

2007 July

CNS COUNCIL GUIDELINES

This document is intended to provide a summary of how the Council of the Canadian Nuclear Society is organized and operates. The document provides:

1. Background information about the Society in general
2. Background information on the makeup and operation of Council
3. What is expected of Council members
4. Roles and responsibilities of CNS Committees and Divisions

APPENDICES

- I Honours & Awards
- II List of Societies with Co-operation agreements with CNS
- III List of INSC Members
- IV. The CNS Bulletin
- V The Position of Executive Administrator and Financial Administrator

Attachments:

1. Current list & contact information of Council members and chairs of Divisions, Committees & Branches
2. Copy of bylaws
3. Policies
4. CNS file numbers

1. Background information about the Society

1.1 About the CNS

The Canadian Nuclear Society (CNS) promotes the exchange of information on all aspects of nuclear science and technology. This includes uranium mining and refining, fuel production, nuclear-power generation, medical and industrial uses of radionuclides, management of radioactive wastes, and associated activities in research and development.

The primary category of CNS membership is the individual directly involved with nuclear technology in any of the above areas, or one simply interested in nuclear topics.

Another category of CNS membership is the educational institution library such as a school, university or public library with an interest in providing timely information on nuclear science and technology to a student or public body. This membership has all the privileges of individual membership except voting rights.

The CNS was established in 1979 as the technical society of the Canadian Nuclear Association. Over the years it has grown in size and financial strength. Recognizing the benefits of being a separate legal entity from the CNA, the CNS applied for incorporation, and in 1998 June became a separate incorporated not-for-profit corporation. CNS membership currently stands at over 1100.

1.2 Objectives of the CNS

1. Act as a forum for the exchange of information relating to nuclear science and technology;
2. Foster the development and beneficial utilization of nuclear science and technology for peaceful uses;
3. Encourage education in, and knowledge about, nuclear science and technology;
4. Enhance the professional and technical capabilities of those involved in nuclear science and technology in the Canadian context.

The CNS would also like to be seen as a responsible voice in the public forum on issues related to nuclear science and technology, and energy-related issues in general.

1.3 The Structure of the CNS

The CNS conducts its affairs through a Council, which is its Board of Directors. Council members are elected by the membership. The Council is responsible to the membership in the development of policies and programs. The CNS is organized into Branches and Technical Divisions, both directed towards involvement of the individual member. Branches are established on a geographical basis and hold local meetings and topical seminars on issues of interest. Technical Divisions are established on a discipline basis and handle specific technical areas of interest; they organize conferences and arrange for Canadian participation in the world-wide nuclear-related technical information forum.

1.4 Advantages of Membership

CNS Membership Certificate with Yearly Sticker, Membership Pin, and Membership Card

Bulletin of the Canadian Nuclear Society

The Bulletin is published quarterly and includes technical articles, reports, commentary on energy and general science-policy issues, review articles and book reviews.

CNS Website

The Canadian Nuclear Society Website (<http://www.cns-snc.ca>) contains general information about the Society, Society news updates, conference listings, Branch events, summaries from recent conferences, and members' resumes (on request).

Conferences and Courses

The CNS organizes international conferences, symposia, seminars and workshops on a wide variety of nuclear-related topics.

General Information

The CNS provides to its members information on topical matters and developments in nuclear technology.

E-mails to CNS members

Regular e-mailings to members: Nuclear Canada (English or French version), news about Conferences, courses, Branch seminars.

Branch Activities

These activities encourage involvement in a forum for technology exchange, as well as in social events.

2. Background information on Council Makeup

2.1 Council members

The **voting** members' Council consists of a number of elected members and one ex-officio member:

- Elected members:
 - Executive
 - President (*)
 - 1st Vice President (President Elect)
 - 2nd Vice President
 - Secretary
 - Treasurer
 - Past President (*)
 - Members at large (6 to 19)
- Ex-officio member:
 - Current President of the Canadian Nuclear Association

The elected positions have a mandate of one year, from one Annual General Meeting to the next. The Positions of President and Past President are not subject to election as they are automatic rollovers from the position of 1st Vice President and President respectively.

The **non-voting** ex-officio members of Council consist of the Branch and Division Chairs, and any other Committee Chairs who are not elected members of Council.

In addition, a number of positions are assigned to members with special duties, reporting to Council. Two of these positions have been created in 2004: financial administrator and executive administrator. The description of these positions is given in appendix V.

2.2 Council Meetings

- Each year, the new Council is voted in at the Annual General Meeting (AGM). This normally takes place in June, usually in conjunction with the Annual Conference.
- The Council normally meets about 9 times a year.
- The dates for upcoming Council meetings and an action list for the coming year are normally presented at the first meeting of the new Council.
- An Officers' Seminar is normally held each year to provide an orientation to new Council members and to receive feedback from representatives of Branch Executives.

2.2 Sample Council agenda

- Opening remarks / President's report (President)
- Review minutes of previous Council meeting (Recording Secretary)
- Review of actions from past Council meetings “
- Review of Council Action list
- Treasurer's Report (Treasurer)
- Division Reports (Division chairs)*
- Committee Reports (Committee Chairs)**
- CNA activity update
- Any other business

* May be presented by Program Committee Chairman if Division chair(s) not present

** See section 3.1 for list of Committees.

2.3 What is expected of Council members

- Devote the necessary amount of time in discharging the duties of the position
- Attend most (if not all) of the Council meetings
- Ensure their own membership is in good standing
- Provide necessary reports to Council or Committee Chairman (refer to 2.2)
- E-mail reports for Council meetings about one week in advance of meeting
- Division, Branch and Committee chairs are to keep a binder which outlines the details of their job function. At the turnover from one Council to the next, the binders are to be passed on to the incoming chair along with copies of useful electronic files
- President, Past President, Secretary and Treasurer should also maintain a list of their specific detailed activities and copies of electronic files. These are to be passed on to the incoming person upon turnover of Council
- Include appropriate CNS file number on correspondence so that copies of important correspondence are maintained in a central registry
- Division, Branch & Committee chairs to provide budget requests to Treasurer at budget time in the Fall
- Division, Branch & Committee chairs to provide a summary report of yearly activities in advance of the AGM.

