

東京大学理学部

Radiation Safety Course, School of Science, University of Tokyo

放射線取扱者講習会 (一般講習会)

放射線障害予防規程の改正

Amendment of radiation hazard prevention regulations

放射線取扱者の手続き

Procedures required as a radiation worker

2020年度 前期

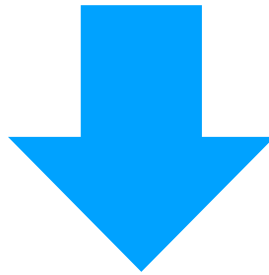
Spring–Summer 2020

放射線管理の法令

Japanese Laws for radiation protection

- RI (radioisotopes) · α · β · γ · protons · neutrons · heavy ions
& Over-1 MeV electrons · X-rays
 - 放射性同位元素等による放射線**障害の防止**に関する**法律**
Act on Prevention of Radiation Hazards due to Radioisotopes etc.
／同施行令／同施行規則
- X-rays
 - **電離放射線障害防止規則**
Regulation on Prevention of Ionizing Radiation Hazards
☞ 労働安全衛生法／同施行令
- Nuclear fuel materials etc. 核原料物質、核燃料物質
 - 核原料物質、核燃料物質及び原子炉の規制に関する法律／同施行令
- Medicals 医療および医薬品
 - 医療法施行規則 ☞ 医療法・同施行令

Act on Prevention of Radiation Hazards due to Radioisotopes etc.
放射性同位元素等による放射線障害の防止に関する法律
(障防法)



Act on Regulation of Radioisotopes etc.
放射性同位元素等の規制に関する法律 (R I 規制法)

報告義務の強化

危険時の措置の強化

放射線障害の防止に関する業務の改善の導入

教育訓練

事業者責務の取り入れ

法律名の変更及び法目的の追加強化

防護措置(セキュリティ対策)の強化

平成30年4月1日 一部施行

令和元年9月1日 施行

Regulation on Prevention of Radiation Hazards School of Science, University of Tokyo 東京大学理学部 放射線障害予防規程

令和元年5月22日 制定

令和元年7月19日 改正

令和元年9月 1日 施行

Article 1 (Purpose)

Article 2 (Obligation of the Establishment)

Article 8 & 9 (Obligations of the Dean and the Vice Deans)

