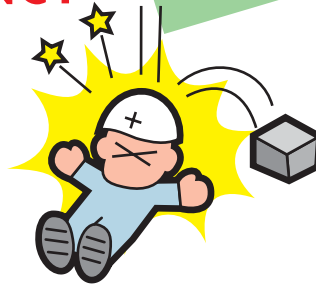


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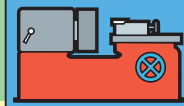
FIRE, ACCIDENT, INJURY, ILLNESS → CALL INFORMATION CENTER

Extention **3399** Outside line **029-864-5572**



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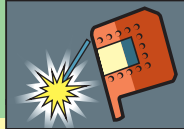
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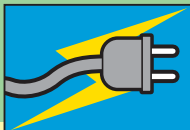
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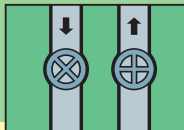
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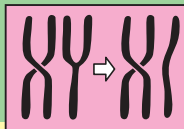
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October 2005



High Energy Accelerator Research Organization

Preface

Inter-University Research Institute Corporation, High Energy Accelerator Research Organization (KEK) has served facilities and equipments to many researchers in the related fields for their excellent researches.

This guidebook contains essential rules and the procedure to secure the safeties of all the people who work in KEK, including the outside cooperate users, the visitors and all other users, as well as the KEK staff.

There exist many of complex and peculiar facilities for research in KEK. In order to make excellent researches, it is extremely important to prevent the accident beforehand with their safely running and usage. It is also important to take urgent and appropriate measures when the accident occurs by any chance.

KEK has set up safety management system consisting of safety board and various task forces, which include chemistry, machines, electricity, laser, traffic and disaster / fire prevention, and DNA safety committee. This guidebook was made by the cooperation of committee and task forces under the careful discussion.

Please keep this guidebook available at any situation, and read the appropriate items in it when necessary.

If you have any question, do not hesitate to ask Health and Safety Office (Ext. 5120, 5119) or the member of the safety committee.

October 2005

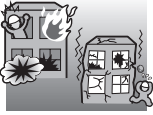
Yoji Totsuka

Director General

High Energy Accelerator Research Organization

Inter-University Research Institute Corporation

EMERGENCY



FIRE, EXPLOSION, EARTHQUAKE

<Fire, Explosion or Hazard gas leak>

If you see Japanese people near by, make use of the sentence below in order to evacuate.

Expression inside “xxx” is the Japanese pronunciation for the phrase.

Evacuate immediately: “NI-GE-RO”

Fire: “KA-JI”

Explosion: “BA-KU-HA-TSU”

Hazardous gas leak: “GA-SU MO-RE”

If you see nobody near by, call INFORMATION CENTER, Ext. 3399 or Outside line 029-864-5572

Example of calling INFORMATION CENTER in case of fire.

(1) Dial 3399

(2) Say “KA-JI DE-SU”

(3) Tell the location, . . . , “KO-KO-WA . . . DE-SU”

(4) Tell the phone number, , which you are using, “DEN-WA BAN-GOU”

When you are using radiation source, move it to safe place and inform RADIATION CONTROL OFFICE (Ext. 3500) of the movement.

<Fire alarm>

Tell nearby Japanese persons.

If you see nobody near by, call INFORMATION CENTER (Ext. 3399, Outside line 029-864-5572).

(1) Dial 3399

(2) Say “KA-SAI KEI-HOU DE-SU”

(3) Tell the location, . . . , “KO-KO-WA . . . DE-SU”

(4) Tell the phone number, , which you are using, “DEN-WA BAN-GOU”

<Earthquake>

Keep cool, watch around carefully.

Extinguish open flames which are being used.

Evacuate to the emergency assembly area nearest.

(The emergency assembly areas are shown in next page.)



INJURY OR ILLNESS

<Emergency medical call procedure>

Call Information Center (Ext. 3399, Outside line 029-864-5572), and ask calling ambulance or hospital.

It is requested that you inform the information center of your name, address and detail of the injury or illness.

We have AED (Automated External Defibrillator) at the Information Center.