3. Background Information on Committees and Divisions

3.1 Committee List

- Finance
- Program
- Branch Affairs
- Membership
- Internet
- Education & Communication
- Universities
- Bulletin
- Honours and Awards
- International Liaison
- Intersociety relations
- Past Presidents
- Annual Conference
- Fusion
- Young Generation in Nuclear

3.2 Division List

- Nuclear Science & Engineering
- Fuel Technologies
- Design & Materials
- Nuclear Operations and Maintenance
- Environment and Waste Management

3.3 Finance Committee

Treasurer

Act as one of the CNS signing authorities for cheques.

Provide guidance to the CNS Accountant and review monthly financial statements prepared by the accountant. Monthly reports shall include the Income and Expense Statement, Balance Sheet, and Education Fund Statement.

Submit monthly reports to Council and highlight any significant developments. Prepare and submit other financial summaries, as appropriate.

Prepare annual CNS budget, utilizing input from Committee Chairs, and submit budget to Council for approval. Monitor expenditures against budget and advise Council of any unexpected developments

Review financial statements prepared by Conference Treasurers.

Prepare appropriate financial procedures and guidelines for approval by Council.

Monitor the investment of CNS financial assets, and propose any adjustments to Council.

Ensure annual auditing of the CNS accounts by an external Auditor.

Implement any finance-related directives from the Executive Committee or Council.

3.4 Program Committee

Objectives

Coordinate and support the activities of the Divisions to initiate and organize conferences, seminars and courses that will assist the technical development of CNS members and further the aims of Canadian nuclear science and technology.

Additional Benefits

Provide funds from surplus to offset the operating costs of the CNS. Note: this is a major source of CNS revenue.

Target

Each Division to hold on average a major conference every two years, and a minor event (workshop, course, symposium) every year.

Program Committee Members (7)

Chair

President

Division Chairs (5)

Principal Activities

- Maintain the rolling program of events
- Review budget requests for Class-A & Class-B conferences (see below) and provide recommendations to Council
- Review requests for Class-C co-sponsorship and provide recommendations to Council
- Provide input on proposed conference dates based on review of Rolling Program
- Produce the annual Calendar of Events.

CNS Sponsorship - 3 event categories

- Class-A (CNS takes all financial risk)
- Class-B (CNS shares risk with another organization)
- Class-C (CNS offers to publicize the conference in its publications and provide assistance, but takes no financial responsibility).

Protocol

Request is submitted to the Program Committee for review, after which it is submitted to Council. Request should contain:

- Objectives for the event
- Proposed date / location / duration
- List of probable technical sessions.

Conference Budget

Class-A & Class-B events should also include:

- Expected attendance (from what source)
- Proposed budget showing:
 - Fixed costs
 - Per-person costs
 - Recommended registration fee
 - Source of support
 - Break-even attendance
 - Likely surplus.

Conference Manual

CNS has a conference-planning manual to assist Committees in organizing a conference.

3.5 Branch Affairs Committee

Mandate

Promote the objectives of the Society through the Branches.

Provide guidance to Branches with respect to Branch operations and CNS policies.

Solicit annual budget proposals from Branches and provide operating funds to Branches, subject to overall CNS budget limitations.

Solicit annual Educational Fund proposals from Branches and provide Educational Funds to Branches subject to overall fund limitations.

Supply information to Council regarding Branch activities, problems, successes, etc. (based on input from each Branch).

Promote and assist in information exchange between the Branches.

Role of Branches

Implementing the objectives of the Society by holding periodic meetings within their area, and by other appropriate means.

Co-operate with other scientific or technical societies or associations in their area to promote the objectives of the Society.

Branch Chairs (or delegate) to provide a report to the Branch Committee Chairman prior to each Council meeting.

Role of Branch Committee Chair

The traditional function of the Branch Committee Chair has been to:

- a) Collect activity reports for the Council meetings
- b) Assist Branches where necessary
- c) Solicit budgets for the coming calendar year, and summarize the budgets for Council review
- d) Approve requests for funding and pass them to the Treasurer for action
- e) Solicit year-end financial reports, obtain year-end bank statements for the auditor, and summarize year-end data for the Auditor and for Council.

Branch List

- Alberta
- Bruce
- Chalk River
- Darlington
- Golden Horseshoe
- Manitoba
- New Brunswick
- Ottawa
- Pickering
- Québec
- Saskatchewan
- Sheridan Park
- Toronto
- University of Ontario Institute of Technology (UOIT)

3.6 MEMBERSHIP COMMITTEE

MANDATE:

To identify CNS members' needs and develop strategies for satisfying members' requirements.
To increase the number of CNS members.

DUTIES:

Maintain an accurate database of membership data and payment status as well as mailing address and electronic address of members.

Prepare the membership renewal letter (bilingual) and send it out to members, preferably in early October, with an updated membership form and invoice.

Compile and publish the annual Membership Directory.

Endeavour to sign up new members.

Pursue unpaid members and encourage them to renew.

Update membership statistics and provide a report on the activities of the Membership Committee at Council meetings.

Bring the concerns of members related to the functioning of the CNS to Council meetings.

Select, purchase and distribute gifts to help maintain and increase membership.

Analyze surveys to determine whether the members (customers) are satisfied. Identify members' wishes

Encourage the Branches and Committees to promote membership at all Branch meetings and CNS events. Provide posters, brochures, application forms, gifts, etc.

Update the membership form and distribute to the Branches.

Write articles on membership for the Bulletin and encourage members to write letters to the Editor.

Provide budget estimates to the Treasurer in early November. Set annual membership fee (in consultation with the Council).

