IMPLEMENTING AGREEMENT

BETWEEN

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

THE DEPARTMENT OF ATOMIC ENERGY

OF THE REPUBLIC OF INDIA

FOR COOPERATION

IN THE AREA OF ACCELERATOR AND PARTICLE DETECTOR RESEARCH AND DEVELOPMENT FOR DISCOVERY SCIENCE

The Department of Energy of the United States of America and the Department of Atomic Energy of the Republic of India (hereinafter referred to as the Parties):

Desiring to facilitate and promote cooperation in research and development in the area of accelerator science and technology to advance scientific discoveries in high energy physics and to promote scientific and technological cooperation beneficial to both Parties; and

Acting pursuant to Article IV, paragraph 2 of the Agreement on Science and Technology Cooperation between the Government of the United States of America and the Government of the Republic of India, signed at Washington October 17, 2005 (hereinafter referred to as the S&T Agreement);

Have agreed as follows:

ARTICLE 1 OBJECTIVE AND SCOPE

- 1. The objective of this Implementing Agreement (hereinafter "Agreement") is to establish a framework for scientific and technological cooperation between the Parties in accelerator and particle detector research and development for their mutual benefit. Cooperation will include research projects involving both shortand long-term collaboration between scientists of the Parties' countries.
- 2. This Agreement is subject to and governed by the S&T Agreement. In the event of any conflict between the provisions of the S&T Agreement and the provisions of this Agreement, the provisions of the S&T Agreement shall govern.

ARTICLE 2 FORMS OF COOPERATION

Forms of cooperation may include: conduct of joint or cooperative research projects and programs; setting up of facilities through joint effort; exchange of technical information, data and experience; exchange of technical and managerial personnel for visits and short-term assignments; exchange of equipment, materials and instrumentation; joint conferences, seminars or workshops; and such other forms of cooperation as the Parties may agree in writing.

ARTICLE 3 PROJECT ANNEXES

- 1. Cooperative activities under this Agreement may be undertaken by the Parties or, as appropriate, laboratories or contractors of the Parties. Each cooperative activity that may involve the sharing of costs or that may give rise to the creation of intellectual property shall be set forth in writing in a Project Annex.
- 2. Each Project Annex shall include detailed provisions for carrying out the specific forms of cooperation, including such matters as technical scope; mode of execution of the project; terms of exchange of equipment which might be manufactured on the basis of "functional specification" or "detailed design" or "build to print drawings"; exchange of business-confidential information; intellectual property rights; management; total costs, cost sharing and schedule. Each Project Annex shall be subject to and shall refer to this Agreement.

ARTICLE 4 MANAGEMENT

1. Each Party shall designate a Principal Coordinator to supervise activities under this Agreement. The Principal Coordinators shall jointly plan and coordinate cooperative activities, co-chair joint meetings, and prepare an annual Program of

Cooperation. Each Principal Coordinator may appoint a Technical Coordinator for each cooperative activity.

- 2. The Principal Coordinators shall meet on an annual basis, or otherwise as mutually agreed, alternately in the United States and in India, in other locations as mutually agreed, or by teleconference. The host Party will choose the meeting site and bear the costs for the arrangements associated with the meeting. Representatives from each Party attending the meetings will be responsible for their own travel and lodging expenses. At these meetings, the Principal Coordinators shall review and assess the progress of activities and the next year's plans for continuation of cooperation under this Agreement.
- 3. The Principal Coordinators shall jointly prepare a written report of each meeting. Each Party shall have the right to disseminate the written meeting report without prior notification to the other Party, after the record has been approved for release by both Parties.
- 4. The Principal Coordinators may invite representatives of other organizations within their countries to attend meetings and to serve as advisors to assist in planning the annual meetings and evaluating the progress of cooperative activities under this Agreement.

ARTICLE 5 PARTICIPATING ORGANIZATIONS

1. Initial list of participating organizations:

U.S. Institutions:

Fermi National Accelerator laboratory, Batavia, (Fermilab) Stanford Linear Accelerator Centre, Stanford (SLAC) Thomas Jefferson National Accelerator Facility, Newport News, (TJNAF) Laboratory of Elementary Particle Physics, Cornell University

Indian Institutions

Bhabha Atomic Research Centre, Mumbai, (BARC)
Raja Ramanna Centre for Advanced Technology, Indore (RRCAT)
Variable Energy Cyclotron Centre, Kolkata (VECC)
Tata Insitute of Fundamental Research, Mumbai (TIFR)
Saha Institute of Nuclear Physics, Kolkata (SINP)
Inter- University Accelerator Centre, New Delhi (IUAC)

2. Additional Organizations

The Parties may each invite additional organizations within their respective countries to participate in cooperative activities under this Agreement, at those organizations' own expense and subject to such other terms and conditions as the Parties may specify.

ARTICLE 6 EXCHANGE OF PERSONNEL

Unless otherwise agreed in writing, the following provisions shall apply to assignment or exchange of personnel under this Agreement:

- 1. Each Party shall ensure the selection of qualified personnel with skills and competence necessary to conduct the activities planned under this Agreement. Each such assignment or exchange shall be agreed in advance by an exchange of letters between the Parties referencing this Agreement.
- 2. Each Party shall be responsible for the salaries, insurance, and allowances to be paid to its staff or its contractors.
- 3. Each Party shall pay for the travel and living expenses of its contractors when on assignment to the other Party. Living expenses for long-term visits of research personnel may be supported by fellowships or other funding arrangements by the host institution.
- 4. The receiving Party shall assist in arranging for adequate accommodations for the sending Party's staff and contractors (and their families) on a mutually agreeable and reciprocal basis.
- 5. The receiving Party shall provide necessary assistance to the staff of the other Party and its contractors (and their families) as regards administrative formalities, such as making travel arrangements and obtaining work permits.
- 6. The sending Party's staff and its contractors shall conform to the rules of work and safety regulations in force at the host establishments.

