ACTIVITIES OF THE INTERNATIONAL NUCLEAR SAFETY GROUP (INSAG) ON STAKEHOLDER INVOLVEMENT

Agustín Alonso
INSAG Member

INSAG PURPOSE

- **From 1985 to 2003**. Advise the IAEA Director General on nuclear safety issues and concerns.
- **Since 2003**. Provide recommendations to the IAEA, regulatory authorities, the nuclear community, non-govermental organizations, the media and the public.

COMPOSITION AND CONDUCT

- **Composition**. 15 safety experts from regulatory organizations, research and academic institutions and the nuclear industry.
- **Meetings**. 2 meetings per year.
- **Products**: letters, statements and reports.
- **INSAG Web Page**.

  http://www-ns.iaea.org/committees/insag.asp

INSAG PUBLISHED DOCUMENTS

INSAG-1: (revised as INSAG-7): Summary Report on the Post-accident Review Meeting on the Chernobyl Accident
INSAG-2: Radionuclide Source Terms from Severe Accidents to Nuclear Power Plants with Light Water Reactor
INSAG-3: (revised as INSAG-12): Basic Safety Principles for Nuclear Power Plants
INSAG-4: Safety Culture
INSAG-5: The Safety of Nuclear Power
INSAG-6: Probabilistic Safety Assessment
INSAG-7: The Chernobyl Accident: Updating of INSAG-1
INSAG-8: A Common Basis for Judging the Safety of Nuclear Power Plants Built to Earlier Standards
INSAG-9: Potential Exposure in Nuclear Safety
INSAG-10: Defence in Depth in Nuclear Safety
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INSAG-14: Safe Management of the Operating Lifetimes of Nuclear Power Plants
INSAG-15: Key Practical Issues in Strengthening Safety Culture
INSAG-16: Maintaining Knowledge, Training and Infrastructure for Research and Development in Nuclear Safety
INSAG-17: Independence in Regulatory Decision Making
INSAG-18: Making Change in the Nuclear Industry: The Effects on Safety
INSAG-19: Maintaining the Design Integrity of Nuclear Installations Throughout Their Operating Life

PRESENT ISSUES OF INTEREST

- Enhancement of a global safety regimen
- Feedback of operating experience
- Development of safety goals
- Stakeholder involvement

PRINCIPLES.

- **Challenges**.(1) Respect the independence of regulatory decisions. (2) Guard the independence and credibility of developers and users of nuclear technology.
- **Limits**. Provide high-level instruction and guidance to member states. Indicate that safety, openness and public acceptability are inextricably linked.

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DEFINITION

Stakeholder. A subsection of the general public that comprises a targeted population having an interest in a given topic. There are internal and external stakeholders. Internal stakeholders are the decision-makers. External stakeholders are most often affected by the potential impact of the project, either directly or emotionally.

THE STAKEHOLDER RIGHTS

- Recognition that all members of the society must have easy access to information
- Recognition that external stakeholders have the right to engage in constructive participation on substantial and controversial issues.

COMMUNICATION ATTRIBUTES

- Communication must be factual, timely, complete and understandable.
- Communication must be satisfactory and complete and address potentially harmful consequences.
- Information of a general nature should be provided by authorities and educational institutions.
- Information on operating experiences should be communicated by regulatory authorities and the operators

EXAMPLES OF PARTICIPATION

- **(1) *Debate on the incorporation of nuclear energy in the national energy plan*.**
- **(2) *The development of legislation defining nuclear regulation*.**
- **(3*) The decision to install a new nuclear power plant, fuel cycle installation, or a high level waste repository*.**
- ***(4) The establishment of the emergency plan*.**

EXAMPLES OF PARTICIPATION (Cont.)

- **(5) *Controlled releases and radiological surveys of the environment*.**
- **(6*) The environmental restoration of old nuclear sites***
- **(7) *The dismantling and closure of nuclear installations*.**
- **(8) *The management of radioactive waste***
- **(9) *The transport of radioactive materials*.**

PROCEDURES, TOOLS AND MEANS FOR PARTICIPATION

- Procedures for participation should be developed by the authorities.
- Procedures should include: a clear definition of the issue, a well structured process, the expected level of involvement, a balanced representation, provisions for resources.
- There are good examples in France, the UK and the USA.

CONCLUSIONS AND RECOMMENDATIONS

- It is of utmost importance to continue providing opportunities for stakeholder involvement and constantly look for new ways to obtain it.
- It is recommended that pertinent institutions and authorities engage in providing legislation and establish procedures for more meaningful interaction with stakeholders.
- It is recommended that all countries engage in creating instruments towards achieving maximum public participation in stakeholder involvement.

