



# The International Commission on Radiological Protection at 90

## **THE INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION AT 90**

On 27 July 1928, the International X-ray and Radium Protection Committee (IXRPC) was formed at the Second International Congress of Radiology in Stockholm, Sweden. The name soon changed to the International X-ray and Radium Protection Commission. In 1950, after a hiatus during the Second World War, the group was given its present name: the International Commission on Radiological Protection (ICRP).

This article provides a snapshot of ICRP 90 years later. It is inspired by an earlier practice to occasionally publish the Rules and membership of IXRPC/ICRP, along with their recommendations. These have served as important sources of historical information, and this article is intended to do the same.

This snapshot consists of the ICRP Constitution, Rules, and complete membership list as of 27 July 2018, and a list of Main Commission members and Scientific Secretaries since the beginning.

### **Constitution and Rules**

ICRP was registered as a charity with the Charity Commission of England and Wales in 1988, in the form of an unincorporated association. On 21 March 2016, a Charitable Incorporated Organisation (CIO) was formed to replace the unincorporated organisation. The CIO was a relatively new legal form more appropriate for a registered charity like ICRP, providing a more modern legal basis and making ICRP itself a legal entity. Since 1 January 2017, ICRP has operated as a CIO. Those who signed the ICRP Constitution are listed as the ‘first charity trustees’ because the CIO was a new legal entity in 2016, despite the continuous operation of ICRP for many decades.

The ICRP Constitution is based heavily on a template provided by the Charity Commission. Most ICRP-specific considerations, including many formerly found in the Constitution, are in the ICRP Rules.

### **Membership**

Following the Constitution and Rules is a membership listing. It begins with our forefathers in 1928. Yes, they were all men. We have made some progress in this area over 90 years, but there is still room for improvement. Listed here are all members of the IXRPC and ICRP Main Commission, and all Secretaries, from 1928 to the present day. Immediately thereafter is a full listing of all members of ICRP as of 27 July 2018.

Before 1950, IXRPC/ICRP was constituted during the International Congresses of Radiology, and so the membership information refers to the years in which the congresses were held. From 1950, the operation of the Commission was more continuous. This is reflected in the membership dates shown.

Primary source historical records were consulted directly to develop the membership lists. These include the published recommendations of IXRPC and ICRP, and minutes of ICRP meetings held from 1952 onwards, listed below. The minutes are unpublished, but fortunately the author has full access to them. Other sources, not referenced, were used for minor matters (e.g. to verify countries and given names).

The positions of Chair(man) and (Scientific/Honorary) Secretary are complex. At the first meetings, the Chairman was selected by and from the International Congress of Radiology host country. The Secretary, selected from among the Commission members, had a leading role. Later, the Commission gained more control over selection of the Chairman, but until at least 1950, the position existed only during the International Congresses of Radiology. From the 1950 Rules: ‘... Chairman shall be a member of the I.C.R.P. ex officio, but for the period of the Conference only. Meetings between Congresses shall be presided over by the Secretary ...’.

By 1959, the Chairman took on a more continuous role, with the Rules specifying that the Chairman serves continually. At that time, both the Chairman and Secretary were elected from among the members.

In 1962, F. David Sowby became the first full-time, paid Scientific Secretary. By 1966, the Rules specified that the Scientific Secretary need not be a member of the Commission, and that the Chairman, Vice-Chairman, and Scientific Secretary should work cooperatively to prepare meetings of the Commission.

In 1988, ICRP became a registered charity, with ICRP Main Commission members as its charity trustees. As trustees cannot be paid, from that time Scientific Secretaries have not been members of the ICRP Main Commission, but close cooperation between the Chair(men), Vice-Chair(men), and Scientific Secretaries has continued.



# Constitution of the International Commission on Radiological Protection

2016 March 21

## **1. Name**

The name of the Charitable Incorporated Organisation (“the CIO”) is The International Commission on Radiological Protection.

## **2. National location of principal office**

The CIO must have a principal office in England or Wales. The principal office of the CIO is in England.

## **3. Object**

The object of the CIO is to advance for the public benefit the science of radiological protection, in particular by providing recommendations and guidance on all aspects of radiation protection. In preparing its recommendations, the International Commission on Radiological Protection considers the fundamental principles and quantitative bases upon which appropriate radiation protection measures can be established, while leaving to the various national protection bodies the responsibility of formulating the specific advice, codes of practice, or regulations that are best suited to the needs of their individual countries.

Nothing in this constitution shall authorise an application of the property of the CIO for the purposes which are not charitable in accordance with section 7 of the Charities and Trustee Investment (Scotland) Act 2005 and section 2 of the Charities Act (Northern Ireland) 2008.

#### **4. Powers**

The CIO has power to do anything which is calculated to further its object or is conducive or incidental to doing so. In particular, the CIO has power to:

- (1) borrow money and to charge the whole or any part of its property as security for the repayment of the money borrowed. The CIO must comply as appropriate with sections 124 and 125 of the Charities Act 2011, if it wishes to mortgage land;
- (2) buy, take on lease or in exchange, hire or otherwise acquire any property and to maintain and equip it for use;
- (3) sell, lease or otherwise dispose of all or any part of the property belonging to the CIO. In exercising this power, the CIO must comply as appropriate with sections 117 and 119-123 of the Charities Act 2011;
- (4) employ and remunerate such staff as are necessary for carrying out the work of the CIO. The CIO may employ or remunerate a charity trustee only to the extent that it is permitted to do so by clause 6 (Benefits and payments to charity trustees and connected persons) and provided it complies with the conditions of that clause;
- (5) deposit or invest funds, employ a professional fund-manager, and arrange for the investments or other property of the CIO to be held in the name of a nominee, in the same manner and subject to the same conditions as the trustees of a trust are permitted to do by the Trustee Act 2000.

#### **5. Application of income and property**

- (1) The income and property of the CIO must be applied solely towards the promotion of the objects.
  - (a) A charity trustee is entitled to be reimbursed from the property of the CIO or may pay out of such property reasonable expenses properly incurred by him or her when acting on behalf of the CIO.
  - (b) A charity trustee may benefit from trustee indemnity insurance cover purchased at the CIO's expense in accordance with, and subject to the conditions in, section 189 of the Charities Act 2011.
- (2) None of the income or property of the CIO may be paid or transferred directly or indirectly by way of dividend, bonus or otherwise by way of profit to any member of the CIO.
- (3) Nothing in this clause shall prevent a charity trustee or connected person receiving any benefit or payment which is authorised by Clause 6.

## **6. Benefits and payments to charity trustees and connected persons**

### (1) General provisions

No charity trustee or connected person may:

- (a) buy or receive any goods or services from the CIO on terms preferential to those applicable to members of the public;
- (b) sell goods, services, or any interest in land to the CIO;
- (c) be employed by, or receive any remuneration from, the CIO;
- (d) receive any other financial benefit from the CIO;

unless the payment or benefit is permitted by sub-clause (2) of this clause or authorised by the court or the prior written consent of the Charity Commission (“the Commission”) has been obtained. In this clause, a “financial benefit” means a benefit, direct or indirect, which is either money or has a monetary value.

### (2) Scope and powers permitting trustees’ or connected persons’ benefits

- (a) A charity trustee or connected person may receive a benefit from the CIO as a beneficiary provided that it is available generally to the beneficiaries of the CIO.
- (b) A charity trustee or connected person may enter into a contract for the supply of services, or of goods that are supplied in connection with the provision of services, to the CIO where that is permitted in accordance with, and subject to the conditions in, sections 185 to 188 of the Charities Act 2011.
- (c) Subject to sub-clause (3) of this clause a charity trustee or connected person may provide the CIO with goods that are not supplied in connection with services provided to the CIO by the charity trustee or connected person.
- (d) A charity trustee or connected person may receive interest on money lent to the CIO at a reasonable and proper rate which must be not more than the Bank of England bank rate (also known as the base rate).
- (e) A charity trustee or connected person may receive rent for premises let by the trustee or connected person to the CIO. The amount of the rent and the other terms of the lease must be reasonable and proper. The charity trustee concerned must withdraw from any meeting at which such a proposal or the rent or other terms of the lease are under discussion.
- (f) A charity trustee or connected person may take part in the normal trading and fundraising activities of the the CIO on the same terms as members of the public.

### (3) Payment for supply of goods only – controls

The CIO and its charity trustees may only rely upon the authority provided by sub-clause (2)(c) of this clause if each of the following conditions is satisfied:

- (a) The amount or maximum amount of the payment for the goods is set out in a written agreement between the CIO and the charity trustee or connected person supplying the goods (“the supplier”).
  - (b) The amount or maximum amount of the payment for the goods does not exceed what is reasonable in the circumstances for the supply of the goods in question.
  - (c) The other charity trustees are satisfied that it is in the best interests of the CIO to contract with the supplier rather than with someone who is not a charity trustee or connected person. In reaching that decision the charity trustees must balance the advantage of contracting with a charity trustee or connected person against the disadvantages of doing so.
  - (d) The supplier is absent from the part of any meeting at which there is discussion of the proposal to enter into a contract or arrangement with him or her or it with regard to the supply of goods to the CIO.
  - (e) The supplier does not vote on any such matter and is not to be counted when calculating whether a quorum of charity trustees is present at the meeting.
  - (f) The reason for their decision is recorded by the charity trustees in the minute book.
  - (g) A majority of the charity trustees then in office are not in receipt of remuneration or payments authorised by clause 6.
- (4) In sub-clauses (2) and (3) of this clause:
- (a) “The CIO” includes any company in which the CIO:
    - (i) holds more than 50% of the shares; or
    - (ii) controls more than 50% of the voting rights attached to the shares; or
    - (iii) has the right to appoint one or more directors to the board of the company;
  - (b) “connected person” includes any person within the definition set out in clause 30 (Interpretation).

## **7. Conflicts of interest and conflicts of loyalty**

A charity trustee must:

- (1) declare the nature and extent of any interest, direct or indirect, which he or she has in a proposed transaction or arrangement with the CIO or in any transaction or arrangement entered into by the CIO which has not previously been declared; and
- (2) absent himself or herself from any discussions of the charity trustees in which it is possible that a conflict of interest will arise between his or her duty to act solely in the

interests of the CIO and any personal interest (including but not limited to any financial interest).

Any charity trustee absenting himself or herself from any discussions in accordance with this clause must not vote or be counted as part of the quorum in any decision of the charity trustees on the matter.

## **8. Liability of members to contribute to the assets of the CIO if it is wound up**

If the CIO is wound up, the members of the CIO have no liability to contribute to its assets and no personal responsibility for settling its debts and liabilities.

## **9. Charity trustees**

### **(1) Functions and duties of charity trustees**

The charity trustees shall manage the affairs of the CIO and may for that purpose exercise all the powers of the CIO. It is the duty of each charity trustee:

- (a) to exercise his or her powers and to perform his or her functions in his or her capacity as a trustee of the CIO in the way he or she decides in good faith would be most likely to further the purposes of the CIO; and
- (b) to exercise, in the performance of those functions, such care and skill as is reasonable in the circumstances having regard in particular to:
  - (i) any special knowledge or experience that he or she has or holds himself or herself out as having; and,
  - (ii) if he or she acts as a charity trustee of the CIO in the course of a business or profession, to any special knowledge or experience that it is reasonable to expect of a person acting in the course of that kind of business or profession.

### **(2) Eligibility for trusteeship**

- (a) Every charity trustee must be a natural person.
- (b) No individual may be appointed as a charity trustee of the CIO:
  - if he or she is under the age of 16 years; or
  - if he or she would automatically cease to hold office under the provisions of clause 12(1)(e).
- (c) No one is entitled to act as a charity trustee whether on appointment or on any re-appointment until he or she has expressly acknowledged, in whatever way the charity trustees decide, his or her acceptance of the office of charity trustee.



(3) Number of charity trustees

(a) There must be at least three charity trustees. If the number falls below this minimum, the remaining trustee or trustees may act only to call a meeting of the charity trustees, or appoint a new charity trustee.

(b) The maximum number of charity trustees is 13. The charity trustees may not appoint any charity trustee if as a result the number of charity trustees would exceed the maximum.

(4) First charity trustees

The first charity trustees are as follows, and are appointed for a term ending June 30, 2017 –

Claire Cousins, Jacques Lochard, John D. Boice Jr., Donald A. Cool, John D. Harrison, Carl-Magnus Larsson, Jaiki Lee, Hua Liu, Hans-Georg Menzel, Ohtsura Niwa, Sergey Romanov, Werner Rühm, Eliseo Vañó

## **10. Appointment of charity trustees**

(1) Apart from the first charity trustees, every trustee must be appointed by a resolution passed at a properly convened meeting of the charity trustees.

(2) In selecting individuals for appointment as charity trustees, the charity trustees must have regard to the skills, knowledge and experience needed for the effective administration of the CIO.

## **11. Information for new charity trustees**

The charity trustees will make available to each new charity trustee, on or before his or her first appointment:

(a) a copy of the current version of this constitution; and

(b) a copy of the CIO's latest Trustees' Annual Report and statement of accounts.

## **12. Retirement and removal of charity trustees**

(1) A charity trustee ceases to hold office if he or she:

(a) retires by notifying the CIO in writing (but only if enough charity trustees will remain in office when the notice of resignation takes effect to form a quorum for meetings);

- (b) is absent without the permission of the charity trustees from all their meetings held within a period of six months and the trustees resolve that his or her office be vacated;
- (c) dies;
- (d) in the written opinion, given to the CIO, of a registered medical practitioner treating that person, has become physically or mentally incapable of acting as a director and may remain so for more than three months;
- (e) is disqualified from acting as a charity trustee by virtue of sections 178-180 of the Charities Act 2011 (or any statutory re-enactment or modification of that provision).

(2) Any person retiring as a charity trustee is eligible for reappointment.

### **13. Taking of decisions by charity trustees**

Any decision may be taken either:

- at a meeting of the charity trustees; or
- by resolution in writing or electronic form agreed by all of the charity trustees, which may comprise either a single document or several documents containing the text of the resolution in like form to each of which one or more charity trustees has signified their agreement.

### **14. Delegation by charity trustees**

(1) The charity trustees may delegate any of their powers or functions to a committee or committees, and, if they do, they shall determine the terms and conditions on which the delegation is made. The charity trustees may at any time alter those terms and conditions, or revoke the delegation.

