

INSTRUCTIONS IN CASE OF RADIATION HAZARD

These instructions provide information for the eventuality that an accident requiring the protection of the general population were to occur at the Olkiluoto nuclear facility. Such an accident is very unlikely but nevertheless possible.

In case of a radiation hazard, the authorities will provide instructions to the general public as regards, for example, sheltering indoors, ingesting iodine tablets and evacuation. The aim is to prevent any immediate detrimental health effects and to mitigate the effects of radiation.

In accordance with the Ministry of the Interior's decree on communication in case of radiation hazard (YVL 774/2011), this bulletin is distributed to the population in the nearby areas every three years.

Do this whenever you hear the public warning signal

The public warning signal is a rising and falling sound signal given using the public alarm system that lasts for approximately one minute. The signal is given when there is a severe danger to the population.



1. Move indoors and stay there.
Close all doors, windows, ventilation openings and ventilation equipment. Remember to stop any mechanical ventilation. Read more on page 2 under *Sheltering indoors*.

2. Turn your radio and/or television on. Information from the authorities can be heard/seen on Finnish national channels. Instructions from the authorities are available on pages 112 and 867–868 of YLE's teletext service. In case of a radiation hazard, further information is also available on the websites and X accounts of the Satakunta Rescue Services, TVO and STUK:

- [@sata_pelaeh](http://www.pelastustoimi.fi/satakunta)
- [@STUK_FI](http://www.stuk.fi)
- [@tvo_fi](http://www.tvo.fi)

The 112 Suomi application will also provide access to emergency

warnings. More information is available on page 3, *Following authority communications*.

3. Avoid unnecessary connections (using the Internet, sending mobile messages and making phone calls) in order to prevent congestion of communication lines used by the authorities.

If the authorities decide that protective measures are to be taken, follow the instructions below exactly.

4. Shelter indoors and remain indoors.

5. Only take your iodine tablet when instructed to do so by the authorities. If you do not have iodine tablets, do not leave the building to retrieve them. Read more on page 3 under *Iodine tablets*.

6. Evacuation refers to temporarily relocating people from the danger area to a safe place. If the authority issues the order to evacuate, closely follow the provided instructions. When an evacuation occurs, always take with you your

- necessary medication
- hygiene accessories
- payment instruments
- identity card.

When evacuating, leave your apartment as you would when going on holiday. Report in as you leave and once you reach your destination. Read more on page 3 under *Evacuation*.

7. In order to avoid danger, do not leave the area on your own without an order from the authorities.

The all clear signal is a steady one-minute sound signal which notifies that the threat or danger has cleared.



Radioactivity and radiation

Radioactive substances occur in small concentrations in our everyday living environment: in the soil, in construction materials, in water, in the air and in our own bodies. These, as well as cosmic background radiation, are referred to as natural background radiation.

A part of the radiation dose incurred by humans is caused by the utilisation of radiation in medicine, for example.

Health effects of radiation

Exposure to ionising radiation emitted by radioactive substances increases the risk of detrimental health effects. However, the cancer risk caused by radiation is minor even after a large radiation dose. Any possible malignant tumours will only appear years after the exposure, and a specific tumour cannot usually be linked to a specific exposure. Only individuals who receive large radiation doses within a short period of time may exhibit radiation-induced symptoms, such as nausea and diarrhoea, soon after the exposure.

Radiation dose allows for estimating the detrimental health impacts of radiation. Radiation doses are typically reported in millisievert [mSv].

Any unnecessary radiation should be avoided. The higher the radiation dose to a person is, the more likely they are to experience detrimental health impacts.

Authorities will manage the situation in case of hazards

Safety and environmental radiation levels are constantly monitored. In case of a radiation hazard, the authorities will notify the general public regarding the danger and provide instructions as regards, for example, sheltering indoors, ingesting iodine tablets and evacuation. Authorities will also provide instructions for protecting agricultural production and animal feed in order to prevent the contamination of the food being produced.

The aim for these protection activities is to prevent any immediate detrimental health effects and to mitigate the effects of radiation as much as possible.

