



Title	Safety, Health Protection and Environmental Protection at PSI ("SGU directive")	Replaces AW-01-04-01 AW-96-04-03 and -04
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**Summary:**

This directive sets out the basic processes and responsibilities with regard to safety, health protection and environmental protection ("Sicherheit, Gesundheitsschutz und Umweltschutz", known as "SGU") at PSI. It applies at an overriding level to the whole Institute and all those people attending PSI.

The following points in particular are described or regulated by this directive:

- The scope
- The underlying safety culture
- The most significant partners in the SGU system, and the way in which they interact
- The functions and responsibilities of the line organisation
- The functions and status of the SGU organisation
- The functions and composition of the safety committee
- The education and training concept
- The structure for directives, the implementation of further directives and the appointment of those responsible for a function

Other subject-specific, location-specific and people-specific directives will be derived from this basic directive.

This directive was approved at the Conference of the Directorate (DIRK) on 14<sup>th</sup> December 2007, and came into effect as of 1<sup>st</sup> January 2008. Revision 4 was approved at the DIRK on 20<sup>th</sup> March 2014. Revision no. 7 was approved by the Director on December 4<sup>th</sup>, 2018.

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## Contents

### **1. Introduction and purpose**

### **2. Scope of the directive**

### **3. Legal basis**

### **4. The SGU system**

#### **4.1. The safety culture as a basic foundation**

#### **4.2. Overview of the SGU system and definitions**

#### **4.3. The line organisation**

*4.3.1. Function and status of the line organisation*

*4.3.2. The Director*

*4.3.3. Line and Project Managers*

*4.3.4. The employees*

*4.3.5. Other individuals and positions with SGU responsibility and managerial authority*

#### **4.4. The SGU organisation**

*4.4.1. Function and status of the SGU organisation*

*4.4.2. The Department for Radiation Safety and Security (ASI)*

*4.4.3. The Safety Delegate*

*4.4.4. The Authorised Radiation Protection Officer*

*4.4.5. The Safety Officer*

*4.4.6. The Security Officer*

*4.4.7. The Hazardous Goods Officer*

*4.4.8. The Biosafety Officer*

*4.4.9. The Specialist for Chemical Safety*

*4.4.10. The Specialist for Electrotechnical Safety*

*4.4.11. The Environmental Protection Officer*

*4.4.12. The Fire Safety Expert*

*4.4.13. The part-time SGU specialists*

*4.4.14. IT safety and security*

#### **4.5 Collaboration**

*4.5.1. Line organisation with SGU organisation*

*4.5.2. Consultation with PSI employees*

#### **4.6. The Safety Committee**

#### **4.7. The emergency organisation**

### **5. Education and training in the area of SGU**

#### **5.1. Education and training**

#### **5.2. Documentation of education and training**

#### **5.3. Co-ordination of education and training**

#### **5.4. Provision of knowledge**

#### **5.5. Retention of knowledge**

### **6. Directive structure, enactment and appointments**

**Appendix 1: Function owners**

**Appendix 2: Definitions**

**Appendix 3: List of revisions**

## **1. Introduction and purpose**

The Paul Scherrer Institute PSI is the largest research centre for natural and engineering sciences in Switzerland, conducting cutting-edge research in the fields of matter and material, energy and the environment and human health. By performing basic and applied research, it works on sustainable solutions for major challenges facing society, science and economy while respecting

- the safety and health of its staff,
- the integrity of the environment and
- the exemplary condition of its research facilities.

PSI aims to be a global leader in its research and in supporting external users of its large research facilities. Health and safety are a top priority in this ambitious environment. The institute's directorate thus caters for a high safety standard in the research environment and fosters a consciously active safety culture for the benefit of its staff, users and the environment.

(Extract from the [PSI Safety Concept](#)).

## **2. Scope**

This directive applies to

- The entire PSI premises, i.e., the areas of the Institute surrounded by the fence, the PSI facilities outside the fence, the associated traffic routes and the parking grounds. This directive also applies to premises rented by PSI (storage facilities, laboratories, workshops etc.).
- All those people who are located in the areas mentioned above at any time, particularly if they are employees of PSI, its external users, its visitors, its guests and any external companies and their employees. It does not apply to uninvolved passers-by (on the traffic areas open to the general public, including PSI's restaurants and cafeterias), though PSI does fulfil the normal duty of care towards those individuals (e.g. safety of traffic).
- All matters relating to the area of radiation protection and nuclear safety and safety at work (toxic chemicals, nanomaterials, electrical devices, lifting devices; for the complete list consult the PSI intranet at ASI: Sektion Sicherheit) and health and safety (e.g. maternity rights).