(2) This power is in addition to the power of delegation in the General Regulations and any other power of delegation available to the charity trustees, but is subject to the following requirements:

- (a) a committee may consist of two or more persons, but at least one member of each committee must be a charity trustee;
- (b) the acts and proceedings of any committee must be brought to the attention of the charity trustees as a whole as soon as is reasonably practicable; and
- (c) the charity trustees shall from time to time review the arrangements which they have made for the delegation of their powers.

## 15. Meetings of charity trustees

### (1) Calling meetings

- (a) Any charity trustee may call a meeting of the charity trustees.
- (b) Subject to that, the charity trustees shall decide how their meetings are to be called, and what notice is required.

### (2) Chairing of meetings

The charity trustees may appoint one of their number to chair their meetings and may at any time revoke such appointment. If no-one has been so appointed, or if the person appointed is unwilling to preside or is not present within 10 minutes after the time of the meeting, the charity trustees present may appoint one of their number to chair that meeting.

### (3) Procedure at meetings

- (a) No decision shall be taken at a meeting unless a quorum is present at the time when the decision is taken. The quorum is two charity trustees, or the number nearest to one third of the total number of charity trustees, whichever is greater, or such larger number as the charity trustees may decide from time to time. A charity trustee shall not be counted in the quorum present when any decision is made about a matter upon which he or she is not entitled to vote.
- (b) Questions arising at a meeting shall be decided by a majority of those eligible to vote.
- (c) In the case of an equality of votes, the person who chairs the meeting shall have a second or casting vote.

### (4) Participation in meetings by electronic means

- (a) A meeting may be held by suitable electronic means agreed by the charity trustees in which each participant may communicate with all the other participants.
- (b) Any charity trustee participating at a meeting by suitable electronic means agreed by the charity trustees in which a participant or participants may communicate with all the other participants shall qualify as being present at the meeting.
- (c) Meetings held by electronic means must comply with rules for meetings, including chairing and the taking of minutes.

## **16. Membership of the CIO**

(1) The members of the CIO shall be its charity trustees for the time being. The only persons eligible to be members of the CIO are its charity trustees. Membership of the CIO cannot be transferred to anyone else.

(2) Any member and charity trustee who ceases to be a charity trustee automatically ceases to be a member of the CIO.

## **17. Informal or associate (non-voting) membership**

(1) The charity trustees may create associate or other classes of non-voting membership, and may determine the rights and obligations of any such members (including payment of membership fees), and the conditions for admission to, and termination of membership of any such class of members.

(2) Other references in this constitution to “members” and “membership” do not apply to non-voting members, and non-voting members do not qualify as members for any purpose under the Charities Acts, General Regulations or Dissolution Regulations.

## **18. Decisions which must be made by the members of the CIO**

(1) Any decision to:

- (a) amend the constitution of the CIO;
- (b) amalgamate the CIO with, or transfer its undertaking to, one or more other CIOs, in accordance with the Charities Act 2011; or
- (c) wind up or dissolve the CIO (including transferring its business to any other charity)

must be made by a resolution of the members of the CIO (rather than a resolution of the charity trustees).

(2) Decisions of the members may be made either:

- (a) by resolution at a general meeting; or
- (b) by resolution in writing, in accordance with sub-clause (4) of this clause.

(3) Any decision specified in sub-clause (1) of this clause must be made in accordance with the provisions of clause 28 (amendment of constitution), clause 29

(Voluntary winding up or dissolution), or the provisions of the Charities Act 2011, the General Regulations or the Dissolution Regulations as applicable. Those provisions require the resolution to be agreed by a 75% majority of those members voting at a general meeting, or agreed by all members in writing.

(4) Except where a resolution in writing must be agreed by all the members, such a resolution may be agreed by a simple majority of all the members who are entitled to vote on it. Such a resolution shall be effective provided that:

- (a) a copy of the proposed resolution has been sent to all the members eligible to vote; and
- (b) the required majority of members has signified its agreement to the resolution in a document or documents which are received at the principal office within the period of 28 days beginning with the circulation date. The document signifying a member's agreement must be authenticated by their signature, by a statement of their identity accompanying the document, or in such other manner as the CIO has specified.

The resolution in writing may comprise several copies to which one or more members has signified their agreement. Eligibility to vote on the resolution is limited to members who are members of the CIO on the date when the proposal is first circulated.

## **19. General meetings of members**

### **(1) Calling of general meetings of members**

The charity trustees may designate any of their meetings as a general meeting of the members of the CIO. The purpose of such a meeting is to discharge any business which must by law be discharged by a resolution of the members of the CIO as specified in clause 18 (Decisions which must be made by the members of the CIO).

### **(2) Notice of general meetings of members**

- (a) The minimum period of notice required to hold a general meeting of the members of the CIO is 14 days.
- (b) Except where a specified period of notice is strictly required by another clause in this constitution, by the Charities Act 2011 or by the General Regulations, a general meeting may be called by shorter notice if it is so agreed by a majority of the members of the CIO.
- (c) Proof that an envelope containing a notice was properly addressed, prepaid and posted; or that an electronic form of notice was properly addressed and sent, shall be conclusive evidence that the notice was given. Notice shall be deemed to be given 48 hours after it was posted or sent.

(3) Procedure at general meetings of members

The provisions in clause 15 (2)-(4) governing the chairing of meetings, procedure at meetings and participation in meetings by electronic means apply to any general meeting of the members, with all references to trustees to be taken as references to members.

## **20. Saving provisions**

(1) Subject to sub-clause (2) of this clause, all decisions of the charity trustees, or of a committee of charity trustees, shall be valid notwithstanding the participation in any vote of a charity trustee:

- who was disqualified from holding office;
- who had previously retired or who had been obliged by the constitution to vacate office;
- who was not entitled to vote on the matter, whether by reason of a conflict of interest or otherwise;

if, without the vote of that charity trustee and that charity trustee being counted in the quorum, the decision has been made by a majority of the charity trustees at a quorate meeting.

(2) Sub-clause (1) of this clause does not permit a charity trustee to keep any benefit that may be conferred upon him or her by a resolution of the charity trustees or of a committee of charity trustees if, but for sub-clause (1), the resolution would have been void, or if the charity trustee has not complied with clause 7 (Conflicts of interest).

## **21. Execution of documents**

(1) The CIO shall execute documents either by signature or by affixing its seal (if it has one).

(2) A document is validly executed by signature if it is signed by at least two of the charity trustees.

(3) If the CIO has a seal:

- (a) it must comply with the provisions of the General Regulations; and
- (b) the seal must only be used by the authority of the charity trustees or of a committee of charity trustees duly authorised by the charity trustees. The charity trustees may determine who shall sign any document to which the seal is affixed and unless otherwise so determined it shall be signed by two charity trustees.

## **22. Use of electronic communications**

### **(1) General**

The CIO will comply with the requirements of the Communications Provisions in the General Regulations and in particular:

- (a) the requirement to provide within 21 days to any member on request a hard copy of any document or information sent to the member otherwise than in hard copy form;
- (b) any requirements to provide information to the Commission in a particular form or manner.

### **(2) To the CIO**

Any member or charity trustee of the CIO may communicate electronically with the CIO to an address specified by the CIO for the purpose, so long as the communication is authenticated in a manner which is satisfactory to the CIO.

### **(3) By the CIO**

- (a) Any member or charity trustee of the CIO, by providing the CIO with his or her email address or similar, is taken to have agreed to receive communications from the CIO in electronic form at that address, unless the member has indicated to the CIO his or her unwillingness to receive such communications in that form.
- (b) The charity trustees may, subject to compliance with any legal requirements, by means of publication on its website:
  - (i) provide the members with the notice referred to in clause 19(2) (Notice of general meetings);
  - (ii) give charity trustees notice of their meetings in accordance with clause 15(1) (Calling meetings); and
  - (iii) submit any proposal to the members or charity trustees for decision by written resolution or postal vote in accordance with the CIO's powers under clause 18 (Members' decisions), or 18(4) (Decisions taken by resolution in writing).
- (c) The charity trustees must –
  - (i) take reasonable steps to ensure that members and charity trustees are promptly notified of the publication of any such notice or proposal; and
  - (ii) send any such notice or proposal in hard copy form to any member or charity trustee who has not consented to receive communications in electronic form.

## **23. Keeping of Registers**

The CIO must comply with its obligations under the General Regulations in relation to the keeping of, and provision of access to, a (combined) register of its members and charity trustees.

## **24. Minutes**

The charity trustees must keep minutes of all:

- (1) appointments of officers made by the charity trustees;
- (2) proceedings at general meetings of the CIO;
- (3) meetings of the charity trustees and committees of charity trustees including:
  - the names of the trustees present at the meeting;
  - the decisions made at the meetings; and
  - where appropriate the reasons for the decisions;
- (4) decisions made by the charity trustees otherwise than in meetings.

## **25. Accounting records, accounts, annual reports and returns, register maintenance**

(1) The charity trustees must comply with the requirements of the Charities Act 2011 with regard to the keeping of accounting records, to the preparation and scrutiny of statements of account, and to the preparation of annual reports and returns. The statements of account, reports and returns must be sent to the Charity Commission, regardless of the income of the CIO, within 10 months of the financial year end.

(2) The charity trustees must comply with their obligation to inform the Commission within 28 days of any change in the particulars of the CIO entered on the Central Register of Charities.

## **26. Rules**

The charity trustees may from time to time make such reasonable and proper rules or byelaws as they may deem necessary or expedient for the proper conduct and management of the CIO, but such rules or bye laws must not be inconsistent with any provision of this constitution. Copies of any such rules or bye laws currently in force must be made available to any member of the CIO on request.



## **27. Disputes**

If a dispute arises between members of the CIO about the validity or propriety of anything done by the members under this constitution, and the dispute cannot be resolved by agreement, the parties to the dispute must first try in good faith to settle the dispute by mediation before resorting to litigation.

## **28. Amendment of constitution**

As provided by sections 224-227 of the Charities Act 2011:

(1) This constitution can only be amended:

- (a) by resolution agreed in writing by all members of the CIO; or
- (b) by a resolution passed by a 75% majority of those voting at a general meeting of the members of the CIO called in accordance with clause 19 (General meetings of members).

(2) Any alteration of clause 3 (Objects), clause 29 (Voluntary winding up or dissolution), this clause, or of any provision where the alteration would provide authorisation for any benefit to be obtained by charity trustees or members of the CIO or persons connected with them, requires the prior written consent of the Charity Commission.

(3) No amendment that is inconsistent with the provisions of the Charities Act 2011 or the General Regulations shall be valid.

(4) A copy of every resolution amending the constitution, together with a copy of the CIO's constitution as amended must be sent to the Commission by the end of the period of 15 days beginning with the date of passing of the resolution, and the amendment does not take effect until it has been recorded in the Register of Charities.

## **29. Voluntary winding up or dissolution**

(1) As provided by the Dissolution Regulations, the CIO may be dissolved by resolution of its members. Any decision by the members to wind up or dissolve the CIO can only be made:

- (a) at a general meeting of the members of the CIO called in accordance with clause 19 (General meetings of members), of which not less than 14 days' notice has been given to those eligible to attend and vote:
  - (i) by a resolution passed by a 75% majority of those voting, or

- (ii) by a resolution passed by decision taken without a vote and without any expression of dissent in response to the question put to the general meeting; or
- (b) by a resolution agreed in writing by all members of the CIO.

(2) Subject to the payment of all the CIO's debts:

- (a) Any resolution for the winding up of the CIO, or for the dissolution of the CIO without winding up, may contain a provision directing how any remaining assets of the CIO shall be applied.
- (b) If the resolution does not contain such a provision, the charity trustees must decide how any remaining assets of the CIO shall be applied.
- (c) In either case the remaining assets must be applied for charitable purposes the same as or similar to those of the CIO.

(3) The CIO must observe the requirements of the Dissolution Regulations in applying to the Charity Commission for the CIO to be removed from the Register of Charities, and in particular:

- (a) the charity trustees must send with their application to the Commission:
  - (i) a copy of the resolution passed by the members of the CIO;
  - (ii) a declaration by the charity trustees that any debts and other liabilities of the CIO have been settled or otherwise provided for in full; and
  - (iii) a statement by the charity trustees setting out the way in which any property of the CIO has been or is to be applied prior to its dissolution in accordance with this constitution;
- (b) the charity trustees must ensure that a copy of the application is sent within seven days to every member and employee of the CIO, and to any charity trustee of the CIO who was not privy to the application.

(4) If the CIO is to be wound up or dissolved in any other circumstances, the provisions of the Dissolution Regulations must be followed.

### **30. Interpretation**

In this constitution:

“Connected person” means:

- (a) a child, parent, grandchild, grandparent, brother or sister of the charity trustee;
- (b) the spouse or civil partner of the charity trustee or of any person falling within sub-clause (a) above;

- (c) a person carrying on business in partnership with the charity trustee or with any person falling within sub- clause (a) or (b) above;
- (d) an institution which is controlled –
  - (i) by the charity trustee or any connected person falling within sub-clause (a), (b), or (c) above; or
  - (ii) by two or more persons falling within sub-clause (d)(i), when taken together
- (e) a body corporate in which –
  - (i) the charity trustee or any connected person falling within sub-clauses (a) to (c) has a substantial interest; or
  - (ii) two or more persons falling within sub-clause (e)(i) who, when taken together, have a substantial interest.

Section 118 of the Charities Act 2011 apply for the purposes of interpreting the terms used in this constitution.

“General Regulations” means the Charitable Incorporated Organisations (General) Regulations 2012.

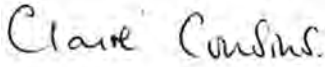
“Dissolution Regulations” means the Charitable Incorporated Organisations (Insolvency and Dissolution) Regulations 2012.

The “Communications Provisions” means the Communications Provisions in Part 10, Chapter 4 of the General Regulations.

“Charity trustee” means a charity trustee of the CIO.

A “poll” means a counted vote or ballot, usually (but not necessarily) in writing.

