

FBNR Letter

FIXED BED NUCLEAR REACTOR – FBNR

<http://www.rcgg.ufrgs.br/fbnr.htm>

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Dear coworkers and potential coworkers around the world,

As the number of coworkers is increasing, we are issuing a circular letter to communicate about the matters of general interest to the FBNR project. Please consider this as a personal letter to yourself. Those who are not involved in the project as yet may participate at any appropriate moment. The project has manifold aspects including scientific, technological, economical, political, and sociological.

A new era of nuclear energy is emerging. The International Atomic Energy Agency has committed itself to “Help to ensure that nuclear energy is available to contribute in fulfilling energy needs in the 21st century in a sustainable manner; and to bring together both technology holders and technology users to consider jointly the international and national actions required to achieve desired innovations in nuclear reactors and fuel cycles.”- IAEA-TECDOC-1362.

The objective is to develop an innovative nuclear reactor to be inherently safe, passively cooled, small, modular, and simple in design with integrated primary circuit. Safety is achieved by design, and has reduced adverse impact on environment. It is to meet the requirements of GEN IV and IAEA-INPRO as being economic, safe, proliferation resistant and sustainable.

The FBNR may be called People’s Reactor. It is intended to be developed by the peoples for the peoples of the world in the spirit of cooperation and service to humanity. It is intended to be a near term deployment project. Let us form an international consortium to develop this reactor where all members are stakeholders.

An IAEA Coordinated Research Project (CRP) includes FBNR in its program.

Participate in the project and make a proposal on a particular activity of your interest.

The proposals for the IAEA Coordinated Research Projects (CRP) on FBNR for the first year should be within the scope of the activities defined by the IAEA. Here is the list of 6 activities.

Your proposals should have common points with the Research Coordination Programme which for the first year includes:

Activity 1 - Identification and prioritization of the enabling technologies, concepts and designs of Small Reactors without On-Site Refuelling to be addressed in the CRP

Activity 2 - Definition of the scope of requirements and broader specifications to be identified for Small Reactors without On-Site Refuelling.

Activity 3 - Identification of requirements and broader specifications for NPPs with Small Reactors without On-Site Refuelling for selected representative regions

Activity 4 - Review of the approaches to ensure lifetime core operation without refuelling and definition of the scope of benchmark analysis for long-life cores of Small Reactors without On-Site Refuelling

Activity 5 - Performance of benchmark analysis for long-life cores of several concepts of Small Reactors without On-Site Refuelling; identification of further R&D needs and options for demonstration

Activity 6 - Review of the inherent safety and passive safety design options for Small Reactors without On-Site Refuelling and identification of accident scenarios, passive reactivity regulating systems, and passive decay heat removal systems for comparative analysis.

Please, formulate your proposal (don't forget to include common points with activities 1-6 listed above) and send to the IAEA CRP Coordinator and me the draft for review.

The Coordinator of the IAEA CRP on Small Reactors without On-Site Refuelling :
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The final version of the proposal should be submitted to:

Research Contracts Administration Section

Attn. Ms. Teresa Benson
International Atomic Energy Agency
Wagramer Strasse 5, P.O. Box 100
A-1400 Vienna, Austria

Fax: +43 1 2600-7

The proposal form was sent to you in the FBNR Letter No.07 (also posted in the FBNR site <http://www.rcgg.ufgrs.br/fbnr.htm>) should be filled-in by the Chief Scientific Investigator (a person from your Institute or Laboratory who will be responsible for communications with IAEA and preparation of relevant chapters for TECDOC and who will attend Research Coordination Meetings), signed by the director of your Institute, and faxed (preferable) or mailed to the Research Contracts Administration Section

The Proposal for Research Agreement should be consistent with both, activities for Small Reactors without On-Site Refuelling, and the scope of Research Coordination Programme approved by the Agency. As you will notice, the proposal requests to formulate work plan for the coming year only, which means that we will go in steps, and next year you will have to submit another proposal for next one-year period.

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