This directive does not apply to environmental protection aspects related to the area of consumption of resources and its optimisation. This area is regulated in other documents, e.g. in the PSI Energy Concept.

## **3. Legal basis**

The following table sets out the legal provisions that are important for this directive.

<b>Safety at work and health protection</b>	Ordinance 3 of the employment law (relating to health provision, known as “ArGV 3”); <a href="#">SR 822.113</a>
	The ordinance relating to the prevention of accidents (the “VUV”); <a href="#">SR 832.30</a>
	The Swiss law governing insurance against injury (the “UVG”); <a href="#">SR 832.20</a>
<b>Radiation protection and nuclear safety</b>	The Radiological Protection Act (the StSG); <a href="#">SR 814.50</a>
	The Radiological Protection Ordinance (the StSV); <a href="#">SR 814.501</a>
	The Nuclear Energy Act (the KEG); <a href="#">SR 732.1</a>
	The Nuclear Energy Ordinance (the KEV); <a href="#">SR 732.11</a>

In addition to these regulations, there are a large number of subject-specific provisions and recommendations, such as:

- other Swiss and cantonal laws, together with their associated ordinances (e.g., concerning chemicals, hazardous goods, or protection of the environment),
- Regulations (e.g. Suva, SECO),
- Directives (e.g. ENSI, EKAS, Suva, BAG, associations of specialists),
- Standards (e.g. VKF fire protection standards),
- Recommendations (e.g. IAEA),
- Permissions and authorizations from licensing or supervisory authorities.

These other provisions will not be set out explicitly in this directive. Nevertheless, they are taken into account in this and in specific directives (limited by geography or subject).

## 4. The SGU system

### 4.1. The safety culture as a basic foundation

An effective safety culture must be adhered to on all hierarchical levels:

- The institute’s directorate, line and project managers take their responsibility seriously and create favourable conditions for safety at PSI with a suitable organisational structure. They are aware of their role model function.
- The staff at all levels nurture the safety culture through a proactive, critical attitude and consistent, prudent conduct.
- Continual safety improvements are also achieved through an open exchange of information and correct documentation.

The regulations that form the basis of this directive can only create the framework conditions to enable an effective safety culture to be put into practice. Success depends on the attitude and efforts of each individual person.

In nuclear facilities, priority must be given to nuclear safety in all activities.

### 4.2. Overview of the SGU system

The following terms apply in connection with this directive – and those directives based upon it – with regard to safety, security, health and environmental protection (“SGU”):

- The SGU system: encompasses the totality of all the partners and processes used to guarantee the health and safety of individuals at PSI, the intactness of the environment and the integrity of its facilities. The processes operate in two closely interconnected spheres of activity: the line organisation and the SGU organisation.
- The line organisation: The administrative arrangement of the PSI staff, with assignments as shown in the detailed organisational chart, together with the associated administrative directives.
- The SGU organisation: includes employees at all levels and in all functions who carry out a full-time or part-time SGU function (see 4.4.1.).
- SGU specialist: an individual who carries out a full-time or part-time SGU function (see 4.4.1.).

Figure 1 shows the most important partners in the SGU system and the way in which they interact. The responsibilities and competences of those participating in the SGU system are set out in the following sections of this directive.

