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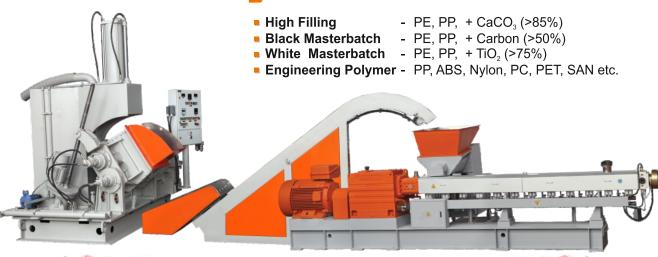
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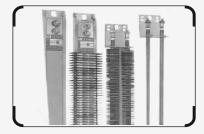
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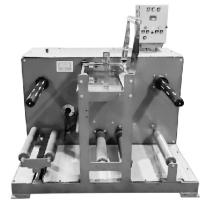
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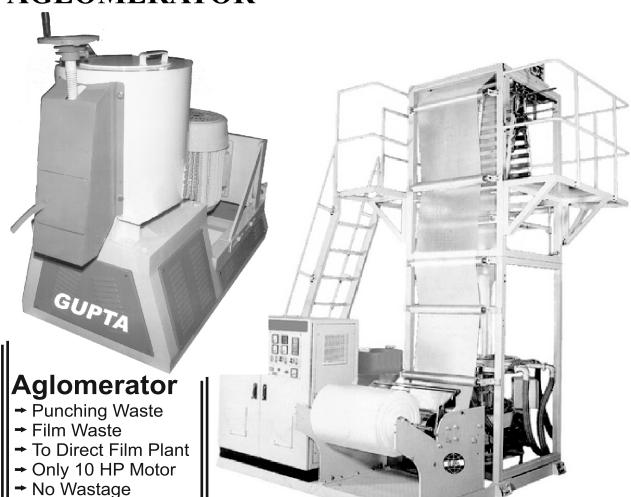


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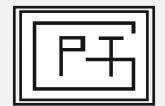
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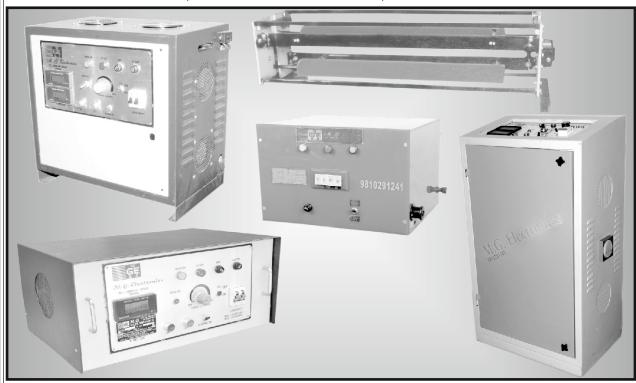
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Work only half-done

The most awaited notification finalizing the draft notification was finally issued on 14th March 2024. These are the obligated entities covered under the Extended Producer Responsibility obligations, namely: -

- (a) Producer of plastic packaging, other than micro and small enterprises as defined under the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006);
- (b) Importer of plastic packaging including intermediate material used for manufacturing plastic packaging such as films and preforms and plastic packaging of imported products;
- (c) Brand Owners including online platforms/marketplaces and supermarkets/retail chains other than micro and small enterprises as defined under the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006);
- (d) (e) (f) Plastic Waste Processors; Manufacturers and importers of plastic raw material; Manufacturers of items made from compostable plastics or biodegradable plastics.

Micro and small sector of plastic processing units are exempted from EPR obligations. By virtue of schedule II para 6 sub-para 6.1, the micro and small category producers shall still have to take registration under the said rule though they are exempted from EPR obligations.

If the micro and small manufacturer still have to register, that means the large quantum of paper work remains. Our initial objection to the EPR obligations was that micro and small units have very limited means vis-à-vis labour and finance. If uploading the details still has to be done then a large part still remains. We wish that the authorities should have seen the point of view of this segment and exempted them from uploading the details also.

The calculation of EPR obligations is further complicated by the usage of recycled content. The usage of recycled content has been made mandatory. A minimum level has been prescribed.

Further, usage of biodegradable and compostable raw material gives another complex angle to calculating the EPR liability.

Another intricate part of EPR calculation is the usage of recycled content. By virtue of schedule II para 7 sub-para 7.8, the manufacturers and importers of plastic raw material have to fulfil EPR obligations provided the producer has fulfilled his obligation of using recycled material.

■ To give an example of further confusion in calculation of EPR liability:

The manufacturer or importer of plastic raw material, how will he account for fulfilling the EPR obligation of the quantity sold to Micro & Small producers: he will deduct from this the quantity sold by the micro and small producers to medium and large producers.

Calculation of EPR certificate and its trading has a large number of guidelines including the highest and the lowest price.

We would have very much wished that for micro and small plastic processing sector, uploading the details on the website also should have been exempted. This would give these entities more time to concentrate on the quality of their products rather than be lost in the jungle of complicated calculations as mentioned above.

To sum up, these calculations are still difficult to comprehend, biodegradable and compostable raw material add another angle, so does the usage of recycled content. To keep all these things in view is almost impossible. We are again representing to the authorities pointing out the unsurmountable problems, with a prayer to let this segment focus on quality of the product which could be exported anywhere.

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As you are aware, the financial viability of any magazine heavily relies on advertisements. Unfortunately, over the years in our magazine the advertisements have been gradually decreasing. We have significantly enhanced the content of the magazine to provide more value to our readers.

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Important points discussed in the monthly meeting held on 11th March 2024

1. To approve the minutes of previous Executive Committee Meetings held on 10th February, 2024.

Minutes of the Executive Committee meeting held on 10th February, 2024 were reviewed and approved.

- 2. Approval of the expenditure for the months of February, 2024
 - The expenditure for February 2024 was approved.
 - It was noted that the Seven Seas Hotel, where our AGM-2023 took place, has not yet deposited the GST amount totaling around 72000. Despite regular follow-ups, the matter remains unresolved.

3. Discussion on Industry related matters

Shri Ravi Kumar Aggarwal, Patron informed members about his participation at the Walmart Vridhi MSME Summit 2024 organized at Bharat Mandapam. The event aimed to facilitate interaction and product pitching between India-based companies and Walmart merchants, supporting the Make in India initiative. The focus was on product quality.

Concerns were raised regarding the perceived lack of government attention to grievances faced by the MSME industry, hindering their ability to focus on product quality. It was suggested to highlight these issues to the relevant authorities.

- 4. Representation on PLEXCONNECT 2024 to be held from 7-9 June, 2024 at NESCO, Mumbai Shri Sooraj Dhawan Director-Plexconcil, Delhi Branch, provided a detailed overview of PLEXCONNECT 2024 by. PLEXCONCIL offered a dedicated 200 sqm Area for the AIPIA-Pavilion, which can accommodate up to 25 members with stalls of 9 sqm each.
- 5. To finalize the purchase of a new office space located just opposite to the existing one Members expressed their positive response towards purchasing the new office space located opposite to the existing one. It was decided that a team of 3-4 members would be formed to work on this and initiate the process.
- Participation in International Exhibitions- Proposal to apply for the events to be held from 1st April 2024 to 31st December, 2024 under IC Scheme of the M/o MSME

The Secretary General informed about the Ministry of MSME's decision to open the window for inviting applications for assistance under IC Scheme for the FY 2024-25 shall be opened in two phases.

- Phase -I- will be from 29th Feb to 29th March 2024, inviting proposals for exhibitions from 1-4-2023 to 31-12-2024.
- Phase-II will be from 16th August to 15th September 2024 for inviting proposals for the exhibitions from 1-1-2025 to 30-06-2025.
- It was decided to apply for 'PLAST EURASIA-ISTANBUL' which falls under Phase-I.
- 6. Any additional matters, subject to the Chair's approval
- Approval was granted for the purchase of a new laptop for office use.
- Approval was granted for the purchase of a new mobile phone and new SIM card for the Association, which will be linked with all the bank accounts of the Association.

The meeting ended with a vote of thanks to the Chair.

Article-International

The crucial role of waste segregation in achieving sustainable cities

- By John Grainger

Building sustainable cities has long been on the global agenda, especially in the face of growing populations, climatic shifts, a vast increase in waste, and depleting resources. Amidst this evolving landscape, one issue demands urgent attention and innovative solutions: waste management. According to World Bank statistics, the world generates a whopping 2.01 billion tonnes of municipal solid waste annually, with a significant portion inadequately managed, posing grave environmental risks.

These statistics underscore the need for a re-evaluation of how we perceive waste and the pivotal role of waste segregation in crafting sustainable cities. Waste segregation—a simple yet powerful practice involving sorting waste into distinct categories such as recyclables, organic matter, and hazardous materials—serves as an essential element in our journey towards sustainability.

By segregating waste at its source, we have the potential for greater recovery and reuse of valuable resources, thereby easing pressure on finite natural resources and mitigating environmental degradation. Furthermore, waste segregation offers an opportunity to reduce the volume of waste destined for incineration or burial, thereby mitigating greenhouse gas emissions. Moreover, directing organic waste towards composting facilities enriches soil health, fostering sustainable agriculture and reducing reliance on chemical fertilisers.

A critical aspect of proper waste disposal is preventing contamination, which poses a significant challenge to waste management efforts. Contamination renders materials less suitable for recycling and impedes progress. Thus, the case for proper segregation of waste at its source becomes all the more pressing, acting as a barrier against the spread of contamination.

