

**BROCHURE ON
SAFETY RESEARCH PROGRAMMES
FUNDED BY ATOMIC ENERGY REGULATORY BOARD**



**Government of India
Atomic Energy Regulatory Board
Mumbai**

May 2018

Table of Contents

S. N.	Title	Page No.
1.	Committee on Safety Research Programme (CSRP)	2
2.	Executive Committee Sub Committee (EC SC - 7)	2
3.	Research Projects	2
4.	Conferences, Symposia, Seminars and Workshops	4
5.	Topics of Relevance	6
Appendix		
I	Terms and Conditions of Grant-In-Aid For AERB Sponsored Research Projects	7
Annexure		
IA	Membership of the AERB Committee on Safety Research Programmes (CSRP)	14
IB	Membership of the AERB Executive Committee Sub Committee (EC SC)	15
II	Format for Application for Grant-In-Aid for New Research Project	16
III	Undertaking from Organisation	20
IV	Request for Release of Grant-In-Aid, (First Installment), Claim Form I	21
V	Acceptance cum Receipt	22
VI	Application for Renewal of Grant-In-Aid for Research Project	23
VII	Request for Release of Grant-In-Aid (Second and Subsequent Including Final Year), Claim Form II	26
VIII	Utilisation Certificate	27
IX	Audited Statement of Accounts	28
X	Inventory of Equipment	29
XI	Format for the Consolidated Final Report	30
XII	Application for the Grant of Financial Assistance for Organising Conferences / Symposia / Seminars / Workshops	32
XIII	Claim Form for Conferences / Symposia / Seminars / Workshops	34
XIV	Utilisation Certificate for Conferences / Symposia / Seminars / Workshops	35
XV	Audited Statement of Accounts for Conferences / Symposia / Seminars / Workshops	36
XVI	Areas of Relevance to AERB	37

SAFETY RESEARCH PROGRAMMES

The Atomic Energy Regulatory Board (AERB) was set up in November 1983 to carry out certain regulatory and safety functions in the fields of radiation safety on a countrywide basis and industrial safety in all units of the Department of Atomic Energy under its purview. One of the functions of AERB is to promote and fund research on reactor safety, radiation safety, front end and back end fuel cycle safety related problems and industrial safety as part of its programmes. AERB has also set-up a Safety Research Institute (SRI) in February 1999 at Kalpakkam, Tamil Nadu to carry out and promote safety related research and analysis in selected areas of relevance to regulatory decision making. AERB is also looking for suitable institutes/agencies to conduct safety research under the Safety Research Programmes by theoretical modeling and/or through simulated experimentation to solve the problems encountered with respect to the design and operation of Indian Nuclear Reactors.

The scope of the brochure on safety research programmes is to bring out the guidelines and procedures adopted for selection and issue of grants for research projects and conferences/symposia/seminars/workshops. Resources and Documentation Division (R&DD) of AERB is the nodal agency for the activities under safety research programmes funded by AERB.

Details about funding, list of new projects of interest of AERB is provided in the link "Safety Research Programmes" available in our website www.aerb.gov.in.

1. COMMITTEE ON SAFETY RESEARCH PROGRAMME (CSRP)

There is a Committee for Safety Research Programmes (CSRP) with a mandate to frame rules, regulations and guidelines and to recommend, evaluate and monitor the research projects proposed by / accepted by various organisations. The present membership of the Committee is given in Annexure-IA.

2. EXECUTIVE COMMITTEE SUB COMMITTEE (EC SC - 7)

AERB also provides financial assistance to universities, research organisations and professional associations for holding conferences/symposia/seminars/workshops of relevance to mandate of AERB after scrutinising the applications received from such organisations. The scrutiny is carried out by Executive Committee Sub Committee (EC SC - 7). The present membership details of this Sub Committee is given in Annexure-IB.

3. RESEARCH PROJECTS

Eligibility

Funds from AERB for appropriate research projects are made available to members of faculties of universities and other research organisations. Proposals from persons who apply in their individual capacities and not through an organisation are not considered and hence, such applications for grants have to be made through the Head of the Organisation in which the project is proposed to be carried out.

Organisations seeking the support of AERB are expected to have the basic infrastructure needed to carry out such research projects. The facilities available with the organisation may be suitably augmented, to a limited extent, with the help of research grants given by AERB. The organizations involved in such research projects could, on their own initiatives, make special arrangements with other organisations for the use of any special research facilities that may be needed to supplement their own efforts.

Tenure

The normal duration of a research project would be two to three years. Financial grants will be made on an annual basis. The progress of the projects will be reviewed on six-monthly basis and also while applications are considered for renewal. Extensions upto one year can be given only in special cases at the discretion of the Committee.

Components of Research Grants

Basically, AERB will fund the research projects in terms of staff salaries, equipment, consumables, computer charges, contingencies and overheads that may be required to complete the project successfully. Any other components of grant will be considered by the committee on case by case basis. Only those approved items including equipment, which are essential for carrying out the project effectively and expeditiously, will be considered by AERB.

The principal investigator (PI) and additional members of the faculty who may be working as co-investigators (CI) are not eligible to draw grant under staff salaries. The project staff appointed exclusively for the research project are only eligible for drawing the salary.

Grants will not be provided for foreign travel and no part of the project fund can be diverted for this purpose.

Generally, the grant given under a particular head should not be reallocated to another head of account. However, in case of minor changes like reallocation requirement or change of research staff etc. PI should write to Member Secretary, CSRP, AERB for obtaining prior approval from AERB.

Procedure for Applying

Each project proposal should have one PI and at least one CI. Two signed hard copies and pdf/word/scanned soft copy of the application for research proposals, in the format given in Annexure-II, along with the undertaking certificate given in Annexure-III should be submitted to Director, R&DD, AERB, Mumbai with a copy to Member Secretary, CSRP, AERB, Mumbai.

The scientific background of the project, work experience of PI and CI in the related field, scientific scope of the research scheme and relevance to AERB's functions should be brought out in detail in the proposal. The application and duly filled undertaking certificate submitted should be endorsed by the Head of the Organization.