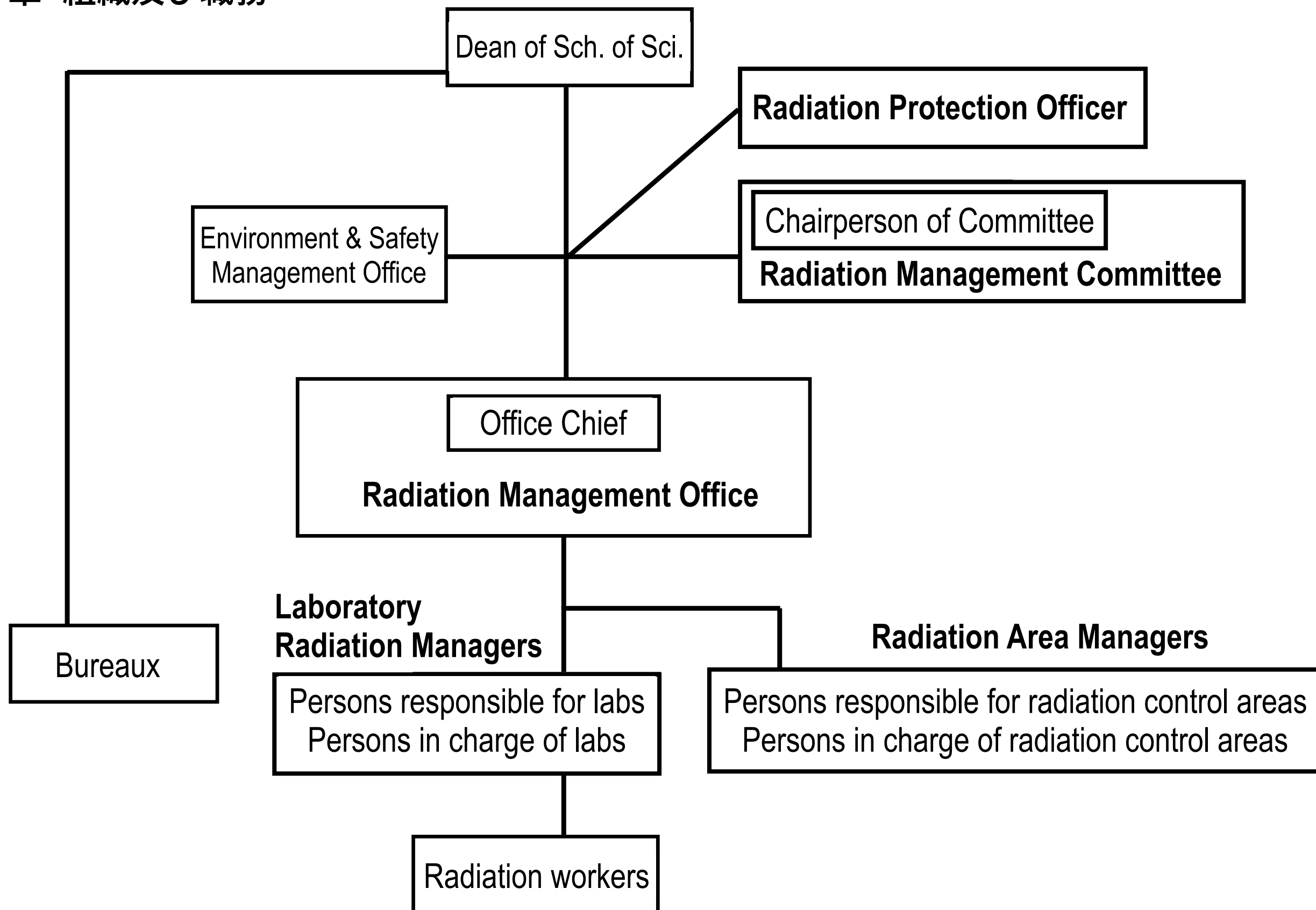
東京大学理学部は放射性同位元素等を使用する許可使用者（事業所）。

500名以上の利用者（放射線取扱者＝放射線業務従事者＋X線利用者）

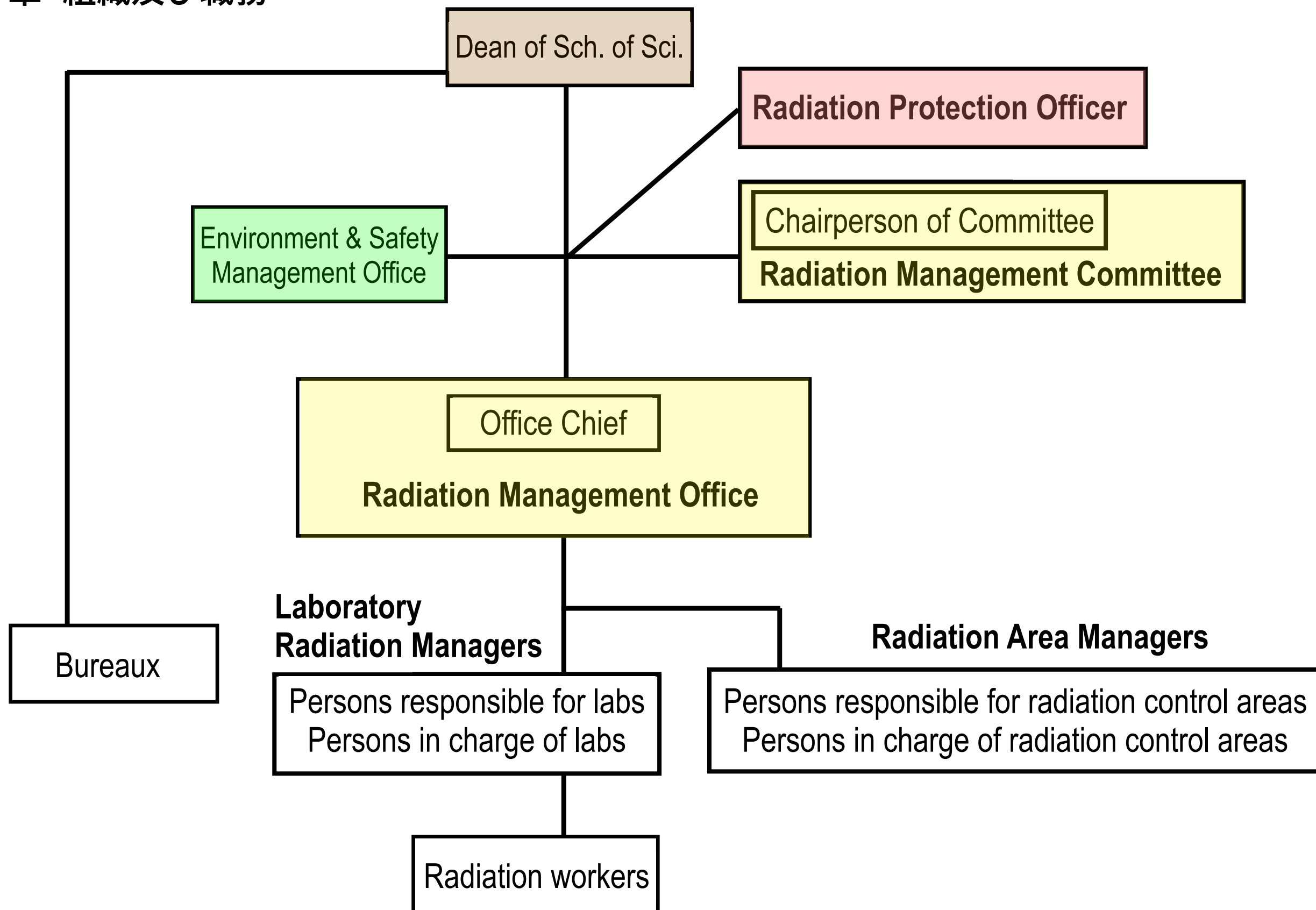
東京大学の一部局という扱いではない。

東京大学全体としての責任とは別に、理学部は事業所としての責務を有する。

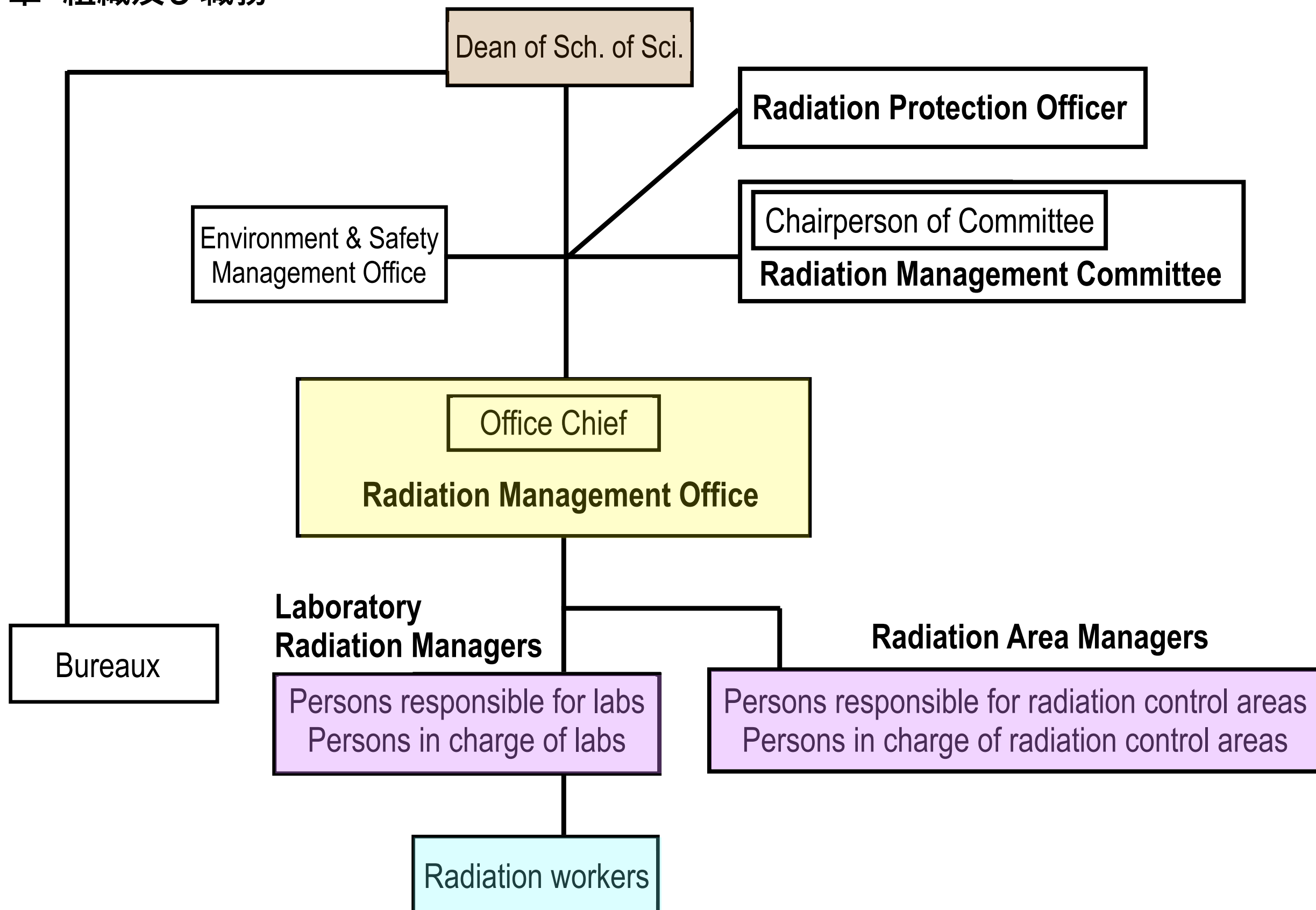
第3章 組織及び職務



第3章 組織及び職務



第3章 組織及び職務



Article 17 (Persons responsible for labs & persons in charge of labs)

Article 18 (Their duties) **Laboratory Radiation Managers**

Article 20 (Persons responsible for radiation control areas)

Article 23 (Periodic checkout) **Radiation Area Managers**

Article 19 (Radiation workers)

Article 23 (Rules on radiation control areas)

Chapter 9: Article 40 (Education and training)

Chapter 10: Article 41 & 42 (Health management)

Chapter 13: Article 47 (Provision of information)

Article 28 (Use of radioisotopes)

Article 29 (Handling of unsealed radioisotopes)