<For a slight injury or sickness>

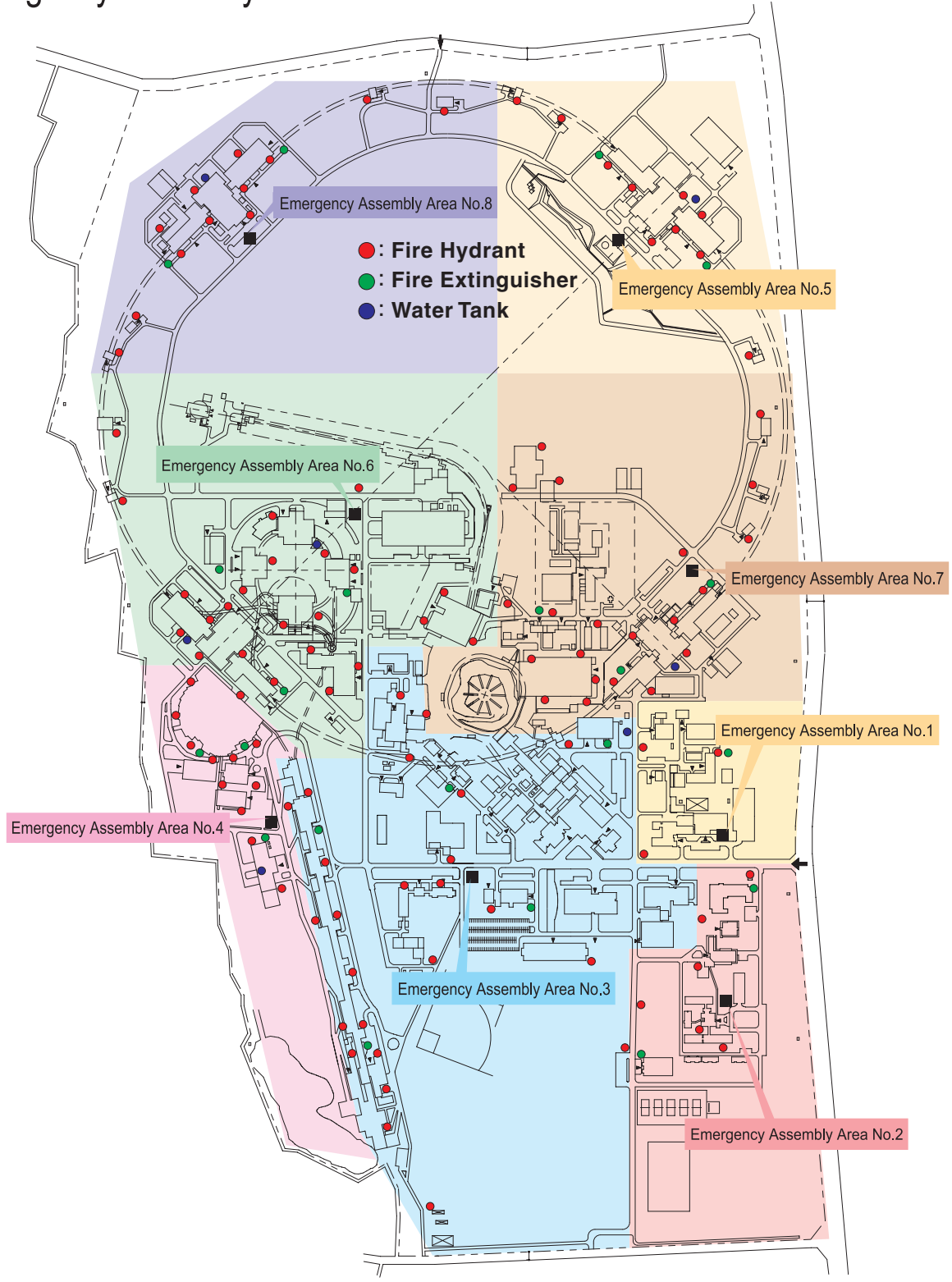
Utilize a first-aid kit.

Call Health Service Section (Ext. 5600) during working hours.

Call Information Center (Ext. 3399, Outside line 029-864-5572) in case of outside working hours.

Emergency Assembly Area

When a disaster, such as big earthquakes, happened, come to nearest “Emergency assembly area” and follow instructions.