### **4.3. The line organisation**

#### *4.3.1. Functions and status of the line organisation*

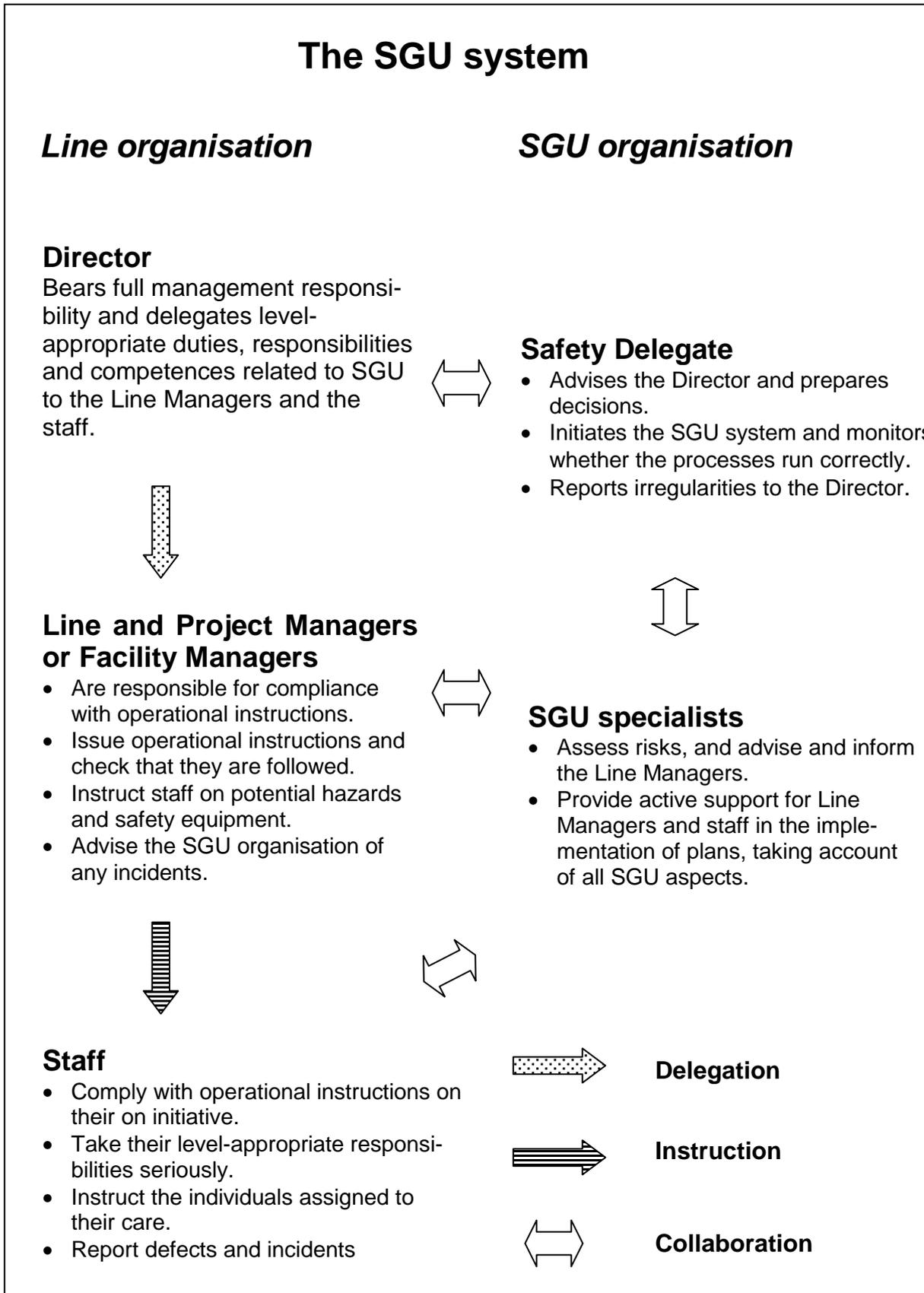
The line organisation is responsible for the operational success of the business. As well as the quality and quantity of the research and services products, the same weight must also be given to adherence to the legal requirements relating to SGU. The fulfilment of both of these functions is delegated to the line organisation.

The current [organisational chart](#) for the line organisation is available on the intranet. Additional information relating to PSI's internal structures and processes are set out in the [organisational rules of procedure](#) issued by the PSI's Director. The associated provisions relating to the competences and responsibilities for business processes (AW-91-18-02) and the [general principles for collaboration and management](#) are also available on the intranet.

#### *4.3.2. The Director*

The Director is the employer within the meaning of the law, and has a duty to prevent work-related accidents and illnesses of all kinds by making every effort that experience has shown to be necessary, that is present state of technology and that is appropriate to the actual circumstances. He must make sufficient personnel and material resources available to guarantee an effective, suitable and sustainable safety standard in order to be able to meet the legal provisions appropriately.

**Figure 1: Overview of the SGU system at PSI**



#### 4.3.3. *The Line and Project Managers*<sup>1</sup>

At the appropriate level and within their area of responsibility, the Line Managers are the representatives of the Director in matters relating to SGU. On the one hand, they are employees, but at the same time they assume the duties of the employer, including the right to issue instructions in their respective area of responsibility. They must take care of all the measures and patterns of behaviour that are required and appropriate in order to avoid incidents and work-related illnesses during the course of the work. For example:

- They are responsible for adherence to the PSI instructions and for carrying out these instructions.
- They issue operational instructions based on the facility-specific requirements and statutory safety regulations, and are responsible for ensuring compliance with them.
- They instruct employees on potential risks and the use of safety equipment.
- They report any incidents or other factors relevant to SGU (the planning of new projects, SGU-relevant employee training, etc.) in accordance with the instructions contained in subject-specific directives.

Managers can delegate some of their SGU duties within their organisational unit. A manager's stance and responsibility for the SGU duties, however, are inextricably linked.

The PSI [organisational chart](#) lists the names of those entrusted with line functions, their chain of command and their areas of responsibility. Their general responsibility and competence is governed by the directive AW-91-18-02.

