Addendum 2
Safety and Health Management and Overview of Industrial Safety and Health Act

1. The Necessity of Safety and Health Management

National universities become a national university corporation since April 2004 and started as new corporations which can do self-managing under self-responsibility.

On the other hand, basic conditions of employment related to teaching staff are not applicable of the former National Civil Service Law or Rules of the National Personnel Authority and are covered by other laws, such as Labor Standard Act or Industrial Safety and Health Act.

Here we give an outline of an importance of daily working and campus life for teaching staff who work and students at Kumamoto University from the aspect of Industrial Safety and Health Act.

At first, we would like let you to know an overall picture of the Act. At the same time, here is an explanation how to manage Industrial Health and Safety Management System, such as what points of view on daily life are important to act for prevention disasters based on the assumption that working accidents are the inevitable, and what type of systematic management is needed to establish safety, health and comfortable workplace.

< There is danger (risk) lurking at workplace. Check on your surroundings first >

To check what kind of risk are hidden in our working place, it should be an organization which can figure out “Do you feel what or where a risk is?” from equipment instruments to work methods.

For that, the responsibility of an employer is clarified and self-safety and health management is required under the Industrial Safety and Health Law.

An employer means a president, a chief executive of the university, as well as the university itself.

There are many teaching staff and multiple numbers of-students at the workplace which is called the university.

It is important for each person to be aware of security for your surroundings first and develop an awareness/movement for security of laboratories/experimental laboratories and whole campus.

There are a lot of independent works such as experiments and Research and Development Department in universities is in special environment, leading to a disaster sometime.

In addition, violation of the Industrial Safety and Health Law is held criminal liability and stricter punishment.

It is important to work on, not only safety-conscious for the Industrial Safety and Health Law, but also dealing with PRTR method (Pollutant Release and Transfer Register) or ISO14001 in order to prevent work accidents.

< What point is important to work on?
It is advisable to do daily management with the following points in order to effect industrial safety and health management >

- A plan for safety and health has been completed?
- Is there a sufficient management system?
- Are concrete measures related to equipment/chemical substances established?
- How is the state of implementation of education?
- Is working environment measurement implemented as necessary?
- How is the state of implementation of medical checkup for teaching staff?
- Are rules set?
- How are various notifications or knowledge?

< Learn the mechanism of work accidents>

When thinking about work accident prevention, it is very useful to understand the source and why it happens.

The sources of work accidents include proximate cause and remote cause.

Proximate causes include physical causes (unsafe/unsanitary condition) and human causes (unsafe/unsanitary action).

Work accidents are brought into contact with these 2 causes.

Insufficient safe management of universities cause work accidents, and the university can be accused the responsibility for management.

(1) Physical causes include as follows:

Flaws of machineries/equipment/materials, defects of safety facilities, defects of workplace/layout of things, defect of protective equipment/clothes, defects of work environment, defects by natural environment/external factor, and defects of work methods.

(2) Human causes include as follows:

Taking out safeguards, failure safeguards, leave unsafe/unsanitary condition, create dangerous or harmful conditions, using machineries at undesignated place, cleaning/repairing machineries/equipment which are in operation, defect of protective equipment/clothes, and approaching to hazardous areas.

(3) Proximate causes include as follows:

Not clarified command structure, flaws of the assignment of responsibility (a person in charge of managements machinery/equipment, inspection and operation), defects of prior evaluation when installing machineries/equipment, defects of safe and health patrol (unadministered, leaving problems), defects of enforcement scheme / work project, defects of work manual, unpicked operation chiefs/ failure of enforcing duty, defects of safety and health education, and defects of contacts and meetings.

< The Industrial Safety and Health Law is a source of knowledge for safety and health measures >

Safety and health measures for various machineries and various hazardous materials can be improved by using full advantage of knowledge from the Industrial Safety and Health Law.

(1) Health measures based on the Industrial Safety and Health Law include as follows:

- Use harmless alternative materials.
- Use them hermetically.
- Set local exhaust equipment.
- Put protective equipment on workers.
- Carry out health education for workers.
- Carry out working environment measurement for hazardous materials.
- Carry out special medical checkup for workers who do hazardous work.
- Reduce work hours.
- Set up break rooms separately.

(2) Safety measures for machineries based on the Industrial Safety and Health Law include as follows:

- Put a cover on hazardous parts.
- Use safety tools and protective equipments.
- Provide thorough safety education.
- Restrict workers.
- Establish a safety inspection system.

< Prepare for new accidents with understanding sources of actual accidents and the souces pointed out. >

(1) Examples of the source of poisoning with organic solvents and particular chemicals are as follows:

- Defects of equipment / alarm devices
- Unaccomplished safety and health education
- Unused a respiratory protective equipment
- Using a respiratory protective equipment incorrectly
- Unaccomplished operation procedures
- Lack of knowledge about risks and harms

(2) Examples of the source of oxygen deficiency diseases are as follows:

- Insufficient operation procedures
- Unpicked operation chiefs/neglect of duty
- Insufficient setting up restricted area and signs of hazardous areas
- Unadministered concentration measurement
- Unadministered special education

- Insufficient familiarized work environment
- Insufficient a way of coping in case of trouble
- Insufficient a way of evacuating in case of trouble
- No ventilation
- Equipment in poor condition
- Unused breathing equipments

＊Safety and health education/practice based on the source of accidents described above are important.

Try to plan and carry out measures continuously in campus as much as possible.

For examples, carry out a workshop for safety and health, firefighting training/evacuation training, case studies of unexpected incidents, and familiarize safety and health measures.