WORKSHOP ON PROCESSES AND TOOLS
FOR STAKEHOLDER INVOLVEMENT
IN RADIOLOGICAL PROTECTION

(University of Salamanca, November 16-18, 2005)

ACTIVITIES OF THE INTERNATIONAL NUCLEAR SAFETY GROUP ON STAKEHOLDER INVOLVEMENT

Agustin Alonso, INSAG Member

1. INTRODUCTION

1.1 In 1985, the IAEA Director General identified the need for an advisory committee to the International Atomic Energy Agency (IAEA) in the area of nuclear safety. The group that was subsequently chartered was called the International Nuclear Safety Advisory Group (INSAG). Its main purpose was to advise the IAEA Director General on current and foreseen nuclear safety issues and concerns. In 2003, the focus of the group changed to provide recommendations to the IAEA, the nuclear community, non-governmental organizations, regulatory authorities the media and the public. The name of the group was accordingly changed to International Nuclear Safety Group (with the same acronym INSAG) to reflect its larger audience.

1.2. The present INSAG is a group of 16 experts with high professional competence in the field of safety from regulatory organizations, research and academic institutions and the nuclear industry. INSAG conducts plenary session two times per year and the members keep the necessary written contacts during the interim periods. The subjects to be discussed are prepared by coordinators with the assistance of other nominated members. When deemed necessary, IAEA staff members or independent outside experts prepare documents at the request of INSAG. The products that INSAG develops are in the form of letters, statements and documents. Several letters have been addressed to the IAEA Director General, which are later presented and discussed in the Annual General Assembly. Since its inception in 1985, INSAG has published the documents included in Appendix 1. Useful information can be unloaded from the INSAG web page at http://www-ns.iaea.org/committees/insag.asp.

1.3 Presently INSAG is involved in developing four documents on the following issues: (1) the enhancement of a global safety regimen; (2) the feedback of operating experience; (3) the development of safety goals, and (4) the involvement of stakeholders. The first item recognizes the positive impact on nuclear safety which may come from adhering to a worldwide set of uniform regulatory procedures and standards. The second identifies operating experience as a major source of gaining knowledge to prevent the recurrence of incidents and to give examples of good operation practises. The third renews the constant interest of defining the safety goals in accordance with the development of new tools to quantify safety, for instance the probabilistic methodology, and to cover new technologies. Finally, stakeholder involvement considers the right of stakeholders to be informed on nuclear safety issues and facts and to participate in socially sensible decisions.

2. BASIC CONSIDERATIONS IN STAKEHOLDER INVOLVEMENT

2.1 **Definition**. The initial INSAG discussions centred on the definition of "stakeholder". Was there a difference between an "interested party", a "partner to a process" and a "stakeholder"?, or was a stakeholder anyone with a "vested interest" in a nuclear issue?. It was considered that an expansive view of stakeholders is appropriate if information or participation in areas of political concern or public perception is desired. If technical oversight or decision making is being considered, then a more restrictive interpretation of stakeholder is appropriate. Therefore, stakeholders will vary from issue to issue and will include those actively involved in the decision making associated with an issue, i.e. the decision makers, and those interested in influencing such decision-making.

2.2 **Challenges**. It was also soon recognized that two challenges had to be considered and appropriately dealt with when considering stakeholder involvement: the functions of promoting the nuclear option and overseeing nuclear safety should remain separate. The independence and intellectual credibility of those responsible for the safe design, construction and operation and dismantling of nuclear activities must be guarded. The decision making authority on technical matters must be kept by the bodies entrusted with such authority.

2.3 **Purpose**. It was also clear from the outset that the purpose of stakeholder involvement is to attain the best possible decision. It was recognized that there are different types of decisions, some of them addressing long-term considerations, such as the establishment of a national energy policy, and some addressing short-term concerns, such as the construction of a new nuclear power plant, and that each such decision will bring with it its own set of stakeholders and their own actual and perceived interest

2.4 **Coverage**. INSAG also found convenient to emphasize that, for good stakeholder involvement, decision makers must communicate the bases for their decisions, in all areas, be they operational, regulatory or legislative. The document should also provide practical advice and examples of successful stakeholder involvement strategies and recognize the trans-boundary implications of the nuclear option, such as in emergency planning, and therefore encourage an international perspective for developing stakeholder involvement strategies.

