**Independence Day**
**Saturday, August 15, 2026**
***Venue:*** **DAE Secretariat**
**Address by**
**Dr A K Mohanty**
**Chairman, AEC and Secretary, DAE**

**Dear Colleagues, Ladies & Gentlemen,**

A very warm welcome to all of you and a very good morning. As we celebrate the 80th Independence Day of our great nation, I pay my homage to all those glorious men and women – many of them are not even registered in the annals of Indian freedom struggle history, whose supreme sacrifices have surpassed their individual identity and have brought us freedom from the shackles and bondages of foreign rule. On this occasion, I would also like to salute the fellow citizens of independent India who have worked tirelessly towards nation building and still continue to do so.

As you all know, DAE is also part of this nation building mission since its inception and I wish to congratulate each of you present here today for your contribution towards that endeavour in various roles and capacities.

I have no hesitation to say that, last one year has been a landmark year for the department in many ways. Last year I mentioned that the first quarter of the 21st century has been a journey of 'revelation-realization-reforms' for the department. Continuing with same vigour and enthusiasm, the efforts of DAE have been culminated into some remarkable achievements. You are aware that Parliament has enacted the Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act, 2025, in December 2025, with the aim to promote and rapid deployment of nuclear energy. This is a comprehensive new legislation which is aligned to achieve the objectives of increasing the share of nuclear energy in the total energy mix of the country, facilitate innovation in nuclear science & technology, expand its application to non-power applications and continue to honour India's obligations towards safety, security, safeguards and towards nuclear liability. The landmark legislation marks an important moment in the country's broader journey toward building a secure and sustainable energy future. Among other

measures, this provides enabling provisions for private participation in peaceful utilization of nuclear energy and ionizing radiation.
This epoch-making reform will usher a new era for clean energy generation in India.

With this high hope, **Dear Colleagues,**

I would now like to share with you a list of our note-worthy achievements in the past one year.

A. ***Nuclear Power generation*** *is the flagship programme of DAE and has been the bedrock of our Aatma-Nirbharta in this field. The reforms which have already taken place are now needs to be implemented through the transformation of this program with a much bigger and much determined approach in MISSION-mode, to see it fructify to its full potential.* ***I will start with the progress in our Nuclear Power Programme, in which AMDER, UCIL, NFC, HWB, ECIL, NPCIL, BHAVINI, BARC and IGCAR continue to play a major role, which are going to be more intense and grander in scale in days to come. I will highlight a few achievements which can be seen as a major milestone in our journey for self-reliance in nuclear power.***

1. The Prototype Fast Breeder Reactor (PFBR - 500 MWe), indigenously designed by Indira Gandhi Centre for Atomic Research (IGCAR) and constructed & commissioned by BHAVINI, has attained its first-criticality on 6th April 2026. Currently, low power physics experiments are in progress.
2. While the first criticality of PFBR is the jewel-in-the-crown, several major projects of national importance in the nuclear energy sector have been accomplished in the last one year:
    a. Hon'ble Prime Minister Shri Narendra Modi laid the foundation stone for the Mahi Banswara Rajasthan Atomic Power Project (MBRAPP) in Rajasthan on September 25, 2025, which would be executed by ASHVINI (Joint Venture of NPCIL and NTPC), for four units of 700 MW PHWRs. Excavation consent has been accorded by AERB for first 2 units on 18th March 2026.
    b. TAPS-1&2 reactors, India's first nuclear power reactors based on the BWR technology have been restarted after life management & up-gradation work. This becomes world's oldest operating commercial nuclear reactors which commenced commercial operation back in 1969 and still continue to produce electricity.

c. Construction of Kaiga Generating station Unit 5 & 6 commenced with First Pour of Concrete (FPC) on March 1, 2026 after statutory and regulatory clearances from AERB.

d. Newly commissioned Rajasthan Atomic Power Project Unit-7 achieved rated power operation of 700 MW on 10th February, 2026.

3. NPCIL achieved a total electricity generation of 55,190 MUs during FY 2025-26. Also, NPCIL has achieved highest ever CAPEX of ₹ 18793 Crores during FY 2025-26. India has accumulated more than 660 reactor years' experience of safe operation.

4. AMD has continued its sustained efforts towards augmentation of Uranium, Thorium and Rare Earths deposits. As on date, the total identified Uranium resources ($U_3O_8$) in the country stand at Four Lakhs Forty-Three Thousand tonnes – an addition of 9,000 tonnes in last one year.

5. UCIL has undertaken several initiatives to expedite the setting up of green-field uranium mining projects and the expansion of existing units of UCIL which includes steps to restart of Mosabani Uranium Recovery Plant and development of decline for exploratory mining at Rohil Uranium Project.

6. NFC completed its Greenfield project "NFC Kota" at Rawatbhata to produce fuel for 700 MWe PHWRs. It will dedicatedly produce fuel for 700 MWe PHWR plants, under IAEA safeguards. NFC also recorded highest ever dispatches of PHWR fuel to various operating reactors in the country since its inception and highest ever manufacturing of Steam Generator tubes in FY 2025-26 for 700MWe PHWRs.