The PI, CI and the organization where the work would be carried out should accept the terms and conditions stated separately in Appendix-I.

Scrutiny of Applications

After receiving the applications of projects, these are initially reviewed by R&DD. The proposals are then reviewed by the CSR. The Committee may consult other experts of respective fields as considered necessary and make recommendations to the Chairman, AERB. The decision on the acceptance/rejection of proposed projects will be communicated to the concerned organisations. The lead time for processing the project proposals is normally **four months** from the date of receipt of proposal.

Wherever required, for projects with budget more than Rs. 25 lakhs and those projects with budget less than 20 lakhs but require additional clarifications, PIs will be required to make a presentation before CSR. Travel and local incidental expenses for such presentation during CSR meeting will not be borne by AERB.

Each approved project will have one technical coordinator from AERB scientists/engineers and a maximum of two additional coordinators from other DAE units, recommended by the Committee. The responsibilities of coordinators are given below.

Responsibilities of AERB technical coordinator and additional coordinators

AERB technical coordinator will be supported by additional coordinators for review, monitoring and follow-up of the progress of project till timely submission of the final consolidated report. AERB technical coordinator should establish continuous communication with PI, other project coordinators and Member Secretary, CSR. Representatives of CSR/AERB may make site visits for review and discussions on the project.

AERB technical coordinators should follow-up and maintain records of project proposal, technical evaluation, JRF selection, six monthly progress reports, mid-course changes in the scope, budgetary changes, renewal applications or any other query/request from PI. The coordinator should also ensure that the contents of papers to be published do not contain sensitive / erroneous data before granting permission to publish the paper in conference/journal. All the correspondence from PI should be submitted through AERB technical coordinator along with the comments/remarks to Director, R&DD, AERB.

AERB technical coordinator should also maintain records of initial approval, statement of accounts, utilization certificate, renewal of grants and auditor queries and maintain liaison with Accounts Section and Member Secretary, CSR.

Payment of Grant-in-Aid

While the project is generally expected to receive support for about two to three years, the amount will be sanctioned and released only for one year at a time. After receiving the sanction letter from AERB, PI should submit claim form (Annexure-IV) duly signed by PI and Head of the Organisation in duplicate to Member Secretary, CSR. The grant for the first year will be paid in full to the PI on receipt of the claim form. PI should send acceptance cum receipt form (Annexure-V) to Member Secretary, CSR on receiving the payment for first year.

The date of acceptance cum receipt form received from PI is considered to be the commencement date of the project.

Renewal of Projects

The PI is expected to apply to CSRP for renewal of the grant every year, if needed. Renewal is subject to satisfactory progress and a certificate to that effect by the AERB technical coordinator. The application for annual renewal in the prescribed format (Annexure-VI) should be submitted to Member Secretary, CSRP through AERB technical coordinator at least one month before completion of previous year for consideration.

For renewal of the ongoing projects, PI will be required to make a presentation on the progress of the work, any midcourse corrections and other related issues, if any.

Two signed hard copies and pdf/word/scanned soft copy of the application, progress report and publications duly endorsed by the Head of the organisation should be submitted to Member Secretary, CSRP.

Renewal applications will be reviewed by CSRP along with recommendations of coordinators. Based on the recommendations of CSRP, sanction will be intimated to PI. PI should submit claim form (Annexure-VII) in duplicate to Member Secretary, CSRP. The utilisation certificate (Annexure-VIII) and statement of accounts (Annexure-IX) shall be submitted as per the format to Pay & Accounts Officer, AERB with one copy marked to Member Secretary, CSRP. Renewal grant will be released to the PI once the above documents are scrutinised in AERB. Payment of the renewal grant will be limited to amount after deduction of any unutilised amount from the already released grant. Committed expenditure will not be considered as utilised amount.

Consolidated Final Reports

The PI should submit, on receipt of the written consent of the AERB coordinator, two copies of consolidated final report within three months of the completion date of the project to Director, R&DD, AERB with separate copies to the Member Secretary, CSRP and coordinators identified for the project. However, prior to formal submission of the final report, PI may be required to give the presentation to the CSRP on the overall work carried out under the project. The pdf / word / scanned copy of same should be sent to AERB. The consolidated report should be a self-contained complete document and not a compilation of papers published. The report should contain inventory of equipment (Annexure-X) and other information mentioned in Annexure-XI. Two copies of all the papers published/submitted for publication based on work under the AERB project should also be sent along with the report.

4. CONFERENCES, SYMPOSIA, SEMINARS AND WORKSHOPS

AERB extends financial support to organisations and institutes to organise conferences, symposia, seminars and workshops on radiological, industrial and nuclear safety related topics. These technical events encourage interaction among scientists and promote interdisciplinary contacts; an essential factor in promoting safety. Publication from these meetings is easily available all over the country to a wider section of professionals.

The conveners of national/international conferences, symposia, seminars and workshops may submit an application as per format given in Annexure-XII to get funding from AERB to Director, R&DD, AERB. Such applications are scrutinized through EC SC-7. The

approval by AERB for grant amount will be communicated to the Convener. The convener in turn should submit the claim form as given in the Annexure-XIII for further processing.

Support is generally extended in the form of co-sponsorship with other agencies. The requests for such support should reach Director, R&DD, AERB at least 45 days before the event for anticipatory support. After communicating the approval of the grant and receipt of claim form, AERB will release the seminar grants generally 45 days before the event.

AERB funding is subject to the following general conditions:

1. AERB grants are provided to only technical events. No grant will be provided to any cultural/sports events or activities.
2. Representatives from AERB, as identified, mutually agreed and communicated by AERB may be allowed to attend technical event free of charge.
3. A copy of the proceedings of the technical event shall be supplied free of charge to the AERB Library.
4. Utilisation certificate / audited statement of accounts should be submitted to Pay & Accounts Officer, AERB as per format given in Annexure-XIV/V with a copy to Member Secretary, EC SC-7 within one month after the completion of event.
5. The grants will be provided preferentially for programs related to safe use of radiation, scientific/technical events related to nuclear & industrial safety issues relevant to AERB mandate.
6. AERB grant in general will be limited to 20% of the total expenditure for the program. Generally maximum grant will be limited to Rs. 1 Lakh.
7. Grant will be limited to Rs. 25,000/- for requests received from local Chapters of professional bodies.