Project Managers are regarded as having a line function in relation to their project. In the event of differences of opinion between Project Managers and Line Managers on matters related to SGU, the decision of the Line Manager takes precedence. Agreement at an early stage and the inclusion of the SGU specialists should make it possible to avoid such situations.

#### 4.3.4. *The employees*

Staff at all levels has a duty to take the responsibility for following the SGU directives and putting the necessary protective measures into practice. If members of staff detect any defects that would affect safety at work, they must correct the defect immediately. If they do not have the authority or are not in a position to do so, they must report the defect to the manager or SGU specialist in charge without delay.

#### 4.3.5. *Other individuals and posts with SGU responsibility and managerial authority*

When PSI facilities are made available for use by external parties ("users") the primary responsibility for SGU remains with the respective contact office at PSI. User groups must adhere fully to the PSI's SGU directives. The heads of user groups ("Spokesmen" or "Main Proposers") must provide a written undertaking that they will assume this responsibility. This written declaration of adherence to the SGU instructions will be sought as part of the normal process of allocating a facility (radiation time, instrumentation time, etc.), and will

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<sup>1</sup> If they are not Line Managers, Facility Managers are equivalent to Project Managers.

be stored at a central location in the User Office. Work can only commence after the declaration has been received. The contact office must satisfy themselves periodically that the SGU instructions are being followed. If any instructions have been violated, the contact office (or their manager if necessary) has directive authority.

When external companies are instructed to carry out work at PSI, their employees must adhere to the legal directives, the internal SGU directives and the normal precautionary measures for the specific work type. The company's agreement to adhere to these directives and precautionary measures must be available at the time the order is accepted (e.g. as part of the contract). Non-adherence to the applicable directives can lead to exclusion of unsatisfactory companies from future tendering procedures.

These regulations apply in the same sense to PSI spin-off companies, in so far as they carry out activities that are within the scope of this directive.

Anyone who receives visitors at PSI (the contact) is responsible for their safety and must compel the visitor to adhere to the SGU directives at PSI.

## 4.4. The SGU organisation

### 4.4.1. Functions and status of the SGU organisation

The SGU organisation includes all those people (called "SGU specialists") who are authorised by their job description or by a separate written and archived appointment to undertake SGU functions, i.e.,

- they assess risks, and advise and instruct the Line Managers.
- they convert the legal and official regulations into PSI-specific instructions.
- they provide active support for Line Managers when they implement projects, in accordance with all aspects of SGU.
- they have directive authority concerning their specialist area if safety can no longer be guaranteed.

Basically, and as long as there are no ambiguities or objections, the designations established in the laws, ordinances and directives should apply. If there are any deviations, the relationship to the legal terminology must be established.

The safety functions stipulated below are essentially those that are required by the legal regulations, and those that are of relevance in the majority of the research and specialist divisions at PSI. They are:

<b><i>PSI Designation</i></b>	<b><i>Basis / Legal Term</i></b>
Safety Delegate	PSI organisational rules of procedure
ASI Head	PSI organisational chart
Authorised Radiation Protection Officer	The specialist responsible for radiation protection / (StSV, Art 19) <i>and</i> guideline ENSI-G07
Safety Officer	Safety engineer / The ordinance governing the suitability of specialists in safety at work <i>and</i> EKAS Directive No. 6508: Directive relating to consultations involving occupational phy-

	sicians and other specialists in safety at work
Security Officer	The ordinance governing the requirements relating to the staff of nuclear facilities (the VAPK) <i>and</i> guideline KE-R-01 from the Swiss Federal Office of Energy (BFE)
Hazardous Goods Officer	Ordinance on safety advisors for hazardous goods (GGBV)
Biosafety Officer	Containment Ordinance (ESV) and Ordinance on the Protection of Employees against Harmful Microorganisms (SAMV)
Specialist for Chemical Safety	Chemicals Act
Specialist for Electro technical Safety	Low Voltage Installation Ordinance (NIV)
Environmental Protection Officer	AW-96-10-03
Fire Safety Expert	Safety officer in accordance with fire protection standards
Safeguards Officer	Safeguards Ordinance
Criticality Expert	AW-11-17-01

#### 4.4.2. The Department for Radiation Safety and Security (ASI)

The main operational unit of the SGU organisation is the Department for Radiation Safety and Security (the “Abteilung für Strahlenschutz und Sicherheit” or ASI). The full-time SGU specialists (except for the Safety Delegate) are gathered together in this department; the work of the part-time SGU specialists will be co-ordinated by the ASI. All [SGU specialists](#) are listed on the intranet.

The functions and competences of those holding the uppermost safety function posts as listed in the following sections are only the most important examples. The points set out in the relevant legal texts apply, in so far as they can be applied to PSI.