7. Among the other notable achievements related to the 2nd stage of our nuclear power programme, the following deserve a mention:

a. HWB has successfully produced and supplied $^{10}B$ enriched $B_4C$ pellets and Nuclear grade Sodium to FBTR and PFBR for testing.

b. Fast Breeder Test Reactor at IGCAR continues to generate electricity in campaign mode and has completed 34 irradiation campaigns since its first criticality in 1985.

**B.** ***In the area of Health Care, the other flagship program of DAE, we continue to contribute to affordable Cancer Care and indigenous development, commercialization & supply of Radio-pharmaceuticals. In this mission, TMC, BRIT, VECC, BARC and IGCAR have played a crucial role.***

1. Department's 8 hospitals under the umbrella of Tata Memorial Centre (TMC) along with a National Cancer Grid network covering over 370 hospitals and other associate

institutions, help in advancing affordable cancer care, indigenous research, nuclear medicine, and international collaborations, including partnership with the International Atomic Energy Agency (IAEA) under the “Rays of Hope” initiative – thereby upholding the mandate of universal access to affordable, equitable and quality Health Care for All.

2. In a shining example of India’s Neighbourhood First Policy, Tata Memorial Centre (TMC), under the BIMSTEC cooperation framework, conducted a Specialized Training Program in Cancer Care for healthcare professionals from Bangladesh, Bhutan, Nepal, and Myanmar.
3. Under India’s Chair for BRICS 2026, Tata Memorial Centre successfully led discussions among BRICS Member States on Nuclear Medicine regulatory issues, strengthening international regulatory collaboration to enhance access to safe and effective radiopharmaceuticals and support the advancement of theranostics across BRICS countries.
4. Tata Memorial Centre conducted the largest genome-wide genetic study in India on Buccal Mucosa Cancer, a common form of oral cancer linked to tobacco chewing. By analysing the DNA of over 4,400 individuals, the study highlighted the genetic susceptibility combined with tobacco use.
5. Homi Bhabha Cancer Hospital & Research Centre (HBCH&RC), Visakhapatnam, achieved a historic milestone by successfully performing India’s first Tandem Autologous Stem Cell Transplant for a rare and aggressive paediatric brain tumor. The procedure was carried out on a three-year-old child diagnosed with Embryonal Tumour with Multi-layered Rosettes (ETMR). The high-intensity treatment was followed by successful recovery and discharge of the child in stable condition.
6. Tata Memorial Centre partnered with the Government of Odisha to establish the state's Population-Based Cancer Registry by providing technical expertise and workforce training. More than 150 healthcare professionals from all 30 districts were trained in cancer registration, coding, data management, and follow-up. This initiative enables the generation of reliable cancer data to support evidence-based planning, and policy decisions for improved disease control.
7. IGCAR has successfully produced for the first time the import substitute Phosphorus-32 (P-32) radioisotope, which is now undergoing qualification at BRIT.
8. HWB has successfully produced $H_2O^{18}$ of 97 % I.P and the product is certified good for its use in cyclotron for PET scanning by RMC, Mumbai. The product water also

got clearance from Radio Pharmaceutical Committee (RPC), certifying it, fit for market as medical product / input material, acceptable for intended application.

**C.** ***Beyond Nuclear Power and Radiation Medicine, DAE continues to pursue cutting edge research, development and application in the areas of advanced materials, technologies (including radiation-based technologies) and products. Wide-ranging activities are being undertaken by several DAE units, including Hydrogen production, high-end accelerators, laser, plasma, space applications, rare earth and radiation technologies for food security and waste treatment. Not only DAE is fulfilling its national commitments, but also extending it to other nations, in the true spirit of "Vasudhaiva Kutumbakam" – the world is one family.***

1. Under IAEA's Regional Cooperation Agreement (RCA) for Asia-Pacific countries, as part of 48th National Representatives Meeting under India presidency in 2026, Department hosted representatives from over 18 countries and had a technical meeting and exhibition, showcasing DAE's radiation technology based societal technologies in the area of Food & Agriculture, Water, Environment, besides Nuclear Medicine.
2. ***Hydrogen Production:*** In alignment with national clean energy goals, Department is working on several clean hydrogen production technologies, with an ultimate goal to couple such systems with nuclear power plants to produce Hydrogen in co-generation mode, using waste heat from nuclear plants. Towards that –

   The Copper–Chlorine (Cu-Cl) thermo-chemical process-based Hydrogen production system, engineered by Bhabha Atomic Research Centre, has been integrated with Fast Breeder Test Reactor (FBTR) and successfully commissioned. This marks the first successful production of clean hydrogen from a fast reactor in the world.
3. Rare Earth and Titanium Theme Park inaugurated on 10th May 2026 at Bhopal showcasing technologies developed by BARC pertaining to Rare Earth (RE) and Titanium metal production, RE recycling and RE phosphors at pilot plant scale.
4. BRIT has successfully completed indigenous development of a fully industrial-grade automatic gamma column scanner, designed for harsh refinery environments.
5. 06 MoUs were signed for setting up gamma radiation processing facilities in private and state government sectors and 04 such facilities were commissioned during this

period. A total of 43 facilities are operating in India, which are supported by DAE through supply of Co-60 sources and establishing the plant operational parameters.

