

# The NEA and the IAEA: partnering for progress

G.H. Marcus \*

We are often asked, “What is the difference between the OECD Nuclear Energy Agency (NEA) and the International Atomic Energy Agency (IAEA)?” Or, to put it bluntly, why are two international intergovernmental agencies needed in the nuclear field?

It is entirely reasonable for governments and interested individuals to ask this question. After all, on the surface, there appear to be substantial similarities in the areas of effort of the two organisations, and no member countries should have to support redundant efforts or, worse still, for international civil servants to waste time and effort in pointless turf battles.

I am happy to say at the outset of this article that a careful analysis shows that each agency has different areas of emphasis and different strengths. Furthermore, the senior managers of both agencies are committed to co-operation and co-ordination. As a result, we believe that the work of the two agencies is complementary. The different expertise and different focus of the two entities, when applied to joint efforts and to sharing of efforts, results in a cumulative effect which is greater than the sum of the two parts.

An understanding of the fundamental differences between the IAEA and the



NEA can help put things in perspective. The NEA is an organisation of 28 market-oriented, liberalised economies. The IAEA, by contrast, currently has 138 member countries, and includes the majority of the developing world. All NEA members are also IAEA members. The NEA is a semi-autonomous organisation of the Organisation for Economic Co-operation and Development (OECD), while the IAEA is an autonomous international organisation within the United Nations family of organisations. Those member countries of the NEA that operate commercial nuclear power plants collectively produce over 80 per cent of the world's nuclear-generated electricity. Nuclear power supplies about one-fourth of the electricity in NEA member countries, as compared to 16 per cent of the electricity generated worldwide.

The mission of the NEA is to assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes; and to provide authoritative assessments and to forge common understandings on key issues as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development. Therefore, the NEA focuses on selected areas where the member countries seek such authoritative assessments and the development of common understandings. The mission of the IAEA is to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world; and to ensure, so far as it is able, that assistance provided

\* Dr. Gail H. Marcus ([gail.marcus@oecd.org](mailto:gail.marcus@oecd.org)) is Deputy Director-General of the NEA.

by it or at its request or under its supervision or control is not used in such a way as to further any military purpose. Thus, the IAEA mission encompasses all areas of nuclear technology, including those that are useful to the developing world, and a very important part of its mission relates to assuring that the use and dissemination of nuclear technology does not lead to the further proliferation of nuclear weapons around the world.

These are very different missions, and as a result, the NEA does no work in most of the areas in which the IAEA operates. While the NEA believes non-proliferation is important, it does not conduct any work in this area. The NEA does not engage in any work on non-proliferation policies or international agreements, and does not participate in inspections to assure compliance with non-proliferation treaties. The NEA also has no involvement in providing technical assistance to the developing world, which is a major focus for the IAEA. The NEA does not provide funding for the dissemination of nuclear technologies or training for their use. The NEA does not have any activity in many of the technological areas where the IAEA has done extensive work – such as in the use of nuclear technology for agricultural applications.

Nevertheless, there are technological areas of common interest to both organisations. Both organisations are interested in the safe operation of reactors, now and in the future. Both organisations work on other aspects of the nuclear fuel cycle, including waste disposal. Both organisations are concerned with the effects of radioactive exposure on workers and members of the public. Both organisations engage in economic and development studies, and work in some of the scientific areas underlying nuclear technology.

What helps keep the work of both agencies separate in these areas is the different technical and political areas of interest of both organisations, and their very different modes of operation. The NEA, with its small staff and budget (about 80 people and a budget of 12.5 million euros<sup>1</sup>), cannot provide assistance to its member countries in all areas. Indeed, its member countries, with their highly developed infrastructures, their extensive research programmes, and their considerable experience with nuclear technologies, do not feel the need for assistance in all areas. The work of the NEA is guided by a Steering Committee composed of its member countries that has promulgated a five-year Strategic Plan to direct the efforts of the agency, and that develops biennial work plans consistent with that Strategic Plan. The Strategic Plan, and the biennial work plans, call for work to be focused on areas of member country interest. For example, the agency does not, at present, do much work in the area of low-level waste disposal, but rather focuses its efforts solely on high-level waste disposal.

NEA staff has strong expertise in the areas of work the member countries wish to pursue. Further, the NEA's products are generally not products of the permanent staff or consultants, but rather products of its committees and working parties. These committees and working parties pool the best expertise around the world and develop products that represent a consensus of the world's experts in a given area. It should be noted that the NEA's committees and working parties invite the collaboration of non-member countries to participate in their activities as appropriate, including as either ad hoc or permanent observers. The number of such

collaborations is limited, but it does include those countries outside the NEA, such as Russia and China, that have substantial nuclear activities and an ability to contribute substantively to the work of the committees, as well as to gain from their participation.

