



**Board For Research In Fusion Science & Technology
(BRFST)
National Fusion Programme**

**Guidelines For Implementing Research Projects Granted Under The National
Fusion Programme (NFP) of BRFST (NFP:Doc:01:2007)**

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This document provides guidelines for implementation of research projects supported under the National Fusion Programme being coordinated by the Institute for Plasma Research. The guidelines provide general information in an ideal situation. In addition to these, the implementing agency has to follow its own rules and regulations, wherever necessary. However, we hope that the end result of this would be a smooth implementation of project.

Background

The Institute for Plasma Research (IPR) is an autonomous body of the Department of Atomic Energy dedicated to fundamental and applied research in the field of plasma physics and thermonuclear fusion and development of technologies relevant to these fields. The overall goal of pursuing thermonuclear fusion research is to develop it as a viable energy technology for future.

ITER (International Tokamak Experimental Reactor) is an important step on the path to develop nuclear fusion as a viable, long-term energy option. Realizing the importance of nuclear fusion to the future national energy security, India has joined ITER as an equal partner along with China, the EU, Japan, Korea, the Russian Federation and the United States of America.

IPR is the domestic agency empowered to design, build and deliver advanced systems and sub-systems forming part of ITER, which have been assigned to India under this agreement.

While IPR prepares for meeting its commitment to ITER, it has been realized that it is imperative to start planning and implementing a long-term programme aimed at developing competence in all aspects of fusion science and technology with a view to be ready to take up designing and building a demo reactor after the successful operation of ITER. This is the motivation behind launching the National Fusion Programme (NFP) of

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the BRFST, in which academic Institutions and industries will be invited to take up research and development activities aimed at fulfilling the objectives outlined above.

The projects, which are approved for implementation, are provided with a financial sanction, which is subject to certain terms and conditions, which are described below and enclosed as Annexure with the first sanction order.

Terms and Conditions of BRFST Research grants

1. General

1. IPR/ BRFST reserves the right to review these terms and conditions and modify them.
2. The funding of any project till its completion will be governed by the terms and conditions existing on the date of starting of the project, unless mutually agreed to otherwise.
3. IPR/BRFST reserves The Right To revoke In Whole Or In Part The Funds Approved for a project at any time without assigning any reason.

2. Sanction Order

1. Once the project is approved, a formal sanction order is issued as per the recommendations of the BRFST Committee. The total cost of the project is finalized based on the estimate of cost of equipment and consumables approved under the project and other relevant documents related to manpower, contingencies etc. submitted by the Investigator. The first sanction order provides the detailed breakup of funds allocated under non-recurring and recurring expenditure heads like Equipment, Manpower, Travel, Consumables, Contingencies etc.
2. Copies of the sanction order with the terms and conditions annexed to it are sent to the Principal Investigator (PI) and the financial authority (Registrar/ Director/ Comptroller etc.) of the implementing Institution.
3. Any correspondence with IPR regarding the project should invariably quote the sanction order No. and date and should be addressed to the concerned official by name.
4. Subsequent to the sanction order, a bank draft/ cheque for the released amount is dispatched by the IPR/BRFST.

3. Date of Commencement of Project & it's Duration

1. The duration of the project is specified in the first sanction order.
2. The project becomes operative with effect from the date on which the Draft/ Cheque is received by the INSTITUTION. This date should be intimated by the Institution authorities/ Principal Investigator to BRFST. It will, in no case be later than one month after the receipt of the draft/ cheque by the Institute.

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4. Principal Investigator & Co-Investigator (s) and the Implementing Institution