Monitor costs and take early action to stay within budget, or request additional budget, in advance of disbursements, if it appears that more budget will be required.

STRUCTURE AND OPERATION

CNS Membership Committee (6):

Chair

President

Past President

CNS Office Manager

Additional Council members interested

3.7 Internet Committee

Mandate

- To create an effective presence for the CNS on the Internet (World Wide Web) to serve the interests and needs of members and non-members.
- To maintain and keep accurate the information the CNS provides via the Internet.
- To maintain all the hardware, software, and network connectivity required to keep the CNS Internet presence operational.

Committee Members (about 5):

Chairman

Webmaster

Other Council members

3.8 Education & Communication Committee

MANDATE AND TERMS OF REFERENCE

- To facilitate the exchange of information pertaining to nuclear-related issues amongst CNS members and the general public and to develop and administer educational program in this regard
- To encourage CNS members to become involved in speaking out and writing on nuclear issues and to participate in public educational programs
- To develop education programs (at the junior high school and high school level)
- To improve the means by which the CNS communicates with public
- To administer the CNS Education Fund
- To oversee the organization of Science Teachers' course
- To coordinate programs with Learned Societies to advance science and technology in Canadian Schools.

DUTIES OF THE CHAIR

- Nominate and lead the Education and Communication Committee
- Prepare ECC annual budget and program outline
- Administer and help set guidelines for Education Fund
- Improve communication between CNS and the public
- Improve CNS media contacts and affiliations
- Advise Council on public affairs issues and work with the President in preparing position briefs.

COMMITTEE STRUCTURE

- Standing Committee of CNS
- Five Committee members from across Canada
- Working groups on individual project

3.9 Universities Committee [Note: This committee has been put “on hold” in 2003]

Mandate:

To assist in the coordination of activities of Canadian universities with nuclear programs.

Background:

Considering that educated and trained personnel are the nuclear industry’s main tool and greatest asset, efforts spent on education and training coordination have a large payback. Benefits accrue to industry, universities, students and employees.

Possible activities:

Determine the respective roles of industry and the university in carrying out the mandate.

Determine the educational and training needs of the nuclear industry.

Determine what program information should be gathered and for what purpose.

Develop an inventory of currently available material and programs.

Develop an inventory of expertise.

Determine a mechanism for information dissemination.

Coordinate curriculum development in university nuclear programs

Identify respective strengths and weaknesses in the current programs. Identify areas of collaboration / cooperation. Consider shared resources (courses, course material, expertise, etc.).

Assist the universities in developing short and long-term collective visions.

Assist in the development of professional upgrade programs.

Assist in the development of courses for the lay audience.

Explore distance-learning possibilities.

Consider the formation of a Network of Centres of Excellence.

The Annual CNS Student Conference is also administered through the Universities Committee.

Membership

There would likely be six universities represented: UNB, Ecole Polytechnique, RMC, U of T, McMaster and U of Saskatoon.

There would be one or more CNS officers on the Committee as ex-officio members.

3.10 CNS Bulletin

The objective for the *CNS Bulletin* is to provide a combined technical journal and news medium for the Society.

The *Bulletin* is normally published quarterly, although the exact timing of an edition fluctuates somewhat, reflecting the timing of major CNS events and the Editor's personal schedule.

The *CNS Bulletin* is sent to all CNS members, to representatives of CNA organizations, to those societies both inside and outside of Canada with whom we have agreements, and to a selected list of other addressees.

Additional information pertaining to the production of the Bulletin is provided in Appendix IV.

Editor:	Richard Fluke
Publisher	Fred Boyd

3.11 Honours and Awards Committee

Mandate

- Develop and control methods of selection and presentation for all Honours and Awards approved by Council
- Consider and recommend formation of any new Honours or Awards to be granted by the Society
- From 2002, the CNS and CNA have a joint H&A Committee that manages and supports the Canadian Nuclear Achievement Awards. Subject to mutual agreement, this arrangement will continue into the future.
- Coordinate yearly awards:
 - Prepare “*Call for Nominations*” of Honours & Awards for review by Council prior to mailing to members.
 - Review / assess responses to “*Call for Nominations*” and select winners.
 - Prepare Honours & Awards certificates
 - Prepare citations and other presentation material and present awards at the Annual Conference dinner.
 - Coordinate nominations for Engineering Institute of Canada awards.

Composition

Chairman

1st Vice President

2nd Vice President

Past Presidents as required

Other members from Council

A University representative for the R.E. Jervis Award

Representatives appointed by the CNA Board

H&A

The CNS and the CNA recognize the outstanding contributions of members of the Canadian nuclear industry through the Canadian Nuclear Achievement Awards that comprise the following:

- THE W.B. LEWIS MEDAL.
- THE IAN McRAE AWARD
- THE OUTSTANDING CONTRIBUTION AWARD
- FELLOWS OF THE CANADIAN NUCLEAR SOCIETY
- INNOVATIVE ACHIEVEMENT AWARD
- JOHN S. HEWITT TEAM ACHIEVEMENT AWARD
- EDUCATION/COMMUNICATION AWARD

- R.E. JERVIS AWARD
- PRESIDENT'S AWARD

Background information on the various award categories is provided in Appendix I.

3.12 International Liaison Committee

Mandate:

To promote and assist in information exchange with sister nuclear societies on the international scene.

Duties:

Assist in facilitating exchange visits for the purpose of co-operation and information exchange pertaining to nuclear science and technology.

Encourage the interchange of technical information, journals and periodicals pertaining to nuclear science and technology.

Provide guidance and support to international societies interested in setting up organizations similar to CNS.

Provide electronic links to sister societies on the CNS Web site.

Inform the sister societies of planned conferences and meetings of international significance.

Maintain and renew co-operation agreements. This involves:

- Maintaining a master list of agreements and copies of the agreements themselves
- Providing sister societies with a yearly update of the Council members list & contact persons
- Initiating and assisting in renewal activities
- Identifying and supporting new agreements

The list of Societies with co-operation agreements with CNS is provided in Appendix II.