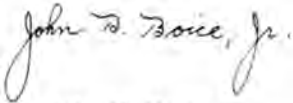
Approved by the first charity trustees



Claire Cousins



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# Rules of the International Commission on Radiological Protection

Amended by the ICRP Main Commission on 2018 April 29

*These Rules are made pursuant to paragraph 26 of the ICRP Constitution*

## **1. Fundamentals**

### **Constitution**

1.1. The International Commission on Radiological Protection (hereafter “ICRP”) is a Charitable Incorporated Organisation registered with the UK Charity Commission, registered Charity number 1166304. As such, ICRP operates under a Constitution (hereafter “the Constitution”) approved by ICRP and accepted by the UK Charity Commission. Provisions for amendment of the Constitution are provided within that document.

### **Object**

1.2. All activities of ICRP shall be in furtherance of its object as specified in the Constitution: ‘to advance for the public benefit the science of Radiological Protection, in particular by providing recommendations and guidance on all aspects of radiation protection.’

### **Code of Ethics**

1.3. All activities of ICRP and its members shall be undertaken in accordance with the highest ethical standards as outlined in Appendix A: ICRP Code of Ethics.

### **Rules**

1.4. The Rules (this document) direct the proper conduct and management of ICRP. Should there be any inconsistency between the Rules and the Constitution, provisions of the Constitution shall prevail. The Rules are approved by the Main Commission.

### **Guidelines**

1.5. Guidelines provide additional information on the general practices of ICRP, within the constraints of the Constitution and the Rules. Guidelines are developed by the Scientific Secretary.

## **2. Organisation, Membership, Responsibility, and Authority**

2.1. ICRP consists of the Main Commission, the Scientific Secretariat, Committees, and Task Groups.

2.2. The full membership of ICRP consists of all classes of members of the Main Commission, Scientific Secretariat, Committees, and Task Groups. The voting members are the non-emeritus members of the Main Commission; all others are associate or other classes of non-voting members.

2.3. Membership of the Main Commission and Committees (other than emeritus membership) is in four-year terms running from July 1 of a year to June 30 four years thereafter. The first full term begins on July 1, 2017.

### **The Main Commission**

2.4. The voting members of ICRP are its charity trustees, collectively referred to as the Main Commission.

2.5. The Main Commission is responsible for: ensuring that ICRP complies with its governing documents, with UK charity law, and company law; the financial probity of ICRP; setting ICRP's overall strategic direction, policy, and goals and targets; and, evaluating and monitoring ICRP's performance against such targets.

### **Limitations on Main Commission Membership**

2.6. The maximum number of Main Commission members, excluding emeritus members, is 13, and the minimum is three. Typically, membership consists of 13 individuals. In addition:

- a) At least one member must reside in England or Wales.
- b) At least one member must be a medical doctor with relevant experience.
- c) There may be a maximum of three members from any one country (effective from July 1, 2021: there may be a maximum of two members from any one country).

### **Decisions of the Main Commission**

2.7. The Main Commission may make decisions either at a meeting of the Main Commission or by postal ballot.

2.8. Decisions at a meeting of the Main Commission are made when a quorum is present, by consensus or by agreement of a majority of Main Commission members present and eligible to vote. In the case of an equality of votes, the person who chairs the meeting casts an additional deciding vote.

2.9. Quorum is half of the total number of Main Commission members eligible to vote rounded down plus one, but not less than two (i.e. seven, when the Main Commission is at full complement with 13 members).

2.10. Decisions made by postal ballot are made by agreement of a majority of the extant Main Commission members eligible to vote. In case of an equality of votes, the Chair casts an additional deciding vote. Postal ballots are managed by the Scientific Secretary.

### **The Scientific Secretariat**

2.11. The Scientific Secretary is delegated the day-to-day operation of ICRP, other than those responsibilities reserved by the Main Commission as specified in Appendix B.

2.12. The Scientific Secretary shall make and maintain the records of ICRP.

2.13. ICRP records shall be passed on to the succeeding Scientific Secretary.

### **Committees**

2.14. The names and mandates of the Committees are outlined in Appendix C.

2.15. The Chair of each Committee is a member of the Main Commission

2.16. A general principle of rotation of members applies to all Committee members including Chairs. An average length of service of about 2 to 3 terms is appropriate.

2.17. Each Committee Chair selects a Vice-Chair and Secretary from within the Committee membership. In the interest of co-ordinated and suitably organised work, Secretaries of Committees are expected to liaise closely with the Scientific Secretary.

2.18. Committees may form informal sub-groups to undertake specific tasks. Addition of individuals to these sub-groups other than Main Commission or Committee members should be on an exceptional basis and requires approval of the ICRP Chair.

### **Task Groups**

2.19. Task Groups are established by the Main Commission to perform a defined Task, usually the preparation of a draft report, within the constraints of the approved budget allotted and schedule. At least one full member (not necessarily the Chair of the Task Group) must be member of the Main Commission or one of the Committees of ICRP. Task Groups usually contain a majority of specialists from outside the Commission and Committee structure. Corresponding members may also be selected; they are equal in all respects to full members, and so welcome to participate in Task Group meetings, except that such participation is at their own expense.

2.20. Proposals for Task Groups originate in Committees and in the Main Commission. Proposals are forwarded to the Scientific Secretary as draft Terms of Reference following a standard format, available on the ICRP website.

2.21. Terms of Reference give specific directions concerning the membership, the work to be done, the budget (if any) allotted, and a schedule for the completion of the task. The proposed membership should normally comprise less than six full members. Corresponding Members may also be included.

2.22. A Task Group is established when its Terms of Reference are approved by the Main Commission.

2.23. In case of standing Task Groups, the Main Commission will review the Terms of Reference at the beginning of each term.

### **Emeritus Members**

2.24. The Main Commission may appoint emeritus members of the Main Commission or of a Committee by a unanimous vote. A nomination for an appointment of emeritus membership must be submitted in writing to the Scientific Secretary at least 30 calendar days in advance of the meeting at which the appointment is made. The appointment as an emeritus member is an expression of the Main Commission's appreciation of extraordinary contributions to the development of the Main Commission's policy. Since the appointment as an emeritus member is an honorary distinction, it shall be for life. Emeritus members have no voting power.

2.25. Emeritus members normally have access to meeting papers and documents of the Main Commission, or the appropriate Committee, except restricted ones. They may attend meetings of the Main Commission or Committees after personal invitation by the Chair of ICRP.



### **3. Election, Selection, and Removal of Members**

#### **General**

- 3.1. The Scientific Secretary manages all aspects of election procedures including preparation and counting of ballots, announcement of results, and destruction of used ballots.
- 3.2. Each Main Commission member may exercise a single vote. Should it become necessary to break a tie, the Main Commission member who chairs the meeting casts an additional deciding vote.
- 3.3. Voting is by secret ballot.
- 3.4. Except as otherwise specified, a simple majority is required for an election to be successful. As necessary, candidate(s) receiving zero votes and those tied with the lowest number of non-zero votes are eliminated, and another vote is taken, in succession until a candidate is elected.

#### **Election of Main Commission Members: General**

- 3.5. Membership of the Main Commission is in successive four-year terms running from July 1 of a year to June 30 four years thereafter. One such term begins on 2017 July 1.
- 3.6. The Main Commission consists of a Chair, a Vice-Chair, the Chairs of the Committees, and additional members to bring the total number to thirteen.
- 3.7. Candidates for membership in the Main Commission must:
  - a) be eligible to serve as a trustee of ICRP;
  - b) not be deemed otherwise ineligible by any provision of the Constitution or these Rules;
  - c) have appropriate qualifications and sufficient time to devote to ICRP.
- 3.8. There is a preference to nominate individuals with experience within ICRP.
- 3.9. There is a preference to elect individuals to achieve a reasonable gender balance and mix of expertise and experience.

#### **Election of Main Commission Members for Successive Terms**

- 3.10. A slate of eligible candidates is formed of incumbent members of the Main Commission who have declared their intention to stand for election to any position on the Main Commission, and other individuals nominated and seconded by Main Commission members.

- a) Candidates must be under the age of 70 and have served no more than four terms as a member of the Main Commission on the day their appointment would become effective.
  - b) Incumbents who wish to stand for election must declare their intention to do so in writing to the Scientific Secretary at least 30 calendar days in advance of the meeting at which the elections are to be held.
  - c) A maximum of nine incumbents may stand for re-election. Should more declare their intention to stand, the longest serving incumbent(s) are deemed ineligible in order to reduce the number to nine. (The longest serving being those who have served as Main Commission members for the greatest number of days, consecutive or not, with ties being broken by considering those whose birth date falls later in the year to have served longer.)
  - d) Nominations for other candidates must be submitted in writing to the Scientific Secretary at least 30 calendar days in advance of the meeting at which the elections are to be held. These nominations must indicate the name of the nominator and seconder, and be supported by a CV.
  - e) Declarations to stand and nominations must indicate the position(s) to which they apply (Chair, Vice-Chair, each Committee Chair, member), the candidate's name and country of residence, and, if the candidate is a medical doctor, an indication of such and the relevant area of experience.
- 3.11. Elections take place prior to the end of each term as follows:
- a) Elections for membership in the following term normally take place at the last meeting of the Main Commission before the end of each term.
  - b) First, the Chair is elected.
  - c) Second, the Vice-Chair is elected.
  - d) Third, elections are held for the positions of Chair of each of the Committees, one by one. The order is selected at random.
  - e) After each election step above, candidates not elected to a position may stand or be nominated for any remaining vacancy.
  - f) Finally, elections are held to bring the total membership to thirteen. Instead of a simple majority vote, each ballot consists of a ranking of all candidates, and the candidates with the lowest rank sums are elected to fill the remaining positions such that the requirements in Paragraph 2.6 are met.
  - g) At each election step above, should an insufficient number of candidates remain, additional candidates may be nominated by Main Commission members.
  - h) Appointments become effective on the first day of the next term.

**Election to Fill a Main Commission Vacancy during a Term**

3.12. Elections to fill vacancies during a term may be called by the Chair (or, should the position of Chair be vacant, by any member of the Main Commission), with prior notice of no less than 30 calendar days.

3.13. A slate of eligible candidates is formed as described in Paragraph 3.10, except that declarations and nominations must be submitted at least 7 calendar days in advance.

3.14. Should an election be called to fill more than one position, each is elected in turn in the same order as outlined in Paragraph 3.11 (b) to (d). Afterwards, elections are held for any remaining positions one by one.

3.15. Appointments are effective immediately.

#### **Election of Committee Members**

3.16. The election process begins with an open call to accept nominations. Committee members wishing to continue to serve must submit a nomination for potential re-election.

3.17. A nomination can be submitted by the nominee, either nominator, or any other person. Each nomination must be submitted in English (the working language of ICRP) as a pdf file of no more than 2 pages in length, and must include the following information:

- a) The name, country of residence, affiliation (normally the employer), and contact information, including e-mail address, of the nominee;
- b) An indication of the Committee(s) for which the nominee is being nominated;
- c) A short CV of the nominee including at least a brief employment history, list of relevant major professional accomplishments, publications, and other information describing how they meet the relevant qualifications for the Committee;
- d) The names and contact information, including e-mail addresses, of two nominators (any person other than the nominee may be a nominator – nominators may be contacted in confidence by ICRP for further information); and,
- e) A declaration that the nominee is aware of the nomination.

3.18. The Scientific Secretary sends all nominations meeting the submission requirements to Main Commission members for their review.

#### **Election of Committee Members: Voting Procedure**

3.19. Voting for Committee members occurs after election of Main Commission members (normally at the last meeting of the Main Commission before the end of each term). Thus, the Committee Chairs will already have been elected as Main Commission members.

3.20. The Scientific Secretary prepares ballots for each Committee, listing all candidates. Space is provided for write-in candidates.

3.21. Prior to voting, the Main Commission specifies the size of the membership for each Committee (in addition to the Committee Chair, who has already been elected).

3.22. Voting is conducted by secret ballot for each Committee in turn, in a random order determined by the Scientific Secretary.

3.23. Each Main Commission member receives one ballot for each Committee. If the Main Commission discusses the merits of the candidates, this discussion will not form part of the minutes of the meeting.

3.24. Each Main Commission member ranks the candidates e.g. writing 1 beside the most preferred candidate, 2 beside the next, and so on. Ranks must not be duplicated or skipped, and the number of candidates ranked must at least equal the number of vacancies or the number of candidates, whichever is lower. Unranked candidates will be assessed as tied for the last rank.

3.25. The Scientific Secretary examines each ballot, discarding any that are spoiled. A ballot is considered spoiled if, in the judgment of the Scientific Secretary, the ranking is unclear e.g. an insufficient number of candidates is ranked, ranks have been skipped or duplicated, or if the writing is not clearly legible. If three or more ballots are deemed spoiled all ballots are destroyed and the voting process begins again.

3.26. The Scientific Secretary sums the ranks assigned to each candidate. Candidates with the lowest rank sums are selected to form the membership of the Committee, with the caveat that at least 25% (rounded down) of the selected candidates are not incumbents.

3.27. Where necessary, ties are broken by selecting the candidate with the most first rankings. If this fails to break the tie, then lower rankings are considered each in turn as needed. If this fails to break the tie, then the Scientific Secretary consults the Chair who breaks the tie.

3.28. The Scientific Secretary presents the full ranking of candidates to the Main Commission and then destroys the ballots.

3.29. After the voting procedure is complete for all Committees the Main Commission reviews the results, and may make changes as necessary prior to finalising the (unconfirmed) membership.

3.30. The Scientific Secretary confirms the membership of each individual by sending an invitation to be accepted or declined.

3.31. Appointments become effective on the first day of the relevant term, or when the invitation is accepted, whichever is later.

3.32. No intermediate results (lists of nominees, slates of candidates, etc.) will be made publicly available.

**Election of Committee Members during a Term**

3.33. Formally, a departing Committee member (other than the Committee Chair) does not leave a vacancy since the size of each Committee is not fixed.

3.34. When a Committee member departs mid-term, or at any other time as deemed appropriate by the Main Commission, a new Committee member may be elected. In this case election is by unanimous acclamation or by secret ballot, the latter requiring a majority agreement.

**Selection of the Scientific Secretary and Members of the Scientific Secretariat**

3.35. The Scientific Secretary is selected by the ICRP Chair in consultation with the Main Commission and serves until retirement or removal.

3.36. The Scientific Secretary shall not be a member of the Main Commission.

3.37. Interns serving with the Scientific Secretariat, with a term of less than one year and not employed by ICRP, are selected by the Scientific Secretary.

