

# FACHVERBAND FÜR STRAHLENSCHUTZ E.V.

Mitgliedsgesellschaft der International Radiation Protection Association (IRPA)

Federal Republic of Germany and Switzerland



The FS was founded in 1966 and has now some 680 members and 15 affiliate members of which about 20% are in Switzerland.

## 1. IMPORTANT RADIATION PROTECTION ISSUES IN THE MEMBER COUNTRIES

### 1.1 Switzerland

There is good and close contact and cooperation between the radiation protection specialists in all fields, most of which are FS members, and also between the authorities, the Federal Commission for Radiation Protection and the FS. Thus the FS is involved in most activities without a special need for official representation or status.

Radiation protection is up to now part of the nuclear energy legislation but shall get a separate law. The draft being worked out is based on a proposal of the Federal Commission on Radiation Protection and covers all areas of application. As far as feasible and practicable the latest ICRP recommendations shall be adopted. The excellent experiences with the now 20 years old radiation protection regulations (revised 1976) will influence the new law.

The general situation of radiation protection is good. Some optimization is still possible and some tendencies towards unnecessary perfectionism have to be kept under control. Radiation protection training is compulsory for all professionally exposed persons, and on the lower and medium levels most of them are adequately trained either during their professional formation in schools and courses or in post graduate training, but the academic curricula, especially in medicine, are not yet satisfactory. A coming task will be the formation of the next generation of health physicists.

A major problem is the objective and better information of the public, mass media, teachers and politicians on radiation protection. The public is mainly exposed to wrong and biased informations by the media and by environmental movements such as the WWF or pressure groups of all political shades, mostly minority groups from the extreme wings. Correct information becomes even more important as two national ballots on nuclear energy are coming. The growing concern on radon in houses may help somewhat to put things into perspective. Besides such short-term information problems there is the long range problem of trying to get objective information on radiation into the normal school curricula of all types. Thus part of the training and information programmes have to be aimed at teachers.

### 1.2. Federal Republic of Germany

In the FRG radiation protection in the application of nuclear technology, radionuclides and X-rays is almost perfectly regulated by the

X-ray and the radiation protection regulations, numerous government guides and the comprehensive set of DIN standards. The abundance of rules may lead to the risk of decreasing respect in practice. The authorities intend to follow international recommendations, but quite often the German national regulations are more severe than those of other countries.

At present a partial revision of the regulations is under discussion, caused by the revised EURATOM basic standards which have adopted ICRP 26 and 30. The German draft deviates in some aspects from Euratom and ICRP and remains more conservative.

Final storage of radioactive wastes is a main problem. Large scale investigations are carried out in view of disposal of radwastes in the planned repositories of Gorleben and the iron ore mine Konrad with the goal to estimate the resulting exposure of the population. For low level wastes a limit of specific activity is discussed below which such wastes might be disposed of as conventional waste.

A main task in radiation protection is training. The Federal Ministry for Internal Affairs (BMI) has issued a guideline on required knowledge which is based on a detailed catalogue of training topics developed by the FS. Training institutions for radiation protection officers and qualified experts will now need an authority approval.

Like other countries the FRG has in the past years carried out a wide survey of the radiation exposure of the population from natural radionuclides, especially Rn-222 and Rn-220. Countermeasures for reduction of excessive radon daughter exposures are considered.

Other important topics are emergency planning for nuclear installations, the accident consequence model of phase B of the German Reactor Safety Study, the retention of volatile radionuclides in a planned re-processing installation and the basic accident calculation scheme for the BMI guideline on the evaluation of the design of PWR power plants according to para. 28(3) of the radiation protection regulation.

In the FRG, too, the situation regarding objective information of the public on the hazards of ionizing radiations is far from satisfactory, because the mass media often are not ready or able to present factual and objective informations on such topics. There is almost no public discussion of radiation in medical applications where there would still exist the best opportunities to reduce collective dose by better information and protection measures.

## 2. PRINCIPAL CURRENT ACTIVITIES OF THE FS

In the past two years one of the main activities was the preparation of this 6th International Congress of IRPA. Every year the FS organizes a scientific conference on a specific topic, sometimes in cooperation with other scientific societies or IRPA Associate Societies of neighbouring countries. The proceedings are published in the FS report series and are distributed free to all members, to representatives of IRPA and its societies and to important libraries. The annual general assembly is held during these conferences. A quar-

terly bulletin is sent to all members.

In order to keep the FS active also inbetween these annual meetings, a number of Working Groups were created twelve years ago and new ones followed. Bound by a few general rules these working groups organize themselves and have the following tasks:

- Exchange of experiences among specialists in the same field and information and technology transfer to the FS members
- Elaboration of recommendations and manuals on practical application of regulations, guidelines and rules. The results are published as FS reports and distributed to FS members.
- Preparation of FS statements and position papers on topics of official consultations
- Cooperation with the scientific program committees of annual conferences
- Quality control and improvement of methods in internal and external dosimetry by intercomparison programs etc.
- Contacts with other professional and scientific societies, standardizing organizations, committees and institutions in the relevant fields.