The success of waste segregation relies not only on individual actions but also on collective efforts within communities. Communities play a pivotal role in fostering a culture of sustainability, where waste segregation becomes a shared responsibility rather than a solitary endeavour.

But the buck doesn't stop there. Corporate engagement is equally essential, given their substantial contribution to waste generation. For corporations, the journey towards sustainable waste management is not without hurdles. Establishing proper waste segregation protocols demands significant investment, but the absence of such measures can result in heavier economic and environmental costs, burdening consumers and communities. Beyond that, it's just the right thing to do.

Here, waste management companies can play an important role. Industry stakeholders, including corporations, can collaborate closely with waste management companies and implement robust recycling programs that prioritise traceability throughout the entire process. This ensures a comprehensive record of how waste is managed at every stage, promoting transparency and accountability in waste management practices.

By embracing sustainability as an essential component of the strategy and integrating robust environmental solution plans into their operations, waste management companies can assist industries, such as manufacturing, construction, or hospitality, in setting targets and monitoring carbon reduction through sustainable practices.

By forging partnerships with recycling plants, local farms, and other stakeholders, waste management can ensure waste diversion to appropriate channels.

At Dulsco Environment, we closely collaborate with firms in the UAE, providing consulting services to establish waste management frameworks. It is no secret that government intervention has consistently played a pivotal role in driving systemic change. Take for instance the launch of the Integrated Waste Management

Strategy 2021-2041 by the UAE in 2022. With a substantial budget of AED74.5 billion, bolstered by direct contributions from the private sector, the strategy stimulates innovation in waste management, recycling, and energy conversion.

Following this trajectory, as we progress, principles and policies developed in collaboration with stakeholders, such as waste management companies, should compel businesses to make waste management an essential aspect of their operations. Collaborative initiatives between corporations and waste management organisations, aligned with government directives, offer hope amidst these challenges.

Another critical domain demanding joint collaboration is the establishment of a circular economy for waste management. The entire lifecycle, from waste collection through recycling, upcycling, to returning products to consumers for reuse, stands as a pivotal principle for fostering sustainable cities.

In today's world, waste segregation holds the key to unlocking the potential of waste as a valuable resource. By segregating waste at its source, we can reduce environmental pollution, conserve natural resources, and mitigate the adverse effects of climate change. Achieving this vision demands concerted efforts from all stakeholders—individuals, communities, corporations, and governments—to embrace sustainable Circular Economy practices and work towards a common goal. Only through collective action can we harness the power of waste segregation to build cities that thrive in harmony with nature.

John Grainger is the Chief Operating Officer at Dulsco Environment



Article

Commentary: Pyrolysis offers hope to tackle the plastics crisis

By: Emmanuellle Biadi

Images of plastic mountains at landfills and islands of floating plastics in our oceans demonstrably show that we are living in an age of immense consumer consumption. A rising worldwide population coupled with an increasing desire for goods mean that the global production of plastic is set to nearly triple in the coming decades from around 460 million metric tons in 2019 to 1,231 million metric tons in 2060, according to the Organization for Economic Co-operation and Development (OECD).

Despite international concern that more waste generated equals more harm to the environment, the problem continues to grow. Additionally, as increasing volumes of plastic enter the food chain via animals and fish feeding on discarded materials, the threat to public health increases. In short, we are in the middle of a plastics crisis.

Various international policies aimed at tackling the issues have been adopted or proposed, including the U.S. Environmental Protection Agency's (EPA's) draft National Strategy to Prevent Plastic Pollution, the European Commission's ban on single use plastics and its commitment that 55 percent of end-of-life plastic be recycled by 2030 via the Packaging and Packaging Waste Directive. The U.K. government recently increased its Plastic Packaging Tax which is levied on components with less than 30 percent recycled plastic that are reduced in or imported into the U.K.

We must consider, though, whether these measures adequately deal with the issues. One of the main factors is that less than one-fifth of plastic is recycled. Households and businesses diligently might put out their refuse for recycling collections, but if the majority of this material is not converted into new products, environmental and health problems will increase exponentially.

Mechanical recycling has certainly been useful as the prevalent mechanism employed by municipal authorities to manage plastics in recent years. However, mechanical recycling technologies are facing challenges in treating plastic streams, limiting their scope. In contrast, chemical recycling technologies can have higher tolerances to treat contaminated and complex mixed plastics streams. Those highly contaminated mixed plastic streams are not recycled yet given the limitations of current mechanical recycling technologies.

Good chemistry

Chemical recycling through pyrolysis (often referred to as "advanced recycling") is gaining traction as an alternative to mechanical recycling and incineration because of the wider scope of what can be processed. Pyrolysis involves heating mixed plastics to temperatures of 400 to 600 C (750 to 1,110 F) in the absence of oxygen, with or without a catalyst, to convert polymers into a mixture of liquid hydrocarbons.

The initial steps are similar to mechanical recycling with sorting, pretreatment (acid washing) and shredding before the material is transferred to a reactor to be melted. The high temperatures cause the complex hydrocarbon chains to break into smaller molecules. The resulting oil-gas mixture is transferred to a condenser to be cooled into pyrolysis oil. This oil can be further refined to produce approximately 80 percent liquid, 15 percent gas and 5 percent carbon black (ash).

The resulting products from pyrolysis can be used in a number of ways. The gas can be fed back into the system to heat the reactor's furnace, and the carbon black can be used for a variety of purposes, such as the production of rubber goods, automotive parts and coatings, batteries, cables and printer inks.

The oil, the majority product by volume, can be used as feedstock for the chemical and petrochemical industries to produce new plastics that have the same chemical structure as first-generation plastics with virgin quality. Moreover, research by the U.S. Department of Energy's Argonne National Laboratory shows that production of plastic using just 5 percent pyrolysis oil reduces greenhouse gas emissions by up to 23 percent compared with plastic made using crude oil.

Overcoming contamination challenges

The pyrolysis process is not without its challenges, however. With respect to the pyrolysis technology and the plastic feedstock used, the concentration of downstream contamination and its nature can differ significantly. Numerous types of plastics and nonpolymeric sources are combined in mixed plastic feedstocks. Those feedstocks contain coarse to fine particles (e.g., filler, flame retardants, etc.) and other materials that are detected in the oil produced in the pyrolysis process (e.g., coke). Besides the particulate matter, a variety of additional contaminants, such as organic gels, dissolved metals and dispersed liquids, can be found in pyrolysis oil. This complex mixture of contaminants must be extracted from the oil.

Appropriate filtration media and coalescer technologies are key at various stages of the process to remove particles and separate water from pyrolysis oil or liquids from gas. The retention and separation of contaminants not only purifies the oil and gas, making them more suitable for downstream processing but also helps prevent fouling of equipment and unnecessary downtime for maintenance.

Creating the desired product

To refine the pyrolysis oil further for use as fuel or a feedstock for plastic production, it must be transferred to a steam cracker to convert the oil into lighter olefins. The presence of particles and metal contaminants in crude pyrolysis oils could have significant negative impacts on the steam cracker's furnace and recovery section such as furnace run-length reduction from the coking increase.

However, using depth filtration can be an effective method to remove harmful contaminants and reduce the contamination in pyrolysis oils to the thresholds accepted for crude naphtha feed in steam crackers. It is an efficient and cost-effective way to remove particle content from the oils.

Recently published work by Kevin M. van Geem (et. al., including me) highlights that when the filtered pyrolysis oils were subjected to steam cracking, radiant coil coke formation was reduced by 40 percent to 60 percent compared with unfiltered oil. Additionally, this reduction occurred without any changes in product selectivity, thus confirming the significant impact of particulate contamination on coke formation during steam cracking.

This filtration step can occur in the plastic oil production site, in a separated oil upgrade unit or directly in the steam cracker, before blending the oil with naphtha. This technology can accommodate different filtration grades to mitigate the potential evolution of the pyrolysis oil with an increase in solid contamination that could occur from degradation and polymerization.

Searching for sustainability

We know that we need to minimize our use of the earth's natural resources and reduce the amount of waste generated to prevent environmental damage. Recycling of mixed plastics via pyrolysis and subsequent steam cracking toward light olefins is a promising solution for the ever-growing plastic waste crisis. It can be understood as a substituent of crude fossil oil.

The more that plastics and other items are chemically recycled, the less pollution there will be in waterways and oceans. Consequently, this should reduce harm to wildlife and minimize the volume of microplastics entering the food chain that pose a threat to human health.

Universal collection, sorting, pretreatment and design of plastic products for recycling are keys to using mechanical recycling methods as the most established technology in industry. However, many end-of-life plastic streams remain unsuitable for mechanical recycling. To apply circularity to an increased share of end-of-life plastics, chemical recycling must be scaled up.

International government perspectives on the role of chemical recycling technology should be reviewed and acknowledged as being crucial to improve plastic circularity and recycling rates. Pyrolysis providers' R&D also must clarify the role, performance and use of these technologies at an industrial scale.

If these elements are in place, the price of pyrolysis oil production could come down. If it falls to a level equal to the cost of current liquid fossil feedstocks, there will be less impetus to create first-generation plastics from fossil fuels. As such, chemical recycling could become the default option in the plastics value chain, waste and pollution would be reduced, and we would all be living in a more sustainable world.