5. TOPICS OF RELEVANCE

AERB will support the research projects on topics related to nuclear, industrial and radiation safety. Investigations on topics related to the following will be considered for support:

- (a) safety aspects of nuclear technology including civil and structural engineering
- (b) front end and back end fuel cycle safety issues
- (c) industrial safety in nuclear and allied installations and
- (d) safety aspects of radiation applications in agriculture, industry, medicine and research,

A detailed list of the topics of relevance to AERB is given in Annexure-XVI.

APPENDIX - I

Terms and Conditions of Grant-In-Aid for AERB Sponsored Research Projects

1. Sanctioning of Project

Based on the recommendations of CSRP, AERB will issue a formal sanction to the organisation for the entire period of the project indicating the details of grant-in-aid for the first year along with claim form and anticipated amounts for subsequent years.

2. Payment of Grant-in-Aid

2.1 While the project is generally expected to receive support for about two to three years, the amount will be sanctioned and released only for one year at a time. The grant for the first year will be paid in full to the PI on receipt of the relevant claim form (Annexure-IV) in duplicate.

2.2 If the duration of the project is more than two years, the grant from the second year onwards (but not for the final year) will be released after evaluating the progress of the project submitted along with renewal application.

Along with the renewal application, PI should submit the utilization certificate and statement of accounts for the financial year (i.e. from 1st April of the year to 31st March of the subsequent year) irrespective to the date of sanction of the project certified by the head of the organisation.

The grants for second and third year will be paid after deducting the unutilised amount from the previous year's grant.

2.3 For the final year of the project, the grant will be released in two installments. Only 25% (excluding the staff salaries) or Rs. 25,000/- whichever is less will be retained by AERB as second installment of the final year grant. The rest of the money along with the full staff salaries for the final year will be released at the beginning of the terminal/final year on receipt of utilization certificate, statement of accounts for the preceding year and the claim. The second installment of the final year will be paid on submission of the claim, supported by the following documents:

- i. Audited statement of accounts from a Statutory Auditor or a Chartered Accountant for the grant-in-aid during the previous years (Annexure-IX).
- ii. Utilisation certificate to the effect that the grant received during the years were utilized for the purpose for which it was sanctioned (Annexure-VIII).
- iii. An inventory of equipment purchased for the project out of the grants released (Annexure-X).
- iv. A final consolidated report including the information specified in Annexure-XI.

2.4 The final report shall be submitted within three months after the date of the completion of the project.

2.5 After getting the sanction, a separate bank account is to be opened for the project where all transactions are recorded. The accrued interest has to be taken in to account while claiming subsequent installments. In cases where organisations are not able to open separate account for this project a certificate to that effect should be submitted.

2.6 If any organisation does not fulfill the specified terms and conditions, CSRP has the right not to consider any of the further proposals from the organisation.

3. Appointment of Staff

The staff for the project should be appointed within two months from the starting date of the project. The staff, appointed exclusively for the research project, is only eligible for staff salaries. The categories of staff granted under the project are separately indicated in the sanction.

3.1 The staff sanctioned for AERB research project should be appointed on the basis of personal interviews. Selection should be in accordance with the recruitment procedure of the organisation concerned.

An appropriate selection committee should be constituted locally for the purpose by the organisation. The Member Secretary, CSRP should be contacted for the nomination of a representative of the CSRP/nominee in the committee. A representative of the CSRP/nominee should be included in the committee for recruitment of staff. The committee meeting should be arranged in consultation with this representative.

AERB representative attending the committee for selection of research fellows should be paid TA/DA by the PI directly from contingencies grant for the project.

3.2 To ensure continuity of work, staff appointed in the project should be required to serve for a minimum period of one year. A copy of the appointment order and joining report of the staff should be sent to the Member Secretary, CSRP and AERB technical coordinator/project coordinators.

3.3 Details about the Research Fellowships

3.3.1 The value of Research Fellowship of the Board is as given below:

S. No.	Name of Fellowship	Qualification*	Revised rate of fellowship
1.	Junior Research Fellows(JRF)	M.Sc./BE/B.Tech/B.VSc/ B.Pharm	Rs.25,000/- p.m. (1 st & 2 nd year); Rs. 28,000/- p.m. for subsequent years.
2.	Senior Research Fellows (SRF)	M.Tech./M.E./ M.VSc/ M.Pharm / MBBS / BDS M.Sc./ B.Tech. with two years' experience	Rs.28,000/- p.m.
3.	Research Associates (RA) **	RA – I: Ph.D. in Science / MD OR M.Tech / M.E / M.VSc / M. Pharm / M.B.B.S. / BDS with 2 years' experience.	Rs.36,000/- p.m.
		RA – II: Ph.D. in Science / MD OR M.Tech / M.E / M.VSc / M. Pharm / M.B.B.S./ BDS with 2 years' experience and possessing exceptional record.	Rs.38,000/- p.m.
		RA – III: Ph.D. in Engineering OR as in RA-II and selected through interviews under specific DAE schemes such as KSKRA, etc.,	Rs.40,000/- p.m.
4.	Post Doctoral Fellows (PDF) **	- PDF who have submitted Ph.D. thesis and yet to receive their Ph.D. degree (provisional or otherwise)	Rs.32,000/- p.m.
		Fresh PDF with Ph.D. degree. (provisional or otherwise)	Rs.33,000/- p.m.
		PDF with Ph.D. degree and with one year experience	Rs.34,000/- p.m.
		PDF with Ph.D. degree and two or more years of experience	Rs.35,000/- p.m.

* If a student having higher qualification such as M.Tech/MBBS etc. competes with students having lower qualification such as B. Tech / M.Sc. etc. he will be paid the Fellowship at the rate applicable to latter.

** Research Associates/Post-Doctoral Fellows may be fixed at one of the specified pay levels depending on qualifications and experience. The Organization may decide the level in which a particular PDF/RA should be placed based on experience.

