



Year End Review 2017: Department of Atomic Energy

Posted On: 22 DEC 2017 4:09PM by PIB Delhi

- **The Second Unit (1000 MWe) of the Kudankulam Nuclear Power Project (KKNPP)** went into commercial operation on March 31, 2017. With this the installed nuclear power capacity has become 6780 MWe.



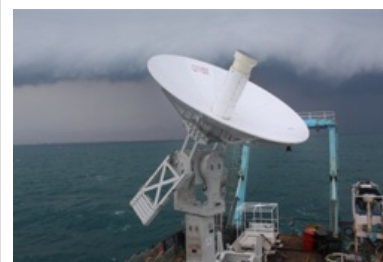
Kudankulam Nuclear Power Project (Units 1, 2)

- **The Government of India has accorded administrative approval** and financial sanction for taking up construction of 10 indigenous PHWRs of 700 MWe in fleet mode and establishing 2 more reactors at Kudankulam. This initiative is expected to go a long way in reviving our sagging high technology industries by ensuring continuity of orders.
- **The construction of KKNPP Units 3&4 has commenced** with the First Pour of Concrete on the 29th of June 2017.
- **In the Prototype Fast Breeder Reactor (PFBR)** front, after completion of construction, the commissioning activities are making steady progress while fulfilling all the safety requirements.



Overall view of PFBR

- **India has signed Civil Nuclear Cooperation Agreement with Bangladesh** in April this year along with two more complementary Agreements. We are collaborating with our Russian and Bangladeshi partners on establishing Rooppur Nuclear Power Plant in Bangladesh.
- **A 4.6 Meter Ship Borne Terminal (SBT)** developed by DAE was integrated on a ship and deployed in Deep Sea. The SBT successfully tracked the ISRO launch Vehicle PSLV-C38 during Cartosat-2E mission on 23rd June, 2017.



Ship Borne Terminal (SBT)

- **A 1000m³/ Water Treatment Plant** at holy Shiv Ganga Pond of Baba Baidyanath Temple, Deoghar (Jharkhand) has been commissioned and inaugurated on July 9, 2017. The plant is providing water conforming to standard for outdoor bathing as per IS 2296.
- **In the Cancer care sector**, DAE has started major expansion by taking up construction/ up-gradation of 6 additional facilities throughout the country. This will help in doubling number of new patients treated from the present figure of 70,000 in the next 4 - 5 years.



Tata Memorial Hospital, Mumbai



Homi Bhabha Cancer Hospital, Sangrur



- **DAE has developed a low-cost handheld 12-channel Tele-ECG** machine which records all 12 ECG channels simultaneously and sends the report generated to the mobile phone of a doctor for advice. The device is suited for diagnostic purposes at remote rural locations, saving crucial time normally required to shift the patient to a diagnostic centre.

12 Channel Tele-ECG Instrument



ATOM launched by M/s Cardea Labs, New Delhi under technology transfer from BARC on 15 August, 2017.

- **Recently, a litchi processing plant was established** at ICAR-National Research Centre on Litchi (NRCL), Mushahari, Muzaffarpur for extension of shelf-life of this perishable, popular fruit. Demonstration of this technology has enthused the local bodies for taking forward the technology for the farmers in a big way. Extension of shelf life for this product will also encourage exports.



Surface treatment of litchi for longer storage

Surface treatment of item for longer storage

In the frontier science area, DAE is establishing a small underground research laboratory in one of the uranium mines for pursuing research on dark matter. This will enthuse scientists from all generations.



Inauguration of the Underground Science Laboratory on 2nd September, 2017 for conducting a study on Dark Matter

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- The Parliament standing committee on 'Science & Technology, Environment and Forests'** had arranged the exhibition on "Science and Technology Innovations" at Parliament Annex Building, New Delhi during July 28 to August 12, 2017. The Department of Atomic Energy (DAE) participated in this event.

About 82 MPs from the Rajya Sabha and Lok Sabha, Shri Suresh Prabhu Hon'ble Railway Minister (then), Speaker of the Lok Sabha, Smt Sumitra Mahajan, Smt Renuka Chowdhury, and other dignitaries visited the DAE pavilion and had detailed interactions with the scientists.

The visitors lauded the department on its achievements and many of the MPs expressed a desire to establish facilities on food processing, sewage treatment, healthcare etc. in their respective constituencies.



Visit of Smt. Sumitra Mahajan, Speaker, Lok Sabha

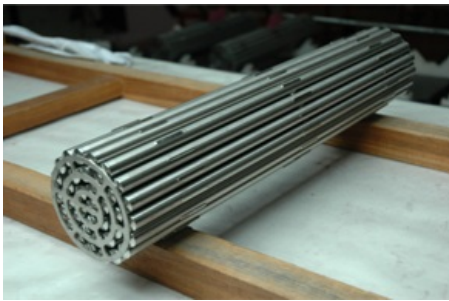
- There has been all round improvement** of DAE's PSUs and Industrial Units.

The Uranium Corporation of India Limited (UCIL) achieved second highest production. This could be achieved in spite of many hurdles.

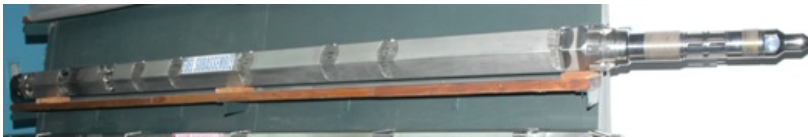


Tmallapalle Mine

Nuclear Fuel Complex (NFC) has also given highest ever production of fuel elements, zirconium sponge, and other materials.



37 element natural uranium oxide fuel bundle



PFBR fuel sub assembly



36 Element enriched Uranium fuel bundle for BWR

This year the Electronics Corporation of India Limited (ECIL) has bagged record orders, especially due to election related equipment and fuses for Indian Army. Their turnover was also one of the highest.



Electronic Fuses

EVM and VVPAT

Board of Radiation and Isotope Technology (BRIT) has achieved its highest ever sales turnover and has been able to supply the radio-isotopes to every corner of the country.



Ready-to-use Radiopharmaceuticals

Indian Rare Earths Limited (IREL) has seen a turnaround from major losses to moderate profit during this year. Their turnover has also increased significantly during this period. This happened in spite of various constraints faced by them.



Environment friendly dredging / excavation process