News Concerning Plastics

Round Table Discussion on Plastic Waste Management in India: Current Landscape and Future Prospects

Waste & Recycling magazine and Plastic Recycling Show India (PRSI) brought the industry experts together for an open discussion in Mumbai on February 27. It was the first in the round table series to be organised in the run-up to the trade show in December 2024.

Bottom of Form

India generates around 3.4 million tonnes (MT) of plastic waste every year but only 30% of it is recycled. The rest end up in landfills or the aquatic environment causing threat to animals and humans. Despite this, India's recycling rate of 13% surpasses the global average of 9%, underscoring the progress it has made. The country has made significant headway in terms of regulations - Be it the Plastic Waste Management Rules, 2016, the ban on single use plastic, the EPR scheme or the mandate to use recycled content in new products. But what's the ground reality?

To delve deeper into the subject and promote collaborative efforts and collective action, Waste & Recycling magazine and Plastic Recycling Show India brought the industry experts together for a round table discussion on Plastic Waste Management in India: Current Landscape and Future Prospects, in Mumbai in February. The discussion touched upon key topics such as governance structures, infrastructure developments, recycling environment, behavioural change, technological innovations, and the role of businesses and policymakers in driving sustainable practices.

Representatives from recycling companies, government agencies, technology providers, and industry associations took part and identified challenges, brainstormed solutions, and shared their knowledge, experiences, and successful initiatives in managing plastic waste.

The participants included: Meenal Passi, Senior Director, Bureau of Indian Standards; Shivam Dwivedi, Assistant Director, Bureau of Indian Standards; Spokespersons from Brihanmumbai Municipal Corporation; S.K. Ray, Honorary Secretary, India Centre for Plastics in the Environment; Garima Mishra, Chief Advisor - South Asia, Alliance to End Plastic Waste; Pratibha Dewett, Chief Sustainability Officer, Lucro Plastecycle Private Limited; Sameer Joshi, Vice Chairman - Governing Council, Indian Plastics Institute, Rishi Aggarwal, Founder and Director, Mumbai Sustainability Centre; Deepak V. Mehta, Founder and Managing Partner, Leevams Incorporated; Murtaza Sadriwala, Trustee, Burhani Foundation; Rashi Agrawal, Director of Business Development - Sales, Banyan Nation; Gurashish Singh Sahni, Co-Founder and COO, ReCircle; Bhavin Bavishi, Project Manager, The Shakti Plastic Industries; and spokespersons from KBM Extrusions.

Here are some highlights from the discussion:

Disposal routes

Waste management in India is a multifaceted issue, influenced by diverse regional dynamics and infrastructural capacities and the disposal route varies significantly from region to region - urban to rural. The recycling rates vary, presenting a challenge in quantifying the extent of recycling across different regions, say experts. Despite these challenges, there's a growing interest in recycling initiatives. While cement industries and waste-to-energy plants are significant disposal avenues, challenges persist, particularly in collection and sorting infrastructure. The volume of waste varies depending on the size and urban-rural divide of cities.

Speaking about the challenges within Maharashtra, specifically Mumbai, the experts pointed out that a significant portion of end-of-life plastic materials end up in dumping grounds, despite awareness efforts and initiatives like beach cleanups. Behavioural change remains a critical aspect of addressing plastic waste challenges, they noted.

Recycling infrastructure

A key challenge highlighted by several speakers was the lack of adequate infrastructure and regulatory frameworks to support comprehensive plastic waste management. They batted for decentralisation as a promising solution for addressing infrastructural requirements. They highlighted the challenges in accessing quality feedstock and integrating informal recycling sectors into formal supply chains. The need for greater emphasis on incentivising waste collection was stressed. They suggested that current policies focus too heavily on rewarding recycling activities.

Effectiveness of EPR implementation

Despite the introduction of Extended Producer Responsibility (EPR) schemes and stringent waste management rules, the experts remarked that there remain gaps in implementation and enforcement at the ground level. They argued that without sufficient collection of plastic waste, there would be limited feedstock for recycling operations, undermining the overall effectiveness of waste management efforts. Others echoed this sentiment, recommending the creation of a conducive environment for waste collection at the grassroots level. By engaging with local municipalities and communities, companies can establish robust collection networks that ensure a steady supply of plastic waste for recycling, they said.

The need for transparency and accountability in carrying out EPR obligations was highlighted. Despite the challenges, there was optimism regarding the potential of innovative approaches to transform plastic waste management in India.

One speaker drew everyone's attention to the negative externalities that "often get overlooked in discussions on plastic waste management." She said that the plastic industry has systematically ignored these externalities, which ultimately leads to environmental degradation without being factored into the cost of plastic products. "We need to urgently address this issue by implementing measures such as carbon taxes to properly reflect the true environmental cost of plastic. Without addressing these structural defects, all other efforts to tackle plastic pollution will fall short. A robust waste collection system and positive behavioral changes can mitigate external costs, but without clarity and acknowledgment of these issues, we will continue to exacerbate the problem manifold."

Source segregation

Speakers shared success stories of initiatives that have helped in encouraging source segregation and eventually waste collection and recycling, demonstrating the feasibility of scalable solutions.

The discussion also touched upon community engagement, and the role of faith-based organisations in promoting sustainability and circular economy practices. Through awareness campaigns and action-oriented initiatives, communities are actively involved in waste management.

One such example involved a partnership between a recycling company and local municipalities to incentivise individuals to segregate and collect plastic waste. Through community engagement and financial incentives, the initiative saw a significant increase in the volume of plastic waste collected and recycled, highlighting the importance of grassroots initiatives in driving change.

Technology to the rescue

From AI-powered sorting systems to blockchain-based traceability solutions, technology offers promising avenues for improving the effectiveness of plastic waste management efforts, they remarked.

They also underscored the need for regulations that encourage responsible consumption and waste management practices. Concerns were raised about the challenges posed by regulations that impose inflexible quotas on businesses. They agreed that regulations should be balanced to encourage compliance while allowing for flexibility in meeting targets.

The participants acknowledged the evolution of recycling practices in India, noting that while recycling has been ongoing for many years, professional recycling that meets the quality standards required by brands and consumers is still developing. They expressed optimism about the future of recycling in India, particularly with the impending implementation of new regulations that will require brands to use a certain percentage of recycled material in their products.



Consumer demand for sustainable products

Community engagement emerged as a crucial aspect of efforts to address plastic pollution. Speakers noted that consumers are becoming increasingly conscious of their plastic consumption and are demanding products that are environmentally friendly. This shift in consumer preferences is driving change in the industry, prompting brands to adopt more sustainable packaging solutions. By partnering with local businesses and incentivising residents to recycle, these programmes are not only helping to reduce plastic waste but also fostering a sense of environmental responsibility within communities.

Way forward

- Collaboration among local players, government agencies, and businesses to create effective frameworks for waste management
- Shared responsibility among all stakeholders and collective action
- Understanding and utilising the alternatives to plastic appropriately
- Creating awareness alone is not sufficient; rather, it is essential to educate individuals on adaptation and empower them to adopt sustainable practices
- Incentivising the collection of recyclable materials
- Tap into the potential of technological innovations, such as composting and biodegradable packaging
- Successful community-based initiatives and empowerment activities should be replicated to drive sustainable practices at the grassroots level
- Promote research and development in waste management technologies
- Businesses should drive demand for recycled materials and adopt sustainable practices throughout the supply chain

(Source: Waste & Recycling 18th March, 2024)

Products from recycled plastic in India not safe, says new study

Products made from recycled plastic may not be as safe as one may think, according to a new study that has found a cocktail of toxic chemicals in recycled products in Delhi.

The study by environmental NGO Toxics Link, titled "Is Plastic Recycling Safe?" that was released on Tuesday, revealed that of the tested products, 86% of toys and 67% of plastic materials that come in contact with food contained one or more of the five toxic chemicals — phthalates, chlorinated paraffins, heavy metals, bisphenol A, and nonylphenol. These chemicals, the NGO said, can lead to long-term health impacts, including impacts on the reproductive system and pregnancy, respiratory issues, dermal effects, and even DNA damage.

As part of the study, Toxics Link lifted samples of 15 different recycled plastic products from Delhi's markets and informal plastic recycling units. These items tested included non-branded food and drink containers, tooth brushes, kitchen items like casseroles and even children's toys.

"With mounting concerns surrounding plastic pollution and the industry pushing for recycling as the perfect solution, it is imperative that we critically assess the safety of plastic recycling practices. Our report clearly shows that recycled plastic is not clean and maybe full of chemicals," lead researcher Priti Banthia Mahesh, chief programme coordinator at Toxics Link, said.

According to the study, among toys, rubber ducks contained single-chain chlorinated paraffins (338 mg/kg), cadmium (89 mg/kg), nonylphenol (522 mg/kg), and high levels of DEHP and DINP phthalates, while a mouth organ contained bisphenol A (12.7 mg/kg), nonylphenol (41.1 mg/kg), and the DEHP phthalate (220000 mg/kg).

Meanwhile, among plastic materials that come in contact with food, water bottles and masala boxes were found to contain bisphenol A, while casseroles showed the presence of singlechain chlorinated paraffins.

Mahesh said the contamination could be taking place during the recycling phase, although a number of these chemicals could be part of the original plastic product that was recycled.

"We found that heavy metals can be introduced during recycling, if the process involves changing or adding colours. For most other products, including those products lifted from recycled units, we found that this was legacy contamination and that the original products too had chemicals inside. Invertedly, as more plastic is added, even more chemicals combine," she explained.