3.38. Other members of the Scientific Secretariat are selected by the ICRP Chair, in consultation with the Main Commission and the Scientific Secretary as appropriate.

**Selection of Task Group Members**

3.39. The initial membership of each Task Group is set when the Task Group is established. The Scientific Secretary confirms the membership of each individual specified in the Terms of Reference by sending an invitation to be accepted or declined.

3.40. New full members may be invited by the ICRP Chair. New corresponding members may be invited by the responsible Committee Chair(s).

3.41. Individuals become members when an invitation is accepted.

**Removal of Members**

3.42. The Main Commission may decide to remove a member of a Committee or a Task Group. This decision of the Main Commission is made by secret ballot and requires a majority agreement. In the case of a Committee Chair, the procedure for removal of a Main Commission member is followed.

3.43. The Main Commission may decide to remove a member of the Main Commission or the Scientific Secretariat. A proposal, with a seconder, (both Main

Commission members) must be sent to all Main Commission members at least 30 calendar days prior to the decision being made. This decision of the Main Commission is made by secret ballot and requires a minimum of two-thirds majority agreement. In the case of a decision to remove the Scientific Secretary the Main Commission will select a neutral party other than the Scientific Secretary to manage the vote.

#### **4. Formal Relations with Other Organisations**

4.1. ICRP recognises the need to remain independent from undue influence, while maintaining good working relationships with other organisations with an interest in radiological protection.

4.2. Normally, establishment of formal relations will only be considered with international organisations. However, national organisations may be considered where no international organisation exists that could reasonably represent their views.

4.3. Formal relations may be established through mechanisms proposed by the other organisation, such as a bi-lateral agreement, or, upon approval of the ICRP Chair, by granting 'Special Liaison Organisation' status through an exchange of formal correspondence.

4.4. Organisations wishing to request Special Liaison Organisation status must submit a request in writing. This request must provide information about the organisation, in particular how its work is relevant to the mandate of ICRP, and must identify a single individual as the primary point of contact with ICRP.

4.5. The Main Commission may rescind, at their sole discretion, Special Liaison Organisation Status at any time. The method of ending formal relations established by another mechanism shall be governed by provisions of that mechanism; if unspecified, formal relations may be terminated by the Main Commission, at their sole discretion, at any time.

4.6. Organisations with Special Liaison Organisation status may choose to have this status revoked at any time by sending a request in writing.

4.7. Organisations in formal relations with ICRP:

- a) Designate a single individual as primary point of contact with ICRP, and notify ICRP when the designated individual changes;
- b) Are listed, along with the name and contact information of the primary contact, on the ICRP website and elsewhere as ICRP desires;
- c) Receive e-copies of the ICRP annual report;

- d) Receive invitations to comment on ICRP documents for public consultation;
- e) Receive invitations to participate in ICRP international symposia, normally waiving any registration fee for one representative from each organisation;
- f) Receive invitations for senior representatives to meet with the ICRP Chair and other ICRP members from time to time;
- g) Shall not make use of the ICRP logo without separate permission; and,
- h) Shall not claim that being in formal relations with ICRP implies any endorsement by ICRP of their organisation, its policies, actions, or products.

4.8. Committee Chairs may invite representatives of organisations in formal relations with ICRP to Committee or Task Group meetings where the subject matter is particularly relevant to the mandate of the organisation. Expenses of participation will not be covered by ICRP.

4.9. Representatives of other organisations may be invited to Committee or Task Group meetings with the approval of the ICRP Chair. Expenses of participation will not be covered by ICRP.

4.10. Committee and Task Group Chairs may invite individual experts to their meetings to provide advice, but not to act as organisation representatives.

4.11. Entering into formal relations with ICRP implies no rights, obligations, or endorsements for either party beyond those specified in this section.

4.12. ICRP may enter into various agreements and understandings with other organisations without this constituting establishment of formal relations as described in this section.

## **5. Meetings**

### **Main Commission Meetings**

5.1. Main Commission meetings must be held at least annually, not more than 18 months after the preceding meeting. Within these constraints, specific times, places, and other arrangements are decided by the Chair in consultation with the Main Commission members and the Scientific Secretary.

5.2. Meetings of the Main Commission are chaired by the ICRP Chair when present, the ICRP Vice-Chair if the Chair is absent, or by a Main Commission member selected by those present if both the Chair and Vice-Chair are absent.

5.3. In event of a member of the Main Commission being unable to attend a meeting of the Main Commission, a substitute may be selected by the Main

Commission as a temporary replacement. Such a substitute shall not have voting privileges unless specifically authorised by the Main Commission.

5.4. The Chair may invite individuals to attend meetings of the Main Commission to give advice. Such persons shall not have voting privileges, but their opinions may be recorded in the minutes.

5.5. The Scientific Secretary takes the minutes of Main Commission meetings, including a record of all proceedings and decisions, and minutes approved by the Main Commission are entered into ICRP records. A minority opinion may be appended to the minutes if so desired by any Main Commission member upon submission of the same in writing to the Scientific Secretary.

### **Committee Meetings**

5.6. Committee meetings typically take place annually. Specific times, places, and other arrangements are decided by the Committee Chair in consultation with the Committee members and the Scientific Secretary.

5.7. Dates and venues of Committee meetings are listed in the Main Commission minutes.

5.8. The Secretary of each Committee takes the minutes of Committee meetings, and minutes approved by the Committee are forwarded to the Scientific Secretary for entry into ICRP records.

### **Task Group Meetings**

5.9. Task Group meetings take place according to the approved Terms of Reference of each Task Group. Specific times, and places, and other arrangements are decided by the Task Group Chair in consultation with the Task Group members, the responsible Committee Chair(s), and the Scientific Secretary.

5.10. Dates and venues of Task Group meetings are listed in the minutes of the responsible Committee(s).

5.11. Procedures for making records of Task Group meetings are decided on a case-by-case basis by the Task Group Chair and responsible Committee Chair(s). When records of Task Group meetings are made, they are forwarded to the Scientific Secretary for entry into ICRP records.

## **6. Finances**

### **General**

6.1. The ICRP financial year runs from January 1 to December 31.



6.2. All funds raised by and on behalf of ICRP are applied to further the object of ICRP and for no other purpose provided that nothing herein contained shall prevent the payment in good faith of reasonable and proper remuneration to any employee of ICRP or the repayment to ICRP members or other persons associated with the work of ICRP of reasonable out-of-pocket expenses.

6.3. Raising of funds by and on behalf of ICRP is governed by Appendix D: ICRP Policy on Donations, Sponsorship, and Endorsements.

6.4. The Scientific Secretary keeps proper accounts of ICRP finances and enters them into ICRP records.

#### **Banking and Financial Authority**

6.5. A bank account or accounts shall be opened in the name of ICRP with such bank or banks as the Main Commission decides. The Main Commission shall authorise in writing the Chair, the Vice-Chair, the Scientific Secretary, and one other member of the Main Commission to authorise payments on behalf of ICRP. All payments for amounts above £10,000 must be approved by not less than two of the four authorised signatories.

6.6. Except for temporary deposits of monies in other countries for funding activities in those countries, the monies and assets of the Commission are held in England or Wales.

#### **Financial Review Group**

6.7. The Main Commission maintains a Financial Review Group, consisting of the ICRP Vice-Chair, and two other Main Commission members other than the ICRP Chair (one serving as Chair of the Group). These other two members are elected annually by the Main Commission, subject to a limitation of four consecutive years of service.

6.8. The Financial Review Group provides a report on the critical review of draft annual financial reports of ICRP in relation to the Strategic Plan and Code of Ethics, providing advice on the management of funds to the Main Commission prior to these reports being subject to approval by the Main Commission. This advice does not extend to accounting practices and auditing, as this is provided by the auditors appointed by the Main Commission.

6.9. The Chair, advised by the Financial Review Group, fixes the remuneration of the Scientific Secretary, and any other employees of ICRP.

6.10. The Chair may request the Financial Review group to provide advice on other financial matters.

### **Auditing**

6.11. The accounts are audited at least once a year by the auditor or auditors appointed by the Main Commission.

6.12. In each year, an audited statement of the accounts for the previous financial year is submitted to the Main Commission.

### **Reimbursement of Expenses**

6.13. Except as otherwise specified, the commitment or expenditure of ICRP funds is authorised in advance by the Scientific Secretary. For meetings, this generally includes the authorisation of the selection of the types of accommodation, modes of transportation, meeting room costs, common meals provided, and any other aspects of meetings which impact the overall cost of a meeting.

6.14. Many organisations contribute not only their members' time but also part or all of the travelling costs for participation in ICRP work. Members are urged to approach their organisations to investigate whether some contribution towards the cost could be made. For members unable to claim travelling expenses from their own organisations, ICRP has limited funds at its disposal to reimburse such costs for full members of the Main Commission, Scientific Secretariat, Committees, and Task Groups. ICRP does not cover any travel costs for corresponding or emeritus members, except under extenuating circumstances and as authorised in advance by both the Scientific Secretary and ICRP Chair.

6.15. Reimbursements must comply with rules on permissible tax-exempt reimbursement in the UK (where ICRP has its legal seat as a Registered Charity) and in the country in which the Scientific Secretariat is based (where ICRP is an employer).

### **Allowable Travel Expenses**

6.16. Where ICRP covers the cost of travel the guiding principle is to reimburse reasonable expenses for safe and comfortable transport, accommodations and meals.

6.17. For members who are unable to obtain travel support elsewhere, ICRP reimburses the cost of flight tickets, or pays for the tickets directly if booked with the Commission's travel agent.

6.18. The normal standard for air travel is economy class. The lowest available airfares for reasonable itineraries shall be sought and bookings shall be made as far in advance as reasonable. Where continuous air travel (from the scheduled departure time to the scheduled arrival at the destination or an overnight stop) exceeds seven hours, business class seating for Main Commission members and the Scientific Secretary, or premium economy seating for other members, may be authorised.

6.19. Deviations from the allowed class of service may be authorised, but in this case, if the cost of a ticket exceeds the price of a full-fare economy ticket, a justification must be documented in the financial records.

6.20. Reasonable terminal transfer charges (taxi, airport limousines/buses, etc.) are reimbursable by ICRP.

6.21. Travellers are encouraged to book early to obtain the best possible fares. However, tickets may have rebooking restrictions or be non-rebookable. If a member with a ticket paid for by ICRP is forced to change flights for bona fide reasons, ICRP can reimburse the arising cost difference.

6.22. ICRP reimburses the actual room cost for hotels. On request, the Scientific Secretary can provide guidance on reasonable room rates for a given area.

6.23. Standard allowances are used to calculate reimbursements for incidentals and meals. Incidentals are reimbursed at a set rate per travel day. Meals not otherwise provided (for example on flights, with the accommodations, or as part of meeting arrangements) are reimbursed at a set rate per meal. Reimbursement of actual meal expenses (supported by receipts) may be authorised instead of reimbursement based on standard rates, where appropriate.

6.24. Incidental and meal allowances used by ICRP are those published by the Treasury Board of Canada. Consult Appendices C and D of the Treasury Board of Canada Secretariat (normally using type “C” for commercial accommodation) on-line at [http://www.tbs-sct.gc.ca/pubs\\_pol/hrpubs/TBM\\_113/d-eng.asp](http://www.tbs-sct.gc.ca/pubs_pol/hrpubs/TBM_113/d-eng.asp) or contact the Scientific Secretary for rates currently in effect.

6.25. ICRP does not defray the cost of travel insurance. Members are strongly advised to make sure that they are properly and sufficiently insured.

### **Procedure for Reimbursement**

6.26. A request for reimbursement of expenses must be submitted to the Scientific Secretariat using the ICRP expense claim form found on the ICRP web site. Members are strongly encouraged to fill out the form in full to avoid delays or misunderstandings. Claims may be submitted by e-mail, fax, or post, with receipts (originals whenever possible) attached. As meals and incidentals are reimbursed at standard rates, no receipts are required for these items.

## **7. General**

### **Annals of the ICRP**

7.1. The primary purpose of the Annals of the ICRP is to publish ICRP reports approved by the Main Commission.

7.2. The Scientific Secretary is the Editor-in-Chief of the Annals of the ICRP.

7.3. Each report to be published in the Annals of the ICRP is approved by the Main Commission (a) prior to public consultation on the report, should this be undertaken, and (b) prior to publication.

7.4. The Main Commission may invite individuals to submit articles and in doing so approves, in principle, publication of that article in the Annals. Proffered articles shall be approved by the Main Commission prior to publication in the Annals. Normally only two categories of articles will be considered for approval: (i) those of a general nature relating to the work of ICRP, and (ii) those relating directly to the subject matter of the ICRP report in the particular issue.

7.5. ICRP may also publish proceedings as special issues of the Annals of the ICRP.

**Distribution of Papers, Presentations, Media Interviews, etc.**

7.6. ICRP members are free to distribute information as they wish without reference to their membership in ICRP. Should members wish to indicate their membership, no further approval is necessary as long as a suitable caveat is included indicating that the material has neither been approved nor endorsed by ICRP.

7.7. Distribution of information where ICRP membership is indicated and without the caveat described above requires the prior approval of the Main Commission, with the exception of “Explanatory Materials”.

7.8. “Explanatory Materials” such as written summaries and presentations that present or explain, rather than extend, previously approved information (e.g. in the Annals of the ICRP) may be distributed with the prior approval of the ICRP Chair, Committee Chair, or Scientific Secretary, as appropriate. This includes, for example, educational material to be placed on the ICRP web site.

## APPENDIX A

### ICRP Code of Ethics

ICRP is a charity registered in the United Kingdom established to provide independent recommendations and guidance on radiological protection for the public benefit. Its objective is to contribute to an appropriate level of protection against detrimental effects of ionising radiation exposure without unduly limiting the benefits associated with the use of radiation.

In developing its recommendations and guidance, ICRP considers advances in scientific knowledge, evolving social values, and practical experience. Its members are expected to be knowledgeable and experienced in one or more of the relevant subject areas and specialised fields of application and control of radiation in order to contribute to ICRP's objective. Members are also expected to discharge their responsibilities in accordance with high ethical standards. The basic elements of the ethical framework are outlined in this CODE of ETHICS.