1. The Principal Investigator (PI) has the primary responsibility for the implementation of the project. The project team consists of the PI, CI (s) and the project personnel appointed as per the sanction order.
2. In case of PIs who would be superannuating during the duration of the project, association of an “in service” Co-Investigator may be ensured by Implementing Institution (INSITUTION). In such cases, the INSTITUTION should inform IPR, well in advance, about their “no objection” for providing the infrastructure facilities to the PI for implementation of the project after his superannuation.
3. Having accepted the responsibility for the implementation of the project, the PI should be committed to implement the project over its duration and should have no plans to go on long leave.
4. In case, the PI is shifting to another Institution on new appointment/ transfer/ long-term deputation, the project could be transferred to that Institution with the mutual consent of both the INSTITUTION and BRFST. Such requests for transfer of the project should be sent well in advance and should be accompanied with ‘No Objection’ certificates from both the Institutions and the Endorsement Certificate from the new Institution.
5. In case the PI leaves the project due to unforeseen circumstances, the Co-Investigator could be considered as the PI subject to the approval of the PI, Head of the INSTITUTION and IPR. Such a request should be sent at least 4-6 months in advance along with a detailed bio-data of the Co-Investigator.
6. The PI as well as the INSTITUTION has the responsibility of informing this Department about any change in the status of the PI/ Co-Investigator including relieving them on short term deputation for a continuous period of 3 months or more.
7. The project stands terminated in the absence of the PI/ CI for a continuous period of 3 months without intimation to BRFST.
8. The INSTITUTION should provide full infrastructure facilities such as accommodation, water, electricity, communication facilities etc. for smooth implementation of the project.

5. Project Staff

1. All the personnel appointed under the project, for the full/ part duration of the project, are to be treated as temporary employees and will be governed by the Administrative rules/ service conditions of the INSTITUTION. No reference on these issues shall be made to IPR/BRFST. Neither will IPR/BRFST have any liability, whatsoever, for the project staff after completion of the project duration.
2. The sanction order specifies the number of personnel, in different categories, sanctioned under the project. Further addition of project personnel (full-time or otherwise) cannot be done without the prior consent of BRFST.

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3. In case of recruitment of JRF/ SRF, candidates who have been declared successful at NET (or equivalent national examination) may be preferred. Non NET qualified candidates may be employed after a proper selection procedure, as long as they have obtained a 1st Class in the qualifying examination.
4. For JRF, the fellowship shall be Rs. 12,000/- pm and SRF Rs.14,000/- pm (plus HRA as per norms of the PI's institution). The candidate has to be either NET qualified or should have obtained a 1st Class in the qualifying examination.

6. Release of grants in yearly installment and financial management

1. The grants for the project are released on the basis of yearly requirements taking note of the technical progress and expenditure incurred. The first sanction order indicates the budgetary allocation for the duration of the project under various heads like Equipment, Manpower, Travel, Consumable, Contingency, Procured services etc.
2. The first installment of grant is released along with the first sanction order.
3. Diversion of funds from non-recurring head *i.e.* Equipment to recurring head like Manpower, consumable etc. is normally not allowed. However, reallocation/ re-appropriation of grants under different heads require prior approval of BRFST.
4. Employment of non-sanctioned manpower using project funds is not allowed.
5. The equipment sanctioned on the project should be procured at the earliest to avoid any cost escalation. The PI and the INSTITUTION should complete all formalities in advance for placing the order.
6. The subsequent installment of grant would be released annually on the basis of expenditure incurred in the previous financial year and expected expenditure in that year as well as a review of the progress of the project.
7. However, any request for release of the next installment should be accompanied by the following documents:
 - Utilization Certificate and Statement of Expenditure for the previous financial year (in original or copy if sent earlier);
 - Latest authenticated Statement of Expenditure including Committed Expenditure, for expenditure since 1st April of that financial year till the previous month,
 - Annual Progress Report, if not sent earlier.
 - Additional budget requirement for the next year (with appropriate justifications).
8. As a general case, unspent/uncommitted funds will not be carried over to the next year but will be adjusted with the subsequent year's funds (if applicable). In special cases, requests for carrying forward the unutilized grant from the previous financial year to the next financial year may be entertained by BRFST with appropriate justifications for the same. This request may be made while sending the authenticated Statement of Expenditure and Utilization Certificate after the financial year.