3.3.2 On completion of two years, JRF shall be re-designated as SRF after evaluation by CSRP.

3.3.3 House Rent Allowance (HRA), Medical Allowances (MA): HRA & MA may be allowed to all the categories of Fellowships, i.e., JRF/SRF/RA/PDF, as per the rules of the organisation in which they are working. For this purpose, the fellowship amount for JRF/SRF/RA/PDF may be taken as basic pay. However, HRA will not be admissible if hostel accommodation is provided. HRA & MA, as admissible, may be claimed separately by furnishing a copy of the order regulating these allowances as per the rules of the respective organization.

3.3.4 Leave: The staff working under the project is entitled for thirty (30) days paid leave per year in addition to casual leave as per rules of the organisation and maternity leave as per the Government of India instructions. Participation in any scientific event in India or abroad will be treated as on duty.

While pursuing course work during the 1st year of Ph.D. programme or for any extended duration, leave will be limited to regular vacations as per the programme of the Institute / R&D Centre.

3.3.5 DA : JRF, SRF, RA and PDF are not entitled to this allowance.

3.3.6 Encouragement for pursuing higher degrees: SRF/JRF may be encouraged to register for higher degrees and the tuition fees and registration fees to undertake such studies may be reimbursed to them from the contingency grant sanctioned under the project grant.

3.3.7 Benefits to Host Organisation: Towards meeting their costs for overhead expenses including infrastructural facilities, an amount of 15% of the total cost excluding contingencies will be given to the organisation.

3.3.8 Bonus and Leave Travel Concession (LTC) are not admissible to any category.

3.4 The members of the staff appointed on the research projects are, for all practical purpose, to be treated as employees of and subject to the administrative control of the organisation where the project is located.

3.5 The staff employed on the research project financed by AERB may be encouraged to give lectures and/or courses restricted to not more than two hours duration per week in the organisation where the project is located. Such permission may be granted by the PI of the project in consultation with the Head of the Organisation.

3.6 Staff appointed for AERB research project may be allowed to utilise the contingency grant to meet travel expenses in connection with the work of the projects or for attending symposia, etc. at the rates admissible to regular employees of the organisation concerned, subject to the following conditions.

- (i) The journey should have the approval of the PI.
- (ii) The grant for contingencies could be utilised for payment of travel expenses to the staff employed on the research project,

- (iii) The expenditure involved will not result in any excess over the amount provided under sub-head "contingencies" and no additional funds will be provided on this account.

3.7 (i) The JRF and SRF appointed for the project will not be eligible for next higher scale of pay unless they complete 2 years in the project (ii) Persons doing course work may not be appointed in the project as JRF or SRF, except where the course work is mandatory for obtaining a degree by research.

3.8 The PI should inform AERB if he intends to go abroad. He should also indicate the name of the person from the organisation who will carry on the research programme in his absence.

4. Equipment

4.1 All the major items of equipment are indicated in the sanction letter. Only such items of equipment, as have been sanctioned by AERB should be purchased by the organisation out of the grant sanctioned as equipment grant. Specifications for the equipment to be procured, names of the suppliers and documents in support of the estimated cost, quotations/proforma-invoice in respect of the major equipment should be provided.

In case any change in the equipment (item or cost) is considered essential, prior approval is required. This should be obtained before the purchase of such equipment by writing to the Member Secretary of CSRP along with the recommendation from AERB technical coordinator. AERB does not assume financial responsibility for any equipment purchased without their prior approval. The organization should not purchase items like air conditioners, refrigerators, exhaust fans, furniture, typewriters, etc., out of the grant sanctioned for the project.

4.2 All the major equipment purchased against AERB projects will be the property of the AERB and after completion of the project. AERB has also the right to transfer the equipment to another project after the termination of the Project or in case of unsatisfactory performance of the project.

4.3 The organisation, through PI, should maintain a proper and separate stock register of all items of equipment and stores, both capital and consumables purchased out of AERB grant. Equipment purchased should be marked either with a metal disc or painted boldly with the letters AERB. All equipment should be serially numbered. An inventory of equipment and consumables purchased out of AERB grants should be prepared as per the format given in Annexure-X.

5. Consumables

The consumables required (list along with price) for the execution of each project should be identified by PI before the start of the project and stated in the project application.

6. Computer Charges

The grant under this head is a one-time payment depending on the requirement by the PI and limited to Rs.50000, subject to the submission of actual bill. The claim for grant for computer charges should be supported by vouchers along with the certification to the effect

that computer facilities were not available with the organisation for this project or if available, have to be paid for.

7. Contingencies

The PI can utilise the sanctioned contingency grant per annum for any purpose indicated below without getting the prior approval of the CSRP subject to the condition that a consolidated account is rendered at the end of the year.

- (i) To buy any urgently required laboratory items for the project.
- (ii) To meet the travel expenditure (within India) of the investigator(s) and staff engaged on the project for attending symposia relevant to the project. This is at the discretion of PI.
- (iii) Towards payment of honorarium for visiting scientists to give lectures which have direct bearing on the project work
- (iv) Tuition fees and registration fees for Ph.D.
- (v) To meet the expenditure towards advertisement for the post of Research Fellows.
- (vii) Towards purchase of apparatus, reprints connected with the work, purchase of stationery and fees for the audit of project accounts.
- (viii) Miscellaneous expenditure for execution of project.

8. Overheads

This grant shall be used for covering the cost of use of existing infrastructure, utilities such as water, electricity, communication and administrative services provided by the university / institute. This will be the amount claimed by PI subject to a maximum of 15 % of the project excluding the contingency.

9. Audited Reports by Comptroller and Auditor General of India

The accounts of the organisation in receipt of grant-in-aid will be subject to a test check by the Comptroller and Auditor General of India at his discretion. Utilisation certificate and audited statement of accounts should be submitted at end of each year of project tenure (see Annexure- VIII & IX). This will enable timely release of grant for next year.