ARTICLE 7 EXCHANGE OF EQUIPMENT

A Party, by mutual agreement, may provide equipment, to be utilized in a joint activity on the basis of a Project Annex which shall include any conditions applicable to the transfer of such equipment, in addition to the following conditions:

- 1. The sending Party shall supply, as early as possible, a detailed list of the equipment to be provided, together with the relevant specifications and appropriate technical and informational documentation related to use, maintenance, and repair of the equipment.
- 2. Title to the equipment and necessary spare parts supplied by the sending Party for use in joint activities shall remain with the sending Party, and the property shall be returned to the sending Party upon completion of the activity, unless otherwise agreed.

- 3. Equipment provided pursuant to this Agreement shall be brought into operation at the host establishment only by agreement of the Parties.
- 4. The host establishment shall provide the necessary premises and shelter for the equipment; utilities such as electric power, water and gas; and normally, shall provide materials to be tested, in accordance with all technical requirements, as mutually agreed.
- 5. Responsibility for expenses, safekeeping, and insurance during the transport of equipment from the original location in the country of the sending Party to the place of entry in the country of the receiving Party shall rest with the sending Party. If the sending Party elects to have the equipment returned, it shall be responsible for expenses, safekeeping, and insurance during the transport of the equipment from the original point of entry in the country of the receiving Party to the final destination in the country of the sending Party.
- 6. Responsibility for expenses, safekeeping, and insurance during the transport of equipment from the place of entry in the country of the receiving Party to the final destination in the country of the receiving Party shall rest with the receiving Party. If the sending Party elects to have the equipment returned, the receiving Party shall be responsible for expenses, safekeeping, and insurance during the transport of the equipment from the final destination in the country of the receiving Party to the original point of entry in the country of the receiving Party.
- 7. Responsibility for expenses, safekeeping, and insurance during the time period that the equipment is in use in the country of the receiving Party shall rest with the receiving Party.
- 8. Equipment provided by the sending Party for carrying out joint activities shall be considered to be scientific, not having a commercial character, and the receiving Party shall work toward obtaining duty free entry for such equipment.

ARTICLE 8 EXCHANGE OF INFORMATION AND EQUIPMENT

- 1. Any information transmitted by one Party to the other Party under this Agreement and any related Project Annexes shall be accurate to the best knowledge and belief of the transmitting Party. Any equipment transferred by one Party to the other Party under this Agreement shall be suitable for its intended use to the best knowledge and belief of the transmitting Party. The transmitting Party does not warrant the suitability of the information or equipment transmitted for any particular use or application by the receiving Party or by any third party.
- 2. Information developed jointly by the Parties shall be accurate, and jointly developed equipment shall be suitable for its intended use, to the best knowledge and belief of both Parties. Neither Party warrants the accuracy of the jointly

developed information or the appropriateness of equipment, nor its suitability for any particular use or application by either Party or by any third party.

ARTICLE 9 INTELLECTUAL PROPERTY; BUSINESS-CONFIDENTIAL INFORMATION

- 1. Scientific and technological information (other than business-confidential information) resulting from cooperation under this Agreement shall be made available to the world scientific community, unless otherwise agreed by the Parties.
- 2. The protection and allocation of intellectual property, and the treatment of business-confidential information, shall be governed by Annex I (Intellectual Property) to the S&T Agreement.

ARTICLE 10 CONTRACTS

In the event that a Party awards contracts for the acquisition of articles and services to implement this Agreement, such contracts shall be awarded in accordance with the laws and regulations of that Party.

ARTICLE 11 GENERAL PROVISIONS

- 1. Cooperative activities under this Agreement shall be conducted in accordance with the Parties' respective national laws and regulations and shall be subject to the availability of personnel, appropriated funds, and other resources.
- 2. Unless otherwise agreed in writing, all costs resulting from collaboration under this Agreement shall be the responsibility of the Party that incurs them.
- 3. Any questions of interpretation or implementation relating to this Agreement arising during its term shall be resolved by consultations between the Parties.
- 4. All activities conducted under this Agreement shall be exclusively for peaceful purposes.

ARTICLE 12 ENTRY INTO FORCE. AMENDMENT, AND TERMINATION

1. This Agreement shall enter into force upon signature by the Parties and remain in force so long as the S&T Agreement remains in force.

- 2. This Agreement may be amended by written agreement of the Parties.
- 3. This Agreement may be terminated by both Parties at any time in writing; or at the discretion of either Party upon six (6) months' written notice to the other Party.
- 4. Unless otherwise agreed, all ongoing joint activities, projects, and experiments not completed at the termination of this Agreement may be continued until their completion under the terms of this Agreement.

DONE at _____, in duplicate, this languages, each text being equally authentic.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA:

FOR THE DEPARTMENT OF ATOMIC ENERGY OF THE REPUBLIC OF INDIA:

Snikuman Bancija