#### 4.4.3. The Safety Delegate

The Safety Delegate reports to the Director. His functions are as follows:

- He initiates the SGU system on behalf of the Director and monitors whether the processes run properly. He supervises the SGU organisation, reports irregularities to the Director and – in consultation with the officer responsible according to Appendix 1 – has directive authority at all levels if safety can no longer be assured.
- He settles the concerns, questions and problems presented to him and prepares any necessary resolutions for the Director. He is the representative for SGU matters at the conference of the Directorate (DIRK).
- He co-ordinates and standardises the SGU-relevant processes across the Institute, and is the Chairman of the Safety Committee.
- He draws up the basic directive relating to the subject of SGU in collaboration with ASI and co-ordinates the other PSI SGU regulations that are based upon it.
- He coordinates and monitors the business transactions undertaken with the supervisory and authorization authorities for SGU, including the reporting of incidents and results to the supervisory authorities. He coordinates the compilation of incident reports.

Division Heads, the ASI Head and holders of the safety function posts in accordance with Appendix 1 can take their concerns directly to the Director in special cases (e.g. in the event of differences of opinion with the Safety Delegate).

#### 4.4.4. *The Authorised Radiation Protection Officer*

The Authorised Radiation Protection Officer must have completed a university course in a relevant area (e.g. chemistry, physics, mechanical engineering or electrical engineering). In addition, he must have attended an advanced course in radiation protection, and have been successful in the relevant test. At least one year of practical experience in radiation protection, of which at least four weeks must be in another nuclear facility in Switzerland or abroad, is necessary before certification by PSI and ENSI.

- He occupies the highest position in the radiation protection hierarchy at PSI, and will be specified by name in all BFE/ENSI and BAG authorizations.
- He draws up the basic directives relating to the subject of radiation protection, and co-ordinates the other PSI radiation protection regulations that are based upon it.
- He uses inspections and audits to monitor the work of the full-time and part-time radiation protection staff.
- He reports to the Director, usually via Safety Delegate and ASI Head.
- He has directive authority over all levels in relation to radiation protection if radiation protection can no longer be guaranteed or it is foreseen that it can no longer be guaranteed. He can also delegate this competence to employees in the Department for Radiation Safety and Security.

#### 4.4.5. *The Safety Officer*

The Safety Officer must have been awarded a technical or natural sciences degree from a university or a university of applied sciences, must have proven his professional experience for at least two years, and have undergone further training as a safety engineer in accordance with the ordinance relating to qualification in the area of safety at work (the "[Eignungsverordnung](#)").

He coordinates all matters relating to non-radiological safety and health and safety, and has the following tasks:

- He supports the line management in the implementation of legal regulations and in the fulfilment of requirements that affect the non-radiological safety of all the people on the PSI site (see chapter 2, Scope).
- He draws up the basic directives relating to the subject of non-radiological safety in collaboration with the corresponding specialists.
- He initiates the checks to verify compliance with the safety instructions.
- He is available for consultation by the Line and Project Managers.
- He analyses the progress of safety, and documents the safety work carried out at PSI (safety report, incident statistics and accident statistics) and draws up the reports for the supervisory authorities.
- He organises rounds and inspections in collaboration with the subject specialists.

The safety officer co-ordinates the work of other subject specialists with particular training (e.g. lasers, cranes, fork-lift trucks), and plans and supports them during their fur-

ther education and training. In collaboration with the subject specialists, he establishes the standards that are applicable throughout PSI.

#### *4.4.6. The Security Officer*

The Security Officer must fulfill the requirements of Art. 21 para. 2 VAPK and be familiar with the technical and organisational security measures at PSI.

- He takes care of all the technical, staff-related and organisational security concerns, and issues the directives relating to security, traffic, access and the handing in of keys/badges.
- He produces the reports for the supervisory authorities.
- He is the expert advisor for the security control center (SIZ) and monitors its work processes from a security perspective.
- He supervises the contacts with the supervisory body (via a safety delegate) and the police.
- He has a duty of confidentiality.

#### *4.4.7. The Hazardous Goods Officer*

The Hazardous Goods Officer must be able to provide evidence of comprehensive knowledge of the transportation of hazardous goods. His name and his training certificate must be presented to the authorities of the canton; his duties include:

- He monitors adherence to the instructions governing the transportation of hazardous goods.
- He advises PSI with regard to activities involving the transportation of hazardous goods and compiles the reports according to the GGBV.

#### *4.4.8. The Biosafety Officer*

The BSO is the officer for biosafety in accordance with the ESV and SAMV. His status, responsibilities and competencies are governed by the Federal Office for the Environment's guidelines for Biosafety Officers (BSO).