#### **Committed to public benefit**

*ICRP acts to protect humans and the environment from the harmful effects of radiation*

Being committed to public benefit involves:

- Giving priority to protecting individuals, population groups, and the environment against harmful effects of radiation, while not unduly limiting the beneficial use of radiation
- Preserving the values associated with being a charity<sup>1</sup> and taking into account human rights, equity, vulnerable populations, and the environment in the development of recommendations and guidance
- Developing and updating recommendations and guidance in the light of most recent advances in our knowledge of radiation risks to humans and to the environment, and in application and control of radiation

#### **Independent**

*ICRP acts independently of governments and organisations, including industry and other users of radiation*

Being independent involves:

- Relying primarily on its volunteer members to carry out the work required to develop recommendations and guidance on radiological protection

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<sup>1</sup> See The essential trustee – what you need to know (CC3). UK Charity Commission.

- Declining financial contributions that could imply a conflict of interest

### **Impartial**

*ICRP acts impartially in its development of recommendations and guidance*

Being impartial involves:

- Commitment of all members to work with honesty and integrity in the interest of radiological protection of humans and the environment, and not favour any commercial, personal or vested interests
- Declaration by all members of any affiliations or other factors that may give rise to conflict of interest when developing recommendations and guidance and, for members of the Main Commission, when acting as trustees
- Striving for a balanced membership with regard to gender, ethnicity, geographic origin, discipline, and experience to prevent bias in views and judgements

### **Transparent**

*ICRP engages stakeholders and strives to be transparent in its actions and judgements*

Being transparent involves:

- Maintaining an open and respectful dialogue with all stakeholders and working with them to promote radiological protection for the public benefit
- Conducting public consultations on recommendations and guidance prior to publication
- Accepting nominations for committee membership from external parties and selecting members on the basis of publically available criteria

### **Accountable**

*ICRP is accountable to the framework that governs the activities of a charity*

Being accountable involves:

- Acting responsibly and in accordance with the high standards expected of members of ICRP and, for members of the Main Commission, as trustees of the charity
- Managing financial resources and assets in accordance with good accounting principles

Publicly reporting activities, finances, assets, and affiliations of Main Commission members in annual reports

## **APPENDIX B**

### **Delegation to the Scientific Secretary**

The Main Commission does not run ICRP continually in an executive manner, and therefore delegates the day-to-day running of its affairs to its Scientific Secretary. The Main Commission does, however, reserve unto itself the following responsibilities:

- Approving and amending the Constitution and Rules;
- Establishing and approving the strategic direction of ICRP;
- Approving ICRP's annual plan and proposed expenditure;
- Appointing external auditors;
- Approving ICRP's financial statements and the auditing of its accounts;
- Approving and amending all aspects of branding of ICRP;
- Representing ICRP in an official capacity with the UK Charity Commission and similar official UK bodies;
- Forming official relationships with other bodies;
- Approving non-project contracts with other bodies;
- Approving all ICRP publications;
- Appointing members to the Commission;
- Appointing and removing the Main Commission's Scientific Secretary and their staff;
- Agreeing on the basis of and the actual remuneration of the Scientific Secretary and their staff; and,
- Winding up the Commission's affairs.

## APPENDIX C

### Names and Mandates of ICRP Committees

#### **Committee 1: Radiation Effects**

Committee 1 considers the effects of radiation action from the subcellular to population and ecosystem levels, including the induction of cancer, heritable and other diseases, impairment of tissue/organ function and developmental defects, and assesses implications for protection of people and the environment.

#### **Committee 2: Doses from Radiation Exposure**

Committee 2 develops dosimetric methodology for the assessment of internal and external radiation exposures, including reference biokinetic and dosimetric models and reference data and dose coefficients, for use in the protection of people and the environment.

#### **Committee 3: Radiological Protection in Medicine**

Committee 3 addresses protection of persons and unborn children when ionising radiation is used in medical diagnosis, therapy, and biomedical research, as well as protection in veterinary medicine.

#### **Committee 4: Application of the Commission's Recommendations**

Committee 4 provides advice on the application of the Commission's recommendations for the protection of people and the environment in an integrated manner for all exposure situations.



## APPENDIX D

### ICRP POLICY ON DONATIONS, SPONSORSHIP, AND ENDORSEMENTS

#### ICRP WILL ALWAYS WORK FOR THE PUBLIC BENEFIT

#### ICRP WILL NEVER COMPROMISE ITS INTEGRITY OR INDEPENDENCE

Independence does not mean isolation. To effectively and efficiently fulfill its mandate, the International Commission on Radiological Protection (ICRP) works with many organisations with shared interests. Independence means that ICRP is self-governed and dictates its own membership and programme of work without undue outside influence. Support is accepted only with the clear and explicit understanding that it cannot influence the selection of ICRP members or the development of the ICRP programme of work.

### 1. PURPOSE

1.1. Engaging with international organisations, regulatory authorities and other government agencies, expert and academic organisations, professional societies, the business community, and other non-governmental organisations can have a beneficial effect on ICRP's mission to advance the science of radiological protection for the public benefit. ICRP also recognises the significant resources that these organisations can bring to support this mission.

1.2. The aim of this policy is to ensure maximum potential benefits to ICRP, those organisations that use ICRP recommendations and guidance, and ultimately the public, while minimising potential conflicts of interest and risks by providing guidelines for considering or entering into support arrangements with other organisations.

### 2. DONATIONS

2.1. Donations can be received in the form of financial support, or goods and services. Donations should generally be restricted only insofar as they must go towards achieving the objects of ICRP, and donors should normally expect limited direct exposure and limited individualised benefit.

2.2. To ensure transparency, anonymous donations cannot be accepted, and donors will be acknowledged in ICRP annual reports, on the ICRP website, and possibly through other ICRP communication channels.

2.3. No formal contract is required for donations though there may be an agreement about acknowledgement.

2.4. Use of the association with ICRP for the donor's publicity purposes requires written permission of ICRP.

### **3. SPONSORSHIP**

3.1. ICRP may enter into mutually beneficial arrangements with organisations and individuals who wish to sponsor ICRP activities, projects, conferences, or distribution of publications in their entirety or in part.

3.2. Sponsorship is the provision of funds, goods, or services for ICRP activities in exchange for the sponsor's visibility and recognition or similar.

3.3 Sponsorship is generally governed by a Sponsorship Agreement outlining the agreed terms.

3.4. Recognition of sponsors by ICRP must be appropriate and proportional to the level of sponsorship received. Specific recognition may include, as appropriate:

- acknowledgement in event-specific content, printed and online on the ICRP website;
- acknowledgement via ICRP annual reports, website and other ICRP communication channels;
- acknowledgement in programmes of supported events;
- recognition during supported events;
- possibility to communicate the ICRP support through the sponsors' communications channels (subject to approval by ICRP);
- project/activity titles or parts thereof, such as fellowships, etc. may include the name(s) of the supporter(s); and,
- other recognition as appropriate.

### **4. ENDORSEMENTS**

4.1. As a general rule, engagement with ICRP does not imply any tacit or explicit endorsement by ICRP. The only exception would be where ICRP has formally agreed, in writing, to an endorsement.

4.2. Endorsement is where the ICRP name or logo is closely associated with an organisation's name, activity, product or service indicating approval by the ICRP of the associated entity, activity, product or service. These relationships should be restricted to exceptional cases.

4.3. All Endorsement Agreements need to contain full details concerning benefits to ICRP and any obligations given by or expected of ICRP, including full details on the use of ICRP's name and logo. All such agreements must be limited in time.

4.4. In general, ICRP will not endorse products or brands owned by commercial organisations. In cases where ICRP chooses to do so, this decision must be based on clearly demonstrated advancement of the science of radiological protection for the public benefit.

## **5. LIMITATIONS**

In order to safeguard ICRP's integrity and status as an independent, nongovernmental, non-political, non-sectarian registered charity, the following criteria apply:

5.1. Associations with donors and sponsors must generate positive impact for ICRP but not result in ICRP and its activities becoming dependent on any single donor or sponsor. Donor and sponsor maintenance and servicing must be appropriately proportional to the support received.

5.2. Each activity sponsored must be consistent with ICRP's mission and strategic plan.

5.3. The aims/products/services/events of donors and sponsors must not be incompatible with the mission and values of ICRP, and association with any organisation must not expose ICRP to general reputational risks.

5.4. Specifically, ICRP will not accept funds from organisations whose public positioning promotes behaviour contrary to the aims of ICRP or of radiological protection, or entities who are involved in illegal activities. In particular, support cannot be accepted from entities that are known to have activities that ICRP deems contrary to the advancement of radiological protection. This would include, for example, deliberately increasing the radioactivity of products such as food, beverages, cosmetics, toys, and personal jewellery or adornments. These exclusion criteria also apply to the activities of affiliates of an organisation.

5.5. Development of ICRP reports to be published in the Annals of the ICRP may not be sponsored, although it is possible to sponsor related meetings and events, or to sponsor the distribution or translation of these reports.

## **6. USE OF THE ICRP NAME AND LOGO**

6.1. ICRP shall retain the sole discretion as to the use of its name and logo. Any use granted should be specific as to the duration and/or purpose and must have the advance express written consent of ICRP.

## **7. DECISION MAKING AND MONITORING**

7.1. ICRP recognizes that this policy cannot cover all circumstances. Each decision has to be evaluated on a case by case basis, serving the best interests of ICRP and the public.

7.2. Final responsibility for engaging with sponsors, Sponsorship Agreements, and acceptance of donations ultimately rests with the Scientific Secretary acting under the authority of the Main Commission (the trustees). The Scientific Secretary will consult with the Chair as needed.

7.3. Each donation, sponsorship, and endorsement opportunity will be assessed and approved on a case-by-case basis. There needs to be a conscious decision for each substantive sponsor/donor relationship after considering the potential benefits and risks.

7.4. Sponsorship Agreements valued at GBP 100,000 or less may be approved by the Scientific Secretary or the Chair.

7.5. Endorsement Agreements valued at GBP 100,000 or less may be approved jointly by the Chair and the Scientific Secretary.

7.6. Sponsorship Agreements and Endorsement Agreements valued at more than GBP 100,000 are subject to approval of the Main Commission.

7.7. All Sponsorship Agreements and Endorsement Agreements shall be reported to the Main Commission.

7.8. Managing the implementation, financial aspects, and monitoring of Sponsorship Agreements and Endorsement Agreements, is the responsibility of the Scientific Secretary and staff.

## MEMBERSHIP

### Membership of the Main Commission and (Scientific) Secretaries of the International Commission on Radiological Protection, 1928 to Present

Table 1 shows all ICRP and IXRPC Chairs and Secretaries to date. All Chairs have served complete terms. Secretaries have sometimes changed mid-term; for clarity, starting and ending years are shown post-1950.

Table 2 shows all emeritus members to date. The idea of emeritus membership emerged in the mid-1950s to keep past Chairmen and Vice-Chairmen engaged.

Table 1. Chairs and Secretaries of the International X-ray and Radium Protection Committee and the International Commission on Radiological Protection.

Term	Chairmen/Chairs	(Scientific) Secretaries
1928	Rolf M. Sievert	George W.C. Kaye and Stanley Melville
1934	René Ledoux-Lebard	George W.C. Kaye
1937	George W.C. Kaye	<i>None specified</i>
1950–1953 1953–1956	Sir Ernest Rock Carling	Walter Binks (1950–1957)
1956–1959	Rolf M. Sievert	Bo Lindell (1957–1962)
1959–1962		
1962–1965	Sir Edward Eric Pochin	
1965–1969		
1969–1973	C. Gordon Stewart	F. David Sowby (1962–1985)
1973–1977		
1977–1981	Bo Lindell	
1981–1985		
1985–1989	Dan J. Beninson	Michael C. Thorne (1985–1986)
1989–1993		Hylton Smith (1987–1997)
1993–1997		
1997–2001	Roger H. Clarke	
2001–2005		Jack Valentin (1997–2008)
2005–2009	Lars-Erik Holm	
2009–2013		Christopher H. Clement (from 2008)
2013–2017	Claire Cousins	
2017–present		

Appointments were specifically for Chairman and Vice-Chairman Emeritus, and had to be renewed every 4 years. Later, the idea would be applied to any ex-Main Commission members; all such appointments were as Member Emeritus and were for life. As it turns out, Rolf Sievert, the last of the Chairmen Emeritus, was the only individual whose emeritus membership ended before his passing.

In more recent years, it became possible to appoint emeritus members of committees. Although the membership lists here are primarily aimed at the Main Commission and Secretaries, Committee Members Emeritus are also shown in Table 2 in recognition of the honorary nature of these appointments.

Table 2. Emeritus members of the International Commission on Radiological Protection.

Main Commission	
Sir Ernest Rock Carling, Chairman Emeritus (UK)	1956–1960
Gioacchino Failla, Vice-Chairman Emeritus (USA)	1959–1961
Rolf M. Sievert, Chairman Emeritus (Sweden)	1962–1965
Lauriston S. Taylor, Member Emeritus (USA)	1969–2004
Shinji Takahashi, Member Emeritus (Japan)	1982–1985
Bo Lindell, Member Emeritus (Sweden)	1985–2016
Karl Z. Morgan, Member Emeritus (USA)	1974–1999
Sir Edward Eric Pochin, Member Emeritus (UK)	1978–1990
H. John Dunster, Member Emeritus (UK)	1997–2006
Warren K. Sinclair, Member Emeritus (USA)	1997–2014
Dan J. Beninson, Member Emeritus (Argentina)	2001–2003
Charles B. Meinhold, Member Emeritus (USA)	2002–2017
Roger H. Clarke, Member Emeritus (UK)	2005–
Fred A. Mettler Jr., Member Emeritus (USA)	2006–
Christian Streffer, Member Emeritus (Germany)	2009–
R. Jan Pentreath, Member Emeritus (UK)	2014–
R. Julian Preston, Member Emeritus (USA)	2017–
Eliseo Vañó, Member Emeritus (Spain)	2017–
Committees	
Keith Eckerman, Committee 2 Member Emeritus (USA)	2013–
Sören Mattson, Committee 3 Member Emeritus (Sweden)	2013–
Marvin Rosenstein, Committee 3 Member Emeritus (USA)	2013–

### **1928 International X-ray and Radium Protection Committee**

At the Second International Congress of Radiology, Stockholm

Rolf M. Sievert, Chairman (Sweden)  
George W.C. Kaye, Honorary Secretary (UK)  
Stanley Melville, Honorary Secretary (UK)  
Giulio Ceresole (Italy)  
Gustav Grossman (Germany)  
Iser Solomon (France)  
Lauriston S. Taylor (USA)

Portraits of these members are shown in Fig. 1, extracted from a Catalogue of Portraits published from the Second International Congress of Radiology.