The report also called for strict regulations when it comes to recycling of plastic in Delhi and across the country. "In view of the growing scientific evidence on the presence of highly hazardous and toxic chemicals in recycled products, the recycling of plastic is fraught with serious threat to human health. We must not advocate for indiscriminate recycling of plastic as a strategy for waste minimization," said Satish Sinha, associate director of Toxics Link, adding that serious action was required on the ground, particularly in terms of monitoring of recycled plastic.

(Source: Hindustan Times; 5th March 2024)

Plastic Park: Industry accepts 20 acres in Hambran

Ludhiana: Plastic manufacturers have accepted Punjab govt's offer of a 20- acre piece of land in Hambaran village for setting up an industrial hub for plastic manufacturing, or what is being called plastics park.

The Punjab department of industries and commerce, and Ludhiana administration had offered manufacturers various locations to choose suitable land for the park.

Around 25% plastic manufacturing units are being run from mixed land, including residential areas, in Ludhiana. The department had zeroed in on nine locations in the district.

Plastic manufacturers, for the past few years, have been running pillar to post seeking land from govt for shifting the industry to a dedicated common place.

As per Plastic Manufacturers and Traders Association, the industry had gotten a three-year extension to operate from mixed land areas. Last year, state govt had given them time of three years to shift the industry from residential areas. Therefore, they were urging the govt to allot them land to set up a plastics park before extension expired.

Mankar Garg, president of Plastic Manufacturers and Traders Association, said govt had offered them panchayat land at Dhanansu, Fatehgarh Gujran, Jhugian Kadir, Kadiana Kalan, Miani, Ratangarh, Salkiana and Hambaran villages, and asked to select suitable site for the park. "We had visited all locations and selected a 20-acre land at Hambaran. We have apprised the department of industries and commerce and administration about our choice," Garg added.

"The plastics park will not only create an ease for industry to move from mixed land to designated area, but allow the industry to expand on a larger scale and create an ease for environment since the tracking of waste would be easier," said Garg. He informed that 931 registered units of plastic manufacturers are functioning in the district.

Earlier, plastic manufacturers had also asked govt to allot land of Sahnewal airport for this purpose, as the new international airport at Halwara was all set to become functional in coming months. Land occupied by Sahnewal airport will be free to use.

(Source: The Times of India; 5th March 2024)

Amendment in Plastic Waste Management Rules 2024

Ministry of Environment Forest and climate change, Government of India has amended the PWM Rules 2016. Now these Rules will be called as Plastic Waste Management (Amendment) Rules 2024. These amendments have come into force from 14th March 2024.

Key points of the amendment are as follows. Only Key changes made in rules have been highlighted in this article .

Key Changes: -

1) **Change in Definition** - There has been change in the definition of following

- **A)** "Biodegradable plastics": means plastics, other than compostable plastics, which undergoes degradation by biological processes in specific environment such as soil, landfill, sewage sludge, fresh water, marine, without leaving any micro plastics or visible or distinguishable or toxic residue, which has adverse environment impact.
- **B)** "Importer": Earlier definition was only for plastic packaging/ carry bags or MLP, but now it includes various plastic resins/ Pellets/ intermediate material used for manufacturing plastic packaging/films/ preforms for commercial use.
- C) "Manufacturer" means and includes a person engaged in production of plastic raw material, including compostable plastics and biodegradable plastics. Earlier, Compostable and Biodegradable plastic were not included
- **D)** "Producer" means persons engaged in manufacture of plastic packaging; and, includes a person engaged in manufacture of intermediate material to be used for manufacturing plastic packaging. It is also the person engaged in contract manufacturing of products using plastic packaging or through other similar arrangements for a brand owner. Earlier it was limited to people engaged in manufacturing of plastic packaging only.
- E) "Seller" means a person who sells plastic raw material such as resins or pellets or intermediate material used for producing plastic packaging. Now new entity Seller has been included in definition

2) Few other changes for Manufacturer and Compostable plastic and carry bags are as follows: -

- A) The manufacturer shall not sell or provide or arrange plastic to be used as raw material to a producer or to a seller not registered under these rules.
- B) The provision of thickness shall not apply to carry bags or commodities made from compostable plastic or biodegradable plastics..
- C) The manufacture of carry bags and commodities shall be permitted to be made from compostable plastics or biodegradable plastics subject to mandatory marking and labelling laid down under these rules
- D) The manufacturer of commodities made from compostable plastics or biodegradable plastics shall report the quantity of such commodities introduced in the market and pre-consumer waste generated to the Central Pollution Control Board.

3) Local bodies and Panchayat has been given important responsibilities under this amended rules: -

- A) The local body shall undertake assessment of plastic waste generated, including plastic waste existing in dump sites, by the 30th June of every year and also estimate the quantity of plastic waste to be generated in following five year period.
- B) The local body shall assess the plastic waste management infrastructure available for collection, segregation and processing and send a report to the State Pollution Control Board or Pollution Control Committee concerned by 30th June of each year
- C) The local body shall take necessary measures to prevent stocking, distribution, sale and usage of prohibited single use plastic items in their jurisdiction.

4) Responsibility of Panchayat at District level has been included in this new amendment

- A) The Panchayat at District Level has been include in the annual report, the following details on plastic waste management, namely:
 - (i) Plastic waste generated, including plastic waste existing at dump sites, in a year.
 - (ii) Plastic waste management infrastructure available for collection, segregation, processing
 - (iii) Projection of plastic waste to be generated
 - (iv) Status on framing and implementation on bye laws
 - (v) Actions taken to prevent stocking, distribution, sale and usage of banned Single Use Plastic items.

5) For biodegradable and compostable plastic and commodity following rules will be applicable: -

- A) Each recycled plastic packaging or commodity shall bear a label "recycled having [—specify percentage of recycled plastic and a mark as given in Rules.
- B) Each plastic packaging or commodity made from compostable plastics shall bear a label compostable only under industrial composting and shall conform to the Indian Standard:IS/ISO 17088:2021 titled as Specifications for Compostable Plastics.
- C) Each plastic packaging or commodity made from biodegradable plastic shall bear the label Biodegradable in specific number of days only in the specific recipient environment such as soil, landfill, water etc.

6) The manufacturer and importer of plastic raw material shall,

- A) Sell plastic raw material only to Producer or Seller registered under these rules and the Registration number of such Producer or Seller is mentioned on sale invoice for sale of plastic raw material.
- B) Not sell plastic raw material to any entity or units engaged in manufacturing of prohibited single use plastic items;
- C) Print the following on all packaging bags of plastic raw material: "Not to be used in the manufacture of single use plastic items prohibited under the Plastic Waste Management Rules, 2016 including plastic sheets <50 micron thickness, non-woven carry bags < 60 GSM, Carry bags < 120 micron thickness".
- D) Submit Quarterly Report to the Central Pollution Board and State Pollution Control Board or Pollution Control Committee concerned;
- 7) Where the registration is not granted within a period of thirty days after the receipt of application complete in all respect, the applicant shall be deemed to be registered under these rules on the expiry of such period.

8) Following amendments have been made in Annual report submission: -

A) Annual Reports: -

- i. Every person engaged in recycling or processing of plastic waste shall prepare and submit online an annual report in Form-IV to the local body concerned and also to the State Pollution Control Board or Pollution Control Committee concerned by the 30th April of every year.
- ii. Every manufacturer and importer of plastic raw material shall prepare and submit online a quarterly report in Form VII to the State Pollution Control Board or Pollution Control Committee concerned by the last day of month following the quarter and an annual report by 30th June of every year.
- iii. Every person engaged in the sale of plastic raw material or an intermediate material used for manufacture of plastic packaging shall prepare and submit online an annual report mentioning therein the detail of transactions to the State Pollution Control Board or Pollution Control Committee concerned by the 30th June of every year.
- iv. Every urban local body and Panchayat at District Level shall prepare and submit online an annual report in Form –V to the Urban Development Department and to Rural Development Department, respectively, and also to the State Pollution Control Board or Pollution Control Committee concerned by the 30th June every year.
- v. The State Pollution Control Board or Pollution Control Committee concerned shall cause the report submitted by the urban local body and Panchayat at District level to be audited by itself or through a designated agency and copy of the report of such audit and the annual report shall be made available on website of State Pollution Control Board or Pollution Control Committee concerned.
- vi. The State Pollution Control Board or Pollution Control Committee shall prepare and submit online an annual report in Form VI to the Central Pollution Control Board on the implementation of these rules by the 31st July of every year.
- vii. The Central Pollution Control Board shall prepare a consolidated annual report on the implementation of these

rules and submit to the Central Government along with its recommendations on or before the 31st August of every year.