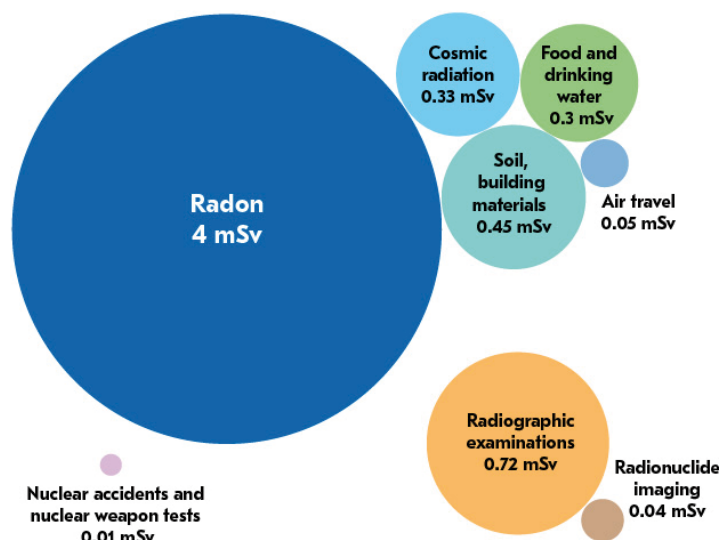
Sheltering indoors

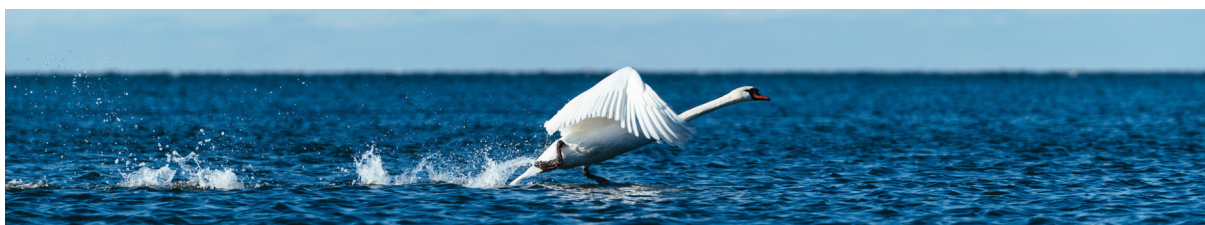
Residential buildings provide good protection in case of radiation hazard. Try to seal the space as well as possible. Close any doors, windows and ventilation openings and stop ventilation. This is how you reduce the amount of radioactive particles and gases entering the premises. Use dust-proof protection, such as plastic bags or boxes, for any foodstuffs.

Tap water will remain clean. Your refrigerator, freezer and sealed packages will protect against radioactive dust.

The walls, ceilings and floors of the building will attenuate the radiation, so the best possible protection is provided by the central part of the building or the basement. Avoid rooms with large windows.

An individual in Finland receives an average annual radiation dose of 5.9 mSv





Sheltering indoors will last for a maximum of two days. Some radioactive substances may enter dwellings even if they are sealed. Once the plume containing radioactive substances has passed, please follow the instructions from the authorities.

If it is absolutely necessary to go outside, use a respirator and wear clothing that covers the skin as well as possible and is easy to clean, such as rain clothes. When returning inside, leave the outer clothing at the door and wash yourself carefully. Doing this will prevent radioactive substances from coming into contact with the skin and being carried indoors.

Farmed animals are moved inside and supplied with clean food in order to minimise the contamination of products obtained from the animals, such as milk. A few days' worth of feed should be reserved for farmed animals. Feed that is placed in storage is protected against airborne fallout.

Iodine tablets

If an accident occurs at a nuclear facility, it may release radioactive iodine. Iodine tablets prevent the accumulation of radioactive iodine into the thyroid gland. They are used for protection against radioactive iodine. Iodine tablets do not protect against other radioactive substances. Iodine tablets are freely available in pharmacies. The well-being services counties distribute iodine tablets that are suitable for children under three years of age. They should be obtained in advance. Ingesting iodine tablets is especially important for children and pregnant women, since the thyroid glands of children and fetuses are more sensitive to radiation than those of adults. Ingesting iodine tablets is not necessary for individuals over 40 years of age, as the thyroid gland's sensitivity to radioactive iodine is reduced with age.

Iodine tablets are to be ingested only when recommended by the authorities. The tablets lose their effectiveness when taken too early or too late. Read the instructions in the product information leaflet and adhere to them.