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9. The Statement of Accounts and the Utilization Certificates are financial year wise and are to be submitted within a period of 3 months from the 31st of March of that year. (i.e. if date of start of the project is 12.01.98, then the first statement of account and utilization certificate will be for the period 12.01.98 to 31.03.98, the next statement will be for the period 01.04.98 to 31.03.99 and so on.)
10. The INSTITUTION will maintain separate audited accounts for the project. Any interest earned should be reported to BRFST and should be reflected in the Statement of Expenditure.
11. The INSTITUTION shall not entrust the implementation of the work for which the grant is being sanctioned to another Institution nor will it divert the grant to other institute as assistance. In case the Institute is not able to implement the project, it should refund to BRFST the entire grant or the balance grant at the earliest.
12. For permanent, semi-permanent or infrastructure assets acquired solely from the project grants, an audited record in the form of a register in the prescribed format shall be maintained by the Institute. The term "Assets" include (a) the immovable property acquired out of the grant; and (b) movable property of capital nature where the value exceeds Rs 50,000/-. The Institute is required to send to this Department a list of assets acquired from the grant.
13. The grant shall not be utilized for construction of any building unless specific provision is made for this purpose in the sanction order.
14. All the assets acquired from the grant will be the property of BRFST and should not be disposed off or encumbered or utilized for purpose other than those for which the grant had been sanctioned, without the prior sanction of BRFST.
15. After completion/ termination of the project, BRFST will be free to sell or otherwise dispose off the assets, which are the property of BRFST. The Institute shall render to IPR necessary facilities for arranging the sale of these assets. BRFST also has the discretion to gift the assets to the Institute or transfer them to any other Institute if it is considered appropriate and justified.
16. BRFST reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilized or appropriate progress is not being made.
17. The Comptroller & Auditor General of India, at his discretion, shall have the right of access to the books and accounts of the Institute maintained in respect of the grant received from the Government of India.

7. Progress evaluation and Monitoring

1. The PI through the INSTITUTION will furnish to BRFST, a copy of the Annual Progress report of the work carried on the project on an annual basis. (i.e. if the date of start of a project is 12.09.97 the first Annual Technical Progress report shall be for the period 12.09.97 to 30.09.98, the next will be from 01.10.98 to 30.09.99 and so on).
2. In addition, this BRFST may designate an Expert or a Panel of Experts to visit the Institute periodically to review the progress of the work being carried out and to suggest suitable measures to ensure realization of the objectives of the project.

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The INSTITUTION will provide all facilities to the Expert Panel by way of accommodation etc. at the time of their visit.

3. BRFST also shall organize Monitoring Meetings wherein the PIs/ Co-PIs and research staff are invited to present the technical progress of their project. The Investigators should attend such workshops since it provides an opportunity to review their progress based on which any mid term requests by the PIs for additional grants/ extension in duration etc. are considered by BRFST. Subsequent releases of grant would be based on the reviewing and monitoring committee's recommendations.
4. Project reviews will be conducted twice a year (August and February). The PI should submit the progress report / fund utilization certificate / budget for the coming year (including requirements for additional funds, if any, with appropriate justifications) in the prescribed format at least a month before the review dates.
5. On completion of the project, the PI through the INSTITUTION should send the following documents to this Department to enable us to settle the account:
 - A copy of the Project Completion Report in the prescribed format;
 - Consolidated audited statement of expenditure and utilization certificates;
 - List of assets/ equipment in the prescribed format; and
 - DD/ cheque for any un-spent amount with the Institute.
 - Print copies of all publications arising from the project.
6. The unspent balance should be sent through a crossed Cheque/ Demand Draft drawn in favour of IPR.

8. Guidelines for publication of results and safeguard of Intellectual Property Rights

1. Explicit acknowledgement of BRFST support (along with sanction number) must be made in ALL reports / publications / thesis / poster /presentation etc. arising out of an approved project/investigation. The INSTITUTION will take prior permission of IPR before publishing any work based on a BRFST supported project. Such permission will not be unreasonably withheld.
2. The PI should not enter into collaboration with a foreign party (individual/ industry) (for work related to this project) without prior approval of BRFST.
3. Investigators are also requested to publish some of the research papers emerging out of the project work in leading Indian Journals.
4. If the results of research are to be legally protected, the results should not be published without action being taken to secure legal protection for the research results.
5. Patents, if any, generated as an outcome of the BRFST funded project can be taken in the name of the PI and/or their institution. However, the patent should be exclusively assigned to BRFST and any commercial exploitation of the patent should be with prior permission of BRFST and the proceedings shared on a 50:50 basis between BRFST and the PI's institution. In the case of projects sanctioned to industry, BRFST reserves the exclusive right to determine whether any patent shall be taken out and for which commercial use, if any, shall be made of any result of the investigations. If the industry wishes to commercially exploit it, it has to obtain prior written sanction from BRFST.

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