
**TERMS OF REFERENCE FOR
THE TECHNICAL WORKING GROUP ON
ADVANCED TECHNOLOGIES FOR LIGHT WATER REACTORS
TWG-LWR**

The TWG-LWR is a group of experts that provides advice and support for programme implementation, reflecting a global network of excellence and expertise in the area of advanced technologies for Light Water Reactors (LWRs)¹.

I. SCOPE

The focus of this Working Group is on technology development of light water reactors (LWRs) utilized for the production of electricity and/or heat. The scope of the Working Group covers:

- a. Design and technology development for current and advanced LWR concepts
- b. Economics, performance and safety for current and advanced LWRs
- c. Advanced fuel cycles and fuel options for current and advanced LWRs
- d. Infrastructure specific to the development and deployment of LWRs.

The areas addressed by the TWG-LWR include

- Advances in national programmes
- System analyses and fuel utilization
- Research, development, design, performance and cost related aspects of
 - Reactor core
 - Plant systems and components
 - Reactor and plant structures and containment
- Plant operation and maintenance.

The TWG-LWR coordinates its activities with other Agency activities in interfacing areas, as well as with related activities of other international organizations to avoid duplication of activities. Specifically, activities in common technology areas with the TWG-HWR are conducted jointly. Furthermore, because the scope of the TWG-LWR cuts across complementary thematic topics which are also covered by the Department of Nuclear Safety and Security, the Department of Safeguards, the Division of Nuclear Fuel Cycle and Waste Technology (i.e. the TWG-FPT & -NFCO) and in the Division of Nuclear Power (i.e. the TWG-LMNPP, -NPPCI, & -MHR), activities are carried out in co-ordination with these groups as appropriate.

II. FUNCTIONS

The functions of the TWG-LWR are:

¹ Light water reactors are nuclear power plants with light water moderator and coolant [i.e. pressurized light-water-moderated and cooled reactors (PWRs), boiling light-water-moderated and cooled reactors (BWRs) and water-cooled, water-moderated power reactors (WWERs)].

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- a) To provide advice and guidance, and to marshal support in their countries for implementation of the Agency's programmatic activities in the area of advanced technologies for LWRs;
 - b) To provide a forum for information and knowledge sharing on national and international programmes development in the area of advanced technologies for LWRs,
 - c) To act as a link between the Agency's activities in specific area and national scientific communities, delivering information from and to national communities;
 - d) To provide advice on preparatory actions in Member States and the Agency's activities in planning and implementing coordinated research programmes, collaborative assessments and other activities as well as the review of the results on advanced technologies for LWRs;
 - e) To develop and/or review selected documents from the Nuclear Energy Series, assess existing gaps and advise on preparation of new ones, in the scope of their field of activity;
 - f) To identify important topics for discussion at SAGNE and contribute to status reports, technical meetings and topical conferences in the field of advanced technologies for LWRs;
 - g) To encourage participation of young professionals, as appropriate, in Agency activities.

III. MEMBERSHIP

Members of the TWG-LWR shall be appointed by the Deputy Director General, Head of the Department of Nuclear Energy following consultation with the respective national authorities or organizations.

Members of the TWG-LWR

- Shall be recognized experts in LWR technology having extensive links with national technical communities;
- Are to serve for a standard length of four years;
- Shall participate in the Group in their personal capacity and shall provide as appropriate views on national policies and strategies in the technical field;
- May as appropriate bring experts to provide additional information and share experience in the meetings of the TWG;

The total membership of the TWG-LWR shall not exceed 20 members

The Deputy Director General of the Department of Nuclear Energy may from time to time also co-opt additional members and/or invite observers from other Member States and international or regional organizations on an ad-hoc or continuing basis.

IV. CHAIRMANSHIP

The Chairman of the TWG-LWR shall be selected from the members of the TWG-LWR by the Deputy Director General, Head of the Department of Nuclear Energy.

V. SECRETARIAT AND ADMINISTRATIVE AND TECHNICAL SUPPORT

Within available resources, the Deputy Director General will provide for administrative and secretariat services required by the TWG-LWR, including meeting facilities, maintenance of records and distribution of documents. The IAEA shall provide the services of a Scientific Secretary (or several Scientific Secretaries). Support, when required, will be provided by managers and staff from the Department of Nuclear Energy or other relevant departments.

VI. METHODS OF WORK AND DELIVERABLES

Except as otherwise herein stated, the TWG-LWR will determine its own methods of work, including preparation of its Agenda, establishment of special groups, keeping of records and other procedures, and will report on its findings to SAGNE.

The activities of the TWG-LWR between periodic meetings shall be coordinated by the Scientific Secretary taking into due consideration the relevant recommendations of the TWG and SAGNE.

Following each meeting the TWG-LWR shall provide the Deputy Director General with a report on its achievements and recommendations. The report shall be also published on the web in a format and content agreeable to all members.

The Chairman of the TWG shall communicate to SAGNE the recommendations for strategic development or other important topics to be discussed at SAGNE meetings.

VII. MEETINGS

The TWG-LWR will meet at regular intervals but not more frequently than once a year with each meeting lasting up to five working days. Extraordinary meetings may be called when required.

Meetings will be conducted in English only.

VIII. COSTS

The IAEA is not in a position to bear the travel and other expenses of the TWG members to attend the TWG meetings. All expenses involved in the participation of each member, including travel and per diem expenses, shall, in general, be born by the Member State/organization. However, the IAEA may contribute to covering the cost of attendance of members from developing countries, if sufficient funds are available and if a significant contribution can be made to the meeting by the respective members.