RADIATION SAFETY

- ◆ There are many radiation-controlled areas in KEK (see the map of radiation controlled areas on next page), and entrance to these areas is strictly regulated.
- ◆ Radiation work is defined as any work in radiation controlled areas at KEK. Whoever intends to participate in radiation work shall be registered as a “radiation worker”.
- ◆ When you want to handle (that is, to use, purchase, carry in, transfer, generate or dispose of) radioactive substances including checking sources, please contact the Radiation Control Office (Ext. 3500). It is strictly forbidden to handle without permission.
- ◆ When radiation-generating apparatus is in operation, a yellow warning light is flashing.

For more information, call Radiation Control Office (Ext. 3500)

Reference: Safety guide for Radiation

URL: <http://rcwww.kek.jp>



CHEMICALS

- ◆ The purchase or the bringing in of chemicals is required to submit "Request for getting chemicals" to the Chemical Safety Control Office (Ext. 5498) in advance and to obtain approval.
- ◆ When you handle chemicals, waste liquid should be stored in exclusive bottles, which are supplied at the Liquid Waste Treatment Station
- ◆ Toxic materials and hazardous chemicals should be stored in exclusive lockers under strict guard.

For more information, call the Chemical Safety Control Office (Ext. 5498).

References: Guidebook of chemical handling.

