

EVERYDAY CURRENT AFFAIRS-OCTOBER 11, 2021

TAMIL NADU

- **On October 10, the Tamil Nadu government – extended the validity period of green approval granted to industries in the state**
- ✓ The state government has removed the requirement to approach the Board every year or once in two years for getting consent to operate and renewal of consent.
- ✓ Accordingly, the pollution control board would now issue consent to operate (CTO) certificates for periods between five to 14 years for various categories of industries
- ✓ Henceforth, the Board will issue the clearance for the entire validity period of an industrial unit on payment of the total consent fee.
- ✓ The order follows the government's announcement in the Assembly in September, which was part of the ease of doing business policy.
- ✓ So far, CTO certificates were issued for one year for red category industries and for two years each for orange and green category industries.
- ✓ Under the new system, the red category industries will get certificates valid for five years, orange category industries will get them for 10 years, and green category industries for a period of 14 years.
- ✓ As per the new order, the CTO should be issued to an industry within 45 days from the date of application as against the present duration of three months
- ✓ Non-polluting units or 'white' units need not obtain the consent but they need to intimate the TNPCB office.
- ✓ The categorisation of industries is based on their pollution potential and gross fixed assets.
- ✓ Of the total 49,524 units in the state, 12,153 are categorised as 'red', 26,343 'orange' and 11,028 'green'.

- **The Greater Chennai police - will have 104 police stations including the Chennai airport under its jurisdiction following the trifurcation of the Greater Chennai city commissionerate**

- ✓ The Chennai city police earlier had 137 police stations under its limits.
 - ✓ The newly formed Avadi commissionerate will function with 20 police stations from the existing Greater Chennai Police and five police stations from the Tiruvallur district
 - ✓ Tambaram commissionerate will function with 13 police stations from Greater Chennai city, two police stations from Kancheepuram and five from Chengalpattu district.
 - ✓ Earlier, senior IPS officers, ADGP M Ravi and ADGP Sandeep Rai Rathore were posted as special officers of the newly formed Tambaram and Avadi police commissionerates
 - ✓ They were asked to send a detailed proposal for further requirements like strength required for armed reserve, special units, requirement of equipment, machinery, vehicles, furniture, details required for accommodation, mobility, communication etc.
 - ✓ The 20 police stations under Tambaram CoP are Tambaram, Chromepet, Pallavaram, Selaiyur, Chitlapakkam, Peerkankaranai, Kundrathur, Sankar Nagar, Perumbakkam, Pallikaranai, Kannagi Nagar, Semmencherry, Kanathur, and two stations from Kancheepuram -- Somangalam and Manimangalm -- along with Chengalpattu, Kelambakkam, Otteri (near Vandalur), Gunduvancherry, Maraimalar Nagar and Thalambur.
 - ✓ The 25 stations under Avadi CoP are Milk Colony, Red Hills, Manali, Sathangadu, Manali New Town, Ennore, Mangadu , Poonamalee, Nazratpet, Muthapudupet, Pattabiram, Ambattur, Ambattur Estate, Kotattur, Thiruverkadu, SRMC, Avadi, Tank Factory, Thirumullaivoyil, Thirunidraoor along with five stations from Tiruvallur - Vellaivedu, Sevvapettai, Sholavaram, Minjur, Katturapettai, Sholavaram, Minjur and Kattur.
 - ✓ Last month, Chief Minister MK Stalin had announced the formation of two new commissionerates in Tambaram and Avadi.
- **Southern Railway's Chennai division - inducted an eco-friendly crew-friendly dual mode shunting locomotive "Pasumai 3.0" at MGR Chennai Central railway station on October 8.**



- ✓ The dual mode locomotive can run on battery for 3.5 hours to four hours and can also operate on electric traction.
- ✓ It will also ease shunting of 24-coach empty rakes.
- ✓ The new locomotive can also be used to reach accident spots when overhead electric cable supply is not available.
- ✓ The newly commissioned locomotive was designed and developed by Electric Loco Shed in Arakkonam by converting an electric locomotive.
- ✓ The first pasumai locomotive was launched in October 2020.
- ✓ Four more locomotives have been converted into dual mode so far by Electric Loco Shed in Arakkonam

