

**Statement by Dr. K. N. Vyas
Chairman, Atomic Energy Commission and
Secretary, Department of Atomic Energy of India
At 65th General Conference of IAEA**

Vienna, Austria, September 22, 2021

Mr. President, Excellencies

Ladies and Gentlemen, Good morning to you all.

1. I take this opportunity to convey on behalf of the people of India and Government of India warm greetings to the International Atomic Energy Agency (IAEA) and the Member States on the occasion of the 65th General Conference. It is indeed an honour for me to be representing India at IAEA.

Mr. President,

2. Please accept congratulations from all of us on your election as President of 65th General Conference. We also welcome Saint Christopher (Saint Kits) and Nevis as new member of IAEA.

3. The COVID-19 pandemic has adversely affected all of us but despite these impediments, substantial progress has been achieved by the Department of Atomic Energy (DAE). DAE continues to strive towards developing technologies which provide immense value and benefits to industry and society.

4. Over the last six and half decades, the growth of IAEA and India's nuclear energy programmes have evolved side by side. India reiterates assigning its primacy to the IAEA for its central role in the promotion of peaceful uses of atomic energy for the development & prosperity of

mankind while maintaining its due support to Safeguards even in the pandemic periods.

Mr. President,

5. I am happy to inform that last year, Narora Atomic Power Station has set a fresh record of 852 days of continuous operation. This is the 37th occasion that one of our reactors has operated continuously for more than a year. We have a cumulative record of about 551 reactor-years of safe operation. Even during the pandemic, our Nuclear Power Plants have operated optimally, and we have continued to maintain a fleet capacity factor of around 85% throughout the year.

6. On the projects front, the first of indigenous 700 MWe Pressurized Heavy Water Reactor (PHWR), Kakrapar Atomic Power Plant-3 was successfully synchronized with the grid on 10, January 2021.

7. The construction of Kudankulam Nuclear Power Plants { KKNPP 5 & 6 (2x1000 MWe) reactors}, being set up in cooperation with the Russian Federation, have commenced with the First Pour of Concrete on June 29, 2021.

8. As a part of the nuclear power capacity addition programme, considerable progress has been made for setting up 10 indigenous 700 MWe PHWRs in fleet mode. Discussions with M/s. EDF of France for setting up NPPs at Jaitapur and M/s. Westinghouse Electric Company of the USA for setting up NPPs at Kovvada are progressing satisfactorily.

Mr. President,

9. I will also mention a few key developments related to non-power applications.

10. Bhabha Atomic Research Centre (BARC) has developed an Indigenous Carrier free Yttrium-90-acetate and Ruthenium-106 plaques for cancer diagnosis and treatment.

11. BARC has also developed two new radiopharmaceuticals 90-Yttrium-hydroxyapatite (90Y-HA) and 177-Lutetium-hydroxyapatite (177Lu-HA) which shall serve as effective and economical treatment for the management of joint related disorders.

12. Board of Radiation and Isotope Technology (BRIT) has developed HYNIC-RGD cold kits (for Technetium-99m) towards early diagnosis of malignant tumours.

13. At the Variable Energy Cyclotron Centre (VECC), a major milestone in the country's first K500 Superconducting Cyclotron has been achieved by accelerating and extracting the first harmonic, 252MeV Nitrogen⁴⁺ beam (i.e., 18MeV/nucleon). This is currently the highest beam energy available in the country for experiments in nuclear physics and other researches.

Mr. President,

14. Tata Memorial Centre (TMC) has not only been at the forefront of enhancing the cancer treatment facilities in the country but also played an important role in the nation's fight against the pandemic. TMC has supported over 100 hospitals in India with oxygen concentrators, oxygen generation PSA plants, PPEs, N95 masks, monitors and ventilators. TMC has initiated CAR-T cell therapy for the first time in India. This has brought down the cost of treatment from Rs 40 million to Rs 2.5 million.

Mr. President,

15. Indira Gandhi Centre for Atomic Research (IGCAR) in collaboration with BARC has successfully developed and demonstrated a process for magnetic pulse welding of stainless-steel grade 316L(N) end-plug with ODS alloy thin-walled fuel cladding, to overcome issues related to loss of creep strength of the alloy in fusion welding processes.

16. Despite the prevailing pandemic, Global Centre for Nuclear Energy Partnership (GCNEP) conducted several virtual meetings in areas related to

Cyber-security and security of radioactive sources. GCNEP has also signed an MoU with Ghana in July 2021, thus reinforcing India's collaboration in training and capacity building.

17. DAE has continued to make substantial contributions to the mega science projects, viz. CERN (ALICE, CMS, WLCG), ITER, LIGO, SKA, etc. through its aided and R&D institutes.

18. Atomic Energy Regulatory Board (AERB) continued to participate in the activities of IAEA, NEA and other bilateral arrangements through virtual platforms. AERB has participated in review of the draft IAEA reports on Nuclear Safety Review 2021 and Nuclear Technology Review 2021. AERB has also continued to enrich itself with information on the effect of COVID-19 on Nuclear Installations worldwide and the preventive and corrective measure taken by different installations.

Mr. President,

19. We thank the city of Vienna, and the people and the Government of Austria, for hosting the IAEA, with the warmth and commitment of a gracious host. India looks forward to IAEA's continued leadership for fostering safe, secure, and sustainable use of nuclear energy in the future. India will continue to support IAEA in all its endeavour.

We wish the 65th General Conference a grand success.