Another strong focus of the NEA is its experience in providing Secretariat services for international research projects. We currently serve this function for over a dozen such special projects, many of them in the safety area. It is worthwhile to point out that these projects may involve countries that are not members of the NEA. For example, the recently completed RASPLAV project and the current MASCA project both utilise research facilities in Russia.

While at first glance it may seem that the NEA's smaller membership might be limiting, in fact, it has turned out to be a strength. The smaller, more homogeneous membership of the NEA simplifies decisions on which countries to involve and how materials can be shared. Projects are naturally multinational rather than global, and as appropriate, may be initiated with only a subset of the NEA membership. Coupled with that, the ability to involve selected non-member countries helps assure that other perspectives are brought to the table as appropriate.

The different missions and memberships of the two organisations have resulted in complementary strengths. While the NEA's organisational structure and processes are designed for supporting multinational projects in emerging areas of technology, the IAEA's structure and activities are more appropriate for the dissemination of insights and products worldwide. On a number of occasions, the IAEA has taken a tool piloted by the NEA for multinational applications and

further developed it for a worldwide audience. Just as importantly, the NEA and the IAEA have worked in partnership on numerous projects to develop applications that meet the needs of both of their constituencies.

Two prominent examples of mutual effort are the IAEA/NEA Incident Reporting System (IRS) and the International Nuclear Event Scale (INES). The IRS was initially developed to collect information on potential safety-related events at nuclear power plants (NPPs) and to provide it to regulatory authorities. It has since evolved to address not only power installations, but also research reactors and fuel cycle facilities around the world. INES was developed as a means to communicate promptly to the public the safety significance of events reported at nuclear power plants. It also has been subsequently expanded to address events at all types of nuclear installations as well as occurrences associated with the transportation of radioactive materials and the use of radioactive sources.

Both of these products logically needed to be used worldwide for maximum value. The NEA's smaller membership, with a number of members who had tools of their own in these areas, was able to initiate activity quickly in the development of these products. The IAEA, with its wider membership, expanded the scope of these tools and was, ultimately, the organisation most appropriate for their long-term management. The NEA has continued to work with the IAEA on both these systems, jointly managing the IRS and as a member of the Advisory Committee for INES. Thus, the development and implementation of these systems has followed a symbiotic, mutually beneficial path.

The IAEA's broad membership also makes it the appro-

prate organisation for providing for reviews of safety performance at nuclear power plants throughout the world in order to promote the continuous development of operational safety globally, such as through its Operational Safety Review Teams (OSARTs); for assisting countries as needed in developing their infrastructures for the safe and effective operation and regulation of nuclear facilities, such as through training; for providing a global forum for discussion of and advice on safety issues at nuclear installations, such as through its International Nuclear Safety Group (INSAG); and for setting basic standards of safety to help assure that regulatory standards throughout the world adhere to certain fundamental principles.

The different strengths of the two organisations have, from time to time, caused their member countries to seek the assistance of one or another of the organisations in specific activities. Thus, countries within the IAEA encouraged the establishment of the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO) as a vehicle to help member countries assess current and emerging nuclear technologies and make effective decisions on what technologies are best suited for each country's needs. Likewise, the membership of the Generation IV International Forum (GIF), which is largely, but not exclusively composed of NEA members, sought out the NEA to tap into its experience in coordinating research projects by asking it to serve as the Technical Secretariat for GIF.

Although it is clear from the above that there is a distinct and complementary role for each of the two organisations in areas of common interest, it is also true that, without some conscious co-ordination, what

begins as a complementary activity can turn into a duplication of effort. The two organisations have, over the years, developed co-operative links at all levels of both organisations. The links include ongoing contacts between project managers of related activities in both organisations, and an annual co-ordination meeting at the senior management level to discuss plans in each agency for the coming year.

These communications have led the two agencies to pool their expertise on a number of joint activities, including conferences and publications, and to participate actively in each other's committee meetings and conferences.

Thus, through a combination of the differences between the missions and working methods of the two agencies, and through the strong links established, the NEA and the IAEA provide complementary and co-ordinated services to their member countries in areas of mutual interest. ■

#### **Note:**

1. In comparison, the IAEA has about 2200 employees and a regular budget of about US\$ 300 million, but it should be noted that these figures include staff and resources for all activities, not just the ones in areas of common interest.