NATIONAL

- **ZyCoV-D, the first vaccine to be approved for use in children in the age group of 12-17 in India - will be introduced in the country's Covid vaccination programme by October 20.**
 - ✓ The vaccine will also be made available to private sector hospitals across the country.
 - ✓ The Centre's supply principle in the ratio of 75:25 for public and private vaccination will remain applicable for this vaccine as well.
 - ✓ The needle-free ZyCoV-D vaccine, manufactured by Zydus Cadila, has received emergency use authorisation for being administered to children between 12 and 17 years of age in India.
 - ✓ The three-dose vaccine is to be given with a 28-day gap between each dose.
- **The Ministry of Civil Aviation - has recently issued the draft rules amending the Indian Aircraft Rules, 1937**
 - ✓ As per the proposed rules, Pilots who don't use their flying licence for over three straight years stand to lose it
 - ✓ In case they want to hold on to their flying licences, they must spend thousands of rupees every three years
 - ✓ Currently, that minimum mandatory flying to keep a licence valid needs to be done only once every five years.
 - ✓ The draft rules are currently open for objections and suggestions till the month-end.
 - ✓ The draft rules propose to increase the validity of a Commercial Pilot Licence (CPL) and the higher, Airline Transport Pilot Licence (ATPL) to ten years from the current five years, with a pre-condition.
- **Two Indian drugmakers - have requested permission to finish their late-stage trials on Merck's experimental antiviral drug "molnupiravir" in moderate Covid-19 patients.**

- ✓ The two drugmakers, Aurobindo Pharma Ltd and MSN Laboratories plan to continue late-stage trails of the drug for those with mild Covid-19
 - ✓ In case of moderate Covid-19 patients, the two companies have submitted interim clinical trial data regarding the effectiveness of the drug
 - ✓ The oral drug “molnupiravir” has been hailed as a “game changer” and is all set to become the first antiviral medicine to treat Covid-19.
 - ✓ On October 1, Merck and its’ partner Ridgeback Biotherapeutics announced the results of an interim analysis of a late-stage clinical trial on “molnupiravir”
 - ✓ As per the results, the medicine nearly halved the risk of hospitalisation or death for patients with mild or moderate COVID-19.
 - ✓ Following the promising results, the American pharma company also announced its decision to stop the trials and seek emergency approval from the US drug regulator.
 - ✓ The trials are being done using molnupiravir’s 200 mg and 400 mg capsules.
 - ✓ Merck has entered into voluntary licensing agreements with at least eight Indian drugmakers for the production of “molnupiravir” for supplying to the low- and middle-income nations
 - ✓ Of the eight Indian firms, five - Dr Reddy's Laboratories, Cipla, Sun Pharma, Torrent Pharmaceuticals and Emcure Pharmaceuticals - are conducting a joint trial for the antiviral drug only in mild Covid-19 patients in an outpatient setting
 - ✓ Aurobindo Pharma has been conducting a clinical trial on the drug in 100 patients with moderate Covid-19 since August this year
 - ✓ The other licenced company, Hetero, announced interim data from its own late-stage trial in treating mild Covid-19 patients and submitted an application for emergency use approval for the same
 - ✓ Molnupiravir drug has been named as ‘EIDD 2801’ by the company, where ‘E’ indicates it was developed at Emory University.
 - ✓ The antiviral drugs work by inhibiting a process by which the virus replicates.
- **The first consignment of 2,000 kilograms of Kashmiri walnuts - was recently flagged off from Budgam to Bengaluru, Karnataka under the “One District, One Product” (ODOP) initiative of the Ministry of Commerce.**



- ✓ Kashmir accounts for 90% of the country's walnut production.
- ✓ With their superior quality and taste, the Kashmiri walnuts are a great source of nutrients and hence widely in demand in many countries
- ✓ Walnuts were being imported into India on a large scale, despite the huge availability of Kashmir walnuts.
- ✓ The new initiative would also boost the "Aatma Nirbhar Bharat" campaign of the Union Government

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **For the first time in the world, scientists working in a public laboratory – have developed a rapid test to determine whether a person has silicosis, a progressive lung disease caused by exposure to silica.**
 - ✓ The kit – which detects levels of serum CC16 in blood — is the result of a collaboration between the Mumbai team of the National Institute of Virology (NIV) and the National Institute for Occupational Health.
 - ✓ India has a high burden of silicosis with an estimate of 1.25 crore patients.
 - ✓ The invention, called a 'point of care' test, is similar to a pregnancy test kit and detects levels of serum CC16 in a drop of blood.
 - ✓ When the value of serum CC16 is between 6 and 9 ng/ml, it is indicative of early silicosis.
 - ✓ The research work has been accepted in the medical journal, Nature Scientific Reports.
 - ✓ Silicosis is an incurable lung disease caused by inhaling large amounts of crystalline silica dust for years.
 - ✓ Silica is a naturally found element found in stones, rock and sand
 - ✓ People working in cement factories, marble cutting work or mines are highest at risk for the disease.
 - ✓ Every day, eight crore people are exposed to silica in India alone
 - ✓ Silicosis is usually diagnosed at an advanced stage when nothing much can be done to prolong the person's life.
 - ✓ Hence, early detection of silicosis could help the patient.
 - ✓ The Indian Council of Medical Research, the parent body of NIV, has already transferred the technology to two companies in Delhi and Chennai.

