

Prelim Bits 23-03-2017

Nuclear Recycle Board

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- Nuclear Recycle Board functions as an entity within Bhabha Atomic Research Centre (BARC) and operates under the purview of BARC Safety Council.

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- Nuclear Recycle Board is responsible for the design, construction and construction and operation of nuclear recycle plants involving reprocessing and waste management.

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- The operation and maintenance of nuclear recycle facilities in the back end of Pressurized Heavy Water Reactor (PHWR) fuel cycle is under the purview of Nuclear Recycle Board.

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Nuclear power reactors in India

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\n Nuclear Power Plants \n	\n Types of Nuclear Reactor \n
\n Rawatbhata, Rajasthan \n	\n Pressurized Heavy Water Reactor (PHWR) \n
\n Kaiga, Karnataka \n	\n Pressurized Heavy Water Reactor (PHWR) \n
\n Kakrapar, Gujarat \n	\n Pressurized Heavy Water Reactor (PHWR) \n
\n Narora, UP \n	\n Pressurized Heavy Water Reactor (PHWR) \n

\n Kalpakkam, TN \n	\n Pressurized Heavy Water Reactor (PHWR) & Pressurized Fast Breeder Reactor (PFBR) \n
\n Tarapur, Maharashtra \n	\n Pressurized Heavy Water Reactor (PHWR) & Boiling Water Reactor (BWR) \n
\n Kudankulam, TN \n	\n Water-Water Energetic Reactor (VVER) \n

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Satellite Missions for forecasting Natural Disaster by ISRO

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 • Megha-Tropiques is a joint **Indo- French** satellite mission aims to study the water cycle in the tropical atmosphere and describes the evolution of major tropical weather systems.
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 • The Satellite with ARGOS and ALTIKA (SARAL) is also a joint **Indo- French** satellite mission for oceanographic studies.
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 • SARAL performs altimetric measurements designed to study ocean circulation and sea surface elevation.
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 • The NASA-ISRO Synthetic Aperture Radar (NISAR) mission is a **joint project between NASA and ISRO** to co-develop and launch a dual frequency synthetic aperture radar satellite.
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 • NISAR aimed to measure the changes on earth's land surface, ice surface, glaciers, earthquakes and volcanoes & to find causes and consequences of such changes.
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 • It will be launched by 2020 and it will be the first satellite mission to use two different radar frequencies (L-band and S-band).

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Science City

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 - A Science city is similar to a Science Centre, larger in dimension with a focus in frontier areas of Science and Technology and edutainment and financially self sustainable.
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 - The Science Cities Scheme provides for setting up of Science Cities in all the states of the country.
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 - The scheme is under the Ministry of Culture and the States desirous of setting up a Science City have to provide land, share the cost of setting up of facilities and corpus for upkeep and maintenance.
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 - The objective of Science City is to popularize science and technology in cities, urban and rural areas for the benefit of students and for the common man by organizing exhibitions, seminars, popular lectures, science camps and various other programs.
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 - **Criteria** - The location of the Science City should be either a State capital or a city of the State having a sizeable population of not less than 50 Lakhs.
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 - The primary concern shall be to ensure that it can draw at least 10 lakh visitors per year for self-sustainability.
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 - Time required for implementation of Science City shall be about 54 months from the start of the construction work

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