- 9) Manufacturer or importer of plastic raw material - Extended Producer Responsibility Target:
- A) The extended producer responsibility of producers, which are micro and small producers as defined under the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006), hereinafter referred to as micro and small producers, shall be fulfilled by manufacturer or importer of plastic raw material who has supplied the plastic raw material to such micro and small producers:
- The Extended Producer Responsibility target category-wise for manufacturer or importer of plastic raw material shall B) be the quantity of plastic raw material sold to micro and small producers where the sale invoice is authenticated by the manufacturer or importer of plastic raw material, on the centralized online portal, excluding the sale made by such micro and small producers to Brand Owners and Producers, which are not categorized as micro and small enterprises as defined under the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006).
- 10) Following forms have been revised/added
- Form 1 Application for registration for producers, or brand owners have been amended. A.
- B. Form V Format for Annual report on plastic waste management to be submitted by Urban local body.(Added)
- C. Form VI Format for annual report on plastic waste management to be submitted by SPCB/ PCC.(Added)
- D. Form VII Format for quarterly report of plastic Raw material (Added)
- 11) There are now following obligated entities: -
- A. Producer
- В. **Importer**
- C. Brand owner
- D. Plastic waste Processor
- E. Manufacturer and importer of plastic raw material
- Manufacturer of items made from compostable plastics or biodegradable plastics F.
- 12) Following plastic packaging categories are covered under Extended Producer Responsibility
- A. Category 1 Rigid plastic
- B. Category 2 Flexible plastic
- C. Category 3 Multilayer plastic packaging
- D. Category 4 compostable plastics
- E. Category 5 Biodegradable plastics
- CPCB has been given responsibility to issue guidelines for authorization of agencies for establishment of Electronic platform for trade of EPR Certificates between obligated entities.
- CPCB shall fix the highest and lowest price for EPR Certificates which shall be equal to 100% and 30% respectively of EC Leviable on obligated entities for non fulfillment of EPR obligation.



Reprocessed Granules of

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Yash Jain: 9810933750 E-mail: rp68jain@gmail.com * HDPE-Natural/Milky/Coloured * PP-Natural-Milky-Coloured Article Raffia * PPR & FIELD PP * LDPE/LLDPE/LD (Agro)

International News

Eunomia finds bioplastic shortcomings

A life cycle analysis of the bioplastic polylactic acid (PLA) undertaken by Eunomia Research & Consulting has identified a disappointing recycling track record as one of several environmental and social impacts that are challenging prevailing perceptions of the material's sustainability.

Eunomia collaborated with the Washington-based Plastic Pollution Coalition (PPC) to create the 18-page report on PLA. The report, "Bioplastics Are Trash: The Unforeseen Environmental Consequences of PLA from Production to Disposal," was prepared by the New York office of United Kingdom-based Eunomia.

PLA and other bioplastics have been met with a critical eye by material recovery facility (MRF) operators and plastics reprocessors because they are not considered compatible with most established mechanical recycling processes.

Thus, recyclers of the most commonly recycled postconsumer plastics, such as polyethylene terephthalate (PET), high-density polyethylene (HDPE) and polypropylene (PP), treat PLA in the mixed container stream as a contaminant.

"If PLA is not sorted and removed from conventional plastic recycling streams, it acts as a contaminant and will have a detrimental impact on the final product in terms of strength and color," Eunomia says.

Proponents of the bioplastic have recommended composting discarded PLA, but the Eunomia report identifies shortcomings in that process, too.

"PLA does not biodegrade at the same speed as other organic materials in composting facilities, which can lead to contamination of the final compost product" at most existing composting locations," Eunomia says.

"For bioplastics like PLA to decompose and biodegrade, they must be collected and composted in one of the limited number of carefully controlled, high-temperature industrial composting facilities in the United States that accept them. These facilities are few and far between."

The use of plant oils in place of petroleum has been the leading sustainability tie-in for PLA and other bioresins, but Eunomia and the PCC claim the start of the life cycle for PLA also involves environmental tradeoffs.

"Bioplastics like PLA are developed from feedstocks that require intensive agricultural practices, which contribute to ecological issues such as deforestation, water pollution, soil degradation and loss of biodiversity," the groups say.

In the U.S., fermented corn starch is a common bioplastic feedstock, while in Asia, sugar cane is more commonly used.

According to Eunomia, in 2022 about 3 million tons of bioplastic were produced, with PLA comprising 21 percent of that total.

"Our research shows that PLA is not the panacea for the planet's plastic problems," says Sarah Edwards, head of North America for Eunomia. "[While] PLA is derived from renewable resources, so the need for fossil fuel feedstocks is negated, its production and end-of-life disposal pose environmental issues [that] should not be overlooked."

"Reducing single-use plastics and prioritizing infinitely reusable and recyclable materials is crucial for protecting human health, especially for people who live in vulnerable communities that are disproportionately impacted by our current single-use culture," PPC Managing Director Julia Cohen adds.

The groups point to materials like aluminum "that offer endless recyclability" as an alternative offering a better life cycle profile, and while the PCC is unlikely to endorse PET as an alternative, its recycling volumes have been rising globally.

"While PLA seems to offer a promising alternative to conventional plastics with potential environmental benefits, the sustainability of PLA is conditional on the development of appropriate policies and regulations to minimize or eliminate unintended and negative production consequences, alongside comprehensive waste management strategies and large-scale infrastructure investments," the report concludes.

(Source: Recycling Today; 27th February, 2024)

EU reaches provisional agreement on packaging law

The European Union has reached a provisional agreement on rules to change the way discarded packaging is handled.

The new law aims to make packaging used in the EU safer and more sustainable by requiring all packaging be recyclable, minimizing per- and polyfluoroalkyl substances (PFAS) in food content packaging, reducing excess packaging, boosting the uptake of recycled content and improving collection and recycling. The agreement also sets packaging reduction targets to 5 percent by 2030, 10 percent by 2035 and 15 percent by 2040.

"For the first time in an environmental law, the EU is setting targets to reduce packaging consumption, regardless of the material used," Rapporteur Frédérique Ries says. "We call on all industrial sectors, EU countries and consumers to play their part in the fight against excess packaging."

According to the deal, certain single-use plastic packaging would be banned as of Jan. 1, 2030. These materials include packaging for unprocessed fresh fruits and vegetables; packaging for food and beverages consumed in restaurants; individual portion packaging for condiments, sauces, cream and sugar; miniaturing packaging for toiletry products; and shrink-wrap film for suitcases in airports. Members of parliament also banned lightweight plastic carrier bags unless required for hygiene reasons or provided as primary packaging for loose food to help prevent food waste.

Food and beverage distributors would be obligated to offer consumers the option of bringing their own containers and would be required to have 10 percent reusable packaging by 2030.

The European Parliament says negotiators agreed all packaging should be recyclable and fulfill strict criteria, which is to be defined through secondary legislation. However, there will be certain exemptions for lightweight wood, cork, textile, rubber, ceramic, porcelain and wax.

Other agreed measures include minimum recycled content targets for any plastic packaging; minimum recycling targets by weight of discarded packaging generated and increased recyclability requirements; and 90 percent of single-use plastic and metal beverage containers up to 3 liters (12.68 cups) to be collected separately by 2029 through a deposit-return system.

According to a release from the European Parliament, discarded packaging volumes have increased from 66 million metric tons (approximately 72.7 million tons) in 2009 to 84 million metric tons (approximately 92.6 million tons) in 2021. Each European generated an average of 188.7 kilograms (416.01 pounds) of material in 2021, a figure expected to increase to 209 kilograms (460.77 pounds) in 2030.

The European Parliament and Council of the EU must formally approve the agreement before it can become effective.

(Source: Recycling Today; 5th March, 2024)

California announces recycling regulations for packaging and beverage containers

The California Department of Resources Recycling and Recovery (CalRecycle) has announced new recycling regulations, reforms and funding to reduce single-use plastic waste in California.

The state released draft regulations March 8 for producers to cut use of single-use plastics and ensure product packaging is recyclable or compostable. California also will enter a formal rulemaking for a law to expand beverage container redemption.

"For decades, plastics have been falsely advertised as recyclable while really being designed to be thrown away," says Yana Garcia, California's secretary for environmental protection. "This growing source of trash ends up in our landfills or, too often, polluting our most vulnerable communities. That's why California is taking nation-leading action to hold plastic producers accountable, protect our environment and communities and build solutions to deliver on the promise of recycling."

The organization has also announced \$55 million in grants supporting technology solutions and workforce development for California's recycling industry.

Packaging

According to CalRecycle, packaging makes up more than 50 percent of the state's waste. California's Plastic Pollution Prevention and Packaging Producer Responsibility Act (S.B. 54) institutes requirements for producers to cut disposable plastic packaging and food ware.

This law requires that by 2032, producers must sell 25 percent less single-use plastic packaging and food ware in the state; make all single-use packaging and plastic food ware recyclable or compostable; and recycle 65 percent of single-use plastic packaging and food ware.

The law also creates a fund that will raise \$5 billion from industry members for the state to address plastic pollution in communities most impacted by it.

CalRecycle will receive public comments on S.B. 54 rules for a minimum 45-day period and will hold a hearing for public comments on the draft regulations.

Beverage container redemption

In 2022, California Gov. Gavin Newsom signed S.B. 1013, which expands the state's "bottle bill" and gives beverage retailers in areas with no recycling centers the choice to either redeem in-store or join a cooperative recycling program. The law removes the option for retailers to pay a \$100 daily fee instead of redeeming.

CalRecycle says the law and draft regulations will bring more recycling sites to the state with new ways to redeem, including mobile recycling centers, reverse vending machines and recycling drop-off stations. The public can submit comments on the draft rules after they are published by the Office of Administrative Law.

(Source: Recycling Today, 12th March 2024)

'Dubai Can initiative cuts single-use plastic bottle usage by almost 18 million'

Dubai Can, the citywide sustainability initiative, has successfully seen a reduction in the usage of an equivalent of almost 18 million 500ml single-use plastic water bottles in just two years since its launch, according to a press statement. With the support of its partners and sponsors, Dubai Can has placed 50 public water stations

in strategic locations across the city, including parks and popular tourist destinations, which have dispensed almost 9 million litres of water, it said.