URL: <http://rcwww.kek.jp/chem/>

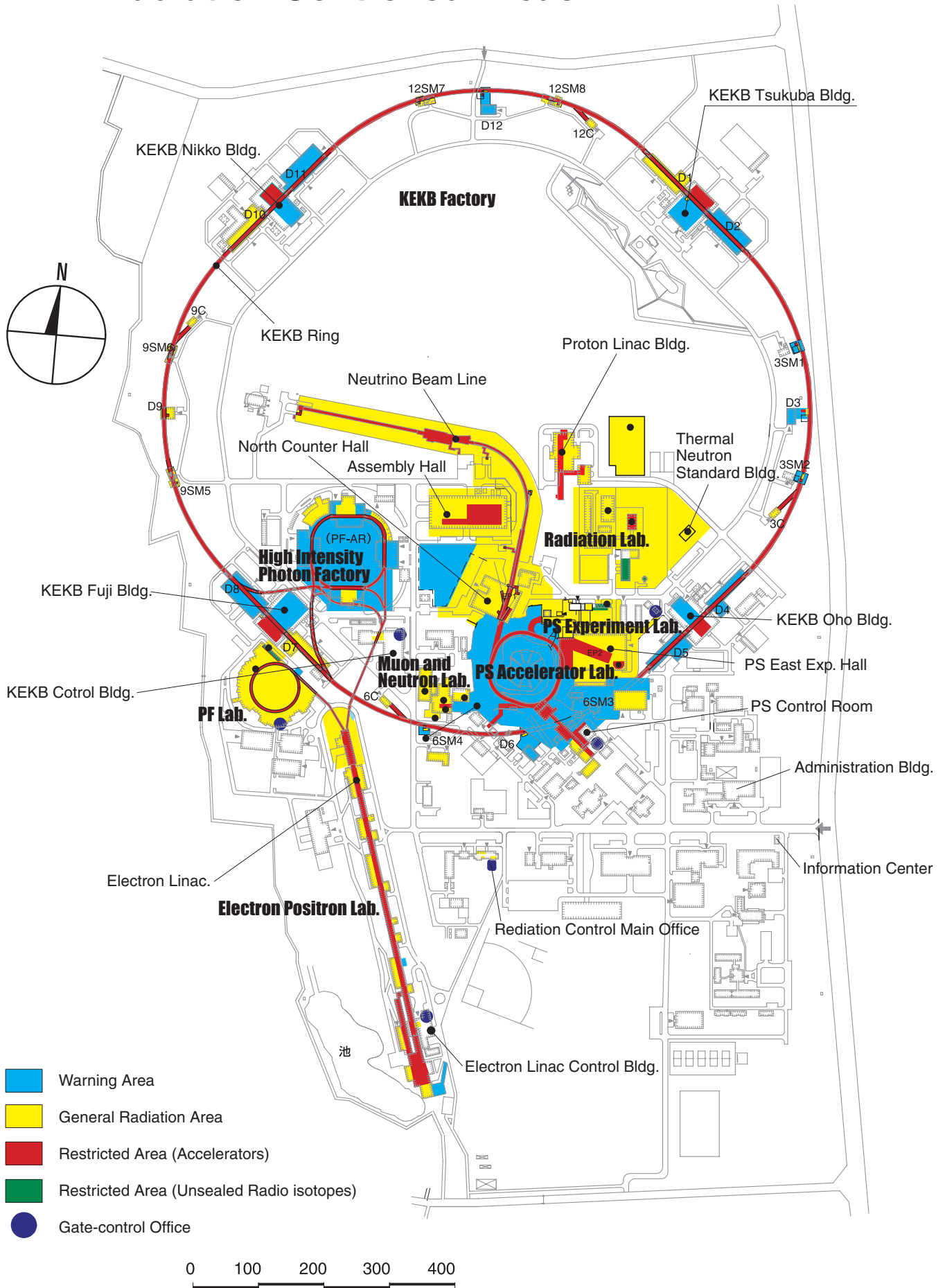


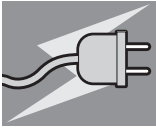
HIGH-PRESSURE GAS

- ◆ Highly compressed gas above 1 MPa and liquefied gas above 0.2 Mpa are regulated by the law of high-pressure gas safety.
- ◆ When you want to fabricate and /or change high-pressure facilities or equipments, contact the Technical Administrator of High-Pressure Gas Production (Ext. 5734).
- ◆ When you want to use special material gas and/or poison gas, contact the Safety Administrator of Special Material Gas (Ext. 5594).
- ◆ A green warning light is flashing, when the production facility is in operation for high-pressure gas.

For more information, call the Technical Administrator of High-Pressure Gas Production (Ext. 5734), the safety administrator of special material gas (Ext. 5594) and Health and Safety Office (Ext. 5120 or 5119).

Radiation Controlled Areas in KEK





ELECTRICITY

- ◆ Work on live wires is strictly forbidden, when you check and/or improve electrical facilities.
- ◆ When you work at the place neighboring active voltage lines, you should ask another person to watch you in order to keep safety.
- ◆ A red warning light is flashing, when high voltage and/or high magnetic field equipments are in operation.

For more information, call electrical administration office in Facility Division (Ext. 5184).



CRANE AND MOVERS FOR HEAVY LOADS

- ◆ For the operation of a crane or a mover for heavy load, such as a forklift, a car equipped crane, electric car and a mover dedicated specially, a license or a qualification, which is corresponding each facility, is required in advance.
- ◆ When you want to move heavy loads, you have to ask KEK staff to arrange an operator for a crane or a mover. The operator is required to fill a check sheet, which is located near the facility, before and after the operation.
- ◆ The operator of a crane or a mover has to submit a corresponding application form to the office of the institute or the center, which administer the operation area.

For more information, contact Health and Safety Office (Ext. 5120 or 5119), the offices of Institute of Particle and Nuclear Studies (Ext. 5324), Institute of Materials Structure Science (Ext. 5602), Accelerator Laboratory (Ext. 5205) and Applied Research Laboratory (Ext. 5455).



HEIGHT WORKING

- ◆ Working at the place higher than 2 m is defined as a height working.
- ◆ A height working requires footholds and fences in order to prevent falling down.
- ◆ When footholds and fences are constructed, qualified persons have to make them.
- ◆ A safety belt should be worn, when the height working is made without footholds and fences.
- ◆ An enough light should be secured, when a height working is made in night or at a dark place.

For more information, contact Health and Safety Office (Ext. 5120 or 5119).

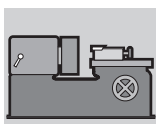


OXYGEN SHORTAGE

- ◆ The caution for oxygen shortage is required in a tank, a tunnel, a pit or an underground drain.
- ◆ Ventilation is required in the place where a large amount of gases are discharged.

- ◆ The oxygen density of 18% should be kept at least in the air, because the air of less than 16% is dangerous.
- ◆ One breath in the gas containing no oxygen causes unconsciousness, and continuing the situation brings brain death after about three minutes.

For more information, contact Health and Safety Office (Ext. 5120 or 5119).



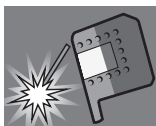
MACHINE WORKS

- ◆ You have to be careful not being rolled in the rotation parts of machines.
- ◆ In order to use machines in the user's corner of mechanical engineering center, the permission from the center is required.
- ◆ Machining in the radiation processing room requires the permissions of the mechanical engineering center office and the person in charge of the radiation management district.

