



NEA COMPARED TO IAEA

Membership

- NEA is much smaller than IAEA - 27 Members vs 125 Members.
- NEA brings together only industrialized countries of Europe, North America and Asia; IAEA membership includes developing countries.
- NEA membership is homogeneous which:
 - results in like-minded approach to problems, openness, climate of mutual trust and collaboration, minimum of politicization;
 - promotes full exchange of experience and frank assessment of issues leading to consensus positions on technical policy issues;
 - ensures that Member country experts can contribute meaningfully to technical work and that NEA is not constrained by participants with little to offer;
 - ensures that NEA work reflects best available practice rather than lowest common denominator.

Resources

- NEA budget (\$16 million) is only about 6% of IAEA regular budget (= \$260 million).
- NEA staff (80, including 40 professionals) is much smaller than IAEA's (2295, including 890 professionals).

Mandate and Scope

- NEA program is much narrower than IAEA's and does not include safeguards, physical security or assistance to developing countries.
- NEA's focus is high quality technical, economic and legal work.
 - NEA is much more active than IAEA in promoting development and harmonization of national laws on nuclear energy.
 - NEA conducts, in close collaboration with IEA, expert studies on the economics of nuclear power - a topic not suited to IAEA.
 - NEA program includes activities not in IAEA program, e.g., International Nuclear Emergency Exercises (INEX), International Information System on Occupational Radiation Exposure in nuclear power plants (ISOE).

Products

- NEA technical work, particularly in safety and waste management, is generally of much greater depth and more in forefront of knowledge.
- NEA technical work is more relevant to needs of developed countries with mature nuclear power programs; NEA is better able to target those needs.
- NEA Collective Opinions (consensus technical positions) have no equivalent in IAEA.

Methods of Work

- NEA is more flexible and can respond to problems on more timely basis.
- NEA's key structural feature, a system of Standing Technical Committees, is unique to NEA.
- NEA Joint Projects (research projects in safety and waste management) have no equivalent in IAEA.

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NEA BENEFITS TO U.S.

- NEA provides U.S. a forum for discussion of key nuclear power issues with like-minded countries.
 - For example, in the regulatory area, the U.S. has benefited from the views of other Members on such sensitive issues as proposed regulations on siting of nuclear plants.
- NEA provides U.S. access to the substantial R&D effort and experience of other Member countries.
- The pooling of expertise and resources provided by the NEA is especially important at a time of tighter U.S. budgets in nuclear safety and waste management R&D.
- The U.S. has benefited from NEA Joint Projects, including those in the U.S., which have enabled it to join with other interested countries in pursuit of specific research objectives in safety and waste management at substantial savings. In some cases, U.S. companies are directly involved. For example:
 - Two completed projects at Three Mile Island involved analysis of samples of fuel debris and the reactor vessel itself.
 - The OECD LOFT Project involved studying transient behavior in simulated loss of coolant accidents in PWRs.
 - The on-going RASPLAV Project enables the U.S. to participate in important safety research involving a simulated core melt accident utilizing actual nuclear material and aimed at studying the feasibility of possible countermeasures.
- Technical work carried out by the NEA has directly affected U.S. policy. For example, the work of a senior expert group reviewing safety research programs in Member countries has impacted the direction of safety research in the U.S..
- The U.S. has utilized NEA Collective Opinions on issues of concern in safety, regulation, radiation protection and waste management. For example, in the area of waste management, the NEA has produced a consensus position - concluding that geological disposal of high-level radioactive waste is justified from environmental and ethical standpoints - that has been referred to in Congressional testimony.
- The U.S. is taking advantage of the NEA's increasing involvement in organizing international peer reviews of national R&D activities, safety assessment studies, and disposal strategies in waste management. At the request of the U.S., the NEA is carrying out, in early 1997, a peer review of the safety assessment of the WIPP facility, an R&D facility to demonstrate disposal of waste from the DOE weapons program.
- The NEA is assisting countries of Eastern Europe and the former USSR to establish domestic legislative frameworks for their nuclear activities consistent with international principles. In addition, it has taken the lead in addressing the obstacle which the absence of liability regimes in some countries presents to U.S. and other Western companies seeking to provide them nuclear safety assistance.