Do not go outside to obtain iodine tablets if the general warning signal has been given or if the authorities have otherwise recommended that you shelter indoors. Sheltering indoors will also substantially reduce the amount of inhaled iodine.

Following authority communications

Follow the instructions given on the radio, television and the authorities' online media. The instructions can also be found on pages 112 and 867–868 of Yle's teletext service.



If you have installed the 112 Suomi app on your phone, granted it permission to access your location and the app's tracking is on, you will receive an emergency warning on your phone. This will allow you to receive the warning even when you are at a location where the general warning signal cannot be heard. 112 Suomi also makes it easier to call in an emergency, as it will indicate the caller's location. The app contains instructions for various emergencies. Learn more about the features of the 112 Suomi application at www.112.fi/112-suomi. The app is free to download on the app stores.

Evacuation

If the authorities estimate that sheltering indoors is not sufficient, the population may be ordered to temporarily leave the danger zone. Only take what is necessary (such as necessary medication, hygiene supplies, payment instruments, identity card etc.). Only take what you can comfortably carry – no large suitcases or similar.

Close the ventilation. Otherwise, you can leave your apartment as you would when leaving for a long trip. At farms, animals and feed are protected by moving them indoors. Follow the instructions provided by the authority.

Evacuation will be performed before the radioactive plume reaches the area, if there is sufficient time available. If there is no time, evacuation will take place only after the plume has passed by the area. When the plume is in the area, you must shelter indoors.

The authorities will provide more detailed instructions regarding the evacuation over the radio, television and online media. During an evacuation, most of the population is expected to leave the danger zone in private vehicles. The transport arrangements, a safe direction, the destination and any possible assembly points will be decided according to the present situation. The management of rescue services will arrange shared transport and special transport as necessary.

Carefully follow all the provided instructions concerning the evacuation. Report in as you leave and once you reach your destination. Do not deviate from the instructed route.



The *precautionary action zone* for a nuclear facility extends to a distance of approximately 5 kilometres from the facility (marked with a dotted line on the map). There are restrictions on land use within this area.

The *emergency planning zone* for a nuclear facility refers to a planning zone for the authorities that extends to a distance of approximately 20 kilometres from the power plant (marked with a bold line on the map); for this zone, rescue services have drawn up an external rescue plan for a radiation hazard in accordance with the Rescue Act (379/2011) and the Ministry of the Interior's decree 1286/2019.

Emergency preparedness and rescue operations

National, regional and municipal authorities, institutions and other communities participate in the planning of rescue operations under the supervision of the rescue authorities and, during accidents and emergencies, act in a manner that allows for efficient rescue operations.

Parties that will take part in the protective measures that may be required in case of a radiation hazard include the rescue services, police, food authorities, social services, healthcare, Border Patrol and Coast Guard, the Ministry of the Interior, agricultural authorities, the Radiation and Nuclear Safety Authority and the Finnish Broadcasting Company. If necessary, assistance may be requested from the Finnish Defence Forces. The authorities may also order other parties, such as transport and accommodation providers, to participate in the activities. Rescue services, as part of the well-being services county of Satakunta, have prepared an external rescue plan for a radiation hazard.

The TVO Group has drawn up its own emergency preparedness plan for radiation accidents at the Olkiluoto nuclear facility.

The authorities and other actors participating in rescue operations hold regular drills regarding operations pursuant to the rescue plan and maintain continuous emergency preparedness.

The instructions are distributed to the population inside the emergency planning zone

Pursuant to the Government decision and the Ministry of the Interior's decree, the nuclear facility shall, in cooperation with the rescue services and the Radiation and Nuclear Safety Authority, deliver the instructions for a radiation hazard to the nearby population every three years.

These instructions have been distributed to homes and workplaces within the municipality of Eurajoki (including Luvia) and in Rauma. The instructions have been published on the websites of TVO, the municipality of Eurajoki and the City of Rauma. For owners of holiday homes, it has been sent to their address of permanent residence; owners are asked to ensure that the instructions are taken to the holiday home.

Satakunta Rescue Services	www.pelastustoimi.fi/satakunta	@sata_pelaeh
Radiation and Nuclear Safety Authority	www.stuk.fi	@STUK_FI
Teollisuuden Voima Oyj	www.tvo.fi	@tvo_fi
Posiva Oy	www.posiva.fi	@Posiva_fi