#### *Sources*

ICR, 1929. A report of the Second International Congress of Radiology and the Proceedings of the Joint Scientific Meetings of the Congress. Acta Radiol., Suppl. III, I.  
Renander, 1929. Catalogue des portraits. Deuxième Congrès International de Radiologie, 23–27 Juillet 1928, Stockholm, Sweden. Acta Radiol., Suppl. V.

### **1934 International X-ray and Radium Protection Commission**

At the Fourth International Congress of Radiology, Zürich

René Ledoux-Lebard, Chairman (France)  
George W.C. Kaye, Honorary Secretary (UK)  
R. Bär (Switzerland)  
Hermann Behnken (Germany)  
Rolf M. Sievert (Sweden)  
Iser Solomon (France)  
F. Tank (Switzerland)  
Lauriston S. Taylor (USA)  
Enzo Pugno-Vanoni (Italy)

#### *Source*

IXRPC, 1934. International Recommendations for X-ray and Radium Protection. Revised by the International X-ray and Radium Protection Commission at the Fourth International Congress of Radiology, Zürich, July 1934. Br. J. Radiol., VII, New Series, No. 83.

### **1937 International X-ray and Radium Protection Commission**

At the Fifth International Congress of Radiology, Chicago

George W.C. Kaye, Chairman (UK)  
Hermann Behnken (Germany)  
Enzo Pugno-Vanoni (Italy)  
Iser Solomon (France)  
Lauriston S. Taylor (USA)

#### *Source*

IXRPC, 1938. International Recommendations for X-ray and Radium Protection. Revised by the International X-ray and Radium Protection Commission at the Fifth International Congress of Radiology, Chicago, September 1937. Br. Inst. Radiol. (leaflet), 1–6.

### **1950–1953 International Commission on Radiological Protection**

Sir Ernest Rock Carling, Chairman (UK)  
Walter Binks, Secretary (UK)  
Edouard Louis Chérigié (France)  
André Joseph Cipriani (Canada)  
Robert G. Jaeger (Germany)  
William V. Mayneord (UK)  
R.R. Newell (USA)  
Rolf M. Sievert (Sweden)  
R.S. Stone (USA), *started mid-term*  
Lauriston S. Taylor (USA)  
Maurice Tubiana (France), *started mid-term*

Jacob Christian Jacobsen participated as Honorary Chairman on the last day of ICRP meetings held 14–18 July 1953. Carling, also present, remained Chairman.

#### *Sources*

ICRP, 1951. International Recommendations on Radiological Protection. Revised by the International Commission on Radiological Protection at the Sixth International Congress of Radiology, London, 1950. Br. J. Radiol. 24, 46–53.



### **1953–1956 International Commission on Radiological Protection**

Sir Ernest Rock Carling, Chairman (UK)  
Walter Binks, Secretary (UK)  
André Joseph Cipriani (Canada)  
Gioacchino Failla (USA)  
Hermann G. Holthusen (Germany)  
Jacob Christian Jacobsen (Denmark)  
Robert G. Jaeger (Germany)  
William V. Mayneord (UK)  
Karl Z. Morgan (USA)  
Rolf M. Sievert (Sweden)  
R.S. Stone (USA)  
Lauriston S. Taylor (USA)  
Maurice Tubiana (France)

#### *Sources*

Minutes of ICRP meetings, Copenhagen, 18 July 1953.  
Minutes of ICRP meetings, Geneva, 7 April 1956.  
ICRP, 1959. Recommendations of the International Commission on Radiological Protection. Now known as ICRP Publication 1. Pergamon Press, London.

### **1956–1959 International Commission on Radiological Protection**

Rolf M. Sievert, Chairman (Sweden)  
Gioacchino Failla, Vice-Chairman (USA)  
Walter Binks, Secretary (UK), *resigned as Secretary 1957*  
Bo Lindell, Temporary Secretary (Sweden), *from 1 August 1957*  
Louis Bugnard (France)  
Hermann G. Holthusen (Germany)  
Jacob Christian Jacobsen (Denmark)  
Robert G. Jaeger (Germany)  
John F. Loutit (UK), *from 1958*  
William V. Mayneord (UK), *resigned 1958*  
Karl Z. Morgan (USA)  
R.S. Stone (USA)  
Lauriston S. Taylor (USA)  
Ernest A. Watkinson (Canada)

Sir Ernest Rock Carling, Chairman Emeritus (UK)

*Sources*

Minutes of joint ICRP/ICRU meetings, New York, 3–12 March 1958.

Minutes of ICRP meetings, Munich, 16–28 July 1958.

ICRP, 1960. Report on Decisions at the 1959 Meeting of the International Commission on Radiological Protection (ICRP). *Acta Radiol.* 53, 166170.

**1959–1962 International Commission on Radiological Protection**

Rolf M. Sievert, Chairman (Sweden)

Sir Edward Eric Pochin, Vice-Chairman (UK)

Bo Lindell, Secretary (Sweden)

Walter Binks (UK)

Louis Bugnard (France)

Hermann G. Holthusen (Germany)

Jacob Christian Jacobsen (Denmark)

Robert G. Jaeger (Germany)

John F. Loutit (UK)

Karl Z. Morgan (USA)

Hermann Joseph Muller (USA)

R.S. Stone (USA)

Lauriston S. Taylor (USA)

Ernest A. Watkinson (Canada)

Sir Ernest Rock Carling, Chairman Emeritus (UK), *deceased 1960*

Gioacchino Failla, Vice-Chairman Emeritus (USA), *deceased 1961*

*Sources*

Minutes of ICRP meetings, Stockholm, 8–18 May 1962.

Minutes of joint ICRP/ICRU meetings, Ottawa, 21–23 August 1962.

ICRP, 1964. Recommendations of the International Commission on Radiological Protection. ICRP Publication 6. Pergamon Press, London.

**1962–1965 International Commission on Radiological Protection**

Sir Edward Eric Pochin, Chairman (UK)

Louis Bugnard, Vice-Chairman (France)

F. David Sowby, Scientific Secretary (Canada)

Walter Binks (UK)

Otto Hug (Germany)

Henri Jammet (France)

Augustus Andreevich Letavet (USSR), *from January 1964*

Bo Lindell (Sweden)

John F. Loutit (UK)  
Karl Z. Morgan (USA)  
Hermann Joseph Muller (USA), *resigned February 1965*  
Rolf M. Sievert (Sweden), *resigned January 1964*  
C. Gordon Stewart (Canada)  
R.S. Stone (USA)  
Lauriston S. Taylor (USA)

Rolf M. Sievert, Chairman Emeritus (Sweden)

*Sources*

Minutes of joint ICRP/ICRU meetings, Paris, 8–9 May 1963.  
Minutes of ICRP meetings, London, 27–31 January 1964.  
Minutes of ICRP meetings, Stockholm, 20–30 April 1965.  
Minutes of ICRP meetings, Fiuiggi, 13–17 September 1965.  
ICRP, 1966. Recommendations of the International Commission on Radiological Protection. ICRP Publication 9. Pergamon Press, London.

**1965–1969 International Commission on Radiological Protection**

Sir Edward Eric Pochin, Chairman (UK)  
C. Gordon Stewart, Vice-Chairman (Canada)  
F. David Sowby, Scientific Secretary (Canada)  
Louis Bugnard (France)  
Otto Hug (Germany)  
Henri Jammet (France)  
Augustus Andreevich Letavet (USSR)  
Bo Lindell (Sweden)  
John F. Loutit (UK)  
Karl Z. Morgan (USA)  
Howard B. Newcombe (Canada)  
C.C. Powell (USA)  
Lauriston S. Taylor (USA)  
Sir Brian Wellingham Windeyer (UK)

*Sources*

Minutes of ICRP meetings, Fiuiggi, 13–17 September 1965.  
Minutes of ICRP meetings, Oxford, 11–18 April 1969.

**1969–1973 International Commission on Radiological Protection**

C. Gordon Stewart, Chairman (Canada)  
Bo Lindell, Vice-Chairman (Sweden)  
Dan J. Beninson (Argentina)  
Otto Hug (Germany)  
Henri Jammet (France)  
John F. Loutit (UK)  
Andrew S. McLean (UK)  
Karl Z. Morgan (USA)  
Russell H. Morgan (USA)  
Yuri Ivanovich Moskalev (USSR)  
Howard B. Newcombe (Canada)  
Sir Edward Eric Pochin (UK)  
Sir Brian Wellingham Windeyer (UK)  
F. David Sowby, Scientific Secretary (Canada)

Lauriston S. Taylor, Member Emeritus (USA), *from April 1969*

*Sources*

Minutes of ICRP meetings, Oxford, 11–18 April 1969.  
Minutes of ICRP meetings, London, 15–23 April 1971.  
Minutes of ICRP meetings, Brighton, 9–17 April 1973.

**1973–1977 International Commission on Radiological Protection**

C. Gordon Stewart, Chairman (Canada)  
Bo Lindell, Vice-Chairman (Sweden)  
Dan J. Beninson (Argentina)  
Henri Jammet (France)  
Julian Liniecki (Poland)  
Andrew S. McLean (UK)  
Yuri Ivanovich Moskalev (USSR)  
Howard B. Newcombe (Canada)  
Sir Edward Eric Pochin (UK)  
Shinji Takahashi (Japan)  
Arthur C. Upton (USA)  
Jack Vennart (UK)  
Sir Brian Wellingham Windeyer (UK)  
F. David Sowby, Scientific Secretary (Canada)

Karl Z. Morgan, Member Emeritus (USA), *from 1974*  
Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

Minutes of ICRP meetings, Brighton, 9–17 April 1973.

Minutes of ICRP meetings, Brighton, 2–6 May 1977.

ICRP, 1977. Recommendations of the International Commission on Radiological Protection. ICRP Publication 26. Ann. ICRP 1(1–3).

**1977–1981 International Commission on Radiological Protection**

Bo Lindell, Chairman (Sweden)

Dan J. Beninson, Vice-Chairman (Argentina)

H. John Dunster (UK)

Wolfgang Jacobi (Germany)

Henri Jammet (France)

Julian Liniecki (Poland)

Charles B. Meinhold (USA)

Alexey A. Moiseev (USSR)

K.A. Rowley (UK)

Warren K. Sinclair (USA)

Shinji Takahashi (Japan)

Arthur C. Upton (USA)

Jack Vennart (UK)

F. David Sowby, Scientific Secretary (Canada)

Karl Z. Morgan, Member Emeritus (USA)

Sir Edward Eric Pochin, Member Emeritus (UK), *from 1978*

Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

Minutes of ICRP meetings, Brighton, 2–6 May 1977.

Minutes of ICRP meetings, Tokyo, 2–7 March 1981.

**1981–1985 International Commission on Radiological Protection**

Bo Lindell, Chairman (Sweden)

Dan J. Beninson, Vice-Chairman (Argentina)

H. John Dunster (UK)

Wolfgang Jacobi (Germany)

Henri Jammet (France)

Julian Liniecki (Poland)

Takeo Maruyama (Japan)

Charles B. Meinhold (USA)

Alexey A. Moiseev (USSR)

Andrew K. Poznanski (USA)  
Warren K. Sinclair (USA)  
Jack Vennart (UK)  
G.H. Wu (China)  
F. David Sowby, Scientific Secretary (Canada)

Karl Z. Morgan, Member Emeritus (USA)  
Sir Edward Eric Pochin, Member Emeritus (UK)  
Shinji Takahashi, Member Emeritus (Japan), *from 1982, deceased April 1985*  
Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

Minutes of ICRP meetings, Tokyo, 2–7 March 1981.  
Minutes of ICRP meetings, Eastbourne, 30 November–9 December 1981.  
Minutes of ICRP meetings, Washington, 10–13 October 1983.  
Minutes of ICRP meetings, Stockholm, May 1984.  
Minutes of ICRP meetings, Paris, 25–29 March 1985.

**1985–1989 International Commission on Radiological Protection**

Dan J. Beninson, Chairman (Argentina)  
Henri Jammet, Vice-Chairman (France)  
Roger J. Berry (UK)  
H. John Dunster (UK)  
Wolfgang Jacobi (Germany)  
Deping Li (China)  
Julian Liniecki (Poland)  
Charles B. Meinhold (USA)  
Andrew K. Poznanski (USA)  
Pavel V. Ramzaev (USSR)  
Giovanni Silini (Italy)  
Warren K. Sinclair (USA)  
Eizo Tajima (Japan)  
Michael C. Thorne, Scientific Secretary (UK), *resigned 1986*  
Hylton Smith, Scientific Secretary (UK), *from 1987*

Bo Lindell, Member Emeritus (Sweden), *from 1985*  
Karl Z. Morgan, Member Emeritus (USA)  
Sir Edward Eric Pochin, Member Emeritus (UK)  
Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

- Minutes of ICRP meetings, Paris, 25–29 March 1985.  
Minutes of ICRP meetings, Eastbourne, 27 October–7 November 1985.  
Minutes of ICRP meetings, Vienna, 20–24 April 1986.  
Minutes of ICRP meetings, Washington, 2–6 March 1987.  
Minutes of ICRP meetings, Paris, 17–21 April 1989.  
ICRP, 1991. 1990 Recommendations of the International Commission on Radiological Protection. ICRP Publication 60. Ann. ICRP 21(1–3).

**1989–1993 International Commission on Radiological Protection**

- Dan J. Beninson, Chairman (Argentina)  
Henri Jammet, Vice-Chairman (France)  
Roger H. Clarke (UK)  
H. John Dunster (UK)  
Angelina K. Guskova (USSR/Russian Federation)  
Wolfgang Jacobi (Germany)  
Deping Li (China)  
Julian Liniecki (Poland)  
Charles B. Meinhold (USA)  
Fred A. Mettler Jr. (USA)  
Itsuzo Shigematsu (Japan)  
Giovanni Silini (Italy)  
Warren K. Sinclair (USA)  
Hylton Smith, Scientific Secretary

- Bo Lindell, Member Emeritus (Sweden)  
Karl Z. Morgan, Member Emeritus (USA)  
Sir Edward Eric Pochin, Member Emeritus (UK), *deceased 29 January 1990*  
Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

- Minutes of ICRP meetings, Paris, 17–21 April 1989.  
Minutes of ICRP meetings, Bethesda, 13–15 April 1993.  
ICRP, 1991. Recommendations of the International Commission on Radiological Protection. ICRP Publication 60. Ann. ICRP 21(1–3).