#### *4.4.9. The specialist for chemical safety*

The specialist for chemical safety must have successfully completed his studies in the field of chemical sciences (chemistry, biochemistry, pharmacy) at a university or a university of applied sciences. He must have proven his professional experience for at least two years and have acquired or strive for further training as a safety specialist. He is the chemical contact person according to SR 813.113.11.

#### *4.4.10. The Specialist for Electrotechnical Safety*

The Specialist for Electrotechnical Safety is responsible for the safety of electrical power supply systems at PSI. He is expert in the sense of Article 8 of the Low Voltage Installation Ordinance (NIV). He supervises compliance with the legal requirements as well as the recognized rules of technology in the field of electrical safety at PSI. He has to report accidents to the Swiss Federal Electric Power Inspectorate (ESTI).

#### *4.4.11. The Environmental Protection Officer*

The Environmental Protection Officer co-ordinates all the environmental protection aspects relevant for the protection of the environment from the prohibited emission of harmful materials within the parameters of this directive (see chapter 2, Scope).

- He issues the necessary regulations, in so far as they have not already been produced by another position (e.g. radiation protection).
- He is available to the Line Managers for consultation.
- He draws up the reports for the supervisory authorities, if they have not already been drawn up elsewhere (e.g. Department for Radiation Safety and Security, ASI).

#### *4.4.12. The Fire Safety Expert*

The Fire Safety Expert is the fire safety officer in accordance with the fire safety norm.

- He is responsible for compliance with and the monitoring of structural, technical and operational fire safety.
- He compiles risk reports on the necessity for fire and gas alarm systems, advises the internal specialist offices and is responsible for the functionality of the systems in question.

#### *4.4.13. The part-time SGU specialists*

If an SGU specialist area can not be covered by the employees of ASI, suitably qualified people must be found. They are appointed by the ASI as part-time SGU specialists and integrated into the SGU organisation for this work. The Safety Officer defines the specialist area in which part-time SGU specialists are appointed and co-ordinates, plans, and supports their work. The [complete list](#) of the part-time SGU specialists is found on the intranet.

#### *4.4.14. IT safety and security*

Many safety related activities at PSI are inseparably linked to the undisturbed operation of the internal communication network (e.g. quality management, data analysis, data transfer and data backup). The Information Technology Department AIT is responsible for establishing and maintaining procedures (hardware, software and regulations) in order to ensure the safety of the PSI-computer network.

## **4.5. Collaboration**

### *4.5.1. Line organisation with SGU organisation*

Optimisation of scientific performance while adhering to all the aspects of SGU calls for extremely close collaboration between Line Managers and SGU specialists (see Figure 1). The line or project organisation therefore has a duty to consult with the ASI at an early stage of project planning (re-configuration of experimental facilities and premises, construction projects, etc.). Risks should also be clarified with the responsible subject specialists when importing or using hazardous materials or chemicals.

The ASI Department determines how and to whom such reports should be made, and decides upon the appropriate delegation (by subject, time and character and status of the project) of SGU specialists in the planning committees, where they will represent the SGU concerns in a way that is supportive and solution oriented. Moreover, for larger projects, a safety coordinator is to be appointed, who reports directly to the project head. The safety coordinator compiles a safety report in collaboration with the ASI and the SGU specialists.

The aim is to implement the legal SGU requirements fully, at the same time as optimising the outlay in terms of time and material cost. All levels of the project or experiment (planning, construction, operation, rebuilding, waste disposal) must be taken into consideration. SGU is not a specialist area, therefore, but an integral component of all work at PSI.

If any differences of opinion in relation to SGU requirements occur between Line and Project Managers and SGU specialists, these will be fully discussed and resolved at the next higher level of the hierarchy. In the meantime, no actions that would create irreversible facts are permitted. The Safety Delegate must be consulted before any such differences of opinion reach the Director. The Delegate will settle the difference, or – if that is not possible – will prepare a decision for the Director.

#### *4.5.2. Consultation with PSI staff*

In certain cases, there is a requirement for consultation with the staff on decisions relevant to SGU. The PSI personnel commission (Personalkommission, PeKo) is to be contacted. The responsibility for this lies with the Safety Officer, with consultation of others as appropriate to subject and level.

### **4.6. The Safety Committee (SiKo)**

The Safety Delegate calls a plenary meeting of the Safety Committee twice a year – or if there is a particular reason to do so. The safety committee SiKo

- Co-ordinates and deals with institute-wide aspects of the SGU work at PSI,
- Analyses SGU incidents at PSI, particularly with regard to causes related to human factors,
- Learns lessons from these incidents, defines measures and supervises their implementation.