Dubai Can was launched on 15 February 2022 by His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai, Chairman of The Executive Council of Dubai, to reduce the utilisation of single-use plastic water bottles, empower residents and visitors to be active players in building a more sustainable future, and contribute to saving wildlife and the marine environment.

The initiative is aligned with the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai to transform the emirate into a leading sustainable destination and is part of the wider efforts to cut the use of single-use plastics and encourage a mindset change in how the city's residents and visitors view sustainability. Dubai Can's objectives are also supporting the Dubai 2040 Urban Masterplan and Dubai's commitment to helping the UAE achieve the UN Sustainable Development Goals and UAE NetZero 2050 targets.

With the UAE's 'Year of Sustainability' extending into 2024, the Dubai Can initiative has plans to expand with 30 additional water fountains being installed by the end of the year in locations around the city. This will further motivate residents and visitors to undertake simple lifestyle changes such as using refillable water bottles and installing water filters in their homes, offices and schools.

Yousuf Lootah, Acting CEO of Corporate Strategy and Performance Sector, Dubai Department of Economy and Tourism, said: "The Dubai Can movement has been embraced by residents and visitors alike and we are proud of the considerable success it has achieved since its launch two years ago, in line with the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to make Dubai a leading sustainable destination. We have seen consistent engagement with Dubai Can across the city, and the positive impact the initiative has made over the past two years. By reducing plastic waste, we are protecting our oceans, wildlife, and natural landscapes, and by choosing reusable options like our public water stations, we are promoting a healthier lifestyle and reducing our carbon footprint. We will ensure that Dubai Can will continue to encourage residents and visitors to adopt greener practices and lifestyle choices, in line with the goals of the Dubai Economic Agenda, D33, which aims to consolidate Dubai's position among the top three global cities for business and leisure over the next decade.

"As we strive to achieve Dubai's sustainability goals, we look forward to the continued success of Dubai Can, particularly in the UAE's 'Year of Sustainability', which has been extended into 2024 and invites everyone to join in the collective effort to adopt sustainable practices. Dubai Can has driven the behavioral changes that are needed to tackle environmental challenges and the success of this initiative could not have been possible without the support of our valued city stakeholders and partners, as well as the overwhelming response from the public."

Driving a 'refill culture'

All water stations throughout the city adhere to the highest hygiene standards and comply strictly with municipal, healthcare, and federal regulations. The stations provide clean and safe drinking water, which is tested in accordance with DEWA, GCC, and World Health Organization standards. While driving a 'refill culture', the drinking water from the stations are kept cool at a temperature of 10°C offering people a refreshing, clean and safe alternative.

A resident in the UAE typically uses 450 plastic water bottles on an average in a year, which translates into a total of 4 billion plastic bottles being used annually across the country. The Dubai Can initiative will continue to encourage residents and visitors to help reduce waste and prevent millions of plastic bottles from ending up in landfill and in our oceans.

A second Dubai Can project, the Dubai Reef, was also launched in December 2023. One of the world's largest marine reef developments, Dubai Reef is part of the city's efforts to increase fish stocks, support sustainable fishing, and contribute to boosting food security. It will also play a vital role in reducing carbon emissions and increasing marine biodiversity.

(Source: Waste & Recycling 14th March 2024)

EU trade head says plastic packaging waste rules risk backfiring

The European Union's trade chief warned that late changes to new rules on plastic packaging could penalize poorer countries that export to the bloc and increase the risk of legal challenges and retaliation.

EU negotiators finalized a deal last week to slash packaging waste in everyday products from bananas to computers. The agreement, due to be signed off on Friday, included an amendment pushed by France forcing countries outside the EU to mirror its standards in producing plastic packaging used to protect goods.

"Make no mistake, these last-minute changes to the commission's packaging proposal will have wide-ranging ramifications on trade into the EU and on our partners around the globe," Valdis Dombrovskis, European Commission vice president responsible for trade, said in a statement emailed to Bloomberg. "These changes will call into question our reputation as a reliable trade partner and risk undermining our efforts to support development in less developed countries."

He said the deal would harm the poorest countries — including in Africa — and the smallest companies the most, adding that it could also expose the EU to potential trade retaliation and World Trade Organization disputes, while boosting costs for consumers. Products not complying with the bloc's rules could be blocked at customs. The EU has faced growing accusations of green protectionism as it seeks to transition its own economy to net zero by 2050. The bloc's carbon border adjustment mechanism — an instrument designed to prevent industry leaving the EU because of the higher costs incurred for generating pollution — has been lambasted by countries such as India and China, and has threatened to undermine global efforts to cut emissions.

A separate rule to curb deforestation abroad through imports of products like beef and coffee has also been roundly criticized by producer countries, forcing the EU to delay benchmarking countries as "high risk." The bloc's environment commissioner, Virginijus Sinkevicius, is about to embark on a tour of South America to help ease those concerns.

Despite Dombrovskis's objections, the rules governing packaging are expected to be approved by EU country representatives at a meeting in Brussels on Friday. Both the EU parliament and council's legal services say the agreement is WTO-compatible, according to people familiar with the matter.

Negotiators say the rules governing imports are less strict than what the commission, the bloc's executive branch, originally proposed.

"Such sweeping amendments should be weighed up with care and a proper impact assessment," Dombrovskis added. "We want to promote the use of recycled plastic packaging, but we must bring our trade partners on board rather than potentially shut them out of the EU markets.

(Source: Economic Times 15th March 2024)

Senate passes recycling, composting bills

The U.S. Senate unanimously has passed two bipartisan bills that seek to boost recycling and composting infrastructure in an effort to improve and expand recycling service and increase composting.

The Recycling Infrastructure and Accessibility Act (S. 1189) was introduced by Sen. Shelley Moore Capito, a Republican from West Virginia, in April of last year. It would require the Environmental Protection Agency (EPA) to establish a pilot grant program to improve recycling accessibility in communities and allows the EPA to award grants to states, local governments, Indian tribes or public-private partnerships.

According to the bill, the EPA should give priority to eligible entities planning projects in communities with no more than one material recovery facility (MRF) within a 75-mile radius of that community.

Grants would be available to projects that to improve recycling accessibility in communities, including in underserved communities, by increasing the number of transfer stations, expanding curbside recycling collection programs and leveraging public-private partnerships to reduce the costs associated with collecting and transporting recyclables in underserved communities.

Grants would range from \$500,000 to \$15 million.

Sen. Thomas R. Carper, a Democrat from Delaware, introduced the Recycling and Composting Accountability Act (S. 1194) last April. This bill establishes data collection and reporting requirements concerning composting and recycling programs, requiring the EPA to issue several reports related to composting and recycling, including a report on the capability of the United States to implement a national composting strategy to reduce contamination rates for recycling.

It also calls on the EPA to inventory certain facilities that recycle residential materials and describe the materials that the facilities can process; collect data related to curbside and drop-off recycling and composting programs to establish a comprehensive baseline for the U.S. recycling system; and develop and disseminate best practices that states, local governments and Indian tribes could use to enhance recycling and composting.

It also would require the Government Accountability Office to report on the recycling practices of federal agencies, while the EPA would be required to develop a metric for determining the proportion of recyclables in commercial and municipal waste streams that is being diverted from circular markets. After developing that metric, the EPA would be required to study the proportion of recyclables that were diverted from those markets in the prior 10 years.

U.S. Sen. Jack Reed, a Democrat from Rhode Island, says it is imperative for Congress to take action to reduce the amount of waste entering landfills, expand local capacity to improve the collection of recyclables and help make recycling and composting programs more effective and efficient.

"We can't just toss cardboard, paper, plastic and bottles into the bin and call it a day," he says. "We've got to invest in making recycling work better for people and communities. This is a smart step toward upgrading our recycling infrastructure and ensuring it is economically and environmentally sustainable and expanding opportunities for composting.

"These bipartisan bills will also help collect needed data to ensure recycling programs are working and develop a national composting strategy. And we've also got to do our part to reduce the amount of plastics we use in the first place, incentivize producers and manufacturers to be environmentally responsible and hold them accountable for their packaging."

According to a study by the EPA, more than 681,000 jobs in the United States are associated with recycling and reuse activities.

The two bipartisan bills would help the U.S. toward its goal of increasing the national recycling rate to 50 percent by 2030, up from the current 32.1 percent.

Both bills first were introduced in 2022 and received support from several industry groups, including the National Waste & Recycling Association, the Plastics Industry Association and the Solid Waste Association of North America. Senate lawmakers passed these bills in August 2022; however, the companion legislation introduced in the House did not proceed past a hearing in the House Committee on Energy and Commerce's Subcommittee on Environment and Climate Change.

Companion legislation for the Recycling Infrastructure and Accessibility Act has been introduced in the House by Rep. Mariannette Miller-Meeks, a Republican from Iowa, and companion legislation for the Recycling and Composting Accountability Act has been introduced by Rep. Joe Neguse, a Democrat from Colorado. Whether they will pass the U.S. House of Representatives this year remains to be seen.

(Source: Waste Today 14th March 2024)

Eastman begins on-spec production of Kingsport molecular recycling facility

Eastman has achieved on-spec initial production and is generating revenue from its new molecular recycling facility in Kingsport, Tennessee.