The CNS is also an active member of the *International Nuclear Societies Council (INSC)*, to which most nuclear societies in the world belong, and of the *Pacific Nuclear Council (PNC)*, which is an association of nuclear societies from countries around the Pacific Rim.

The **PNC** oversees the organization of the Pacific Basin Nuclear Conference, which is held every two years. The conference location moves among the member countries, with the sponsoring nuclear society/association taking the lead in organizing the conference.

The PNC has also recently set up four working groups, three of which are to recommend policy and share information amongst the member groups. These working groups are:

1. Re-organization (looking at PNC mandate & operations etc.)
2. Waste storage & disposal (Ken Smith is the CNS rep)
3. Codes & standards (Shami Dua of AECL is the CNS rep)
4. Public information & outreach programs

Until recently the major activity of the **INSC** was trying to coordinate major conferences. In the past, significant work has also gone into preparing “position papers” such as the 50-year Vision Booklet. Several other papers may be produced, on matters such as:

- Non-Proliferation
- Nuclear role in the near future
- Public Acceptance
- Radioactive waste
- Young generation issues
- Nuclear Safety
- Risk issues
- Low-dose issues

The list of INSC members is provided in Appendix III

3.13 Intersociety Affairs Committee

Mandate

- To establish closer ties between the CNS and other scientific and engineering societies within Canada
- To promote the exchange of information of mutual benefit
- To enhance the understanding of each other's scientific disciplines and needs
- To communicate the benefits of nuclear power to other scientific societies

The Society currently has cooperation agreements with:

- Canadian Radiation Protection Association (CRPA)
- Canadian Association of Physicists (CAP)
- Canadian Society of Nuclear Medicine (CSNM)
- Canadian Nuclear Workers' Council,
- Canadian Society of Mechanical Engineers (CSME)

The CNS is a member of the Engineering Institute of Canada.
Presently, the 11 member societies in the EIC are:

Canadian Nuclear Society (CNS)
Canadian Dam Association (CDA)
Canadian Geotechnical Society (CGS)
Canadian Society for Senior Engineers (CSSE)
Canadian Society for Civil Engineering (CSCE)
Canadian Society for Chemical Engineering (CSCChE)
Canadian Society for Mechanical Engineering (CSME)
Canadian Society for Engineering Management (CSEM)
Institute of Electrical and Electronics Engineers (IEEE)
Canadian Section of the Marine Technology Society (CMT)
Canadian Medical and Biological Engineering Society (CMBES)

3.14 Past Presidents' Committee

Mandate

- Advise Council on policies, procedures, briefs, etc., usually on request
- Undertake specific projects when requested by Council
- Help prepare briefs
- Select slate of proposed incoming Council members, prepare the call for elections, and organize the election, which is held at the Annual General Meeting.

Composition

Chairman: Immediate Past President
Previous CNS Past Presidents

CNS Past Presidents

1980-81	George Howey
1981-82	Phil Ross-Ross
1982-83	Phil Ross-Ross
1983-84	John Hewitt
1984-85	Peter Stevens-Guille
1985-86	Joe Howieson
1986-87	Nabila Yousef
1987-88	Irwin Itzkovich
1988-89	Ken Talbot
1989-90	Eva Rosinger
1990-91	Hugues Bonin
1991-92	Gil Phillips
1992-93	Bill Midvidy
1993-94	Paul Fehrenbach
1994-95	Ed Price
1995-96	Jerry Cuttler
1996-97	Hong Huynh
1997-98	Ben Rouben
1998-99	Paul Thompson
1999-2000	Krish Krishnan
2000-2001	Ken Smith
2001-2002	David Jackson
2002-2003	Ian Wilson
2003-2004	Jeremy Whitlock
2004-2005	Bill Schneider
2005-2006	John Luxat
2006-2007	Dan Meneley

3.15 ANNUAL CONFERENCE

MANDATE

To organize the CNS Annual Conference.

This involves both the technical Program, as well as involvement with the local organizers, for the overall conference arrangements.

3.16 Fusion Committee

The main focus of this Committee is support for the International Thermonuclear Experimental Reactor (ITER) initiative. An international group is planning to design and build this reactor and Canada's Darlington Nuclear site is one of the sites being considered. The CNS is a supporting member of ITER Canada.

DIVISIONS

NUCLEAR SCIENCE AND ENGINEERING DIVISION (NSED)

The primary mandate is to promote the transfer of nuclear science and engineering technical knowledge amongst CNS members and the CANDU nuclear industry at large.

The secondary mandate is the training of young scientists and engineers in the fundamentals of our craft to ensure our knowledge base is maintained and advanced.

These mandates are to be achieved through conferences, symposia, training courses, and specialist meetings. These activities are to be budgeted to provide a surplus to help advance the general goals of the CNS.

NSED Symposia and Conferences:

The Nuclear Simulation Symposium has been the traditional conference under the purview of the NSED. This conference typically draws anywhere from 40 to 70 attendees. The conference is usually timed for early spring or late fall. Every third year, the Simulation Symposium is replaced by the International Simulation Conference. The main objective of this conference is to gather reactor physics, thermalhydraulics, fuel, and reactor-safety specialists in one place for the communication of recent work on CANDU and small (e.g., MAPLE) reactors.

The NSE Division has, at times, assisted in other conference organization, such as the CNS annual conference. Such conferences are not the direct responsibility of the NSED but do help fulfill the NSED mandates.

NSED Courses:

In recent years, the NSED has organized the CANDU Reactor Safety course (Introductory Level) and the Regional Overpower Protection (ROP) system course. NSED intends to expand the NSED courses to include an advanced CANDU Reactor-Safety course, a CANDU design course, a CANDU aging course, a MAPLE technology course, and a Trip-Coverage course.

