

डॉ. बलदेव राज, एफएनएई, एफएनए, एफएएससी, एफएनएएससी
प्रतिष्ठित वैज्ञानिक एवं निदेशक

Dr. BALDEV RAJ, FNAE, FNA, FASc., FNASc.
Distinguished Scientist & DIRECTOR



भारत सरकार
परमाणु ऊर्जा विभाग
इन्दिरा गाँधी परमाणु अनुसंधान केन्द्र
कल्पाक्कम 603102 तमिलनाडु
GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
INDIRA GANDHI CENTRE FOR
ATOMIC RESEARCH
KALPAKKAM 603102, TAMIL NADU

January 31, 2006

Dear Shri Char,

Sub: A Commemorative function to mark twenty years of FBTR operation.

Fast Breeder Test Reactor has successfully completed twenty years of operation on 18th October 2005. It is gratifying to note that the reactor, which was indigenously built and commissioned under challenging circumstances in the seventies and eighties, has performed exceedingly well. The reactor has completed 13 irradiation campaigns. The availability factor in the 10th campaign onwards has exceeded 75%, and for the just-concluded 13th campaign, it was 94%. The Mark-I carbide driver fuel, a bold choice of the department in the face of non-availability of enriched uranium, has performed exceedingly well, with the peak burn-up reaching 154 GWd/t without a single pin failure. This is an international milestone for the carbide fuel and among the highest burn-up values for a fast reactor driver fuel. We have also successfully reprocessed high burn-up carbide fuel at IGCAR. Plant life extension studies confirm that FBTR can be operated for sufficiently long life to fulfill its mission as a test bed for the irradiation of fuels and structural materials of interest to India's fast reactor programme. The rich experience from FBTR coupled with focussed R&D in multidisciplinary related areas has indeed given us the confidence to launch on the 500MW(e) Fast Breeder Reactor at Kalpakkam. FBTR will also continue to serve as a cradle for training the manpower to operate 500MW(e) Fast Breeder Reactor (under construction) and breeder reactors which we are planning to build in the near future. Thus, FBTR turning twenty is an occasion which deserves to be celebrated in a befitting way.

To mark this occasion, a commemorative function has been planned at 14:00 h on March 02, 2006 at IGCAR, Kalpakkam and senior officers of the Department, both retired and in service, who have contributed to the success of FBTR during project as well as during commissioning and operational phases are being invited for the function. Dr. Anil Kakodkar, Chairman Atomic Energy Commission, India has kindly consented to be present on the occasion. The function would also serve as an occasion for the senior officers to visit FBTR, IGCAR and PFBR site and offer their valuable suggestions.

As one intimately connected with FBTR, it is my pleasure and privilege to invite you for this function. I look forward to receive your concurrence so that we can make the necessary arrangements for your transport.

With my best wishes and personal regards and looking forward to meet you,

Yours sincerely,

(Baldev Raj)

Shri N.L. Char
Plot 98, 12th Street
Venkateswaranagar
Kottivakkam, Chennai 600 041

27 Feb 06

15/02/06



Government of India
Department of Atomic Energy
Indira Gandhi Centre for Atomic Research
Kalpakkam 603 102 Tamil Nadu, India
Tel: (O) +91 044 27480240 27480234
Fax: +91 044 27480060
e-mail: dirsec@igcar.ernet.in

Dir/ 79

13 February 2006

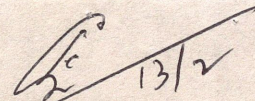
Dear Shri. Char,

This is with reference to our invitation to you for participation in the commemorative function marking 20 years of FBTR operation scheduled on March 2, 2006.

We will desire to have presence of our Chairman, Dr. Anil Kakodkar for the commemorative function. However, due to his pressing commitments at Delhi on 2nd March, the function will be held at a later date. I will get in touch with you once the new date is fixed. I deeply regret the inconvenience caused.