Minutes will be taken of the meetings and minority opinions will also be documented. Subcommittees will be formed from the Safety Committee plenum (including additional specialists as necessary). These will handle specific topics that only affect certain sections of PSI in depth (e.g. nuclear facilities, laser laboratories, etc).

The composition, deployment and work of the safety committee will be governed by a separate directive (issued by the Safety Delegate, [AW-01-08-03](#) „Das PSI-Sicherheitskomitee: Aufgaben, Organisation, Arbeitsweise“).

The Line Managers or Safety Officer can create “ad-hoc working groups” or “permanent committees” to deal with specific safety aspects.

### **4.7. The emergency organisation**

PSI maintains an emergency organisation, which is organisationally attached to the ASI. In the event of an incident, the emergency organisation reports directly to the Director. The instructions of the organs of the emergency organisation must be strictly followed in the event of an incident. The structure, resources and deployment will be governed by a separate emergency document ([AW-NFO-98-01](#) „Notfallorganisation (NFO) des PSI: Gesetzliche Grundlagen, Zweck und Aufbau, Organisation, Alarmierung und Verhaltensmassnahmen“).

## 5. Education and training in the area of SGU

Education and training appropriate to the subject and level lies within the responsibility of the Line Managers, and is one of the most important pillars of the implementation of SGU instructions.

### 5.1. Education and training

With regard to SGU, education and training is based on a three-stage concept.

Stage	Content	Recipient	Provided by/method	Time
Basic training and instruction	All SGU-relevant instructions applicable to everybody, in all situations	All PSI employees, and all those working at PSI, as appropriate to the situation	By managers and contacts	At first entry, then continuously, in the sense of staff promotion
Job-specific training	All SGU-relevant instructions applicable to employees carrying out their own specific work	Each employee, individually	By managers and/or by training at PSI or externally	At first entry, then continuously
Advanced SGU training	Deeper knowledge of the SGU-relevant instructions for people who are responsible for others, and for people who undertake a full or part-time SGU function, or who are authorised to provide information about a specific specialist subject.	Managers, contact offices, "Spokesmen", "Main Proposers", site co-ordinators, those responsible for instrumentation, SGU specialists.	By managers and/or via training at PSI or externally	When taking over the function

### 5.2. Documentation of education and training

Every safety-related and officially required education and training event must be documented and the document be archived. It is the responsibility of the Line Manager that the required documents are available in his unit and that they are updated regularly. Copies of certificates are to be sent to the Human Resources Management.

### 5.3. Co-ordination of education and training

Responsibility for co-ordinating education and training in the area of SGU lies with the ASI. It

- Calls for the education and training concepts and documentation from the specialist's departments/specialist's posts.

- Checks the implementation of the concepts periodically.

#### **5.4. Provision of knowledge**

All those working at PSI must have the necessary SGU knowledge to carry out their function. In addition, the aim should be that every effort is made by every individual to obtain as much information as possible to optimise the SGU aspects of the work.

With this purpose in mind, a user-friendly platform has been created on the internet and the intranet, where SGU-relevant information can be called up, and contacts to the SGU specialists can be established. This site also shows the topics that fall within the scope of this field at PSI. The ASI creates and updates this intranet platform.

#### **5.5. Retention of knowledge**

The Line Managers are responsible for ensuring an adequate level of retention of knowledge if key personnel leave PSI. Suitable staffing and transfer plans should be created for predictable departures (e.g. retirement).

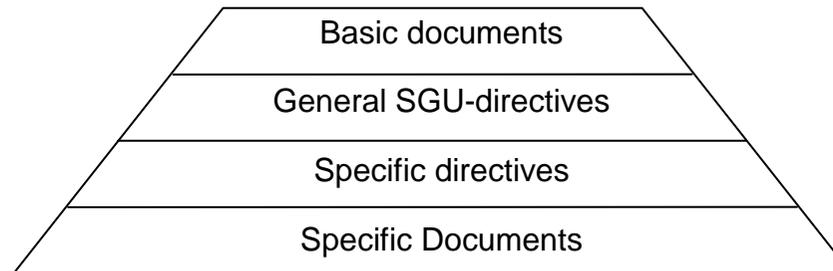
The responsibility for the retention of SGU knowledge lies with the ASI, which will make the appropriate applications to the line organisation.

### ***6. Directive structure, enactment and appointments***

This directive represents the pinnacle of a directive pyramid that encompasses all the SGU instructions at PSI. Individual directives will be produced as appropriate to the subject and level (see Table below) by the responsible positions within the SGU organisation. Their enactment will also be regulated as appropriate to the level concerned.

