

1. Emergencies (fire, explosion, earthquake)

* Phone numbers for emergency calls are listed in the pink page.

● Provide against emergencies

1. Against fires
 - Check evacuation routes, fire exits, emergency stairs, and places of refuge. Check the locations of fire extinguishers, fire hydrants, and fire alarms.
 - Learn how to use fire extinguishers and fire hydrants. It is helpful to have an experience of using them in annual fire drills.

2. Against earthquakes
 - (1) Take care to avoid fires in case of earthquakes. Do not put combustibles around heaters.
 - (2) Pharmaceuticals bottles are to be kept in steel shelves with locks, even when a user must leave the place for a while. Take care of large glass bottles with nets or other methods in order not to be broken by collisions with each other.
 - (3) Gas cylinders and tall apparatuses are to be fixed with chain.
 - (4) Blocks made of concrete, lead, or iron, large electric power devices, shelves, racks, lockers and other large apparatuses should be fixed to floors, walls or ceilings in order to avoid falling in case of earthquakes.

3. First aid
 - Please learn how to give first aid.
 - You are recommended to attend a lecture class of AED (Automated External Defibrillator).

● If a fire alarm operates

- Check the safety around you, and follow the instruction by an emergency address system.
- The position of a fire is indicated at the radiation control room in the AVF cyclotron building, administration room in the first floor of the main

building, and the building for heat source development.

● In case of fire, explosion, or imminent situation of those accidents

1. Extinguishing a fire at an early stage

(1) If you find a fire, ring a fire alarm, and alarm your neighbors loudly.

Then notify the accelerator operation manager (090-3051-3770).

(2) You may call the fire department (extension 118) first, then notify the accelerator operation manager (090-3051-3770).

It is crucial to give detailed information on the fire. Report the location, i.e. the place or the room, the building of RCNP, the burning material, your name and your phone number.

It is also important to inform whether the fire occurred in the radiation controlled area or not.

(3) If you find a fire, make best effort to extinguish it at an early stage, together with your neighbors, using fire extinguishers around there. But if you feel dangerous, move immediately to a safe area, and wait for the arrival of a fire brigade.

2. Radioactive materials

(1) Move radioactive material (checking source, irradiated target, etc.) to a safe place.

(2) To put out the fire in the early stages, use a powder fire extinguisher, a carbon dioxide fire extinguisher, or a halon fire extinguisher if they are available.

(3) Decision of using foam or water as a fire extinguisher should be made by a person who is present at the location of the fire, in the following order of precedence, the director, the fire prevention manager, the radiation safety supervisor, and the accelerator operation manager.

(4) The radiation safety supervisor or the accelerator operation manager make decisions for fire fighting in cooperation with the responsible person of a fire brigade, considering the situation around the fire.

If an earthquake occurs

1. If there is an alarm of the Earthquake Early Warning (EEW), look to safety of your own and your neighbors, considering the situation around you. You may suffer a strong quake only a few or a few ten seconds after the warning.

2. If some secondary disaster is worried due to damages on buildings or instruments, stop gases, power supplies, pumps, air conditioners, etc., immediately. Gases and electricities are to be stopped at main taps and switchboards, respectively.
Keep doors of rooms and passages open in case of evacuation.

3. Emergency measures when accelerators are in operation:
 - (1) Operation of accelerators and experimental apparatuses will be discontinued immediately, if there would be an anxiety of any damage. After the earthquake, the accelerator operation manager will decide to resume the operation by checking the safety of accelerators and experimental areas.
 - (2) If the buildings or instruments could be damaged by a big earthquake, the operations of the accelerators and instruments will be stopped immediately. In case of emergency, the whole system will be stopped with the emergency-stop switch.
 - (3) The operators will report the situation of the accelerators to the accelerator operation manager, and will follow his instructions for appropriate measures.
 - (4) The accelerator operation manager will instruct the operators to inform the situation by an emergency address system.
 - (5) If a disaster occurs, the accelerator operation manager contacts the director, the radiation safety manager, the head official, and the person in charge of fire prevention (, if necessary), and take appropriate measures.
 - (6) If a disaster occurs, the radiation safety manager reports it to the director, the head official, and other persons in charge, and prevents radiation hazards with the help of the stuffs of the radiation management office.
 - (7) If you are staying in a building in the case of a disaster, make efforts to prevent secondary accidents, and evacuate from the building if necessary. Do not use elevators.
 - (8) If a fire takes place, follow the fire protection rules of RCNP.

● **If the first aid is necessary**

1. Resuscitation method and AED

- If it is necessary to perform the resuscitation method for a heart and lungs, call other persons for help, and ask him to bring the AED machine which is placed at the entrance of the RCNP main building.
- Make an effort to save the life with the resuscitation method until the AED machine will be delivered.