With my best wishes and personal regards,

Yours sincerely,


13/2
Director

Shri N.L. Char
Plot No.98, 12th Street
Venkateswara Nagar
Kottivakkam
CHENNAI 600 041

डॉ. बलदेव राज, एफएनएई, एफएनए, एफएएससी, एफएनएएससी
प्रतिष्ठित वैज्ञानिक एवं निदेशक

Dr. BALDEV RAJ, FNAE, FNA, FASc., FNASc.
Distinguished Scientist & DIRECTOR



भारत सरकार
परमाणु ऊर्जा विभाग
इन्दिरा गाँधी परमाणु अनुसंधान केन्द्र
कल्पाक्कम 603102 तमिलनाडु
GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
INDIRA GANDHI CENTRE FOR
ATOMIC RESEARCH
KALPAKKAM 603102, TAMIL NADU

June 30, 2006

Dear Shri Char,

Sub: A Commemorative function to mark twenty years of FBTR operation

Fast Breeder Test Reactor has successfully completed twenty years of operation on 18th October 2005. It is gratifying to note that the reactor, which was indigenously built and commissioned under challenging circumstances in the seventies and eighties, has performed exceedingly well. The reactor has completed 13 irradiation campaigns. The availability factor from 10th campaign onwards has exceeded 75%, and for the just-concluded 13th campaign, it was 94%. The Mark-I carbide driver fuel, a bold choice of the department in the face of non-availability of enriched uranium, has performed exceedingly well, with the peak burn-up reaching 154 GWd/t without a single pin failure. This is an international milestone for the carbide fuel and among the highest burn-up values for a fast reactor driver fuel. We have also successfully reprocessed high burn-up carbide fuel at IGCAR. Plant life extension studies confirm that FBTR can be operated for another 20 years to fulfill its mission as a test bed for the irradiation of fuels and structural materials of interest to India's fast reactor programme. The rich experience from FBTR coupled with focussed R&D in multidisciplinary related areas has indeed given us the confidence to launch on the 500MW(e) Prototype Fast Breeder Reactor at Kalpakkam FBTR will also continue to serve as a cradle for training the manpower to operate PFBR (under construction) and fast reactors which we are planning to build in the near future. Thus, FBTR turning twenty is an occasion which deserves to be celebrated in a befitting way.

To mark this occasion, a commemorative function has been planned at 14:00 h on July 18, 2006 at IGCAR, Kalpakkam followed by visit to PFBR site and FBTR and dinner. Mr. Pranab Mukherjee, Honourable defence minister to Government of India, and Dr. Anil Kakodkar, Chairman, Atomic Energy Commission, India have kindly consented to grace the occasion.

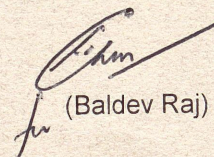
It is my pleasure and privilege to invite you to participate in this function. We will make arrangements to bring you to Kalpakkam from Chennai. You are requested to join for lunch. The function will be followed by visit to PFBR site and FBTR and dinner hosted by Chairman, AEC. We will arrange for your return to Chennai after dinner.

We would take this opportunity to appraise you of the recent achievements and breakthroughs at Kalpakkam campus of the Department of Atomic Energy.

We eagerly look forward to meet you at the function. Kindly convey your consent by e-mail (secdmg@igcar.gov.in with a copy to gsv@igcar.gov.in) to enable us to make the plans for your transport.