**1993–1997 International Commission on Radiological Protection**

Roger H. Clarke, Chairman (UK)  
Charles B. Meinhold, Vice-Chairman (USA)  
Dan J. Beninson (Argentina)  
H. John Dunster (UK)  
Leonid A. Ilyin (Russian Federation)  
Wolfgang Jacobi (Germany)  
Henri P. Jammet (France), *deceased September 1996*  
A. Kaul (Germany)  
Deping Li (China)  
Julian Liniecki (Poland)  
Hiromichi Matsudaira (Japan)  
Fred A. Mettler Jr. (USA)  
Jean-Claude Nénot (France), *from November 1996*  
Warren K. Sinclair (USA)  
Hylton Smith, Scientific Secretary (UK)

Bo Lindell, Member Emeritus (Sweden)  
Karl Z. Morgan, Member Emeritus (USA)  
Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

Minutes of ICRP meetings, Chilton, 27–29 September 1993.  
Minutes of ICRP meetings, Paris, 4–8 November 1996.

**1997–2001 International Commission on Radiological Protection**

Roger H. Clarke, Chairman (UK)  
Charles B. Meinhold, Vice-Chairman (USA)  
Dan J. Beninson (Argentina)  
John D. Boice Jr. (USA)  
Roger Cox (UK)  
Lars-Erik Holm (Sweden)  
Leonid A. Ilyin (Russian Federation)  
A. Kaul (Germany)  
Hiromichi Matsudaira (Japan)  
Fred A. Mettler Jr. (USA)  
Jean-Claude Nénot (France)  
Ziqiang Pan (China)  
Bert C. Winkler (South Africa)  
Jack Valentin, Scientific Secretary (Sweden)



H. John Dunster, Member Emeritus (UK), *from 1997*  
Bo Lindell, Member Emeritus (Sweden)  
Karl Z. Morgan, Member Emeritus (USA), *deceased 8 June 1999*  
Warren K. Sinclair, Member Emeritus (USA), *from 1997*  
Lauriston S. Taylor, Member Emeritus (USA)

*Sources*

Minutes of ICRP meetings, Paris, 4–8 November 1996.  
Minutes of ICRP meetings, Bethesda, 3–8 October 2000.

**2001–2005 International Commission on Radiological Protection**

Roger H. Clarke, Chairman (UK)  
Lars-Erik Holm, Vice-Chairman (Sweden)  
Rudolph M. Alexakhin (Russian Federation)  
John D. Boice Jr. (USA)  
Roger Cox (UK)  
Greta J. Dicus (USA)  
Abel J. González (Argentina)  
Fred A. Mettler Jr. (USA)  
Ziqang Pan (China)  
R. Jan Pentreath (UK), *from November 2003*  
Yasuhito Sasaki (Japan)  
Christian Streffer (Germany)  
Annie Sugier (France)  
Bert C. Winkler (South Africa), *deceased March 2003*  
Jack Valentin, Scientific Secretary (Sweden)

Dan J. Beninson, Member Emeritus (Argentina), *from 2001, deceased 2003*  
H. John Dunster, Member Emeritus (UK)  
Bo Lindell, Member Emeritus (Sweden)  
Charles B. Meinhold, Member Emeritus (USA), *from 2002*  
Warren K. Sinclair, Member Emeritus (USA)  
Lauriston S. Taylor, Member Emeritus (USA), *deceased 26 November 2004*

*Sources*

Minutes of ICRP meetings, Den Haag, 7–8 September 2001.  
Minutes of ICRP meetings, Chilton, 23–25 June 2003.  
Minutes of ICRP meetings, Buenos Aires and Bariloche, 6–9 November 2003.  
Minutes of ICRP meetings, Paris, 14–18 March 2005.

### **2005–2009 International Commission on Radiological Protection**

Lars-Erik Holm, Chairman (Sweden)  
Roger Cox, Vice-Chairman (UK)  
John D. Boice Jr. (USA)  
Claire Cousins (UK), *from March 2006*  
Abel J. González (Argentina)  
Jaiki Lee (Korea)  
Fred A. Mettler Jr. (USA), *to 2005*  
Ziqang Pan (China)  
R. Jan Pentreath (UK)  
R. Julian Preston (USA)  
Yasuhito Sasaki (Japan)  
Natalia Shandala (Russian Federation)  
Christian Streffer (Germany)  
Annie Sugier (France)  
Jack Valentin, Scientific Secretary (Sweden), *to 31 December 2008*  
Christopher H. Clement, Scientific Secretary (Canada), *from 1 January 2009*

Roger H. Clarke, Member Emeritus (UK), *from 2005*  
H. John Dunster, Member Emeritus (UK), *deceased 23 April 2006*  
Bo Lindell, Member Emeritus (Sweden)  
Charles B. Meinhold, Member Emeritus (USA)  
Fred A. Mettler Jr., Member Emeritus (USA), *from March 2006*  
Warren K. Sinclair, Member Emeritus (USA)

#### *Sources*

Minutes of ICRP meetings, Geneva and Bern, 15–18 September 2005.  
Minutes of ICRP meetings, Madrid, 22–24 March 2006.  
Minutes of ICRP meetings, Buenos Aires, 24–26 October 2008.

### **2009–2013 International Commission on Radiological Protection**

Claire Cousins, Chair (UK)  
Abel J. González, Vice-Chair (Argentina)  
John D. Boice Jr. (USA)  
John R. Cooper (UK)  
Jaiki Lee (Korea)  
Jacques Lochard (France)  
Hans-Georg Menzel (Germany)  
William F. Morgan (USA), *from April 2013*  
Ohtsura Niwa (Japan)  
Ziqang Pan (China)

R. Jan Pentreath (UK)  
R. Julian Preston (USA), *resigned April 2013*  
Natalia Shandala (Russian Federation)  
Eliseo Vañó (Spain)  
Christopher H. Clement, Scientific Secretary (Canada)

Roger H. Clarke, Member Emeritus (UK)  
Bo Lindell, Member Emeritus (Sweden)  
Charles B. Meinhold, Member Emeritus (USA)  
Fred A. Mettler Jr., Member Emeritus (USA)  
Warren K. Sinclair, Member Emeritus (USA)  
Christian Streffer, Member Emeritus (Germany), *from 2009*

#### *Sources*

Minutes of ICRP meetings, Buenos Aires, 24–26 October 2008.  
Minutes of ICRP meetings, Porto, 11–15 November 2009.  
Minutes of ICRP meetings, Fukushima, 29 October–2 November 2012  
Minutes of ICRP meetings, Cambridge, 15–18 April 2013.  
Private communication Valentin to Streffer, 22 March 2009. ICRP ref 00/435/08.

#### **2013–2017 International Commission on Radiological Protection**

Claire Cousins, Chair (UK)  
Jacques Lochard, Vice-Chair (France)  
John D. Boice Jr. (USA)  
Donald A. Cool (USA), *from October 2013*  
Abel J. González (Argentina), *resigned July 2013*  
John D. Harrison (UK)  
Carl-Magnus Larsson (Australia)  
Jaiki Lee (Korea)  
Hua Liu (China)  
Hans-Georg Menzel (Germany)  
William F. Morgan (USA), *deceased November 2015*  
Ohtsura Niwa (Japan)  
Sergey Romanov (Russian Federation)  
Werner Rühm (Germany), *from January 2016*  
Eliseo Vañó (Spain)  
Christopher H. Clement, Scientific Secretary (Canada)

Roger H. Clarke, Member Emeritus (UK)  
Bo Lindell, Member Emeritus (Sweden), *deceased 10 November 2016*  
Charles B. Meinhold, Member Emeritus (USA)  
Fred A. Mettler Jr., Member Emeritus (USA)

R. Jan Pentreath, Member Emeritus (UK), *from 2014*  
Warren K. Sinclair, Member Emeritus (USA), *deceased 14 May 2014*  
Christian Streffer, Member Emeritus (Germany)

*Sources*

Minutes of ICRP meetings, Cambridge, 15–18 April 2013.  
Minutes of ICRP meetings, Abu Dhabi, 18–20 October 2013.  
Minutes of ICRP meetings, Lima, 8–12 May 2017.

**2017–2021 International Commission on Radiological Protection**

As of 27 July 2018

Claire Cousins, Chair (UK)  
Jacques Lochard, Vice-Chair (France)  
Kimberly E. Applegate (USA), *from October 2017*  
Simon Bouffler (UK)  
Kunwoo Cho (Korea)  
Donald A. Cool (USA)  
John D. Harrison (UK)  
Michiaki Kai (Japan)  
Carl-Magnus Larsson (Australia)  
Dominique Laurier (France)  
Senlin Liu (China)  
Donald Miller (USA), *resigned July 2017*  
Sergey Romanov (Russian Federation)  
Werner Rühm (Germany)  
Christopher H. Clement, Scientific Secretary (Canada)

Roger H. Clarke, Member Emeritus (UK)  
Charles B. Meinhold, Member Emeritus (USA), *deceased 3 November 2017*  
Fred A. Mettler Jr., Member Emeritus (USA)  
R. Jan Pentreath, Member Emeritus (UK)  
R. Julian Preston, Member Emeritus (USA), *from 2017*  
Christian Streffer, Member Emeritus (Germany)  
Eliseo Vañó, Member Emeritus (Spain), *from 2017*

Fig. 2 is a photograph of the Main Commission members and others participating in the Main Commission meeting in Québec City, Canada, 26–29 April 2018.

*Sources*

Minutes of ICRP meetings, Lima, 8–12 May 2017.  
Minutes of ICRP meetings, Marne-la-Valée, 6–8 October 2017.



13. SIEVERT, Rolf.

Docteur ès sciences. Chef du Laboratoire de physique de l'Institut radiothérapique "Radiumhemmet", Stockholm.

Né en 1896.

*Stockholm, Sverige.*



30. KAYE, G. W. C.

M. D., D. Sc. Superintendent of physics, the National Physical Laboratory, Teddington, Middlesex.

*Delegate to the International Radiological Committee.*

Born 1880.

*Teddington, Middlesex, England.*



197. MELVILLE, Stanley.

M. D. Hospital for Diseases of the Chest, Brompton. St. Georges Hospital, London. Secretary-General of the 1st International Congress of Radiology, London 1925.

Born 1869.

*London, England.*

Fig. 1. Portraits of the first members of the International X-ray and Radium Protection Committee (Ceresole's portrait did not appear in this catalogue).



84. GROSSMANN, Gustav.

Direktor der Siemens-Reiniger-Veifa G. m. b. H.  
und Direktor im Wernerwerk der Siemens &  
Halske A.-G., Berlin.

Geb. 1878.

*Berlin, Deutschland.*



161. SOLOMON, Iser.

Docteur en médecine. Radiologiste de l'Hôpital  
Saint-Antoine, Paris.

*Délégué au Comité International de Radio-  
logie.*

Né en 1880.

*Paris, France.*



525. TAYLOR, Lauriston Sale.

Assistant Physicist in X-Rays, U. S. Bureau of  
Standards, Washington.

Born 1902.

*Washington, Columbia, U. S. A.*

Fig. 1. Continued.



Fig. 2. The ICRP Main Commission in Québec City, Canada, April 2018. Left to right: T. Higuchi (Historian), D. Cool, S. Bouffler, J. Lochar, C-M. Larsson, C. Cousins, D. Laurier, K. Applegate, M. Kai, K. Cho, J. Harrison, W. Rühm and C. Clement. Absent: S. Liu and S. Romanov.

## Membership of the ICRP Scientific Secretariat, Committees, and Task Groups as of 27 July 2018

This membership list is taken directly from current ICRP records and double-checked for accuracy by consulting the Committee and Task Group Chairs. Thanks to Assistant Scientific Secretary Chunsheng Li for managing this effort.

### Scientific Secretariat

Christopher H. Clement, Scientific Secretary (Canada)  
 Lynn Lemaire, Executive Administrator (Canada)  
 Kelsey Cloutier, Development and Communications Manager (Canada)  
 Hiroki Fujita, Assistant Scientific Secretary (Japan)  
 Chunsheng Li, Assistant Scientific Secretary (Canada)  
 Toshihiro Higuchi, Historian (USA)  
 Sunny Siu, Intern (Canada)

### Committee 1: Radiation Effects

Werner Rühm, Chair (Germany)	Preetha Rajaraman (India)
Andrzej Wojcik, Vice-Chair (Sweden)	Kazuo Sakai (Japan)
Jacqueline Garnier-Laplace, Secretary (France)	Sisko Salomaa (Finland)
Tamara Azizova (Russian Federation)	Mikhail Sokolnikov (Russian Federation)
Ranajit Chakraborty (USA)	Dan Stram (USA)
Wolfgang Dörr (Austria)	Quanfu Sun (China)
Michael Hauptmann (Netherlands)	Richard Wakeford (UK)
Kotaro Ozasa (Japan)	Gayle Woloschak (USA)

### Committee 2: Doses from Radiation Exposure

John D. Harrison, Chair (UK)	Rich Leggett (USA)
Francois Paquet, Vice-Chair (France)	Junli Li (China)
Wesley E. Bolch, Secretary (USA)	Maria Antonia Lopez (Spain)
Volodymyr Berkovskyy (Ukraine)	Nina Petoussi-Henss (Germany)
Eric Blanchardon (France)	Tatsuhiko Sato (Japan)
Augusto Giussani (Germany)	Tracy Smith (USA)
Derek Jokisch (USA)	Alexander Ulanowski (Austria)
Chan Hyeong Kim (Korea)	Frank Wissmann (Germany)

Keith Eckerman, Member Emeritus (USA)

### Committee 3: Protection in Medicine

Kimberly E. Applegate, Chair (USA)	Makoto Hosono (Japan)
Colin Martin, Vice-Chair (UK)	Keon Kang (Korea)



Madan M. Rehani, Secretary (USA)	Reinhard Loose (Germany)
Jamila Salem Alsuwaidi (UAE)	Josep M. Marti-Climent (Spain)
Lodewijk Van Bladel (Belgium)	Yantao Niu (China)
Michel Bourguignon (France)	Claudia E. Ruebe (Germany)
Marie-Claire Cantone (Italy)	William Small (USA)
Sandor Demeter (Canada)	David Sutton (UK)

Sören Mattson, Member Emeritus (Sweden)  
Marvin Rosenstein, Member Emeritus (USA)

#### **Committee 4: Application of the Commission's Recommendations**

Donald A. Cool, Chair (USA)	Gillian Hirth (Australia)
Kathryn A. Higley, Vice-Chair (USA)	Toshimitsu Homma (Japan)
Jean-Francois Lecomte, Secretary (France)	Catrin Koch (Sweden)
Nobuhiko Ban (Japan)	Yahong Mao (China)
Francois Bochud (Switzerland)	Nicole Martinez (USA)
Michael Boyd (USA)	Anne Nisbet (UK)
Analia Canoba (Argentina)	Thierry Schneider (France)
David Copplestone (UK)	Sergey Shinkarev (Russian Federation)
Eduardo Gallego (Spain)	John Takala (Canada)

For all Task Groups below, an asterisk (\*) indicates a Corresponding Member.