6. NFC has successfully developed Hastelloy (a Ni based alloy) Tubes for Indian Molten Salt Breeder Reactor test loop. NFC has also indigenously developed of high RRR Niobium as an import substitute for SCRF cavities which are crucial for our ADSS and ISNS programs.
7. RRCAT has successfully developed the manufacturing process for the 2856 MHz Klystron Electron Gun and achieved the distinction of manufacturing the country's first indigenous Electron Gun.

**D.** ***DAE continues to prioritise basic and directed research and our scientists and engineers are not only delivering on several front-end research areas but are also shaping and guiding the contour and path of the country's vision towards scientific research and building mega scientific infrastructures.***

1. In a key milestone for DAE's mega science projects the Engineering, Procurement and Construction contract for Civil and Vacuum Infrastructure for LIGO India Observatory at Aundh, Hingoli District, Maharashtra is placed on 5th March 2026 – a single contract costing over ₹ 1600 Crores to be executed over 48 months.
2. The First-of-Series power converter for Corrector Magnets for FAIR (Facility for Antiproton and Ion Research), developed by ECIL, is being bulk produced for supply of 70 such converters to FAIR.

**E. DAE is making concerted efforts towards knowledge management, capacity building and human resource development.**

1. HBNI secured 7th position in the Research Institution category, 12th position in the University category and 20th position in Overall category in NIRF ranking 2025. HBNI was placed in the second position regarding publications in Physical Sciences and at third position in all subjects in Academic Category all over India by Nature Index for the period March 01, 2025 - February 28, 2026 based on high-quality publications in Nature Group of Journals by HBNI students and faculties.
2. During the FY 2025-26, HBNI has awarded a total of 964 degrees including, 267 Ph.D. degrees, 114 M.Tech. degrees, 242 M.Sc. degrees (in various disciplines), 156 post-graduate & super specialty medical degrees (with specializations in Oncology), 93 Post Graduate Diploma degrees (in Nuclear Science and Engineering), and 29 Diploma degrees (in Radiological Physics) during the period of report. As on 31 March

2026, 10191 students have been awarded degree/diploma/certificate by HBNI since its inception. This includes 3115 Ph.D., 1803 M. Tech., 916 M.D., 542 DM/ M.Ch., 1200 Int. M.Sc., 962 PGD, etc.

**F. In the past one year, *quite a few National and International Awards and Recognitions have been bestowed upon the DAE fraternity. I would like to share my joy with you for these recognitions.***

1. Indian students, mentored by HBCSE-TIFR, have registered stellar performances at the International Olympiads by securing 12 Gold and 7 Silver medals, in 2026.
    a. The Indian contingent put in a commendable performance at the 56th International Physics Olympiad (IPhO) 2026, held in Bucaramanga, Colombia. All five members of its team winning gold medals, placed India in a tie for first position along with China, Kazakhstan, Russia, South Korea and Taiwan
    b. In a similar performance at the 58th International Chemistry Olympiad (IChO) 2026 in Tashkent, Uzbekistan, all four members of the national team won gold medals, registered the country's best-ever performance at the prestigious global competition.
    c. The Indian team of six contestants performed well at the 67$^{th}$ International Mathematical Olympiad (IMO) 2026 held in Shanghai, China, winning 2 Gold and 4 Silver medals.
    d. In 37$^{th}$ International Biology Olympiad (IBO) 2026 held in Vilnius, Lithuania, the Indian contingent secured one gold medal and three silver medals.
2. Our students from the AEES schools across the country have won recognition in academics as well as co-curricular activities. As an outstanding example, Ms. Akshaya Sathi, a Class XI student of AECS Kaiga, has recently secured the Gold Medal in the Under-16 Girls' category at the Commonwealth Youth Chess Championship 2026 held in Sri Lanka.

While we continue to strengthen our focus in our mandated areas, our Service Organizations like DCSEM, DPS and GSO have continued to support, facilitate and augment the Department's infrastructure.

In order to create awareness and build a positive perception about multi-dimensional beneficial effects of nuclear energy to mankind and environment, DAE continues to implement its various outreach programs in mission mode.

I would also like to sincerely acknowledge the dedication of our health care professionals, security professionals and administrative/ technical/ scientific staffs. They not only keep us safe, secure & healthy but also keep the system in working order.

In the end, I once again thank you for all your efforts and urge you all to continue to our contributions in the service of nation in the true spirit of ‘Atoms-in-service-of-nation’ and stand up to fulfil our responsibilities towards a Viksit Bharat.

**Jai Hind.**