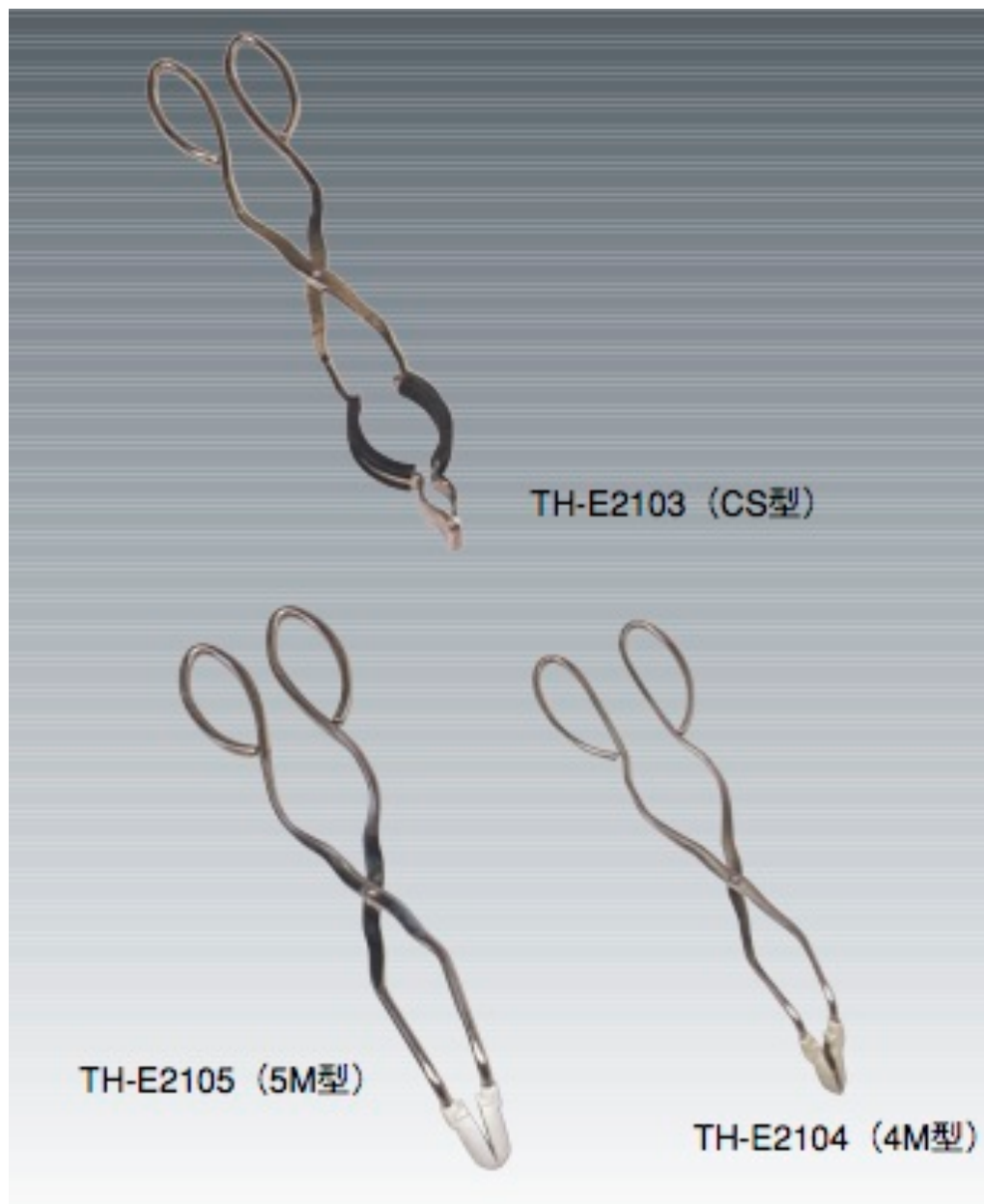
汚染の可能性のあるフード内や実験台をポリエチレン紙で覆う。

バット（受け皿）やトレー内で取扱う。

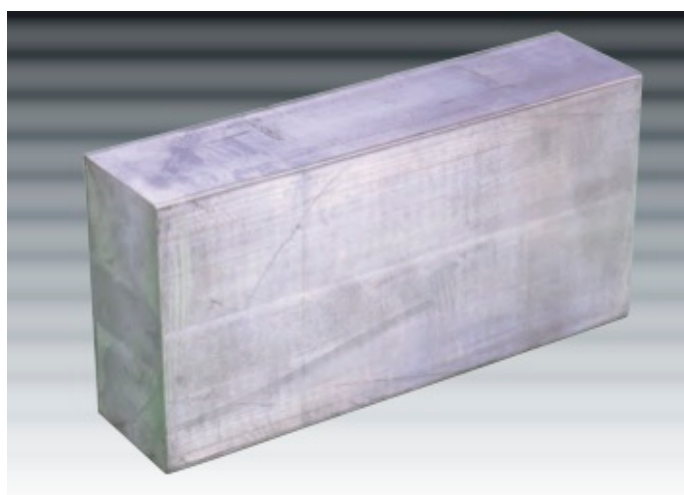
廃棄物の種類ごとに容器を用意。

核種にあった適切な遮へい器具を使う。

Article 30 (Handling of sealed radioactive sources)



lead brick



lead apron

ピンセット、 tong などを使い、RIからの距離を取る。
適切な遮へい材を活用し、放射線をさえぎる。

Handling of Luminess badge Dosimeter