10. Renewal Application

The PI of the project should submit renewal application on the project each year. Application and report are required to be submitted as per format given in Annexure-VI to the Member Secretary of CSRP through AERB technical coordinator. Application received late is not likely to be considered and this will adversely affect the renewal of the Grant-in-aid.

11. Monitoring

The activities of the research project shall be monitored by AERB through AERB technical coordinator, additional coordinator and Member Secretary, CSRP through correspondences, site visits or a combination thereof. All decisions by the AERB technical coordinator or his representative with the approval of Director R&DD shall be binding on all matters concerning the research projects.

12. Publication of Papers

The following procedure has been laid down for the publication of papers on the work done under AERB research programmes.

The researchers are free to publish their findings in journals of their choice. However, they must send copies of the manuscripts to AERB to obtain the written consent of the AERB coordinator, mainly to ensure that no sensitive data is included in the paper. AERB's financial support to the project must be acknowledged in the publication. The responsibility for the contents of publication is exclusively that of the author/authors.

13. Final Report Submission

The final report shall be submitted within three months from the date of the completion of the project / date of giving presentation to CSRP, whichever is earlier. The report should minimum contain inventory of equipment and the information specified in Annexure–XI. Further details which are found necessary for completion of information may be added by PI.

14. Patent Rights

All patent rights on design and inventions derived from the research work financed or aided by AERB shall belong to the Government of India or its nominees. AERB may, at its discretion, allow any benefit thereof to be retained by the Inventor or may direct that some benefit thereof be given to the inventor.

Annexure-IA

MEMBERSHIP OF THE AERB COMMITTEE ON SAFETY RESEARCH PROGRAMMES (CSRP) Constituted on July 25, 2017

- | | | |
|-----|--|------------------|
| 1. | Shri S.G. Markandeya
Former Controller, BARC | Chairman |
| 2. | Shri V. Balasubramaniyan
Director, NSARG and SRI, AERB | Vice Chairman |
| 3. | Dr. Rajiv Sarin
Professor of Radiation Oncology, In Charge Cancer
Genetics Unit & PI, Sarin Lab, TMH | Member |
| 4. | Dr. G. R. Reddy
OS, RSD, BARC | Member |
| 5. | Shri Nalini Mohan
AD (C&A, HM & IDQA), NPCIL | Member |
| 6. | Shri Avinash J. Gaikwad
Director, NSAD, AERB | Member |
| 7. | Shri K. Srivasista
Director, R&DD, AERB | Member |
| 8. | Dr. M. P. Chougankar
Former-Head, PM&PDS, RP&AD, BARC | Member |
| 9. | Dr. A. U. Sonawane
Head, RSD, AERB | Member |
| 10. | Shri K. S. Ramprasad
Head, RMS, R&DD, AERB | Member |
| 11. | DCA, AERB | Member |
| 12. | Smt. P. Shylamoni
SO/F,R&DD, AERB | Member Secretary |

Annexure-IB

MEMBERSHIP OF THE AERB EXECUTIVE COMMITTEE SUB COMMITTEE (EC SC-7) Constituted on May 03, 2016

Shri Avinash J. Gaikwad Director, NSAD	:	Convener
Dr. Pankaj Tandon, SO/G, RSD	:	Member
Shri Ajai S. Pisharady SO/G, SSED	:	Member
Dr. Mayank Verma SO/E, NPSD	:	Member
Ms. Arundhathi Padmanabhan PAO	:	Member
Ms. P. Shylamoni SO/F, R&DD	:	Member-Secretary

Annexure-II

Date:

FORMAT FOR APPLICATION FOR GRANT-IN-AID FOR NEW RESEARCH PROJECT

(Please send two signed hard copies and word/pdf/scanned soft copy to Director, R&DD, AERB with copy to Member Secretary, Committee for Safety Research Programmes (CSRP), Atomic Energy Regulatory Board, Niyamak Bhavan, Anushakti Nagar, Mumbai-400 094. Applicants may please note that incomplete proposals may not be considered.)

1. Project Title and Duration			
	a.	Title of the Project	
	b.	Duration of the Project	:
2. Details of Organisation			
	a.	Name and Address of the Organisation	:
	b.	Department where Research is to be performed	:
	c.	Status of the organization (Whether Government or private)	:
3. Project Personnel			
	a.	Principal Investigator	<div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto;">Photo</div>
		Name and Designation	:
		Academic Qualifications	:
		Date of Birth	:
		Telephone No. (O)	:
		Mobile No.	:
		Fax No.	:
		E-mail Address	:
		Previous Research Experience	:
		Percentage of Time to be Spent on the Project	:
	Recent Publications (within the last 5 years. Include earlier publications only if relevant to present proposal)		
	(i)	In referred journals (Journals in which original articles are published)	:
	(ii)	Others	:
	b.	Co Investigators	<div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto;">Photo</div>
		Name and Designation	:
		Academic Qualifications	:

		Date of Birth	:	
		Telephone No. (O)	:	
		Mobile No.	:	
		Fax No.	:	
		E-mail Address	:	
		Previous Research Experience	:	
		Percentage of Time to be Spent on the Project	:	
	Recent Publications (within the last 5 years. Include earlier publications only if relevant to present proposal)			
	(i)	In referred journals (Journals in which original articles are published)	:	
	(ii)	Others	:	
	c.	Details of Research Fellows/Associates, if any, supported by agencies such as DAE, CSIR etc. who are not recruited under this project but will participate in the project work	:	
4.	Is the Principal Investigator/Co-investigator likely to go abroad? If yes, what is the duration and Name of the person who will carry on the research programme in his absence		:	
5.	Scientific Background of the Project			
	a.	Importance of the Problem	:	
	b.	Related Work already Performed or in Progress at your Organization.	:	
	c.	Similar/Related Work in Progress or already Performed at other places in India or Abroad.	:	
6.	Details of the Project			
	a.	Scientific Scope of the Research Scheme (upto 400 words)	:	
	b.	Detailed Work Plan for First year, indicating Proposed Methods/Techniques to be used.	:	
	c.	Work plan for the consecutive years	:	
7.	Deliverables of the project.		:	
8.	Important mile stones and time schedule of the project		:	
9.	Details of projects already negotiated by the Principal Investigator and Co-investigator with any Funding Agency, including AERB (Details to be provided as per table below in each case)			

	a.	All projects submitted in last 3 years, indicating agency to which submitted.		
	b.	Projects currently under negotiation by Principal Investigator/Co-investigator with agencies for which decision is awaited.		
	c.	Projects currently being conducted by the Principal Investigator/Co-investigator.		