2.5 **Limits**. In accordance with its terms of reference, INSAG considered that its role in stakeholder involvement should be limited to provide high level instruction/guidance to member states, clearly indicating that safety, openness and public acceptability are inextricably linked and that stakeholder participation in the decision making process should be as broad as practicable.

3. THE PRESENT DRAFT

3.1 **Status**. INSAG has developed several drafts, which have been discussed within the dedicated group and in plenary sessions. The present accepted draft includes chapters on the: (1) safety relevance of stakeholder involvement, (2) the communication with stakeholders, (3) the participation by stakeholders in the decision-making processes, (4) documentation and feedback, and (5) conclusions and recommendations. In Appendix 2 the detailed table of content has been included.

3.2 **Definition**. Although not yet finally accepted and limited to the context of the document in preparation, INSAG has defined the term stakeholder as "a subsection of the general public that comprises a targeted population having a specific interest in a given topic". There are normally two types of stakeholders, internal and external. Internal stakeholders may have a direct impact on the decision-making process, they may be therefore called "the decision-makers", while external stakeholders are most often affected by the potential outcome of the project, either directly or emotionally. The involvement of both stakeholder groups is integral to achieving project goals and objectives and contributes substantially to safety.

3.3 **Purpose**. The INSAG report has four main purposes: a) to demonstrate that substantive stakeholder communications contribute to the safe operation of nuclear facilities, b) to advocate open, transparent, factual, timely, informative and easy to understand multi-lateral communications between members of the society and those who are operating or regulating nuclear facilities or preparing a nuclear project, c) to present major attributes of such communication and interchange, and d) to discuss means and ways for efficient and rational involvement of stakeholders in considering nuclear issues.

3.4 **The right to information and participation**. There is a clear recognition that all members of the society must have easy access to objective, non-biased information to arrive at an informed opinion on nuclear issues in general and in developing projects in particular. Furthermore, individuals and organizations need to have an opportunity to express their concerns and receive honest, credible, and timely answers to their questions. Likewise, including all external stakeholder groups in constructive participation on substantive and controversial issues can be a major administrative and logistical challenge.

3.5 **Attributes of communication**. INSAG promotes that any communication must be factual, timely, complete, and understandable. Members of society must be provided with enough information to promote meaningful dialogue on associated risk. All parties must achieve a basic understanding of nuclear issues so that a reasonable person could come to a reasonable conclusion regarding the risk and potential benefit. Part of any factual information provided should also be an explanation of measures and means that would be available to control and manage the risks. This information would permit the public to consider and suggest alternative approaches to the issues of concern and to better understand the approaches utilized.

3.6 **Credibility a major asset**. Government authorities, regulators, and plant operators need to earn their credibility as communicators. A prerequisite for achieving trust is timely, accurate and complete public information on abnormal events, incidents and accidents at nuclear facilities. Equally important is periodic, accurate and complete public information concerning plant operations (annual report, plant shut down, maintenance, occupational and nuclear safety performance) and of normal plant releases, radiation surveys and waste management activities. Responsible parties must feed and nurture their relationship with stakeholders, which, if positive can yield benefits, but if negative can be obstructionist.

3.7 **Satisfactory and complete information**. Among the basic facts to be discussed openly are information on potentially harmful consequences of the normal operation of various nuclear facilities and of abnormal events and accidents that either have occurred or are possible. Also the estimated consequences of a worst case credible accident and the means for limiting consequences and probabilities need to be discussed in simple terms. However, each interaction must be tailored to the particular stakeholder group with whom one interacts. In no case should preconceptions about the public's ability to comprehend complex issues be taken as an excuse to withhold information.

3.8 **Responsibility for general information**. General information on nuclear safety issues should be provided by authorities and regulatory organizations, educational institutions and professional and industrial organizations. Such information is of vital importance to increase public knowledge in nuclear safety and radiation protection. General education should start as soon as possible, even at the elementary school level and continue. In fact, efforts to provide continuing opportunities for dialogue can serve as a basis for communications when problems occur.

3.9 **Responsibility for operational experiences**. Communications related to operating experience is the responsibility of the operator and regulatory organization. Events of interest to the stakeholders need to be communicated promptly through the mass media, which will allow wide distribution of the information. Providing information using all existing professional networks, the Internet, and other fora could fulfil part of the information needs of certain stakeholder groups. However, dependent upon the nature of the event, there is no substitute for direct, face-to-face dialogue to satisfy the stakeholder's need for accurate information in a timely manner.