2. Ambulance and hospitals

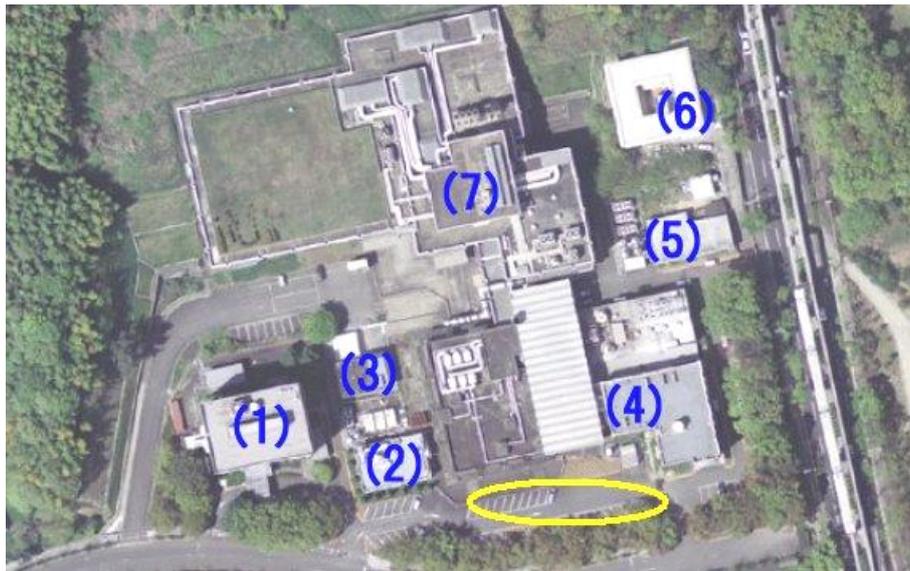
- If a quick medical treatment is necessary, call ambulance (internal phone number 118).
- Contact a hospital if necessary.

3. First-aid kit etc.

- Stretchers are provided in front of the radiation management office in the first floor of the AVF cyclotron building and in front of the elevator hall in the basement of the ring cyclotron building.
- Respirators are available at the outside of the west door of the AVF cyclotron counting room and in the middle of the neutron flight tunnel in the ring cyclotron experimental room.
- The emergency address systems are provided at the heat source building, the radiation management office (the first floor of the AVF cyclotron building) and the reception desk of the ring cyclotron building (the second floor).

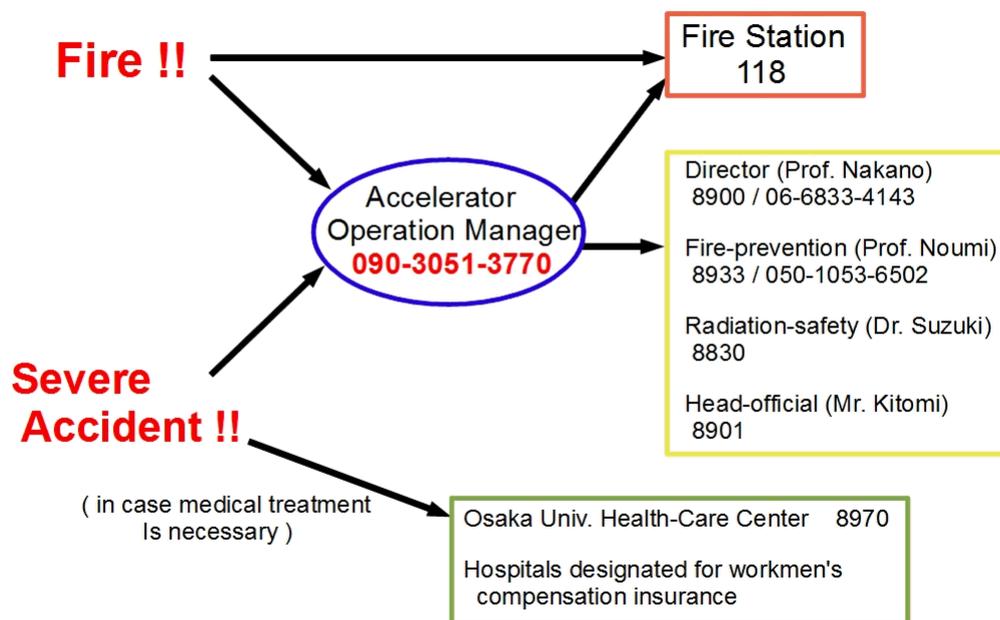
- In case of emergency, please contact the persons in charge listed in the “pink page”.
- List of hospitals can be found in the “green page”.
- The users from outside of RCNP are advised to check the locations of emergency exits, and evacuate through them in case of emergency.
- The staffs and students of RCNP should contact responsible persons listed in the “pink page”.

Emergency Assembly Area



- (1) Main building
- (2) RI building
- (3) Nuclear spin polarization method development building (HD building)
- (4) AVF cyclotron building
- (5) Heat source building and machinery workshop
- (6) Guest house
- (7) Ring cyclotron building

Flow chart for reporting emergency and calling first aid



* Please contact the Ibaraki-city firehouse, when you need to call an ambulance. The extension phone number is **118**.