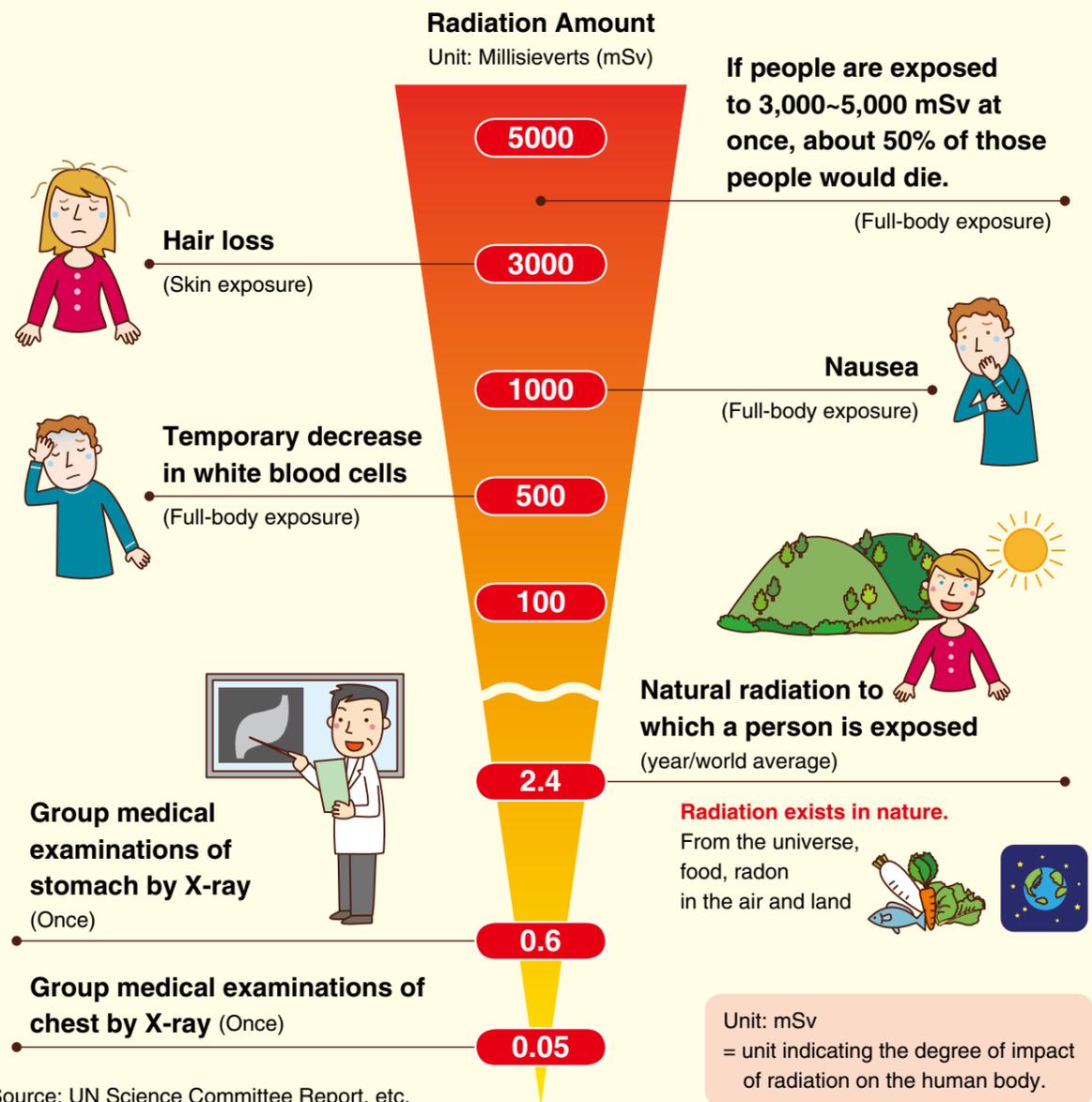
It is important to act in accordance with the instructions of Shimane Prefecture and the city.

Daily Life and Radiation

Radiation exists all around us. Everyone has been exposed to natural radiation existing in nature since birth. Radiation is used in a variety of scenes in our life such as X-rays for medical examinations.

The amount of radiation to which we are exposed in our daily life is negligible and does not adversely affect our health. But if we are exposed to large amounts of radiation, it will adversely affect our health.

It is important to have the correct knowledge about radiation.



Source: UN Science Committee Report, etc.

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