

HCFI Dr KK Aggarwal Research Fund

Round Table Environment Expert Zoom Meeting on “E-waste (Management) Rules, 2022 – Implementation Effective from 1st April, 2023”

March 19, 2023 (Sunday, 12 noon-1 pm)

- E-waste refers to all items of electronic and electrical equipment and its parts that have been discarded as waste without intending to reuse them.
- India is the third largest generator of e-waste in the world after China and the United States.
- In India, management of e-waste is carried out under the E-waste (Management) Rules, 2016 and the amendments thereof.
- The E-waste (Management) Rules, 2022 were notified by the Ministry of Environment, Forest and Climate Change, Govt. of India on 2nd November, 2022. These rules will replace the existing 2016 rules and their implementation will be effective from 1st April, 2023.
- The new rules will launch a new Extended Producer Responsibility (EPR) regime for e-waste recycling where the producer of a specific category of waste is responsible for the treatment and safe disposal.
- The new rules are applicable to every manufacturer, refurbisher, dismantler and recycler. All of them are now required to register on the online portal developed by the Central Pollution Control Board (CPCB). Authorization has been replaced by registration.
- No business shall be carried out with any business, which is not registered.
- Under the EPR regime, 106 electrical and electronic equipment (EEE) have been included.
- The new rules provide an annual e-waste recycling targets to the producers. The target may be made stable for 2 years starting from 60% for the year 2023-24, 70% for 2025-26 and 80% for 2027-28 and 2028-29 and onwards.
- Solar photovoltaic (PV) modules/panels/cells have been added in the new rules.
- The quantity recycled will be calculated based on end products to avoid any false claims.
- The new rules have provisions for generation and transaction of EPR certificate, environment compensation and verification and audit and constitution of a Steering Committee to oversee their overall implementation. The new rules provide for reduction of hazardous substances in manufacturing of EEE.
- Every producer of EEE and their components must ensure that their products do not contain mercury, lead and other hazardous material beyond the prescribed limit.
- The rules provide for recognition and registration, skill development, monitoring and ensuring safety and health of workers involved in dismantling and recycling of e-waste.
- The manufacturers have to collect the e-waste generated during the manufacture of any EEE and ensure its recycling or disposal. They are required to file annual and quarterly returns in the laid down form on the portal on or before the end of the month succeeding the quarter or year, as the case may be, to which the return relates.
- The producers are responsible for obtaining and implementing EPR targets. The producers having the EPR plan under the provisions of the 2016 rules will migrate under the new rules as per the provisions laid down by the CPCB.
- The producers also have the responsibility to create awareness through media, publications, advertisements or by any other means of communication. They also have to file annual and quarterly returns in the laid down form on the portal.
- The refurbisher has to collect e-waste generated during the process of refurbishing and hand over the waste to the registered recycler and upload the information on the portal. They have to ensure that the refurbished equipment will be as per the Compulsory Registration Scheme of the Ministry of Electronics and Information Technology and the standards prescribed by the Bureau of Indian Standards framed for the purpose. They also have to file annual and quarterly returns.
- The bulk consumer must ensure that the e-waste generated by them is handed over only to the registered producer, refurbisher or recycler.
- The recyclers have to ensure that the facility and recycling processes are in accordance with the

standards or guidelines laid down by the CPCB. They also have to ensure that the material not recycled in their facility is sent to the respective registered recyclers and that the residue generated during the recycling process is disposed of in an authorized treatment storage disposal facility.

- The recyclers have to maintain a record of the e-waste collected, dismantled, recycled and sent to the registered recycler on the portal. They have to file annual and quarterly returns and accept annual EEE or components (not listed in Schedule 1) for recycling provided that they do not contain any radioactive material. This information is to be uploading on the portal. They have to account for and upload information about any non-recyclable e-waste or any quantity which is not recycled and disposed of. They can take the help of dismantlers; however, the responsibility lies with the recycler.
- The CPCB coordinates with the State Pollution Control Boards (SPCBs). It has to prepare and issue guidelines and standard operating procedures (SOPs) for collection, storage, transportation, segregation, refurbishment, dismantling, recycling and disposal of e-waste under these rules. The CPCB can also conduct random checks to determine compliance to the rules.
- Responsibilities of CPCB also include documentation and compilation of data on e-waste, action against violation of the rules, conducting training programs to develop capacity, conduct awareness programs on e-waste management, integrate all stakeholders with the centralized digital system and submit annual report to the Ministry.
- The CPCB is also required to interact with the IT Ministry for reducing hazardous substances and enforce provisions regarding reduction in the use of hazardous substances in the manufacture of EEE.
- The SPCB have to maintain an inventory of the e-waste, monitor compliance of EPR as directed by the CPCB. They can conduct random inspection of recycler and refurbisher and monitor utilization of recycling capacity.
- The urban local bodies have to ensure that the e-waste, which is mixed with the municipal solid waste is properly segregated, collected and is sent to the registered recycler or refurbisher. They have to set up e-waste collection, segregation and disposal system and conduct training sessions to develop capacities of the urban and rural local bodies.
- The world's largest and innovative industry is the electronic industry, which is increasing day by day across the year because of its requirement. Hence, every year the volume of e-waste being generated is also increasing. Apart from the construction sector, the sector that generates the most waste is that of electronics, which directly or indirectly affects the health of each individual if not handled properly.
- E-waste is not found discarded on the roads. It either goes to the dump ground or to the illegal processing place.
- Today, around 2 billion metric tonnes per annum of e-waste is estimated to be generated by India. It is crucial to know where this is waste going and how it is collected. The biggest challenge is the collection of e-waste and its disposal. There is no efficient system of collection, storage. There are only refurbishing or dismantling centers; India does not have any refinement centers.
- If properly accounted, it will generate a lot of employment, might generate some kind of revenue.
- Most e-waste has important elements, which can be mined, especially cadmium, lithium and lead, which can be of further use as raw material for battery manufacturers for electric vehicles.
- In India, recycling of e-waste is left almost entirely to the informal sector, which is not there in the present rules. This could be due to its illegality.
- An e-waste recycling or refining center for recovery of precious metals from e-waste is being set up in Hyderabad in collaboration with a US company with support of government of Telangana.
- The states of Maharashtra, Tamil Nadu, Andhra Pradesh and Uttar Pradesh are the largest producers of e-waste. The top cities generating e-waste are Ahmedabad, Bangalore, Chennai and Delhi.
- The toxins present in e-waste, which affect health are lead, cadmium, beryllium, lead oxides, bromine, etc.
- There is lot of child labor involved in this. Legislation needs to improve on these aspects.
- Audit in terms of collection, transportation and dismantling needs improvement. Responsibilities need to be fixed. Incentives are needed.
- These rules have to reach schools, colleges, offices and other institutions, etc. as they too are e-waste generators.
- Participation and awareness are required.