If SGU-relevant directives are created, the Safety Delegate must be informed. He will recommend a suitable selection of positions to examine drafts and will decide upon the level of enactment in the event of any doubt.

The assumption of SGU functions is linked to these directives. These appointments will also be level-appropriate (see Table below). The position holders in accordance with Appendix 1 will have designated deputies if this is necessary functionally or is prescribed by law (see Appendix 1). A named list of the functions set out in this directive is available in Appendix 1.

**Directive structure, enactment and appointments in the area of SGU**

Type of Document	Basis	Example	Enactment	Appointment to the functions mentioned in the directive by:
Basic documents	PVO <sup>1</sup> , legal framework	<ul style="list-style-type: none"> <li>Organisational rules and procedures at PSI</li> <li>Mission statements</li> <li>Integrity in research</li> </ul>	Director	- (No names mentioned, i.e., no appointments at this level)
General Directives on the subject of SGU	Organisational rules, general principles at PSI, PVO <sup>1</sup> , legal framework	<ul style="list-style-type: none"> <li>SGU organisation</li> <li>Access regulations</li> <li>Radiation protection</li> <li>Emergency organisation directives</li> </ul>	Director	Head of Human Resources Management together with head of respective division or Director for the top safety functions mentioned in Annex 1. Recorded in job description
Specific Directives	Organisational rules and procedures, general principles at PSI, PVO <sup>1</sup> , legal framework	<ul style="list-style-type: none"> <li>Radiation protection in zones</li> <li>Fork-lifts, cranes</li> <li>Chemicals</li> <li>Nanomaterials</li> </ul>	Department/ Lab head	Head of Human resources together with head of respective division. Recorded in job description (e.g., specialists or consultants for chemicals, laser, cranes etc.)
Specific Documents	As above; in addition: Technical information, guidelines, Obligations from audits etc.	<ul style="list-style-type: none"> <li>Equipment operational handbooks</li> <li>Quality assurance manuals</li> <li>Facility or operational instructions</li> </ul>	Department/ Lab head	Department head in accordance with SGU-Organisation (e.g. Coordinator for Transports)

<sup>1</sup> Verordnung des ETH-Rates über das Personal im Bereich der Eidgenössischen Technischen Hochschulen (Personalverordnung ETH-Bereich, [PVO-ETH](#)) vom 15. März 2001

## Appendix 1: Function owners (status April 1<sup>st</sup>, 2019)

<b>Function</b>	<b>Name</b>	<b>Deputies</b>
Safety Delegate	Werner Roser	Peter Allenspach and Sabine Mayer
ASI Department head	Sabine Mayer	Lisa Pedrazzi
Authorised Radiation Protection Officer	Albert Fuchs	Lisa Pedrazzi and Sabine Mayer
Safety Officer	Winfried Rendler	-
Security Officer	Petra Heussi	David Büsser
Hazardous Goods Officer	Ulrich Zimmermann	-
Biosafety Officer	Philipp Berger	Jürgen Grünberg
Specialist for Chemical Safety	n.n.	-
Specialist for Electrotechnical Safety	Wilhelm Fleischmann	Felix Imhof
Environmental Prot. Officer	n.n.	-
Fire Safety Expert	Alois Bächli	Roger Schneider
Safeguards Officer <sup>2</sup>	Andreas Lagotzki	Didier Gavillet
Criticality Expert <sup>2</sup>	Polina Otiougova	Alexander Vasiliev

*No deputy will be nominated for functions that do not require immediate operational action. The special knowledge is available to fulfil the function adequately if the position-holder departs or is absent for a longer period.*

## Appendix 2: Definitions

PSI Employee	Each individual who works at PSI and who has a job description or an employment contract from PSI.
Incident	<ul style="list-style-type: none"> <li>• Events and results within the supervisory area of the ENSI. Occurrences, processes and situations in a facility or a laboratory that have a direct effect on safety.</li> <li>• Emergency actions on premises involving flashing blue light</li> <li>• Accidents involving personal injury</li> <li>• Neglect of safety-relevant instructions</li> <li>• Non-compliance with provisions in authorizations and operational instructions.</li> <li>• Events involving high levels of material damage (&gt; CHF 20,000)</li> <li>• Near accidents</li> </ul>
Contact person	An employee who allows an external person to spend time at PSI, or who has been assigned to take care of an external person.
Contact office	Organisational unit at PSI that allows or approves an external person or group of people to spend time at PSI, or that has been assigned to take care of an external person or group of people.

## Appendix 3: List of revisions

(not translated, see in the German version of this directive)

<sup>2</sup> The responsibilities and competencies of the Safeguards Officer and the Criticality Expert are regulated in separate directives.