3.10 **Restrictions**. Restrictions on the information provided should be limited. Careful consideration is needed to decide what sensitive nuclear security information can be released to the general public. In addition, the nuclear industry and plant owners have a right to withhold information of a proprietary nature. Also in these cases it is important to provide general information to the extent possible and to explain the reasons for withholding the details. Regulatory information such as final safety evaluation reports or inspection findings should be made public as soon as possible.

3.11 **Communication should be global**. Communication should not be limited to national boundaries and should be made available in different languages, if appropriate. Experience shows that the consequences of an accidental radioactive release may well affect several countries, contiguous as well as in the general vicinity. In some cases, nuclear power plants and fuel cycle installations are located on or near country borders. International agreements exist to ensure that members of the public in other countries are kept informed on nuclear and radiation risks and that emergency planning is well coordinated to protect populations in the immediate area as well.

3.12 **Accepting reasonable risk.** Meaningful participation by external stakeholders means that they are given an opportunity to convey their issues and concerns regarding risk and related questions and obtain answers or a reasonable expectation of when those answers may be forthcoming. Reasonable issues and concerns should be factored into the decision, when possible. For example, when launching a plan for establishing a new nuclear facility, modifying an old one, or planning a release of radioactivity within technical specification limits, it is important to begin stakeholder participation early so

that people have an legitimate opportunity to participate in the process and share in its outcome

3.13 Examples of opportunities for stakeholder participation.

(1) ***Debate on the incorporation of nuclear energy in the national energy plan***. Traditionally, governments establish national energy plans that are generally discussed with the affected industry and considered by the national government. In this sense, such plans have a national relevance and the stakeholders are informed of the main characteristics. That effort may not be sufficient. Some countries have been involved in wide public debates on energy policy. Within this context, it is worthwhile to consider the significant national debate on energy that has been conducted in France from March to October 2003.

(2) ***The development of legislation defining nuclear regulation*.** The process of developing first level nuclear legislation is well established in most countries. It is the responsibility of governments and parliaments, representing stakeholders. The development of second level nuclear legislation, mainly governmental decrees dealing with basic aspects, such as the licensing process or the radiation protection regulations, may be the responsibility of a specific Ministerial or Regulatory body. At this second level, the participation of stakeholders is not well planned in all countries. It is therefore advisable to arrange for effective stakeholder participation in drafting second level legislation. Developing third level nuclear regulation, mainly safety, radiation, waste and transport standards are mainly the responsibility of regulatory bodies. In many cases, before being issued, such documents are sent for comment to specific technical bodies, industry or user associations, but often a procedure does not exist for general stakeholder participation. There is a need to establish an effective mechanism for more general participation which can and often does expedite the decision making process.

(3) ***The decision to install a new nuclear power plant, fuel cycle installation, or a high level waste repository***. This is a major decision affecting all stakeholders including national governments. The participation by stakeholders is generally integrated into the basic regulations of many countries, although the details are not always well defined. Experience shows that in democratic societies the installation of a new nuclear power plant, fuel cycle installation, or radioactive waste repository, is not possible without the active consent of at least the population directly affected. In Finland, the site selection for an irradiated fuel storage facility has been a lengthy process including participation by Parliament, the local authorities and the public

(4) ***The establishment of the emergency plan***. Persons living in the neighbourhood of a nuclear installation would get better perception of risks if local experts and local authorities are given an opportunity to participate in the development of an emergency plan. Because they are the main bearers of the risk and participants in accident preparedness, these stakeholders should be given the opportunity to participate in drafting or commenting on the emergency plan related to that installation and in verifying that all necessary equipment and services have been provided. Moreover, they must also participate in planning for drills and exercises

and in the analysis of lessons learned. Local participation should be encouraged during all phases of accident preparedness and response.

(5) ***Controlled releases and radiological surveys of the environment***. Controlled radioactive releases are a major point of social concern and distrust. Environmental radioactivity surveys and the analysis of their results and expected consequences can serve to give the stakeholders further assurance of the radiological impact of the installation on their communities. In most countries the regulatory authorities must inform the affected population on these two matters, but in most cases there are no methods to ensure the participation of the affected stakeholders before the release. Methods should be developed to ensure the formal participation of the local authorities and the public in the controlled release of radioactivity from nuclear installations and in the related radiological surveys.

