Safety Guidelines (extract)

1. Mandatory safety orientation:

   New 4th grade undergraduate students, graduate students and research fellows from other universities, and newly employed staff and faculty, are all required to attend a safety orientation in the Department of Applied Chemistry before they start any educational or research activities. Those who join the department in the middle of an academic year are required to receive personal safety instruction from their supervisor(s), and to attend the safety orientation in the following year.

2. Observance of laws and regulations:

   Any person who works in the Department of Applied Chemistry and related Departments of the Graduate School of Engineering, for educational or research purposes, must obey the regulations of the Department and relevant University policies, and national laws.

3. Prohibition and restriction of independent or out-of-hours experiments:

   Experiments must be performed only between 8:30 and 17:00. The closing time can be extended to 20:00 when necessary. Anyone who wishes to do an experiment, in the absence of his/her supervisor, after 20:00 or before 8:30 on the following morning, or on a holiday, must submit an application form for out-of-hours experiments to his/her supervisor by 17:00 of the same day to get approval. No person is allowed to perform experiments alone, at any time. In addition, experimental work conducted only by undergraduate students, or by those who have difficulty in communicating in Japanese, will not be permitted.

4. Experiments that require special qualifications:

   Before conducting an experiment that uses X-rays or RI, people are required to have participated in a seminar and completed registration.

5. Usage of personal protective equipment (PPE):

   Anyone who enters a laboratory must wear protective clothing (e.g. lab coat) and safety glasses (or goggles) at all times while he or she is in the laboratory. In some circumstances people are required to wear, in addition, appropriate PPE such as gloves, depending upon the nature of the experiment.

6. Management of chemical substances:

   The “Management Guideline of Chemical Substances of Nagoya University”* must be followed for usage of chemical substances. The University handles chemical substances

under the campus wide management system of chemical substances of Nagoya University (MaCS-NU). Any person who wishes to use chemical substances, in particular poisonous and harmful substances, or substances designated by Pollutant Release and Transfer Register (PRTR) Law, must record the amounts of such substances used at each time of usage on MaCS-NU.

7. Management of dangerous substances:

No dangerous substances of 1/5 or more in quantity specified by the Fire Service Act should be kept in the laboratory. Substances that exceed that limit must be stored in our storehouse designed for dangerous substances.

8. Disposal of waste substances:

Waste substances are classified into “general waste” produced by daily living, and “industrial waste” produced by educational and research activities. Experimental wastes, such as organic and inorganic waste fluids that contain chemical substances used for educational and research purposes, and biohazardous wastes such as blood-adhered waste and laboratory equipment (e.g. needles) from animal or microbe experiments, are all classified as “special management industrial waste” and must be handled appropriately.

9. Disposal of reagents and waste fluids:

No waste fluids produced from reagents and experiments should be discarded into sinks and sewers. Waste fluids from experiments must be appropriately stored according to their types.

10. Actions in the event of a disaster:

In the event of a disaster, people must seek help while also informing other people of the imminent danger; they should not try handling the event by themselves. People should know the locations of emergency items such as fire extinguishers, fire alarms, showers, eye wash fountains, first-aid boxes and evacuation routes. For safety reasons, nobody, including the delivery person, should be in the elevator while liquid nitrogen is being transported in the elevator. A “caution” sign must hang on the liquid nitrogen container to warn people to not use the elevator.

The above excerpts are deemed important items of the Safety Guidelines for the Department of Applied Chemistry. For more details of the guidelines, please consult your supervisor(s).

＊ “Management Guideline of Chemical Substances of Nagoya University”: Website address http://www.esmc.nagoya-u.ac.jp/macs/paper/guideline.html