- **August 2021 - was reported as the 6th hottest month ever recorded on the Earth**
 - ✓ While analysing the August's heat, scientists found that the average global land & ocean surface temperature was 1.62 degrees F more than the average of 20th-century.
 - ✓ As per the latest assessment by the National Centers' for Environmental Information (NCEI) of the US' National Oceanic and Atmospheric Administration

(NOAA), August 2021 was the sixth-warmest August, since record keeping started 142 years ago

- ✓ Warmer-than-normal months have been recorded frequently since 2009.
- ✓ For example, nine of the 10 warmest Augusts have been recorded since 2009
- ✓ For Asia, August 2021 was the second-warmest on record, while it was the third-warmest August for the African continent
- ✓ The year 2021 is also on track to be one of the hottest years on record.
- ✓ During January-August 2021, the global surface temperature was recorded as the sixth-highest on record
- ✓ In August this year, the Intergovernmental Panel on Climate Change (IPCC) said the planet's average surface temperature rise would cross 1.5°C in the next 20 years and 2°C by the middle of the century, if emissions of greenhouse gases are not cut down.

➤ **American Space Agency, NASA – is planning a ‘Psyche Mission’ to explore the metal-rich ‘Psyche’ asteroid, located in the main asteroid belt between Mars and Jupiter**

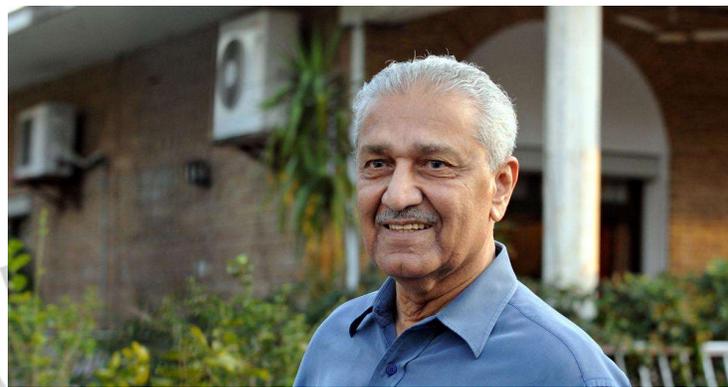


- ✓ Asteroid Psyche, which is about 140 miles (226 kilometers) wide, is made largely of iron and nickel and could be the core of an early planet.
- ✓ Psyche will lift off from NASA's Kennedy Space Center on a SpaceX Falcon Heavy rocket.
- ✓ The rocket, also called a launch vehicle, will carry Psyche into space, and send it on a path to fly by Mars seven months later, in May 2023.
- ✓ The mission's launch window opens on Aug. 1, 2022.
- ✓ For propellant, Psyche will carry tanks full of xenon, the same gas used in car headlights and plasma TVs.
- ✓ The spacecraft will arrive at the metal-rich asteroid Psyche in early 2026
- ✓ It will spend 21 months orbiting the asteroid and gathering science data with a magnetometer, a multispectral imager, and a gamma-ray and neutron spectrometer to understand how Earth and other planets formed.
- ✓ The spacecraft will also map the asteroid and study ancient magnetic fields and neutrons and gamma-ray emissions.

- ✓ It will investigate why Psyche appears to be low in iron oxides, which are chemical compounds made of iron and oxygen.
- ✓ Psyche is the 14th mission selected as part of NASA's Discovery Program.
- ✓ The Psyche mission is led by Arizona State University (ASU)
- ✓ Psyche is the goddess of soul in Greek mythology
- ✓ Discovered in early 1852, Psyche is a unique asteroid that is believed to be one of the constituents of the formation of the solar system, belonging to an early planetary body

OBITUARY

- **Dr Abdul Qadeer Khan, known as the 'father of Pakistan's nuclear bomb' - died at a hospital in Islamabad on October 10 due to Covid-induced lung infection**



- ✓ Khan, 85, has been revered as a national hero for making Pakistan a nuclear power.
- ✓ Pakistan had detonated its first nuclear weapon in 1998 when he was leading the Khan Research Laboratories (KRL) — a uranium enrichment facility — in Kahuta, near Islamabad.
- ✓ Khan had been living a secluded life at his residence since 2004 after he had admitted to a role in a massive global nuclear proliferation scam.
- ✓ Khan had accepted responsibility for illegal proliferation of nuclear technology to Iran, North Korea & Libya.
- ✓ Khan was born in 1936 in Bhopal, India, and had migrated along with his family to Pakistan after the Partition.
- ✓ He studied metallurgical engineering in Berlin after completing a degree in science from Karachi University in 1960.
- ✓ Later on, he went for advanced studies to Netherlands and Belgium.
- ✓ After India's nuclear test in 1974, he had joined Pakistan's clandestine efforts for developing nuclear technology.
- ✓ For this purpose, he had founded the KRL in 1976 and was its chief scientist and director for many years until his removal by Musharraf in 2004 over accusation of running a rogue proliferation network for nuclear material.

- ✓ The former president, however, had also granted him clemency using his discretionary powers but kept him under house arrest till 2009.