S. No.	Title	Funding Agency	Amount Sanctioned	Present Status

10. Budget Estimate for the Project

Budget head	1 st year	2 nd year	3 rd Year	Total
Staff Salary				
HRA				
Equipment (Give the list and Price for each item & justification)				
Consumables (Give list of items)				
Contingencies				
Computer Charges (if any)				
Overheads (15% excluding contingencies)				
Total				

11. Project funding (indicate as a %)

a. Amount to be contributed by the Organisation

..... %

b. Amount expected from Other Sources (name of the sources and items)

..... %

c. Amount requested from AERB for this Project

.....%

Certificate

The terms and conditions of the grant-in-aid are acceptable to us and all facilities of the organization will be available for conducting this research scheme.

Signature of the
Principal Investigator

Signature of the
Head of the Organization

Name

Name

Designation

Designation

Date

Date

Seal of the Principal Investigator

Seal of the Organisation

Annexure-III

UNDERTAKING FROM ORGANISATION

Certificate from the Head of the Organisation of PI

Project Title:

1. Certified that this organization agrees to the participation of

PI	CI
Prof. /Dr.	Prof. /Dr.
Designation	Designation
Address	Address

For the above project which is being submitted for financial support to AERB, Mumbai.

2. Certified that the infrastructural facilities related to the project activity available in this organization including equipment, manpower and other facilities will be extended for the project.

3. Certified that the management takes the responsibilities for the timely submission of audited statement of accounts and utilization certificate, details of staff recruited and equipment purchased and other related information under project.

4. Certified that if PI is not able to execute the project due to some reason (retirement, resignation, transfer, etc), CI or any nominee from the Organisation executes and completes the deliverables identified in the proposal.

5. Certified that no paper will be published/presented in any journal/conference/symposium/workshop/seminar related to the project without obtaining written permission from AERB.

Date:

Name & Signature of Head of Organisation

Place:

Seal

Annexure - IV

**REQUEST FOR RELEASE OF GRANT-IN-AID
(First Installment)
CLAIM FORM I**

(YEAR: 20 - 20)

(To be filled and submitted in duplicate within one month of receiving sanction letter)

To
The Member Secretary,
Committee for Safety Research Programmes
Atomic Energy Regulatory Board,
Niyamak Bhavan, Anushakti Nagar, Mumbai 400 094

Title of the research project :

Sanction letter No. and date :

Name of the Organisation :

Particulars	Staff Salary	Equipment	Consumables	Computer Charges	Contingencies	Overheads	Total Amount
Amount Sanctioned							
Amount Claimed Now							

Details for transfer of grant by NEFT:

Name of Bank	Branch Name	Account Name	Account Number	IFSC Code	Cash Credit or Current A/c

ACCEPTANCE FORM

The terms and conditions of grant-in-aid communicated by AERB are accepted:

Signature of the Principal Investigator

Name :

Designation:

Date:

Seal of the Principal Investigator:

Signature of the Head of the Organisation

Name:

Designation:

Date:

Seal of the Organisation:

Annexure - V

ACCEPTANCE CUM RECEIPT

(To be filled & submitted within 15 days of receiving the grant)

To
Member Secretary
Committee for Safety Research Programmes
Atomic Energy Regulatory Board
Niyamak Bhavan
Anushakti Nagar
Mumbai-400094.

Subject: Sanction No. _____ dated _____ for total grant-in-aid of
Rs. _____ for 1/2/3 year duration from 20____ to 20____ for the safety
research project titled _____

Sir/Madam,

- 1) The terms and conditions of the grant-in-aid communicated by AERB are accepted.
- 2) The first year grant has been received in the organization.
- 3) Date of commencement of the project: _____

Signature of the Principal Investigator

Name :

Designation:

Date:

Seal of the Principal Investigator:

Signature of the Head of the Organisation

Name:

Designation:

Date:

Seal of the Organisation:

Annexure - VI

APPLICATION FOR RENEWAL OF GRANT-IN-AID FOR RESEARCH PROJECT

(Please indicate whether it is the 1st, 2nd etc. renewal)

(Please send 2 signed copies along with report & publications and word/pdf/scanned softcopy to Member Secretary, CSRP, AERB, Niyamak Bhavan, Anushakti Nagar, Mumbai 400 094.)

-
1. Title of the research project:
 - a. Number and Date of First Sanction of Scheme :
 - b. Date of Actual Commencement of Work :
Reason for difference between sanction and actual commencement, if any,
Department where Research is being Performed.
Name and Address of the organization.

-
2.
 - a. Principal Investigator
Name :
Position held :
 - b. Co-investigator(s)
Name :
Position held :
 - c. Research Fellow(s) Recruited for the
Project and their Date(s) of Joining.
Name :
Date of joining :

3. Organization

-
4. Is the Principal Investigator/Co-investigator likely to go abroad? If yes, what is the duration and Name of the person who will carry on the research programme in his absence?

-
5.
 - a. Name, Designation and Address of the Person to whom formal correspondence be made.
 - b. Telephone No.
 - c. Fax No.
 - d. E-mail Address

6. List of Major Equipment already Procured/Fabricated.

AERB Inventory No.	Date of Purchase	Description of Equipment	Name of Supplier	Price Paid (Including Taxes)	Remarks, if any
--------------------	------------------	--------------------------	------------------	------------------------------	-----------------

7. The summary should include all work done to date. Detailed technical report prefaced by a summary highlighting major achievements is to be enclosed with each copy (500 words)

8. a. Deviations, if any, from the programme of work and expenditure originally approved.
b. Reasons for above.