#### **Task Group 36: Radiopharmaceuticals**

(A Task Group of Committees 2 and 3)

Augusto Giussani, Chair (Germany)	Sigrid Leide-Svegborn (Sweden)
Soren Mattsson, Honorary Co-Chair (Sweden)	Dietmar Nosske (Germany)
Lennart Johansson, Secretary (Sweden)	Nina Petoussi-Henss* (Germany)
Martin Andersson (Sweden)	Juan Camilo Ocampo Ramos* (Columbia)
Wesley E. Bolch* (USA)	Katrine Åhlström Riklund* (Sweden)
Makoto Hosono* (Japan)	Lars Soüderberg* (Sweden)
Alexandra Kamp* (Germany)	Michael Stabin* (USA)
Keon Kang (Korea)	Marie Sydoff* (Sweden)

#### **Task Group 64: Cancer Risk from Alpha Emitters**

(A Task Group of Committee 1)

Margot Timarche, Chair (France)	Dominique Laurier (France)
Lulian Apostoaie (USA)	James W. Marsh (UK)
Eric Blanchardon (France)	Mikhail Sokolnikov (Russian Federation)

Betsy Ellis (USA)  
Ethel Gilbert\* (USA)  
John D. Harrison\* (UK)

Richard Wakeford (UK)  
Sergey Zhivin\* (France)

**Task Group 72: RBE and Reference Animals and Plants**

(A Task Group of Main Commission)

Kathryn A. Higley, Chair (USA)  
Douglas Chambers (Canada)  
Jolyon H. Hendry\* (UK)

David C. Kocher (USA)  
Francois Paquet (France)  
Almudena Real (Spain)

**Task Group 76: Application of the Commission's Recommendations to NORM (Naturally Occurring Radioactive Material)**

(A Task Group of Committee 4)

Jean-Francois Lecomte, Chair (France)  
Sylvain Andresz\*, Secretary (France)  
Philip Egidi (USA)  
Dejanira da Costa Lauria (Brazil)  
Astrid Liland (Norway)

Fudong Liu (China)  
Mika Markkanen (Finland)  
Stefan Mundigl\* (Luxembourg)  
H. Burçin Okyar\* (Austria)

**Task Group 79: The Use of Effective Dose as a Risk Related Radiological Protection Quantity**

(A Task Group of Committee 2)

John D. Harrison, Chair (UK)  
Mikhail Balonov (Russian Federation)  
Francois Bochud\* (Switzerland)  
Wesley E. Bolch\* (USA)  
John R. Cooper\* (UK)  
Pedro Ortiz Lopez (Austria)

Colin Martin (UK)  
Hans-Georg Menzel (Germany)  
Jane Simmonds (UK)  
Rebecca Smith-Bindman (USA)  
Christian Streffer\* (Germany)  
Richard Wakeford (UK)

**Task Group 89: Occupational Radiological Protection in Brachytherapy**

(A Task Group of Committee 3)

Lawrence T. Dauer, Chair (USA)  
William Small, Co-Chair (USA)  
Jean-Marc Cosset (France)  
Antonio Damato (USA)  
Mark Doruff\* (USA)

Ferran Guedea\* (Spain)  
Catrin Koch\* (Sweden)  
Luis V. Pinillos-Ashton (Peru)  
Pierre Scalliet\* (Belgium)  
Bruce Thomadsen (USA)

**Task Group 90: Age-dependent Dose Conversion Coefficients for External Exposure to Environmental Sources**

(A Task Group of Committee 2)

Nina Petoussi-Henss, Chair (Germany)	Jan T.M. Jansen* (UK)
Michael Bellamy* (USA)	Choonsik Lee* (USA)
Wesley E. Bolch (USA)	Kimiaki Saito* (Japan)
Keith Eckerman (USA)	Daiki Satoh* (Japan)
Akira Endo (Japan)	Helmut Schlattl (Germany)
Nolan E. Hertel* (USA)	Yeon Soo Yeom* (USA)
John G.S. Hunt* (Brazil)	Song Jae Yoo* (Korea)

**Task Group 91: Radiation Risk Inference at Low-dose and Low-dose Rate Exposure for Radiological Protection Purposes**

(A Task Group of Committee 1)

Werner Rühm, Chair (Germany)	Kotaro Ozasa* (Japan)
Tamara Azizova (Russian Federation)	Kazuo Sakai* (Japan)
Simon Bouffler (UK)	Roy E. Shore (USA)
Bernd Grosche* (Germany)	Quanfu Sun* (China)
Michiaki Kai* (Japan)	Linda Walsh (Switzerland)
Mark P. Little (USA)	Gayle Woloschak (USA)

**Task Group 93: Update of ICRP *Publications 109 and 111***

(A Task Group of Committee 4)

Michiaki Kai, Chair (Japan)	Marcel Lips* (Switzerland)
Toshimitsu Homma, Vice-Chair (Japan)	Anne Nisbet (UK)
Ralph Andersen* (USA)	Miroslav Pinak* (Austria)
Viktor Averin (Belarus)	Thierry Schneider (France)
Edward Lazo* (France)	Sergey Shinkarev (Russian Federation)

**Task Group 95: Internal Dose Coefficients**

(A Task Group of Committee 2)

Francois Paquet, Chair (France)	Augusto Giussani* (Germany)
Michael R. Bailey (UK)	Demetrio Gregoratto* (UK)
Volodymyr Berkovskyy (Ukraine)	Rich Leggett (USA)
Luiz Bertelli* (USA)	James W. Marsh* (UK)
Eric Blanchardon (France)	Dunstana Melo* (USA)
Estelle Davesne* (France)	Dietmar Nosske* (Germany)
George Etherington* (UK)	Genadij Raita* (Ukraine)
Tim Fell (UK)	Tracy Smith (UK)

**Task Group 96: Computational Phantoms and Radiation Transport**

(A Task Group of Committee 2)

Wesley E. Bolch, Chair (USA)	Junli Li* (China)
Keith Eckerman* (USA)	Nina Petoussi-Henss (Germany)
John G.S. Hunt (Brazil)	Tatsuhiko Sato (Japan)
Derek Jokisch (USA)	Helmut Schlattl* (Germany)
Chan Hyeong Kim (Korea)	Yeon Soo Yeom* (USA)
Kwang Pyo Kim* (Korea)	Maria Zankl (Germany)
Choonsik Lee (USA)	

**Task Group 97: Application of the Commission's Recommendations for Surface and Near Surface Disposal of Solid Radioactive Waste**

(A Task Group of Committee 4)

John Takala, Chair (Canada)	Phil Metcalf* (South Africa)
Francois Besnus (France)	Jean-Paul Minon (Belgium)
Takeshi Iimoto* (Japan)	Andrew Orrell* (Austria)
Gloria Kwong* (France)	Thiagan Pather (South Africa)
Carl-Magnus Larsson* (Australia)	Behnam Taebi (USA)
Christopher McKenney (USA)	

**Task Group 98: Application of the Commission's Recommendations to Exposures Resulting from Contaminated Sites from Past Industrial, Military, and Nuclear Activities**

(A Task Group of Committee 4)

Michael Boyd, Chair (USA)	Sergey Shinkarev (Russian Federation)
Analia Canoba (Argentina)	Graham Smith* (UK)
Dale Huffman* (Canada)	Malgorzata Sneve (Norway)
Edward Lazo* (France)	Ludovic Vaillant (France)
Stephen Long* (Australia)	Tamara Yankovich* (Austria)
Arthur Rood (USA)	Hiroshi Yasuda* (Japan)

**Task Group 99: Reference Animals and Plants (RAPs) Monographs**

(A Task Group of Committees 1 and 4)

Jacqueline Garnier-Laplace, Chair (France)	Kathryn A. Higley (USA)
Frederic Alonzo* (France)	Carl-Magnus Larsson (Australia)
Karine Beaugelin-Seiller* (France)	Almudena Real (Spain)
Nick Beresford* (UK)	Per Strand (Norway)
Justin Brown* (Norway)	Claire Della Vedova* (France)
Jordi Vives I Batlle (Belgium)	Tamara Yankovich* (Austria)

**Task Group 101: Radiological Protection in Therapy with Radiopharmaceuticals**

(A Task Group of Committee 3)

Yoshiharu Yonekura, Chair (Japan)	Darrell R. Fisher* (USA)
Sören Mattsson, Honorary Co-Chair (Sweden)	Glenn Flux (UK)
Wesley E. Bolch (USA)	Makoto Hosono* (Japan)
Lawrence T. Dauer (USA)	Michael Lassmann* (Germany)
Chaitanya Divgi* (USA)	Stig Palm* (Sweden)
Mark Doruff* (USA)	Pat Zanzonico* (USA)

**Task Group 102: Detriment Calculation Methodology**

(A Task Group of Committee 1)

Nobuhiko Ban, Chair (Japan)	Nobuyuki Hamada* (Japan)
Tamara Azizova* (Russian Federation)	John D. Harrison* (UK)
Simon Bouffler* (UK)	Dominique Laurier (France)
Enora Cléro* (France)	Dale Preston* (USA)
Donald A. Cool* (USA)	Ludovic Vaillant (France)
Wolfgang Dörr (Austria)	Wei Zhang (UK)

**Task Group 103: Mesh-type Reference Computational Phantoms (MRCP)**

(A Task Group of Committee 2)

Chan Hyeong Kim, Chair (Korea)	Choonsik Lee (USA)
Wesley E. Bolch (USA)	Nina Petoussi-Henss (Germany)
Chansoo Choi* (Korea)	Rui Qiu* (China)
Beom Sun Chung* (Korea)	Nguyen Tat Thang* (Vietnam)
Keith Eckerman* (USA)	Yeon Soo Yeom (USA)
Min Cheol Han* (Korea)	Maria Zankl (Germany)
Han Sung Kim* (Korea)	

**Task Group 104: Integration of Protection of People and of the Environment in the System of Radiological Protection**

(A Task Group of the Main Commission)

Carl-Magnus Larsson, Chair (Australia)	John D. Harrison (UK)
Kimberly E. Applegate (USA)	Kathryn A. Higley (USA)
Donald A. Cool (USA)	Werner Rühm (Germany)

**Task Group 105: Considering the Environment when Applying the System of Radiological Protection**

(A Task Group of Committee 4)

David Copplesstone, Chair (UK)	Anne Nisbet* (UK)
Gillian Hirth* (Australia)	Kazuo Sakai* (Japan)
Mathew Johansen (Australia)	John Takala (Canada)
Edward Lazo* (France)	Tamara Yankovich* (Austria)

**Task Group 106: Application of the Commission's Recommendations to Activities involving Mobile High Activity Sources**

(A Task Group of Committee 4)

Donald A. Cool, Chair (USA)	Willie Harris (USA)
Maria Teresa Alonso (Argentina)	Vasilik Kamenopoulou* (Austria)
Scott Cargill* (USA)	Bernard Le Guen* (France)
Edouard Carreau (France)	Richard Van Sonsbeek* (Austria)
Roger Coates* (UK)	Fernand Vermeersch* (Belgium)
Cindy Flannery (USA)	

**Task Group 107: Advice on Radiological Protection of Patient in Veterinary Medicine**

(A Task Group of the Main Commission)

R. Jan Pentreath, Chair (UK)	Masahiro Natsuhori (Japan)
Kimberly E. Applegate (USA)	Kathelijne Peremans (Belgium)
Kathryn A. Higley (USA)	Elissa Randall (USA)

**Task Group 108: Optimisation of Radiological Protection in Digital Radiography, Fluoroscopy, and CT in Medical Imaging**

(A Task Group of Committee 3)

Colin Martin, Chair (UK)	Mika Kortensniemi (Finland)
Kimberly E. Applegate (USA)	Dean Pekarovic* (Slovenia)
John Damilakis* (Greece)	Maria del Rosario Perez* (Switzerland)
Dina Hussein* (Egypt)	David Sutton (UK)
Helen Khoury* (Brazil)	Jenia Vassileva* (Austria)

**Task Group 109: Ethics in Radiological Protection for Medical Diagnosis and Treatment**

(A Task Group of Committees 3 and 4)

Francois Bochud, Co-Chair (Switzerland)	Bernard Le Guen* (France) Jim Malone* (Ireland)
--	--

Marie-Claire Cantone, Co-Chair (Italy) Margaret Murphy\* (Ireland)  
John Damilakis\* (Greece) Maria del Rosario Perez\* (Switzerland)  
Frederic Fahey (USA) Friedo Zölzer (Czech Republic)  
Chieko Kurihara-Saio (Japan)  
Alberto Lachos-Davilla (Peru)

**Task Group 110: Radiological Protection for Occupational and Public Exposure in Veterinary Practice**

(A Task Group of Committees 3 and 4)

Lodewijk Van Bladel, Co-Chair Kathelijne Peremans\* (Belgium)  
(Belgium) Catherine Roy (France)  
Nicole Martinez, Co-Chair (USA) Aste Sovik (Norway)  
Lajos Balogh\* (Hungary)  
Sarah Dorling (UK)

CHRISTOPHER H. CLEMENT  
ICRP SCIENTIFIC SECRETARY