- Expanding the definition of e-waste and electronic items specifying the recycling target with proper implementation mechanism clearly specifying the penalties for violation of Rule 2022 will assist in better implementation of the collection, processing and recycling of e-waste.
- The rules touch upon two aspects, but do not clearly state the requirement for ensuring the recovery tangent.
- The new notification does away with Producer Responsibility Organizations (PROs) and dismantlers and vests all the responsibility of recycling on authorized recyclers. PROs acted as an intermediary between producers of electronic goods and formal recyclers by bidding for contracts from producers and arranging for certified and authorized recycling.
- Many producers in Delhi have not set up collection centers. And formal companies also fail to provide doorstep collection to consumers when the quantum of e-waste is not enough to meet their overhead expenses or transport. Consumers are unaware about the existence of any such service.
- E-waste *per se* is not like the municipal solid waste or hazardous waste. It is a low volume and high-cost waste.
- We copy western ideas for e-waste management because it is governed under Basel Convention. They do not have formal/informal sector for newspaper buying or selling but we have this.
- We have to see that the manufacturer has obligation to take his product back but at a reasonable cost. The manufacturer has to be regulated; they introduce models with new features making the old equipment useless.
- There has to be different thinking; more thought needs to be given to the consumers.
- Many residential societies in Gurugram have started segregated disposal of e-waste and handing over their e-waste to authorized recyclers.

Participants: Dr Anil Kumar, Dr Dipankar Saha, Mr Sanjeev Kumar, Mr Neeraj Tyagi, Mr RN Jindal, Mr Rajeev Sharma, Mr Lovekesh Chandra, Ms Ruchika Sethi Takkar, Dr S Sharma

Coronavirus Updates

COVID-19 may stop being a public health emergency of international concern this year

COVID-19 may be over as a public health emergency of international concern this year. Dr Tedros Ghebreyesus, WHO Director General expressed this hope at a media briefing last week. On 30th January 2020, the WHO declared COVID-19 as a public health emergency of international concern and a pandemic was declared on 11th March the same year. "We are certainly in a much better position now than we have been at any time during the pandemic," he further said... (Source: WHO, March 17, 2023).

India COVID situation: Rising COVID cases

In 22nd March, 1300 new infections were recorded taking the number of active infections in the country to 7605, according to data from the Health Ministry. Nearly 90,000 tests were carried out yesterday. The recovery rate is 98.79%. The positivity rate is 1.46% (daily) and 1.08% (weekly). With 7530 doses given in last 24 hours, so far a total of 220.65 crore vaccine doses, which includes 95.20 crore second doses and 22.86 crore precaution doses have been administered... (Source: Press Information Bureau, March 23, 2023).

Over 300 samples of XBB1.16 found in India

The XBB.1.16 variant of coronavirus has been suggested to be behind the recent increase in the number of new infections in the country. Three hundred forty-nine samples have tested positive for this new strain. Maharashtra has 105 cases, Telangana 93 cases, Karnataka 61 and Gujarat 54 cases. First detected in January in two cases. The number increased to 140 in February and then rose to 207 earlier this month... (Source: Times of India, March 23, 2023).

Predeparture COVID test not mandatory now for Chinese travelers to England

Chinese travelers to England will no longer need to provide a negative predeparture COVID test from April 5. Recently, testing of travelers from mainland China on arrival has also ended. These measures had been instituted in January this year in view of the surge in cases in China... (Source: Reuters, March 17, 2023).

With inputs from Dr Monica Vasudev

■ ■ ■ ■