The present Working Groups cover the following topics: Incorporation Monitoring, Training, Working Place Monitoring, Environmental Monitoring, Dosimetry of External Irradiation, Radiation Protection at Power and Research Reactors, Public Relations, Non-ionizing Radiations. Among the special results of the working groups are recommendations on training requirements and programs worked out on behalf of the BMI and a very successful slide collection on radiation protection in nuclear energy which was sold in 200 copies to schools, information officers and health physicists as an aid for better information of the public. The FS reports number over 30 titles, half of them being conference proceedings.

The FS tries to improve contacts and cooperation with authorities, professional and scientific societies and organizations, mass media and the public, the latter e.g. by press conferences during annual meetings. The nonpolitical basis and the uncomplicated constitution and management of the FS allow flexible, informal and unconventional approaches and, if necessary, quick reactions in a pragmatic and efficient way which also facilitates penetration of "official barriers". We try a new idea first and see whether it works before we formalize anything.

A major medium range action of the FS has been started in 1983, in a first stage by a working group of the Board of Directors. The goals are a critical evaluation of 20 years of practical experience in radiation protection and with the existing regulations and the development of a basis for an optimized radiation protection concept and for modernized and reasonable radiation protection regulations. Recent ICRP recommendations shall be included as far as practicable. In a first step an action program and basic theses are prepared, then the other working groups and the members will participate or be consulted. The resulting concepts and proposals shall be published not only in scientific reports but in suitable form also in the media. Although this remains an independent action of the FS, close contacts will be kept to the authorities. By this action the FS also intends to establish itself in the view of

the public and of the politicians as the professional organization in radiation protection matters in contrast to political pressure groups with "scientific" disguise.

Coming events of the FS will be the 1985 annual conference on "Radiation exposure of the population, including medicine and radon" and in 1986 the 20th anniversary conference of both the FS and the Austrian society (ÖVS), which probably will become a regional IRPA Congress and may be devoted to experiences and conclusions from 20 years of radiation protection.

### 3. PROPOSALS TO I R P A

- The IRPA Bulletin was a good idea and must be continued as the only sign of life of IRPA between the Congresses.
- The representation of IRPA on the Editorial Board of the "Health Physics Journal" should be increased.
- The complicated constitution and rules of IRPA should be revised and simplified. They have turned IRPA, the EC and the GA into rigid, slow and almost selfsustaining "organisms" which barely manage to keep IRPA alive, which only with long delays are able to respond to any input or problem and whose useful output is far too small compared to the available potential.
- After 20 years of build-up and consolidation IRPA should now be turned into a dynamic and active organization which is able to promote the needs of radiation protection in an efficient and timely way, which acts, not only reacts, and which leads the way in creating and promoting new concepts of applied radiation protection and establishes close cooperation with those scientific bodies which deal with the fundamental concepts. Active IRPA participation is also needed in order to counterbalance the growing majority of authority representatives in international bodies dealing with rad. protection.
- For efficient and quick action IRPA should form permanent working and expert groups on important topics in order to work out IRPA positions on drafts of new recommendations, standards etc., in consultation with the Associate Societies. At present there is only one IRPA committee (INIRC) doing work which is really related to radiation protection, all other committees have purely legal or administrative character with the sole task to try to make the complicated rules work.
- IRPA should try to improve coordination of scientific conferences in cooperation with international organizations and associations in order to reduce the number of collisions of topics and dates.

### 4. RECENT PUBLICATIONS OF THE F S

#### Proceedings:

- FS-78-18-T "Radioaktivität und Umwelt", 12. Jahrestagung 1978 Norderney, 2 Vol.
- FS-79-19-AKD "Tendenzen in der Personen- und Umgebungs-dosimetrie" Seminar München 1978
- FS-79-20-T "Radioaktive Abfälle", 13. Jahrestagung/7. Regional Congress IRPA, Köln 1979 FS/ÖVS/NVS
- FS-80-25-T "Industrielle Störfälle und Strahlenexposition", 14. Jahrestagung Jülich 1980
- FS-82-27-T "Radiologische Auswirkungen von Kernkraftwerken und anderen kerntechnischen Anlagen auf den Menschen und seine Umwelt", 15. Jahrestagung Lausanne 1981, FS, SFRP
- FS-83-30-T "Strahlenschutz-Messtechnik", 16. Jahrestagung München 1982
- FS-83-32-T "Strahlenschutzaspekte bei radioaktiven Kontaminationen", 17. Jahrestagung Aachen 1983

#### Publications by Working Groups:

- FS-78-15-AKU "Loseblattsammlung Arbeitskreis Umweltüberwachung", 1. Teil 1980, 2. Teil 1982
- FS-81-21-AKI "Inkorporationsüberwachung auf Jod", Loseblattsammlung AKI, 1981
- FS-81-26-ARA "Lernzielkatalog zur Fachkunderichtlinie" 1981
- FS-81-28-AKÖ "Diasammlung Strahlenschutz bei der friedlichen Nutzung der Kernenergie" 1982
- FS-82-39-AKD "Technische Empfehlungen für Festkörperdosimeter zur Umgebungsüberwachung"
- FS-83-33-AK NIR "Loseblattsammlung Nichtionisierende Strahlung: Ultraviolett" (to be published)