The CANDU Reactor Safety course is an introductory-level course designed to broaden the scientist's or engineer's knowledge beyond his/her specialty. The course covers CANDU safety through a series of lectures. These lectures cover issues in design, licensing (regulation), reactor physics, thermalhydraulics, safety, risk (PSA/PRA analysis), severe accidents, and environmental impact.

The ROP course covers the design, operation, and analysis of the ROP protection system for the CANDU reactor. This system is one of the most effective trip-coverage systems ensuring safe operation of the CANDU reactor.

Fuel Technologies Division

The mandate of the Division is to promote communication, discussion and peer review by organizing conferences, seminars and courses to facilitate advances in CANDU fuel technologies, including:

- Fuel Design and Development
- Fuel Modelling
- Manufacturing and Quality Assurance
- Fuel Performance
- Fuel Safety
- Advanced Fuel Cycles
- Failed-Fuel Management
- Spent-Fuel Management.

Composition

Chair & Vice-Chair

Key Activities

Every two to three years, the Division organizes the International Conference on CANDU Fuel. Seven of these major conferences have been organized, up to 2001. In addition, the Division has organized courses on CANDU Fuel Technology. The 9th International Conference on CANDU Fuel was held at the Holiday Inn in Bellville, ON, 2005 September.

Design & Materials Division

The Division's objectives are to provide a medium in which the development and implementation of the latest design concepts and the development and use of materials in the solution to design problems in a nuclear environment, can be shared with others practising in these and related fields.

These objectives will be achieved through the organizing of conferences, seminars, and technical courses and soliciting articles for publication in the CNS bulletin.

The goal is to hold a minimum of one conference, seminar or course each year.

Areas covered include but are not necessarily limited to the following:

DESIGN

Mechanical
Electrical
Process
Control
Monitoring
Inspection
Diagnostics
Human Factors

MATERIALS

Metals
Elastomers
Plastics
Ceramics
Organics
Fluids

The organization of events is normally done by ad-hoc Committees, consisting of both CNS members and non-members, who have a specific interest in the subject. There is no centralized direction and currently no standing Committee for the Division. This is probably because the organizations in this area are fairly dispersed.

Most recent activity has been centred on the International Steam Generator and Heat Exchanger Conference, held every few years. This conference offers the opportunity for contributions from both Design and Materials disciplines with Mechanical, Electrical (I&C) Inspection Operation and Process design aspects represented, among others.

Nuclear Operations and Maintenance Division

The Mandate of the Division is to provide a forum for the exchange of information pertaining to the Operation and maintenance of Nuclear Power facilities.

The division has been involved with organizing the CANDU Maintenance Conference, to which there have been five up to November 2000. The sixth CANDU Maintenance Conference was held in Toronto 2005 Nov..

Environment and Waste Management (E&WM) Division

Mandate

- a) Provide a means for promoting nuclear and environmental science and technology by organizing specialized programs to encourage the exchange of information among E&WM Division members;
- b) Encourage participation in programs of other learned societies to provide a forum for exchange of information in the interdisciplinary field of nuclear and environmental science and technology;
- c) Propose conferences, workshops and seminars to be hosted solely by the CNS or co-hosted with other associations, and to assist conference organizing Committees in defining E&WM topics and speaker, and
- d) To review CNS papers and talks within the E&WM area before presentation and/or publication, to ensure a high standard.

Programs

The Division tries to hold a major international conference once every three years. The following are potential topics:

- Strategy for Siting Surface and Underground Waste Management Facilities,
- Decommissioning and Remediation, and
- Environmental Management Systems

It also tries to organize a symposium or workshop once per year. Potential topics are:

- Used fuel and Radioactive Waste Storage Techniques
- Monitoring Techniques
- Medical/Industrial Waste Management
- Radiological Impacts on Non-Human Biota (link with AECB for 1999 Int. Conf.)
- Climate change

Past Conferences include:

International Conference on Deep Geological Disposal of Radioactive Waste

The International Conference on Deep Geological Disposal of Radioactive Waste, sponsored by the Canadian Nuclear Society, took place in Winnipeg on 1996 September 16-19. The conference, which brought together 270 delegates from 20 countries involved in nuclear waste management, was technically and financially a success for the CNS.

Non- Human Biota Symposium

A symposium on Radiological Impacts from Nuclear Facilities on Non-Human Biota was held, 1996 December 1-2, in Ottawa. The purpose of the Symposium was to bring the AECB, Environment Canada (EC) and members of the nuclear industry to discuss EC's plans for assessing the toxicity of radiological release on non-human biota, as specified under their Second Priority Substances List (PSL2). This event represented the first time the CNS and the Canadian Radiological Protection Association (CRPA) had acted as co-sponsors of an event. The Symposium was a financial success both for the CNS and the CRPA.

The CNS, through the E&WM Division (Judy Tamm), also participated in the 1999 Workshop on the Radiological Impacts of Nuclear Facilities on Non-Human Biota. This Workshop, held in Ottawa, was co-sponsored by the AECB and the Swedish and Australian nuclear regulatory agencies.

Symposium on Climate Change and Energy Options

The Division organized the Symposium on Climate Change and Energy Options, which was held in Ottawa in 1999 November. The Symposium provided an opportunity for review and discussion of leading-edge developments in the area of available energy options to meet the Kyoto-Protocol commitments.

Conference Climate Change 2: Canadian Technology Development

This Conference was organized as a sequel to the Symposium on Climate Change and Energy Options. It was held at the Holiday Inn on King in Toronto in 2001 October, and was very successful in bringing together experts from all energy sectors.

Symposium on the Scientific and Technical Basis for Protection of the Environment from Ionizing Radiation

This Symposium, held in Ottawa, ON, 2002 December, was organized in conjunction with the CNA and COG.

Appendix I

The following provides a limited overview of the requirements of the various Honours & Awards. Up-to-date lists of past recipients of the various awards are shown on the CNS Website.

