

Safety For All

the new INSAG

by Richard Meserve & Kenneth Brockman

In 1985, the IAEA Director General identified the need for an advisory committee to the IAEA in the area of nuclear safety. The group that was subsequently chartered was called the International Nuclear Safety Advisory Group (INSAG). The nuclear community knew it over the years for the sage counsel and advice that it provided to, and through, the Agency. Between 1985 and 2002, INSAG membership ranged from 13 to 15 experts from around the world. Individuals whose names are synonymous with a commitment to nuclear safety led the group during these years, including Messrs. A.P. Vuorinen (Finland), H.J.C. Kouts (USA), Z. Domaratzki (Canada), A. Birkhofer (Germany), and A. Baer (Switzerland).

Over these 17 years, INSAG produced numerous studies that provided the foundation for advances in nuclear safety. These studies included evaluations of design and operational safety at nuclear power plants, consideration of the impacts of radiological exposures, and the examination of how best to develop and maintain a proper safety culture.

While INSAG publications were recognized throughout the nuclear community as authoritative and insightful reflections on topics relating to nuclear safety, some believed the Group was limited by its charter obligation to provide advice solely to the IAEA. Other international groups of experts, most notably the International Commission on Radiological Protection (ICRP), evolved with much broader responsibilities. As result, the organization and Terms of Reference for the ICRP were seen to provide a model to emulate if one wanted to have an expert group that could serve all concerned stakeholders. It was in response to this desire that the current INSAG was chartered.



Credit: D. Calmar/IAEA

Mr. Brockman and Dr. Meserve at the press briefing in Vienna announcing INSAG's formation.

The New INSAG

While the acronym INSAG has been retained, the proper full name for the group has been subtly, but significantly changed. No longer is the Group an advisory group; now INSAG stands for the International Nuclear Safety Group. This change captures the fact that INSAG is no longer an advisory organ for the Director General and the Secretariat, but instead has been convened to serve all parties concerned with nuclear safety issues — non-governmental organizations, regulatory authorities, the nuclear industry, the public and the media. The opening statement from the new Terms of Reference for INSAG states that “INSAG will provide recommendations and opinions on current and emerging nuclear safety issues to the IAEA, the nuclear community and the public.”

While the audience for the new INSAG has expanded, the issues that it will address are now more sharply focused. Given the fact that groups such as the ICRP are operating in areas relating to radiation safety, the new INSAG has been asked to focus on the “safety of nuclear installations — nuclear power plants, research reactors, and other fuel cycle facilities.” This narrowing of the areas of concern is not intended, however, to be excessively restrictive. The Director General, in his comments to the group, emphasized that he expected INSAG to approach safety with the widest of perspectives and to be an internationally recognized body that could be called upon to consider any safety issue that were to arise at a nuclear installation in an objective and comprehensive fashion.

The new group is chaired by Dr. Richard Meserve, recently Chairman of the United States Nuclear Regulatory Commission and now President of the Carnegie Institution. Four of the other members served on previous INSAGs — Mr. A. Abagyan (Russia), Mr. A. Alonso (Spain), Mr. A. Birkhofer (Germany) and Mr. S. Matsura (Japan). The other members bring skills from around the globe — Z. Dutra (Brazil), L. Echavarri (OECD/NEA), S. Harbison (United Kingdom), T. Hill (South Africa), C. Kang (South Korea), J. Laaksonen (Finland), A. Lauvergeon (France), J. Ronaky (Hungary), S. Sharma (India), J. Tian (China) and D. Torgerson (Canada).

The members were selected both because of their technical expertise and because of their personal and professional commitment to safety. These individuals represent all of the institutions and facilities involved in ensuring nuclear safety — the power reactor industry, operators of fuel cycle facilities, regulatory authorities, non-governmental organizations, and research and academic institutions. The IAEA serves as a Secretariat for the group, providing it with logistical support and a venue at which to conduct activities. The Director General appoints the members, and the Division of Nuclear Installation Safety serves as the support organization.

The Top Five

To date, INSAG has identified five issues that require the group’s immediate focus and attention. First, at the request of the Director General, the Chairman of INSAG, with assistance from the group, will develop a periodic report presenting an opinion on the State of Nuclear Safety. It is anticipated that the first report will be available for the General Conference of the IAEA in September. Second, INSAG will consider the concept of a Global Nuclear Safety Regime, and the challenges arising from the international and intercultural aspects of today’s nuclear industry. Third, the group will look at Safety Principles, seeking to determine how best to apply risk insights in the regulatory, design and operational decision-making processes. Four, INSAG will examine Operational Safety, a significant area

Past INSAG Safety Reports

The IAEA has issued a collection of reports on nuclear safety under the INSAG framework. They include the world’s first authoritative account of the 1986 nuclear accident at Chernobyl, and an update issued in 1993.

Other reports have focused on topics including basic safety principles; safety culture; regulatory decision-making; knowledge management; safe management of radioactive sources; and the defence-in-depth approach to nuclear plant safety.

Many of the reports are issued in non-English language editions, including Russian, Spanish, and French, and can be downloaded on the Internet. For more information, check the Publications pages of the Agency’s public web site at www.iaea.org, and enter the word “INSAG” in the search function.

of focus for the previous INSAGs. To properly serve the public, INSAG recognizes that it must consider whether the current fleet of nuclear installations have been designed and are being operated in a manner that ensures, to the greatest extent reasonable, the protection of the health and safety of the public and the environment. Finally, INSAG will consider how best to address the issue of Stakeholder Involvement. The Terms of Reference for the new INSAG have expanded its audience, and the group will focus significant effort on how best to involve all concerned stakeholders and how best to communicate with them.

The INSAG meets twice per year. However, the individual members work extensively on their own time during the intervening periods. Both individually, and as a group, INSAG seeks to ensure that all countries that choose the nuclear option have properly addressed safety issues. More importantly, INSAG stands ready to serve the world community as an authoritative adviser that is both technically competent and committed to the paramount importance of safety in nuclear facility design and operation.

INSAG’s Chairman, Richard A. Meserve was appointed the ninth president of the Carnegie Institution in December 2002. He assumed the presidency in April of 2003, after stepping down as chairman of the US Nuclear Regulatory Commission (NRC).

Kenneth Brockman is Director of the IAEA Division of Nuclear Installation Safety. E-mail: K.Brockman@iaea.org