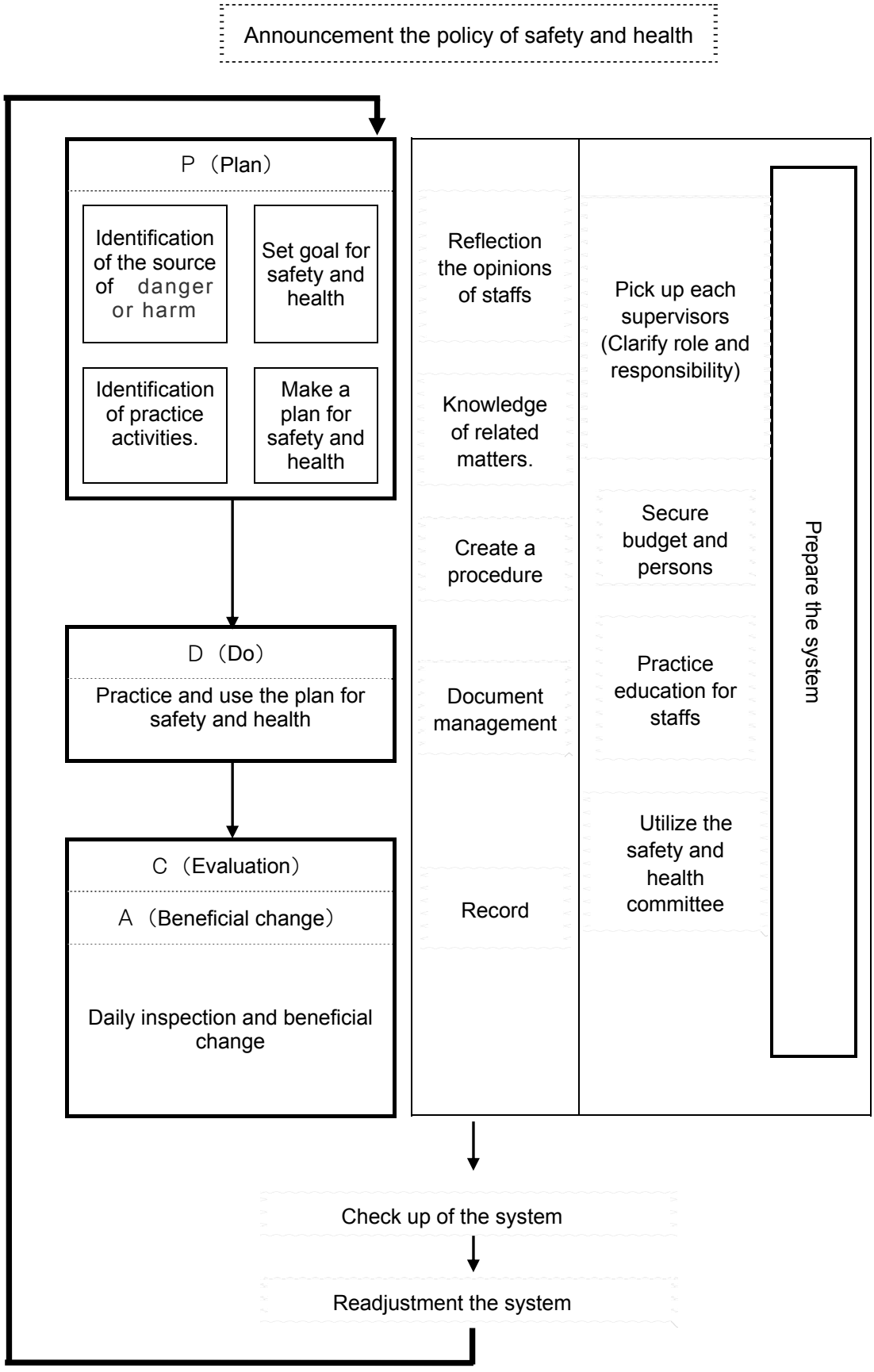
< To create a safety and health management plan >

A safety and health management plan should include in generally:

①planning period ②basic policy ③aim (goal) ④practice activities

< The flow of safety and health management system >

The safety and health management system is indicated 【P(Plan)→D(Do)→C(Check)→A(Act) 】as shown. The president of the university announces the policy.



＊Quote from Kumamoto Labor Department “A basic framework of safety and health management system”. Figure of the flow of safety and health management system.

< Concrete safety and health management activities are as follows >

(1) Hold a safety and health committee regularly.
  ① Hold the committee monthly.
  ② Keep a record of the process of research and council.
  ③ Hold it after going on patrol.

(2) To patrol workplaces by safety and health committee.
  ① Do not miss unsafe behaviors.
  ② Make beneficial changes for unsafe state.
  ③ Check if unqualified person does restriction works.
  ④ Employer also does patrol regularly.

(3) Do safety morning assembly

(4) Check up/maintenance machineries and equipment.
  ① A periodic self- inspection, a specific self- inspection, and a self- inspection.
  ② Check up before working.
  ③ Pick up a person in charge of inspection and operation.
  ④ Create a basic inspection.

(5) Five activities(Organize/Order/Cleanup/Clean/Bringing-up)
  ① Discard unnecessary things.
  ② Enforce a stacking pattern of specified goods.
  ③ Cleanup walkway and working floor regularly.
  ④ Ensure a storage method to be able to take things out easily and safety aisle.

(6) Create a working manual.
  ① Give priority to high-risk operations.
  ② Involve workers to make the manual.
  ③ Readjust it regularly.
  ④ Make a manual for non-steady works.