W.B. Lewis Medal

The W.B. Lewis medal is awarded to a Canadian scientist or engineer who has demonstrated a level of technical competence and accomplishment in the field of nuclear science and engineering, as exemplified by the endeavours of W.B. Lewis in the Canadian nuclear program. The W.B. Lewis medal was established by the CNA in 1973 and became a joint CNA/CNS award in 2002.

Members of the CNA and the CNS are encouraged to nominate suitable potential candidates and in the process provide information of the nominees technical and professional background together with relevant information on the nominees scientific or engineering involvement and accomplishments.

The nomination letters should be signed by three persons.

Ian McRae Award

The Ian McRae Award of Merit is intended to honour an individual for outstanding contributions, other than scientific, to nuclear energy in Canada. The award was established by the CNA in 1976 in honour of the late Ian F. McRae, the first President of the CNA. The awards became a joint CNA/CNS award in 2002 under the umbrella of the Canadian Nuclear Achievement Awards.

The nominee for the Ian McRae award must have made an outstanding contribution, largely domestically, to the general advancement of nuclear energy in Canada through such fields of activity as management, administration, public service, medicine, communications and the arts. The individual must be Canadian.

The nominations require the signatures of three persons.

Outstanding Contribution Award

The Outstanding Contribution award recognises Canadian-based individuals, organizations or parts of organizations that have made significant and obvious contributions to the nuclear industry over a long period of time and/or have made a specific outstanding individual contribution. The Outstanding Contribution Award was established in 1989 by the CNA and in 2002 became the joint responsibility of the CNA and the CNS.

The nomination letters should be signed by three persons detailing the relevant academic

and work history of the individual or the contributions made by the individual or organization that justify the award.

Fellows of the Canadian Nuclear Society

CNS members who have been designated “Fellows of the Canadian Nuclear Society” belong to a membership category established by the Society in 1993 to denote outstanding merit. The criteria for admission to this membership category include “major and sustained contributions to the sciences and/or professions that relate to the advancement of nuclear technology in Canada.” Demonstrated maturity of judgement and breadth of experience, as well as outstanding technical capability, service to the Society, and current CNS membership of at least five years’ standing, are also requirements for admission.

The newly admitted fellows are presented with special Fellowship certificates on a suitable occasion at a dinner during the annual conference of the CNS. In the tradition of honorary membership categories of learned societies, CNS Fellows are entitled to add the letters “F.C.N.S.” to letters denoting degrees and professional certifications following their names. The maximum number of CNS Fellows at any one time is limited to not more than five per cent of the total membership.

All CNS Branches and technical divisions are encouraged to forward confidential nomination statements, signed by three members, to the Chairperson of the CNS Honours and Awards Committee. Alternatively, any three CNS members, not necessarily of the same Branch or division, may together forward a nomination. The nomination statement should include a focused rationale for the nomination, supported by information on the candidate’s:

- (i) Formal education or equivalent,
- (ii) Work history, professional achievements, publications, patents,
- (iii) Experience, demonstrated maturity of judgement and contribution to nuclear science and technology, and
- (iv) Past services to the CNS.

The Honours and Awards Committee will consider the above criteria with weightings of 20%, 20%, 25% and 35%, respectively.

Innovative Achievement Award

The Innovative Achievement Award was established by the CNS in 1991. Recipients of the award are specially recognized for

“significant innovative achievement, implementation of new concepts, or outstanding contribution in the nuclear field in Canada.”

The award trophy, on which all recipients’ names are inscribed, is in the form of an original sculpture showing three figures supporting the Society’s logo. Each recipient retains a miniature replica of one figure from the sculpture, as well as a commemorative certificate

presented at the annual conference of the CNS.

Members of the society are strongly encouraged to nominate individuals who have made key contributions to nuclear science and technology. Such contributions should have been to the conceptual design, development or implementation phase of the concept, or to a combination of these phases.

Nomination letters should be signed by three persons and accompanied by:

- (i) A short biography,
- (ii) A description of the particular innovative or outstanding achievement for which the award is proposed, and
- (iii) a well-focused rationale supporting the nomination.

John S. Hewitt Team Achievement Award

The John S. Hewitt Team Achievement Award was established by the CNS in 1994. In 2002 it became a joint CNS/CNA award. This award aims at recognizing the recipients for

“Outstanding team achievements in the introduction or implementation of new concepts or the attainment of difficult goals in the nuclear field in Canada.”

The award is in the form of one or more engraved plaques or certificates presented to the members of the team at the annual conference of the CNS.

Members of the Society are strongly encouraged to nominate teams of generally not more than five persons who have made key contributions to the introduction or the implementation of new concepts or the attainment of difficult goals in the nuclear field in Canada. Such contributions should have been to the conceptual, design, development or implementation phase leading to the achievement, or to a combination of these phases.

Nomination letters should be signed by three persons and accompanied by:

- (i) A short biography of each team member,
- (ii) A description of the particular achievement for which the award is proposed, and
- (iii) A well-focused rationale supporting the nomination.

Education/Communication Award

The Education / Communication Award was established by the CNS in 1997. This award aims at recognizing the recipients for

“Significant achievements in improving the understanding of nuclear science and technology among educators, students and the public”

The award is in the form of a certificate. It is presented to each person being recognized, at the annual conference dinner of the CNS.

All CNS Branches and technical divisions are encouraged to forward confidential nomination statements, signed by three members, to the Chairperson of the CNS Honours and Awards Committee. The nomination statement should include a focused rationale for the nomination, supported by :

- (i) A biography of the nominee,
- (ii) A description of the achievement(s) with specific references, examples, etc.

PRESIDENT'S AWARD

This award was established in 1997 to recognize the outstanding direct or indirect contribution of an individual or individuals to Canadian society, such contribution being of a nature to have also had a favourable influence on Canadian nuclear technology. The recipient(s) need not belong to the nuclear industry, but the work or achievements for which the award is presented should have been broadly recognized. Considerable latitude is implied in the criteria for the award.