- Wear the badge of the appropriate type.

SG type : X, γ and β rays

KG type : X, γ and β rays, neutrons



Position to wear the badge : At the chest for males

At the abdomen for females

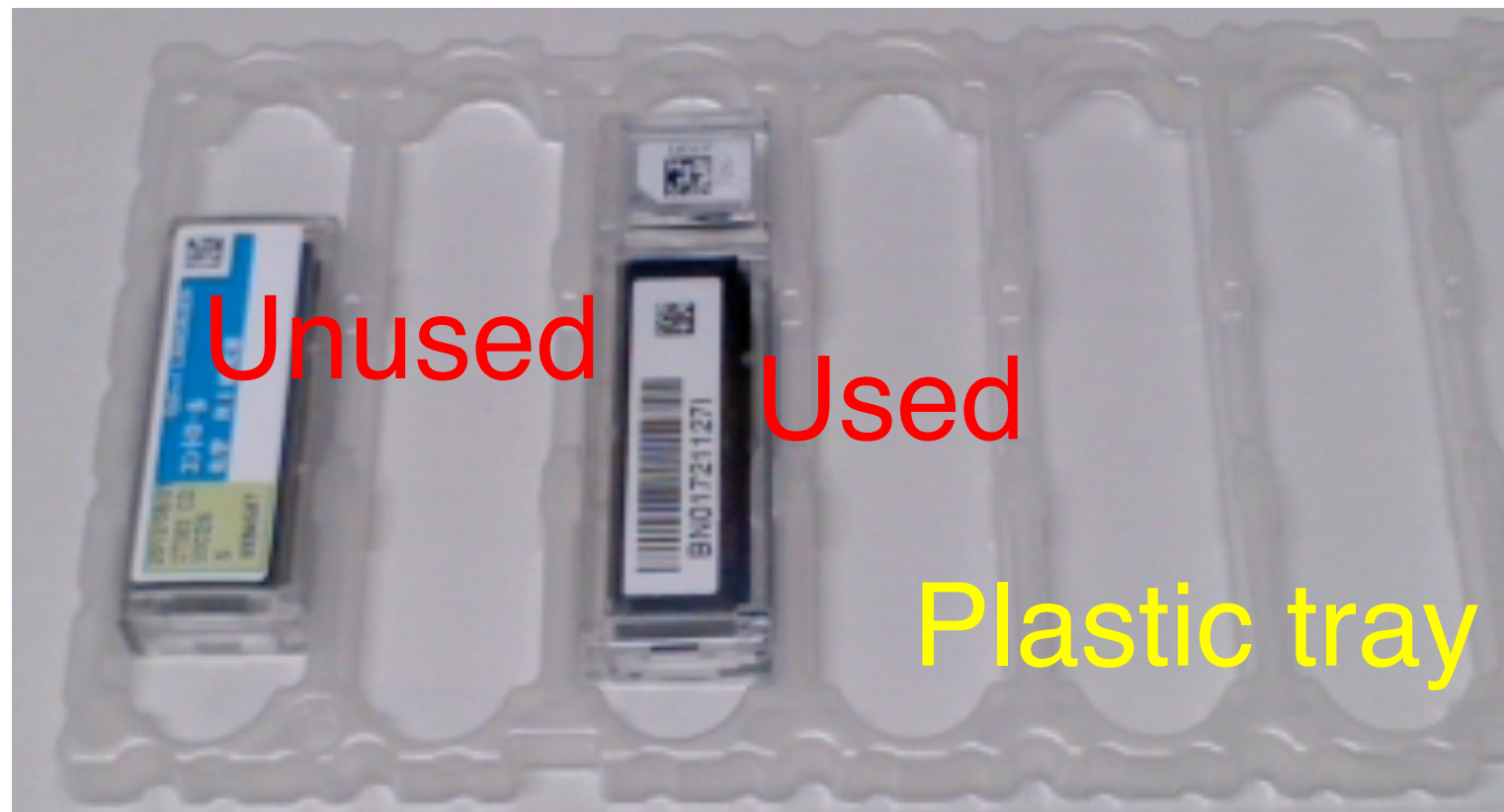
- Make sure to wear the badge to enter radiation controlled area in research institutes in Japan.