For more information, contact the Mechanical Engineering Center Office (Ext. 5767).

References: Introduction to machine center, handbook for mechanical engineering center.

URL: <http://www-mec.kek.jp/kousaku/>



WELDING

- ◆ The license or the qualification is necessary for the welding operation.
- ◆ When you plan the welding operation, submit "work report like the welding (fire use) etc." to the safety hygiene promotion office by three days before the welding execution.
- ◆ When the welding work is planned, the caution for fire prevention should be paid and fire extinguishers are prepared.

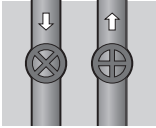
For more information, contact Health and Safety Office (Ext. 5120 or 5119).



LASER

- ◆ Because laser beam has a very high-density energy, therefore even scattered light also causes losing sight, the burn or a fire as well as direct laser light.
- ◆ The use of class 3A laser is required to submit "Laser use report".
- ◆ The use of class 3B and class 4 lasers are required to submit "Laser use report" and "Attached material" in advance, and then safety review should be accepted before the execution of the laser operation.
- ◆ Precaution signs should be displayed at the laser working area.
- ◆ Intercepting tools are prepared so that the laser should not leak outside.
- ◆ It is necessary to wear the defense tool such as the protection glasses.

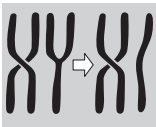
For more information, contact Health and Safety Office (Ext. 5120 or 5119).



EXPERIMENTAL COOLING WATER

- ◆ When hoses of cooling water are connected, it is necessary to care the resisting pressure of the equipment and the hoses themselves.
- ◆ It is important to prevent freezing.
- ◆ If a cooling line becomes 60 degree or more, the method for burn prevention should be made.

For more information, contact Machine Administration Office of Plant and Facilities Department (Ext. 5188).



RECOMBINANT DNA EXPERIMENTS

- ◆ Recombinant DNA experiments are permitted at only the laboratories of the structural biology building.
- ◆ Recombinant DNA experiments have to be reported to the director of KEK or permitted from the director of KEK or the minister of MEXT (monbu-kagaku-sho), through the safety operation manager for recombinant DNA experiments.
- ◆ Persons who are engaged in recombinant DNA experiments have to be reported to the director of KEK, through the safety operation manager for recombinant DNA experiments.
- ◆ A sign should be displayed at the door of the laboratories during the recombinant DNA experiments.

For more information, contact the safety operation manager for recombinant DNA experiments (Ext. 6177 or 4357).



TRAFFIC

- ◆ Maximum speed is limited to 30 km/h in KEK campus.
- ◆ Pedestrian has top priority.
- ◆ Places other than a specified parking lot are forbidden to park.
- ◆ When a traffic accident occurs, call Information Center (Ext. 3399).

For more information, contact Health and Safety Office (Ext. 5120 or 5119).



GENERAL SAFETY

- ◆ If the contingency is generated due to the accident (man-made disaster), call Information Center (Ext. 3399) as described in Emergency section.
- ◆ In any case of emergency, call Information Center (Ext.3399).
- ◆ All places in KEK are no smoking area except for specified places.

For more information, contact Health and Safety Office (Ext. 5120 or 5119).

EMERGENCY!



FIRE, EXPLOSION



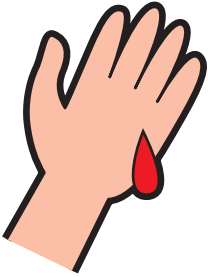
FINDER

URGENCY

INFORMATION CENTER
Extension **3399**
Outsideline **029-864-5572**

FIRE STATION
Outsideline **119**

INJURY, ILLNESS



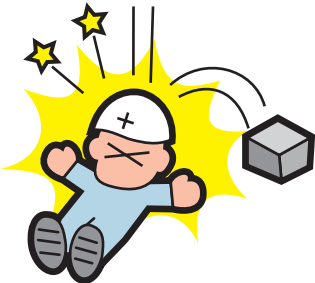
FINDER

URGENCY

INFORMATION CENTER
Extension **3399**
Outsideline **029-864-5572**

AMBULANCE CAR
Outsideline **119**

ALARM, ACCIDENT, HOUSEBREAKER



FINDER

INFORMATION CENTER
Extension **3399**
Outsideline **029-864-5572**