The award is in the form of an illustrated plaque with a bilingual description outlining concisely the basis for the award.

The award is not intended to be necessarily presented each year, but rather as deserving recipients are identified. It shall be awarded either at the CNA Winter Seminar or at the CNS Annual Conference.

The nomination is the prerogative of the CNS President, who shall submit a written recommendation outlining the reason for the award. The President may receive advice or suggestions from the CNS Council or Executive, but the decision to proceed is with the President. The CNS Council or Executive must approve the nomination by the President.

The CNS President's award has been presented to:
The right honourable Jean Chrétien, Prime Minister of Canada , 1997
The President of AECL, representing all past and current AECL employees, 2002.

R.E. JERVIS AWARD

This award was established in 1992 by former students of Professor Robert E. Jervis of the University of Toronto, to honour his achievements. The award is now sponsored by the CNS and is administered by the representatives of various Canadian Universities.

For almost 40 years Professor Robert E. Jervis has been contributing to Canadian nuclear science through valuable research achievements, numerous professional activities and teaching of applied radiochemistry as a Professor in the Department of Chemical Engineering and Applied Chemistry at the University of Toronto. His research career has focused on developing the peaceful use of nuclear energy in industry, the life sciences and forensic science. Two main themes have been evident: the extension of radiochemical and radioactivation techniques, and their application to interdisciplinary fields. Prof. Jervis pioneered many applications of induced

nuclear activation analysis (INAA) using the Canadian SLOWPOKE reactor.

Since 2007, there are 2 awards of value \$1000 each, given annually, if there are suitable candidates.

In order to be eligible a candidate must:

1. Be a Canadian citizen, a landed immigrant in Canada or a foreign student who intends to work in Canada following the completion of graduate studies,
2. Be a full-time graduate student at a Canadian university,
3. Be pursuing research involving radiochemistry, radiation chemistry, chemistry in nuclear systems or the use of nuclear research reactors in applied chemistry or chemical engineering studies.

Nomination letters for the award should be submitted by the Head or Director of the student's department and include:

1. A brief C.V. that includes a list of any papers or presentations,
2. A copy of graduate school transcripts,
3. A brief (one page maximum) project description that highlights evidence of progress in research,
4. A reference letter from the research supervisor that indicates evidence of progress.

The Engineering Institute of Canada Awards

The CNS by its membership of the Engineering Institute of Canada (EIC) may nominate persons for any of the possible seven awards given out by the EIC each year. These awards are:

The Sir John Kennedy Medal

The Julian C. Smith Medal.

The K.Y. Lo Medal.

The John B. Stirling Medal

The Canadian Pacific Railway Engineering Medal

The Honorary Members

The Fellows of the EIC.

The H&A Committee has been given the responsibility by the CNS Council for coordinating and approving any nominations from CNS members to the EIC Honours Awards and Fellowship committee of which the Chair of H&A or designate is a voting Member. Details of the awards can be found on the EIC website.

Awards of the Canadian Council of Professional Engineers (CCPE)

The CCPE has seven awards that can be made annually to worthy engineers. Details can be found on the CCPE website (www.ccpe.ca) or by contacting the CCPE's member services at 613-323-2474 x 141.

The H&A committee does not have an involvement in the nomination process for these

awards but will offer support to nominations if requested.

Appendix II

List of Nuclear Societies with Cooperation Agreements with CNS

1. Australia
2. Armenia
3. Britain
4. Bulgaria
5. China
6. Croatia
7. European Nuclear Society
8. Finland
9. France
10. Hungary
11. India
12. Israel
13. Japan
14. Korea
15. Latin American Chapter of ANS
16. Malaysia
17. Mexico
18. Morocco
19. Romania
20. Russia
21. USA (ANS)
22. Vietnam

Appendix III

List of INSC Members

I

- American Nuclear Society (ANS)
- Asociación Argentina de Tecnología Nuclear (AATN)
- Associação Brasileira de Energia Nuclear (ABEN)
- Atomic Energy Society of Japan (AESJ)
- Australian Nuclear Association (ANA)
- Canadian Nuclear Society (CaNS)
- Egyptian Society of Nuclear Science and Applications (ESNSA)
- European Nuclear Society (ENS)
 - *Austrian Nuclear Society • Israel Nuclear Society*
 - *Belgian Nuclear Society • Italian Nuclear Society*
 - *British Nuclear Energy Society • Lithuanian Nuclear Energy Association*
 - *Bulgarian Nuclear Society • Netherlands Nuclear Society*
 - *Croatian Nuclear Society • Nuclear Society of Russia*
 - *Czech Nuclear Society • Nuclear Society of Slovenia*
 - *Danish Nuclear Society • Romanian Nuclear Energy Association*
 - *Finnish Nuclear Society • Slovak Nuclear Society*
 - *Société Française d'Énergie Nucléaire • Spanish Nuclear Society*
 - *German Nuclear Society • Swedish Nuclear Society*
 - *Hungarian Nuclear Society • Swiss Nuclear Society*
- Indian Nuclear Society (InNS)
- Israel Nuclear Society (IsNS)
- Korean Nuclear Society (KNS)
- Latin American Section (LAS)
- Nuclear Society of Thailand (NST)
- Nuclear Energy Society Taipei, China (NEST)
- Pakistan Nuclear Society (PNS)
- Sociedad Nuclear Mexicana (SNM)

(The Chinese Nuclear Society is considered to be a charter member but has not yet signed the INSC charter)

Appendix IV

Outline of approach to editing and managing the production of the Bulletin of the Society.

Overview

The objective to make the Bulletin a publication combining both technical papers and news of relevance to CNS members and other readers, which is comparable in quality to those published by other major nuclear societies. This objective is to be achieved within a relatively limited budget, albeit the largest single on-going budgetary item of the Society. (Almost all of the comparable publications are produced by professionals on the staff of, or contracted by, the societies involved.) In keeping with the objective the size of a typical issue has been increased over the years, colour photographs are now used on the cover, and, over the past year, advertising has been solicited.