The company expects to ramp up production of the new facility over the coming months and enable growth across a wide range of markets. Achieving this critical milestone enables the company's pathway to deliver approximately \$75 million of incremental EBITDA in 2024 from this facility as it builds momentum in its circular economy platform.

"We are thankful for the hard work and dedication of our Eastman team members who have worked tirelessly to build and bring this new facility online," said Mark Costa, Board Chair and CEO. "By demonstrating molecular recycling at this scale, we have solidified our position as a leader in the creation of a circular economy. Demand for recycled material at virgin-quality levels from our new facility remains strong, and we are excited to announce this significant next milestone in our journey."

In addition to this recently completed facility in Kingsport, Eastman plans to invest in two additional molecular recycling plants, one in France and another U.S. site.

Eastman's proven polyester renewal technology recycles hard-to-recycle plastic waste bound for landfill or incineration today.

(Source: ICN Bureau; 23rd March 2024)

Film recycling

Capturing film on a processing line is challenging, and sorting the material by polymer family is even more daunting for most processors. The UniSort Film from STEINERT changes that.

The proprietary Active Object Control (AOC) system engineered into the unit delivers unusual performance, making processing film of all types effective and rewarding.

Steinert's proprietary closed-air cycle ensures superior material adhesion, delivering cleaner sortation.

"The AOC system does a superior job holding light 2D materials in place," says Charlotte Fischer, North American UniSort sales specialist at STEINERT. "This ensures cleaner sorts and high production rates."

The closed-air cycle engineered into the units takes hold of inbound material from the moment it hits the accelerator belt. Unique ducting built right into the unit delivers airflow that ensures superior adhesion.

"Because the material is so effectively held in place, we are able to run the accelerator belt at speeds up to 4.5 meters per second," says Nolan Lamb, North American market manager for waste/plastic recycling at STEINERT. "That delivers higher production rates. It also ensures less turbulence, reducing material movement which has the impact of cleaner sortation, reducing things like film contamination in fiber."

Advanced materials identification

The UniSort Film leverages STEINERT's advanced hyperspectral imaging (HSI). This provides a much deeper material read, allowing it to sort efficiently and with incredible accuracy.

The UniSort Film EVO 5.0 represents a massive leap forward in sorting technology. As a fifth-generation machine, it benefits from a vast repository of material data and leverages artificial intelligence to apply that data to each sort.

"The sorting system does an amazing job at sorting MRF pick-line film, including common plastics like PE, PP, and PET," Fischer says. "This enables mechanical and chemical processors to achieve their exact feedstock requirements for optimized recycling."

Ease of maintenance

To ensure ongoing operational efficiency, STEINERT also has incorporated features like an accordion-style belt cover. This innovation allows easy access to the belt for routine cleaning and maintenance.

The cover also is lightweight and quickly folds out of the way, granting access to line workers and technicians without any additional steps or tools required.

With production rates up to 50 percent higher than standard units of the same width, clean and accurate sorts and easy maintenance that ensures ongoing smooth operations, the UniSort Film delivers unusual value.

The right solution

The UniSort Film is just one tool in STEINERT's portfolio of sensor-based sorting solutions. From black plastic sorting to color sortation and clean fiber sorts, STEINERT offers a range of solutions. High production, superior recovery and unmatched purity define performance.

With decades of materials sortation experience, the sorting specialist delivers performance.

(Recycling Today march-2024)

Hitachi Zosen Inova prepares for UK installation

Switzerland-based Hitachi Zosen Inova (HZI) plans to build and operate the first waste-to-energy (WTE) carbon capture (CC) facility in the United Kingdom for WTE plant operator Enfinium.

Once operational in July, HZI says the scaled-down, containerized and mobile plant will enable Enfinium to capture up to 1 metric ton of CO₂ each day from its WTE plant in Ferrybridge, England.

The CC plant will use HZI's amine-scrubbing technology, which the company says has been designed to seamlessly interface with Enfinium's onsite WTE operations.

The scaled-down pilot plant has the potential be applied to WTE facilities on a larger, commercial scale, according to HZI. The pilot facility also will trial different amine-based solvents for at least 12 months.

"It gives us tremendous pride to collaborate with Enfinium on this important carbon capture project and together continue to move the dial on decarbonization across the U.K.'s waste management infrastructure," says Bruno-Frédéric Baudouin, CEO of HZI.

"This initiative is evidence of HZI's move beyond waste to energy and into so-called 'waste to X', where outputs, including energy generation, now extend beyond maximizing heat use and the recovery of more metals into vital CO, reduction and more."

"Installing carbon capture technology at energy-from-waste facilities is the only way the U.K. can decarbonize its unrecyclable waste," Enfinium CEO Mike Maudsley adds. "It also offers benefits including creating durable carbon removals, or negative emissions, at scale and generating reliable homegrown power. This groundbreaking partnership with HZI will allow us to test multiple capture techniques that could in the future be deployed across our facilities at scale."

HZI says its CC technology also allows data to be gathered from testing that can be analyzed to demonstrate the future "scalability" of the process.

"Simultaneously, Enfinium will be able to utilize this pilot plant to optimize its long-term onsite operations by customizing the testing and training programs for its employees, while at the same time reducing future financial investment risks to decarbonize its long-term operations," HZI says.

(Source: Waste to Energy; March 20, 2024)

Dow and Procter & Gamble to develop a new recycling technology for hard-to-recycle plastic waste

Dow and the Procter & Gamble Company announced a joint development agreement (JDA) to create a new recycling technology. The vision is to enable efficient conversion of hard-torecycle plastic packaging into recycled polyethylene with near-virgin quality and a low greenhouse gas emissions footprint.

To create the new technology, the companies will combine their patented technologies and know-how in the dissolution process. The development program will focus on using dissolution technology to recycle a broad range of plastic materials with a focus on polyethylene and targeting post-household plastic waste (especially rigids, flexible and multi-layer packaging, which are harder to recycle).

The technology aims to deliver high quality post-consumer recycled (PCR) polymer with a lower greenhouse gas emissions footprint than fossil-based polyethylene. P&G anticipates using this PCR polymer in their packaging, thereby enabling a path to circularity which helps maximize resource utility and reduces materials treated as waste.

"Dow is committed to transforming plastic waste into circular solutions that can be made into high quality resins demanded by our customers while helping to accelerate a circular economy. We are excited to work with P&G who has similar sustainability goals and commitment to innovation," said Dave Parrillo, Vice President for Research & Development, Dow Packaging & Specialty Plastics and Hydrocarbons.

"Our partnership with Dow helps P&G advance our objective to scale industry solutions as we help create a circular future where materials are recycled and remade instead of becoming waste," added Lee Ellen Drechsler, Senior Vice President of Corporate Research and Development at Procter & Gamble.

(Source- By ICN Bureau | March 26, 2024)

NEWS IN BRIEF

Timely payment to MSMEs rule to be enforced from April 1: Finmin officials

The government will implement a rule in FY25 requiring payments to micro, small and medium enterprises (MSMEs) to be made within 45 days, failing which companies will have to pay tax on the amount due.

Any change to the rule is possible only in the Union Budget in July, two senior finance ministry officials said. The government is not looking at deferring the rule by one year, as sought by traders, they said.

"According to the Finance Act 2023, companies need to make payments to the MSME sector within 45 days, which is slated to come into effect from April 1, 2024, else the companies cannot claim deductions on it," a senior finance ministry official told CNBC.

(Source: CNBC 5th March 2024)

Shri Narayan Rane lays the foundation stone of MSME-Technology Centre, Sindhudurg, Maharashtra

The Union Minister for Micro, Small and Medium Enterprises, Shri Narayan Rane laid the foundation stone of MSME-Technology Centre, Sindhudurg, Maharashtra today. Sindhudurg Audyogik Mahotsav and Self Employment Conclave were also inaugurated by the Minister on this occasion. Additional Secretary and Development Commissioner, AS&DC (MSME), Dr Rajneesh and other senior officers of the Ministry and distinguished guests were also present during the occasion.

20 New Technology Centres and 100 Extension Centres to enhance the access to Technology by Micro, Small and Medium Enterprises will be established by Government of India across the country. MSME-Technology Centre, Sindhudurg, with an estimated project cost of Rs 182 Crores, will focus on sectors like General Engineering and Food Processing and will create new opportunities of growth for the MSMEs in the nearby areas.

Speaking on the occasion, Shri Rane said that by 2030, India will become the 3rd Largest Economy of the World. He further emphasized that the Technology Centre at Sindhudurg will provide advanced training to youths in various fields. It will give further push to the growth and

industrial development of the State and food processing will become a major industrial activity in this area.

AS&DC (MSME), Dr Rajneesh said that the MSMEs have to become globally competitive and world class to ensure that India becomes a developed country by 2047. He further stated that Technology Centres spread across the country will play a big role in this transformation.

Shri Narayan Rane also inaugurated an exhibition on PM Vishwakarma and interacted with the public.

(Source: PIB: 11 Mar 2024)

Delhi LG approves conversion of industrial plots to freehold

Lieutenant governor (LG) VK Saxena has approved the conversion of industrial plots allotted by the Delhi State Industrial and Infrastructure Development Corporation (DSIIDC) under the Relocation Scheme, 1998 from leasehold to freehold, officials aware of the matter said.

A leasehold property is given on lease by a landowning agency to a lessee for a fixed period of time. A freehold property is when the property title or ownership is transferred by the landowning agency to the owner.