9. List of papers and copies of papers published/communicated is to be included with each copy.

10. Details of Grant:

	Year wise Received ()	Year wise Actually Spent ()	Commitments Pending Payments upto 31 st March of the Current Year	Grants requested for the Next Year
Staff Salary (Research Fellows and Associates)				
Equipment (Give list of major items and their individual cost)				
Consumables (indicate type of Consumables and their individual cost)				
Contingencies				
Overheads				
Interest accrued				
Total:				

11. Project Personnel and Estimated Percentage of Total Working Time Devoted to the Project.

Personnel	Time (%)	Estimated cost (Rs.)

12. Highlights of Detailed Programme Report of work completed covering procurement of equipment, its utilization, experiments conducted, literature survey, theoretical work, papers published/presented in conferences, etc.

13. Adherence to important milestones with time schedule. Reasons for deviations, if any, and revised time schedule.

14. Detailed Plan for the Next Year.

Signature of the Principal Investigator

Signature of the Head of the Organisation

Name:

Name:

Designation:

Designation:

Date:

Date:

Seal of the Principal Investigator:

Seal of the Organisation:

.....

Annexure - VII

**REQUEST FOR RELEASE OF GRANT-IN-AID
(Second and Subsequent Including Final Year)**

CLAIM FORM II (YEAR: 20 - 20)

(To be filled and submitted in duplicate within one month of receiving the sanction letter)

The Member Secretary
Committee for Safety Research Programmes
Atomic Energy Regulatory Board
Niyamak Bhavan
Anushakti Nagar, Mumbai 400 094

Title of the research project :
Sanction letter No. and date :
Name of the Organisation :

Particulars	Staff Salary	Equipment	Consumables	Computer Charges	Contingencies	Overheads	Total Amount
Amount Sanctioned							**
Unutilized Balance if any, from Previous Years/ Installment							
Net Amount Claimed Now							

** should also include the bank interest earned during the year

Details for transfer of grant by NEFT:

Name of Bank	Branch Name	Account Name	Account Number	IFSC Code	Cash Credit or Current A/c

Name:

Name:

Designation:

Designation:

Date:

Date:

Seal of the Principal Investigator:

Seal of the Organization:

Annexure - VIII

UTILISATION CERTIFICATE

Certified that grant-in-aid (*including bank interest earned during the year*) of Rupees _____ (Rs. _____) sanctioned by the Atomic Energy Regulatory Board, Niyamak Bhavan, Anushakti Nagar, Mumbai - 400 094 vide their letter No. _____ dated _____ and already paid in the month of _____ for the years has been fully / partly utilised during the financial year (20 -20) to meet the expenditure on _____ and there is balance of Rs. _____ of the Grant as on _____.

Principal Investigator

Audit Officer/Chartered Accountant

(Seal)

(Seal)

Date

Date

Annexure-IX

(To be submitted at end of each year of the Project)

AUDITED STATEMENT OF ACCOUNTS

	Amount received			Amount Spent		
	I Year (-)	II Year (-)	III / Final Year (-)	I Year (-)	II Year (-)	III / Final Year (-)
Staff salary						
Equipment						
Consumables						
Computer charges						
Contingencies						
Overheads						
Bank Interest earned						
Total						

Principal
Investigator

Date
(Seal)

Auditor/ Chartered Accountant/A.G.

Date

(Seal)

Remarks:

Annexure-X

INVENTORY OF EQUIPMENT

Inventory of equipment purchased for the project entitled:

1.	AERB sanction number and date	
2.	Amount sanctioned for equipment	
3.	List of equipment sanctioned for project	1. 2. 3. 4.

4.	Details of equipment procured					
	AERB Inventory No.	Name of the equipment	Name of the Supplier	Date of Purchase	Amount	Remarks

Project Investigator

Head of the Organization

Date

Date

Seal

Seal

Annexure-XI

FORMAT FOR THE CONSOLIDATED FINAL REPORT

(2 hard copies through Head of Organization along with pdf/scanned/word document to AERB)

TITLE OF PROJECT & NAME OF THE INSTITUTE

1. Name and Address of the institute:
2. Title of the Project, Reference No. and Date of first sanction:
3. Name, Designation and Full address including E-mail address, Phone No. and Fax No. of the Principal investigator and Co-investigator of the project:
4. Date of Commencement of actual work on the project:
5. Details of the grant (name and designation of staff, name and cost of equipment, consumables (give heads) received during the tenure of the scheme:

Name	Designation	Date of joining	Date of resignation

Details of Grant

Budget Head	Sanctioned		
	I YEAR ()	II YEAR ()	III YEAR ()
Staff Salary (JRF & SRF)			
Equipment			
Consumables			
Analytical Characterization			
Contingencies			
Computer Charges			
Overheads			
Total			

6. Detailed Technical report of the Entire Work done on the Project

S. No.	Contents	Page No
1.		
2.		
3.		

LIST OF FIGURES

S. No.	Figures	Pg. No.
--------	---------	---------

LIST OF TABLES

S. No.	Tables	Pg. No.
--------	--------	---------

DETAILED TECHNICAL REPORT

1. Scientific background of the project
2. Literature review
3. Scientific scope of the research scheme
4. List of deliverables as defined in the proposal
5. Equipment purchased
6. Methods & materials
7. Investigations undertaken
8. Experiments carried out
9. Results and discussion
10. Deliverables achieved with reference to initial proposal. Justification for deviation, if any.
11. Conclusion for the completed work
12. Impact of above studies on nuclear/radiation Safety
13. Deliverables yet to be met including yearly plans
14. Bibliography
15. Publication in refereed journals
16. Other publication including paper presented in symposium or conferences
17. Whether any of the staff was awarded research degree on the basis of the work carried out on the project, if so degrees, title of the thesis and the years of the submission/award
18. Particulars such as the title of the project, funding agency, duration of any other project under your charge in similar areas
19. Details of all the previous DAE/AERB and other schemes under your charge (scheme title, total funds, duration).
20. Brief summary of achievements in not more than 300 words
21. Other specific remarks/suggestions

Annexures to be added to include the project monitoring activity, such as

- a) Presentation of progress to CSRP with date and outcome
- b) Visit of coordinator to PIs institute or vice versa with dates and minutes of technical discussions.
- c) Photographs of equipment/lab/PI/Co-Pi and research staff working on the project.