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NEA STRENGTHS

- NEA fills special niche - brings together industrialized countries of Europe, North America and Asia.
- NEA membership represents much of the world's best nuclear expertise.
- By pooling expertise of Members, NEA provides each Member access to the substantial R&D effort and experience of other Member countries.
- NEA provides significant added value; it would cost any Member many times what it pays to belong to NEA to obtain information available through the Agency in nuclear safety alone.
- NEA technical work, particularly R&D in safety and waste management, is of considerable depth and in forefront of knowledge.
- Homogeneity of NEA membership makes possible a like-minded approach to problems, a climate of mutual trust and collaboration, the full exchange of experience, and frank assessment of issues.
- NEA is cost-effective; operates with small staff and relies on Member country experts.
- NEA is able to focus effectively on specific needs of its Members.
- NEA is relatively unfettered by political and bureaucratic constraints.
- NEA's system of Standing Technical Committees enables the Agency to be flexible and responsive.
- NEA Joint Projects enable interested Members and non-members to join forces in carrying out R&D projects in nuclear safety and waste management based on cost sharing. On-going RASPLAV Project, the first in a non-member country, provides added benefits because carrying out such safety research projects in Russia reduces costs further while usefully employing Russian nuclear experts.
- NEA Collective Opinions - consensus positions on key issues - provide Member countries credible references.
- NEA's program is highly focused: areas of particular strength include safety and regulation, waste management, law and liability, economic aspects.

Nuclear Safety and Regulation

- NEA activities have helped to harmonize views, approaches and regulations among Members, as in the field of severe accidents.
- NEA provides forum for in-depth exchanges on regulatory issues which are sometimes sensitive.
- NEA's two safety committees include highest level experts in safety research and regulation.
- NEA is used by Members for development and testing of initiatives which, if successful, are later extended to non-members through the IAEA (e.g., Incident Reporting System).

Radioactive Waste Management

- NEA's performance assessment and site characterization activities are very advanced.
- NEA is increasingly called upon by Members, including U.S., to co-ordinate peer reviews of national R&D activities, safety assessment studies and/or disposal strategies.

Nuclear Law and Liability

- NEA assisting countries of Eastern Europe and the former USSR to adopt national legislation governing nuclear energy consistent with agreed international principles and promoting adherence to international liability conventions.
- NEA coordinating international efforts to deal with the liability problem preventing Western companies from providing safety assistance to countries of Eastern Europe and former USSR.

Economic Aspects

- The NEA conducts, in collaboration with IEA and IAEA, studies on economics of nuclear power and other factors affecting the viability of the nuclear option.

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BAGKGROUND & CHARACTERISTIC

- Formed in 1958 as European Nuclear Energy Agency.
- Became the NEA during 1970s when U.S. and other non-European countries joined.
- Semi-autonomous part of larger, more diverse organization - OECD.
- Two parts: Main Secretariat and Data Bank.
- 27 members - Industrialized countries of Europe, Asia and North America.
- Membership represents 85% of world's installed nuclear capacity.
- Annual budget \$15-16 million - U.S. contribution < \$3 million.
- Staff of about 40 professionals and 40 support personnel.
- Basic role is to provide forum for, and to facilitate, peaceful nuclear co-operation particularly in technical areas.
- Basic approach is to pool expertise of membership in specific areas in order to:
 - provide each Member access to information and experience of other Members;
 - facilitate pursuit of R&D work and studies on issues of mutual interest based on cost sharing;
 - promote development of common views and approaches.
- NEA staff organizes work, which is carried out by Member experts.
- Program covers: safety; regulation; waste management; radiation protection; economic aspects, resources and development; law and liability; science.
- Methods of work:

Standing Technical Committees

- control own activities with general guidance from Steering Committee for Nuclear Energy
- one for each major area of NEA program
- utilize experts from Member countries
- provide fora for in-depth exchanges of technical and programmatic information and experience
- identify areas where further work or research is needed
- organise Joint Projects and develop consensus views (e.g., Collective Opinions)

Small Groups of Experts

- address specific issues or technical problems
- both standing and short term
- operate under Standing Technical Committees

Joint Projects

- advanced research in nuclear safety and waste management
- focus on particular technical issues
- only interested countries participate and contribute financially
- e.g., LOFT, TMI - VIP, HALDEN, RASPLAV

Collective Opinions

- formalized consensus positions on key technical and policy issues

Peer Reviews

- organized by NEA at request of a Member
- carried out by group of experts from other Member countries
- cover national R&D activities, safety assessment studies, and disposal strategies in waste management

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