Process

The process of producing an issue of the *CNS Bulletin* begins long before the actual publication. Typically consideration of the next issue begins immediately after closing of an issue. This involves, among other things; consideration of up-coming meetings, reviewing other publications, scanning relevant Web sites, planning a possible focus.

During this period the editor attend as many CNS seminars and conferences as possible and, where feasible, other relevant conferences and meetings.

Over the interval between issues, technical papers are sought, primarily from CNS symposia but also from any other fora of which the editor is aware. The criteria has been: timeliness; relevance; interest to the majority of readers (i.e., not too specialized). This last criterion has been the most restrictive since the majority of papers given at CNS symposia tend to be very specialized and only intelligible to a small group.

Approximately a month before scheduled publication authors of selected papers will be contacted to obtain their acceptance for re-printing their papers and to obtain, if possible, electronic versions.

In parallel with this action an intense review of information sources is made to seek out relevant “general news”.

Material for “CNS news” is typically obtained through contacts with CNS Council members and other key individuals in the nuclear field.

With the exception of technical papers, which are usually re-printed with a minimum of editing, all of the other material gathered is re-written. News articles such as reports on major meetings, are written by the editor. In a typical issue the editor would write or re-write between 1/3 and 1/2 of the content. The editing, writing and re-writing takes 80 to 100 hours, done in an intense period of 1 1/2 to 2 weeks.

For the past several years the *Bulletin* has been printed by a modest sized printer in Peterborough, Ontario. Although the physical separation is sometimes a problem they are a very effective, congenial and economical group with whom to deal. They do the “typesetting” and provisional layout from the material sent to them by the editor, now mostly in electronic format. Given that the editor has a reasonable judgement of the amount of material required and of the order desired, they are able to prepare a good penultimate layout. A half day is typically sufficient for the editor to finalize the layout. Both the printer’s personnel and the editor do the proof-reading.

Advertising

Starting in about 1997 or so, advertising has been accepted in the *Bulletin*.

The editor currently has the task of soliciting advertising, dealing with potential advertisers, and preparing the information for invoicing. It appears that the *Bulletin* is gradually becoming attractive to advertisers and that we can expect a modest growth in advertising income (assuming we maintain a respectable quality and distribution).

Distribution

Two or three years ago, primarily motivated by the desire to minimize mailing costs, the distribution of the *Bulletin* was extended beyond CNS members. (To obtain “bulk” rates from Canada Post there must be at least 1,000 Canadian addressees.) Initially CNA members were added. Then, in a spirit of “outreach” a number of educators, media, and government people were added. The total mailing is now about 1300.

To date the *Bulletin* has been mailed in envelopes. While this increases the cost somewhat it has permitted the enclosure of other material. Many of the issues over the years have had enclosures.

Appendix V

Description of the positions of:

- Executive Administrator
- Financial Administrator

The terms of reference for these two positions is basically as follows:

- Working in their respective area (or the two positions collectively), the administrator shall manage all issues, documentation and actions as appropriate for the orderly execution of that work.
- The respective administrator shall resolve and execute all issues and actions within the scope of the terms of reference provided in advance by the Executive under action of Council without further authorization and with “after the fact” communication of activities for information to the Executive and Council as appropriate.
- For issues beyond the terms of reference, the administrator shall research the issue, put the question before the Executive for its direction; likewise issues beyond the scope of the Executive shall be put before Council and/or AGM as appropriate (by/through the Executive).
- The respective administrator shall forward issues to the attention of the Executive as and when required for direction.
- Information reporting shall normally be to the Executive and Council at regular council meetings.

Executive Administrator

Executive Administrator (EA) responsibilities shall include the following:

- Management and tracking of all issues which come to the responsibility of the EA.
- Preparation work for Council meeting agendas in support of their issue by the CNS Secretary; and the assembly of background research or assessment information on such items as appropriate.
- Maintenance of a running list of issues, actions and initiatives for resolution by the EA.
- Maintenance of a running list of issues, actions and initiatives for the attention of the Executive.
- Assembly of all reports and documentation as required for the orderly execution of the council meetings and dissemination (distribution, projection) of such information at the time.
- Definition, where possible, of the issue, action or motion in order to allow quick and orderly decision making by Executive and Council.
- Execution of certain items in support of courses, conferences and other program which require administrative action beyond that normally achievable by the CNS office manager. These may include booking of conference facilities and/or other

- administrative items in support of major conferences.
- Takes the lead together with the responsible Chair, the Financial Administrative and the Secretary, in tracking agreements with other organizations including CNA, other nuclear societies, other engineering societies, etc and ensures they are current, appropriate and funded as required.
 - Reports to the Executive on a regular basis and reports to regular Council meetings on activities, issues and actions taken.
 - Other items as appropriate to the terms of reference.

Financial Administrator

Financial Administrator (AF) duties shall include the following:

- Any actions necessary to ensure the orderly, controlled and compliant handling of CNS funds - all in support of the treasurer who has the ultimate reporting responsibility and the accountant and that responsibility.
- Works with the treasurer to identify areas of uncertainty, risk or error in management of CNS funds.
- Works with the accountant to identify areas of uncertainty, risk or error in management of CNS funds.
- Tracks exposure on any major CNS commitments such as advanced payments or guarantees for conference facilities or other.
- Scrutinizes and tracks the reporting of events to ensure that all income, expenditures, deposits, rebates, exposures are accounted for.
- Ensures the timely submission of financial reports from major events or other activities.
- Tracks the insurance policies for liability, directors, etc. and ensures they are current, appropriate and paid.
- Reports to the Executive on a regular basis and reports to regular Council meetings on activities, issues and actions taken.
- Other duties as appropriated to the Terms of Reference.