Annexure-XII

APPLICATION FOR THE GRANT OF FINANCIAL ASSISTANCE FOR ORGANISING CONFERENCES/SYMPOSIUMS/SEMINARS/ WORKSHOPS

1. Topic of Symposium/Seminar :
2. Name of the Convener/Organizing Secretary :
3. Full Postal Address of the Convener/Organizing Secretary including Telephone No., Fax No. and e-mail Address :
4. Name of the scientific society/specialist association organizing the meeting :
5. Whether it is main society or branch of the main society and status of the organization (pls. mention whether Government or Private organisation) :
6. Dates of holding the seminar/symposium etc. :
7. Venue of holding the seminar/symposium etc. :
8. a. Topics being covered (name technical sessions) :
- b. Relevance and importance of the topic in the context of nuclear and radiation safety :
9. a. How many delegates are expected to participate? Indicate the number of national & foreign delegates separately :
- b. How many of the delegates are expected to present papers? :
- c. For how many delegates TA/DA is offered and at what rate? :
10. What is the total expenditure anticipated?
Please give details under the following heads.
 - a. Publication of abstracts, proceedings etc :
 - b. Boarding and Lodging expenses of delegates :
 - c. Entertainment :
 - d. Others: transport, conference hall arrangements, etc. :
11. Amount requested from AERB : Rs.....

12. Details of grants requested/received from other agencies

S. No.	Name of Agency	Grant requested	Grant Received	Items for which Grant asked for
1.				
2.				
3.				
4.				

13. Details of the grant obtained from AERB in the past

Grant Requested (letter no.& date):
Grant Sanctioned (letter no. & Date) :
Year :

14. Name of the authority responsible for submitting audited statement of accounts/ utilization certificate and other reports

15. Name, designation and address of the authority in whose favour payment of grant is desired

16. Any other information

Place:
Date:

Signature of the Convener
Name:
Seal of the Organization

To

Director, Resources and Documentation Division
Atomic Energy Regulatory Board
Niyamak Bhavan – A
Anushaktinagar
Mumbai-400094

Annexure-XIII

CLAIM FORM FOR CONFERENCES/SYMPOSIA/SEMINARS/ WORKSHOPS

Sub: Request for financial assistance for “_____ during _____ at _____”

1. This refers to your letter (sanction letter _____ dated _____) offering financial assistance of Rs. _____ (Rupees _____ only) for holding the above event.

2. I accept the following conditions stipulated in the sanction letter.

(i) Two representatives from AERB will be allowed to attend the conference free of charge.

(ii) A complimentary copy of the proceeding should be supplied to the AERB library.

(iii) A certificate to the effect that the amount has been utilized either partly or fully for the purpose for which it was granted and an audited statement of accounts should be sent to **“Pay & Accounts Officer AERB” with a copy marked to Member Secretary, EC SC-7.**

(iv) The unspent balance, if any, rounded off to the nearest rupee shall be returned by demand draft drawn in favor of **Pay & Accounts Officer, AERB** payable at Mumbai.

Details for transfer of grant by NEFT:

Name of Bank	Branch Name	Account Name	Account Number	IFSC Code	Cash Credit or Current A/c

Seal of the organizing official

Sign:
Name:
Date:

To

Member Secretary, EC SC-7
Atomic Energy Regulatory Board
Niyamak Bhavan
Anushakti Nagar
Mumbai-400094.

Annexure - XIV

**UTILISATION CERTIFICATE FOR CONFERENCES/SYMPOSIA/SEMINARS/
WORKSHOPS**

Certified that financial assistance of Rupees _____
(Rs. _____) sanctioned by the Atomic Energy Regulatory Board, Niyamak Bhavan,
Anushakti Nagar, Mumbai-400 094 vide their letter
No _____ dated _____ and already paid in the
month of _____ has been fully / partly utilized during the
financial year (20 - 20) to meet the expenditure on _____ and there is
balance of Rs. _____ of the financial assistance which is attached
as DD in favour of "Pay and Accounts Officer, AERB" with details
_____.

Signature of the Convener
Name:
Seal of the Organization

Audit Officer/Chartered Accountant
(Seal)

Date

Date

Annexure-XV

(To be submitted after completion of the event)

**AUDITED STATEMENT OF ACCOUNTS FOR CONFERENCES/SYMPOSIA/SEMINARS/
WORKSHOPS**

Account Heads	Amount received	Amount Spent
Total		

Convener of the conference

Auditor/ Chartered Accountant

Date

Date

(Seal)

(Seal)

Remarks:

Include one page technical write up on the conference deliberations and scientific output in terms of identifying new areas of research.

Annexure-XVI

AREAS OF RELEVANCE TO AERB

Studies in some areas are of special relevance to AERB. Some of these areas are indicated in the following list.

- I. Safety in application of nuclear and radiation facilities
- II. Environmental Impact Assessment
- III. Transport of Radioactive material
- IV. Radioactive Waste Management
- V. Civil and Structural Engineering
- VI. Spent Fuel Storage
- VII. Reactor Physics
- VIII. Thermal Hydraulics/Fluid Structure Interactions/Accident studies in PHWRs, LWRs and FBRs under Accident Conditions
- IX. Medical/ Industrial Applications of Radiation
- X. Applied Metallurgy/Radio metallurgy
- XI. Fire and Industrial Safety
- XII. Use of Radiation Sources for Research Purposes
- XIII. Effective Use of Information Technology for Regulatory Activities
- XIV. Radiobiology/Radiation Dosimetry/Radiation Protection
- XV. Applied Chemistry in Nuclear Industry
- XVI. Safety Evaluation Methodology
- XVII. Front and Backend Fuel Cycle Facilities
- XVIII. Occupational Health and Environmental Safety
- XIX. Nuclear fuel analysis
- XX. Operational experience and generic issues
- XXI. Ageing effects on Nuclear Power Plants