→ In order to manage the total personal exposure dose.

- When using airplane, be careful not to pass through the badge to X-ray baggage inspection at airports.

Handling of Luminess badge Dosimeter

- ◆ At the time of monthly badge exchange, return the badge of the previous month to the person in charge in your lab, and receive the new one.



Clearly distinguish between used / unused badges. Submit unused badges as well.

- ◆ You will always receive measurement result of the badge from the person in charge in your lab.

Regulation on Prevention of Radiation Hazards

School of Science, University of Tokyo

Article 45 (Measures in case of disasters)

Article 46 (Measures in case of danger)

**Instruction of measures to be taken
in case of radiation emergency**

新規放射線取扱者に関する手続き

Procedures required before being authorized to use
radioisotopes / radiation facilities

登録申請

Application for registration

健康診断

Medical check for radiation workers

(X-AB を除く)

(except for X-AB users)

全学一括講習会

UTokyo training course

(認定科目履修者は免除)

RIX course = 1 full day / X-ray course = half day

理学部講習会

School of Science training course

(本日の講習会)

(today's course)

認可申請

Application for authorization

バッジ交付 (X-AB を除く)

Distribution of badge dosimeter (except X-AB)

装置使用許可 (X線装置のみ)

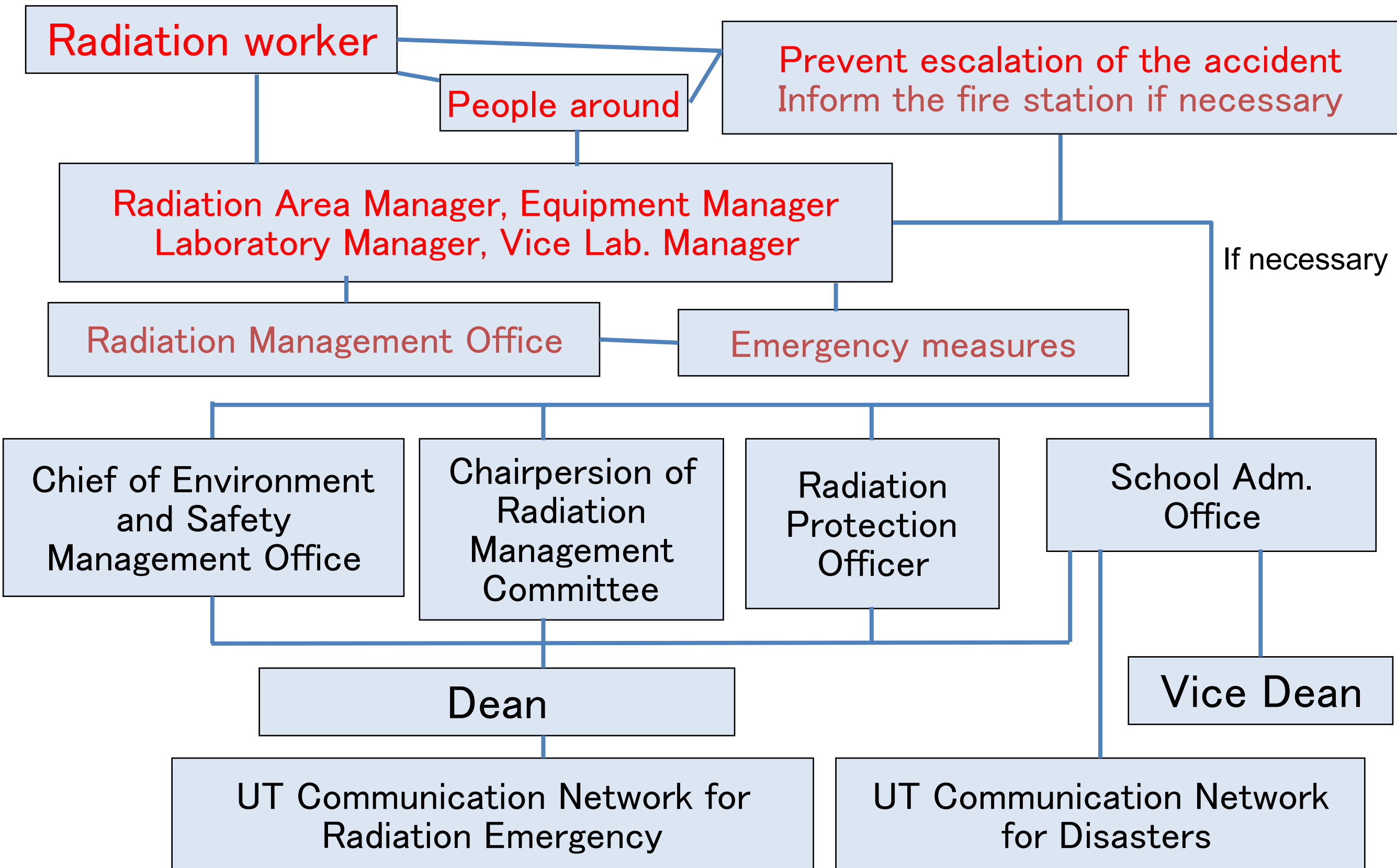
Permission to use X-ray devices (only for X-rays)

各研究室の放射線担当教員を
通じて手続きすること。

Consult the staff in charge
for radiation-related matter in your laboratory.

School of Science

RI facility Emergency contact network



Management of radiation workers

Check for qualifications of radiation workers

- ◆ Check for the qualifications of radiation workers every fiscal year.
- ◆ If the following conditions are not met, your qualification as a radiation worker will be discontinued. (You will no longer be authorized.)

1. You have attended the department course in the relevant year.
2. You have undergone health check (submitted the radiation worker health check sheet) in the relevant year.

School of Science **Contacts**

Application for UTokyo Training courses.	Each Department Office or Environmental Safety Office (ext. 28868)
Distribution and recovery of Luminess badge dosimeter.	School of Administrative Office (ext. 24030)
Application for registration of Radiation Worker. Change of registration of Radiation Worker.	Radiation Management Office (ext. 24606) (Members of Dept. Physics should apply at the 1 st or 2 nd Dept. Office)
Authorization as a Radiation Worker. Issuance of certificate. Purchase, transportation and disposal of RI. Unusual accidents or problems.	Radiation Management Office (ext. 24606)