With my best wishes and personal regards and looking forward to meet you,

Yours sincerely,


(Baldev Raj)

Shri N.L. Char
Plot No.98, 12th Street
Venkaeswara Nagar
Kottivakkam, CHENNAI 600 041

FBTR-TWENTY YEARS OF SUCCESSFUL OPERATION



INVITATION



श्री प्रणाब मुखर्जी

माननीय रक्षा मंत्री, भारत सरकार
और

श्री पृथ्वीराज चव्हाण

माननीय राज्य मंत्री, प्रधान मंत्री कार्यालय
की सम्मान्य उपस्थिति में

**द्रुत प्रजनक परीक्षण रिएक्टर
के 20 वर्ष के सफल प्रचालन**

के स्मरणोत्सव के शुभ अवसर पर

डॉ. बलदेव राज

प्रतिष्ठित वैज्ञानिक एवं निदेशक, इंदिरा गांधी परमाणु अनुसंधान केंद्र

दिनांक : 18 जुलाई, 2006, मंगलवार को अपराह्न 12:50 बजे

साराभाई सभागृह, इगांपअके, कल्पाक्कम में
आपको सादर आमंत्रित करते हैं।



Dr. Baldev Raj

Distinguished Scientist & Director
Indira Gandhi Centre for Atomic Research

cordially invites you to the Commemorative function
to mark

**Twenty years of successful operation of
Fast Breeder Test Reactor**

in the august presence of

Shri Pranab Mukherjee

Hon'ble Raksha Mantri, Government of India

and

Shri Prithviraj Chavan

Hon'ble Minister of State, Prime Minister's Office

on Tuesday, July 18, 2006, at 12:50 hrs
at **Sarabhai Auditorium**, IGCAR, Kalpakkam.

समारोह का कार्यक्रम

- 12:50-13:00 : एफबीटीआर - दृश्य चलचित्र
13:00-13:05 : डॉ. बलदेव राज, निदेशक, इगांपअके द्वारा स्वागत अभिभाषण
13:05-13:15 : डॉ. अनिल काकोडकर, अध्यक्ष, परमाणु ऊर्जा आयोग द्वारा अभिभाषण
13:15-13:30 : सम्मान्य अतिथि डॉ. जार्ज वांद्रियस, मानद कार्यकारी उपाध्यक्ष,
फ्रेंच परमाणु ऊर्जा आयोग द्वारा अभिभाषण
13:30-13:40 : श्री पृथ्वीराज चव्हाण, माननीय राज्य मंत्री (प्रधान मंत्री कार्यालय),
द्वारा अभिभाषण
13:40-14:00 : मुख्य अतिथि श्री प्रणाब मुखर्जी, माननीय रक्षा मंत्री द्वारा अभिभाषण
14:00-14:05 : श्री पी.वी. रामलिंगम, निदेशक, आरओएमजी द्वारा धन्यवाद प्रस्ताव

Programme of the function

- 12:50 - 13:00 Video Film on FBTR
13:00 - 13:05 Welcome Address by Dr. Baldev Raj, Director, IGCAR
13:05 - 13:15 Address by Dr. Anil Kakodkar, Chairman, Atomic Energy Commission
13:15 - 13:30 Address by Guest of Honour, Dr. Georges Vendryes
Hon. Executive Vice President, French Atomic Energy Commission
13:30 - 13:40 Address by Shri Prithviraj Chavan
Hon'ble Minister of State (PMO)
13:40 - 14:00 Address by Chief Guest Shri Pranab Mukherjee, Hon'ble Raksha Mantri
14:00 - 14:05 Vote of thanks by Shri P.V. Ramalingam, Director, ROMG



"... There is a need for a constant interplay between basic sciences, technology and industrial practice if economic progress is to result from the activity undertaken..."

- Vikram Sarabhai

Chairman

Atomic Energy Commission

has the pleasure of inviting you for

Lunch

on the occasion of the commemorative function

to mark **20 years of successful operation of FBTR**

on Tuesday, 18th July 2006, 14:05 hrs

at **Homi Bhabha Building,**

IGCAR, Kalpakkam.

Venue:
Shamiana adjacent to
Vikram Sarabhai Auditorium,
IGCAR

Director

Indira Gandhi Centre for Atomic Research

has the pleasure of inviting you for

Dinner

on the occasion of the commemorative function
to mark **20 years of successful operation of FBTR**

on Tuesday, 18th July 2006, 19:00 hrs

at **GRT Temple Bay**, Mamallapuram.