(6) ***The environmental restoration of old nuclear sites***. The issue called "sites polluted by radioactive substances" is becoming a serious matter of concern. These refers to any site, abandoned or in exploitation, on which radioactive substances, either natural or artificial, have been or are being used and stored in such conditions that the site is hazardous for public health and/or the environment and therefore is in need of cleaning and restoration. Of particular interest are those research centres and industrial developments, including uranium mines, in cases located close to population centres. Restoration efforts do not only affect the general population but also the workers at those sites. Clean-up operations may temporarily increase the level of radiation in the local environment, therefore environmental impact statements and evaluations are often considered in the regulations of most countries. This provides a mechanism for stakeholders to participate in the decisions related to the level of decontamination and the future use of the contaminated sites. Organizations of individuals participating in the environmental restoration of the site have also been created to provide information on the process and, on occasion to oversee it.

(7) ***The dismantling and closure of nuclear installations***. Dismantling and closing nuclear installations, primarily when a site is released for other applications, is often of concern to local and regional authorities and to the surrounding population. The large quantity of low level waste, which is produced, and its transport from the site also raise community concern. Therefore, stakeholder participation should be pursued in these cases as well.

(8) ***The management of radioactive waste.*** The management of radioactive waste is also a sensitive subject. In most cases the intermediate and low level radioactive waste is sent to centralized repositories, while the high level waste and the spent fuel elements are forced to remain in place for prolonged periods of time, either in pools or in dry containers. This may be due to a ban on reprocessing or there may not be a central high-level waste repository available. The control of such waste is a matter of concern for the local authorities and population. These stakeholders have the right to be informed and utilities and regulators should be obliged to involve them in any related decision making process.

(9) ***The transport of radioactive materials.*** The transport of radioactive materials to and from a nuclear installation is also a matter of high concern for the population. Transport is well regulated but important details such as the transportation routes, the emergency plans and the radiation surveys should be shared with the local authorities and population.

3.14 **Procedures for Participation** INSAG recognizes that stakeholder participation in decision-making processes requires that appropriate procedures are established and that the participation is subjected to certain limits, depending on the subject matter of the decision. Procedures should contain specific criteria such as: a clear definition of the issue, a well structured process for decision-making, the expected level of involvement, a balanced representation of stakeholders, a schedule of venues, and provisions for appropriate resources. These procedures should be developed by the authorities and must contemplate the general situation and the specific cases.

3.15 **Tools and Means for Participation** Many advanced countries have already created procedures for meaningful stakeholder involvement. The Barnier law in France is one example. That law requires that any large public work, including the construction of a nuclear power plant or a new transmission line, should be subjected to public debate in accordance with the procedures established by a National Committee for Public Debates. The debates are monitored to ensure that they are well organized, reasonable in content, and limited in scope. In the UK and the USA, public inquiries into nuclear issues are often conducted under the authority of a judge or review board. However, in the UK, a recent inquiry by the House of Lords Select Committee on Science and Technology has concluded that what was done in the past on stakeholder involvement may not be sufficient today.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 At present, INSAG has been discussing one major conclusion and the recommendations given below.

(1) The political, social and economic impact from the use of nuclear energy has generated considerable public debate. Public participation in this process has promoted a greater degree of understanding and more reasonable outlook related to the associated risks. Stakeholders have requested information from and have demanded participation in those decision-making processes from the responsible parties. It is of utmost importance to continue providing opportunities for stakeholder involvement and constantly look for new ways to obtain it. The active involvement of stakeholders in nuclear decision-making processes can provide a substantial link towards safety.

(2) Although in most countries regulatory institutions and authorities have a legal obligation to inform stakeholders of their activities, that obligation is not always clearly stated or well developed. Therefore it is recommended that pertinent institutions and authorities engage in improving legislation and establish procedures for more meaningful interaction with stakeholders. The IAEA Commission on Safety Standards is invited to consider issuing requirements and safety guides to that end. Likewise, the NEA Committees should continue having stakeholder involvement on their agenda.

(3) Stakeholder participation in the decision-making process is an essential part of the nuclear energy environment. Nevertheless the decision-making mechanisms may vary considerably by country, depending on culture, history and governmental philosophy. Taking into account such differences, it is recommended that all countries engage in creating instruments towards achieving maximum public participation and stakeholder involvement.

Madrid, November 14th, 2005

APPENDIX I

INSAG Published documents

INSAG-1: (revised as INSAG-7): Summary Report on the Post-accident Review Meeting on the Chernobyl Accident

This publication is also available in French, Russian, Spanish.

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APPENDIX 2

STAKEHOLDER INVOLVEMENT IN NUCLEAR ISSUES

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