The LG's nod for the conversion of these plots to freehold, given on Friday, will affect around 22,000 small and medium industrial units across the Capital, lifting the prohibition on their sale or purchase, with an outward limit of March 31, 2025. "It is surprising that the scheme was entrusted to DSIIDC in 1998 for implementation and allotments of plots started in 2000-2001, but this process has still not been completed, even after 23 years. Even the success of the scheme vis-à-vis its implementation on ground as ordered by the Supreme Court, cannot be ascertained, since no details are available on file of how many industries were to be relocated and how many have actually been relocated," Saxena said.

The LG said that the conversion will be granted, subject to four conditions: where the plots are in the possession of the original allottee, where the construction of a building has been completed, where the original allottee has closed his industrial unit in non-conforming areas, and fourth, if the allottee has paid conversion charges, fees and all other pending dues.

He also directed to formulate a comprehensive policy for effective implementation of the relocation scheme within the overall framework of the scheme.

Separately, Saxena also expressed his displeasure over the alleged failure of DSIIDC to provide even basic amenities and infrastructure in these industrial areas. He further said that while there has been progress in the development of industrial plots at Bawana and Narela industrial areas, DSIIDC has "miserably failed" in providing adequate and basic infrastructure at Bhorgarh.

HT reached out to DSIIDC, but officials there did not respond to the development.

(Source: HT Correspondence 17th March 2024)

GAIL to commission its first green hydrogen project in April, sources say

State-run natural gas company GAIL (India) Ltd plans to commission its first green hydrog en project in central India in April, three company sources said.

The 10-megawatt proton exchange membrane electrolyser for the green-hydrogen producing unit at the Vijaipur complex in Madhya Pradesh state has been imported from Canada, they added.

"Once the initial hiccups are sorted at the commissioning stage, we expect to start producing in a month's time," one of the sources said. The sources declined to be named as they are not authorised to speak to the media.

The unit is expected to produce about 4.3 metric tons of hydrogen per day, with a purity of about 99.999% by volume, and would use renewable power. India aims to reach 5 million tons of annual green hydrogen production capacity by 2030.

(Source: Energyworld.com 26th March 2024)

CPCB report to NGT shows 80 pc environmental funds remain unutilised

The Central Pollution Control Board (CPCB) has spent only 20 per cent of the environment protection charge and environmental compensation collected so far for mitigating air pollution in DelhiNCR and protecting the environment. The CPCB receives compensation broadly under two heads - environment protection charge (EPC) and environmental compensation (EC).

According to a CPCB report submitted to the National Green Tribunal on March 20, the central pollution control

body has disbursed only Rs 156.33 of the total Rs 777.69 crore collected under the two heads.

The dealer/manufacturer is required to pay one per cent environment protection charge on the ex-showroom price of new diesel vehicles with engine capacity of 2000cc and above, registered only in Delhi and NCR. This is called 'environment protection charge'.

The EPC is received as per an order of the Supreme Court and is utilized for air quality improvement and related work in Delhi-NCR such as research and development activities and vehicular pollution control, health impact studies and specific projects to control pollution in Delhi-NCR and Punjab.

The CPCB also receives 25 per cent of the environmental compensation collected by state pollution control boards. It also collects environmental penalties directly from polluters/defaulters in various matters.

The environmental compensation is received as per the orders of the NGT and is utilized to rejuvenate and protect the environment through strengthening of laboratories/monitoring network, projects and studies/monitoring in compliance of NGT orders, capacity building of pollution control boards, payment of travelling allowance/ dearness allowance/honorarium etc. to the chairman and members of NGT-constituted committees.

According to the CPCB report submitted to the NGT, the central pollution control body has collected a total of Rs 383.89 crore as environment protection charge until January 3. Of this, only Rs 95.4 crore has been disbursed for construction and repair of roads, conducting scientific studies, clean air campaigns, inspection drives, procurement of laboratory equipment and air quality monitoring stations. The CPCB has also received Rs 126.64 crore from states as its share of environmental compensation and Rs 267.16 crore directly from polluters till November 30, 2023. Of these, Rs 45.39 crore and Rs 15.5 crore, respectively, have been released for different projects and works, including monitoring, investigation, capacity building, research and procurement of laboratory equipment.

Various studies undertaken with help of environmental compensation include review of national ambient air quality standards, preparation of guidelines for setting up biodiversity parks in river floodplains, source apportionment/carrying capacity study for 25 non-attainment cities, machine learning and artificial intelligence tool development for analysis of air quality data etc.

(Source: Energyworld.com 27th March 2024)

अपना बिजनेसन करने वालों के लिए बड़ी खबर, पेमेंपेटमें नियमों में बदलाव करने जा रही है सरकार

अगर आप अपना बिजनेस करते हैं तो ये खबर आपके लिए बेहद महत्वपूर्ण है. क्योंकि सरकार पेमेंट नियमों में बदलाव करने जा रही है. सूत्रों ने CNBC-TV18 को बताया कि वित्त मंत्रालय MSMEs के लिए 45—डे पेमेंट नियम के कार्यान्वयन को अप्रैल 2025 तक स्थगित कर सकता है. सूत्रों ने कहा कि वित्त मंत्रालय इनकम टैक्स एक्ट के तहत नियम 43B(h) लागू करने को स्थगित करने पर विचार कर रहा है, जो 45 दिनों के भीतर माइक्रो, स्मॉल एंड मीडियम एंटरप्राइजेज (MSMEs) को पेमेंट अनिवार्य करता है. कहा गया है कि यह प्रस्तावित स्थगन पूरे वित्त वर्ष तक चलने की उम्मीद है. जबिक नियम 1 अप्रैल, 2025 से प्रभावी होने की उम्मीद है।

फाइनेंस एक्ट 2023 ने इनकम टैक्स में संशोधन किया था. इसके तहत MSMEs को समय पर पेमेंट सुनिश्चित करने के लिए सेक्शन 43B में खंड (h) पेश किया था. इस बदलाव के तहत पेमेंट पूरा करने के लिए 45 दिन की लिमिट निर्धारित की है. इस टाइमलाइन का पालन नहीं करने पर पेंडिंपें डिंग पेमेंट को इनकम माना जाएगा और टैक्सेशन के अधीन किया जाएगा.

इंडस्ट्री ने की थी पुनर्विचार करने की अपील

इससे पहले इंडस्ट्री ने वित्त मंत्रालय से इस नियम के कार्यान्वयन की टाइमलाइन पर पुनर्विचार करने की अपील की थी. कई सेक्टर्स ने स्मॉल पेमेंट साइकल के बारे में आशंका व्यक्त की है और कहा है कि यह अब तक चलती आ रही प्रथाओं को चुनौती देता है और पहले ही ऑर्डर रद्द हो चुका है.

इंडस्ट्री बॉडीज ने दिया था ये सुझाव

इंडस्ट्री बॉडीज ने वित्त मंत्रालय को दिए अपने प्रस्ताव में व्यवसायों को आवश्यक एडजस्टमेंट पीरियड प्रदान करने के लिए एक्ट में संभावित बदलाव या अस्थायी स्थगन का सुझाव दिया है. MSME मिनिस्ट्री ने 16 फरवरी को इस मामले पर अपनी प्रतिक्रिया भेजने के लिए कई एसएमई ग्रुप्स से संपर्क किया था. सूत्रों ने कहा कि एसएमई ग्रुप्स को 19 फरवरी तक अपनी टिप्पणियां भेजने के लिए कहा गया था.

(Source: By CNBC आवाज 4th March 2024)

क्यों MSME के नए पेमेंट नियम ने बाजार में बढ़ा दी चिंता, डर गए हैं कारोबारी? जानें डिटेल्स

नए भुगतान के नियम (New Payment Rule) के अनुसार असेसमेंट वर्ष 2024—2025 के लिए पचास करोड़ रुपये से कम के टर्नओवर वाले एमएसएमई से खरीदी करने वाले ग्राहकों को सामान की डिलीवरी के 45 दिन के अंदर भुगतान का पूरा सेटलमेंट करना होगा. यदि MSME पर पेंडिंग पेमेंट बचता है तो 31 मार्च, 2024 तक उसका पूरा भूगतान हो जाना चाहिए.

सरकार द्वारा माइक्रो, स्माल एंड एं मीडियम इंटरप्राइजेज के हितों की रक्षा के लिए नए पेमेंट नियम (MSME New Rule) बनाए हैं. इसके कारण बाजार में कारोबारियों की चिंता बढ़ गई है. कई छोटे व्यापारी तो अपने एमएसएमई के रजिस्ट्रेशन को ही रद्द करा रहे हैं. यदि कोई कारोबारी सरकार द्वारा बनाए गए नए नियमों (New Payment Rule for MSME) का पालन नहीं करते हैं तो ऐसे मामले में एमएसएमई को करने वाले बचे हुए मुगतान की राशि को कर योग्य आय माना जाएगा.

क्या है मुगतान का नया नियम?

नए भुगतान के नियम (New Payment Rule) के अनुसार असेसमेंट वर्ष 2024—2025 के लिए पचास करोड़ रुपये से कम के टर्नओवर वाले एमएसएमई से खरीदी करने वाले ग्राहकों को सामान की डिलीवरी के 45 दिन के अंदर भुगतान का पूरा सेटलमेंट करना होगा. यदि MSME पर पेंडिंग पेमेंट बचता है तो 31 मार्च, 2024 तक उसका पूरा भुगतान हो जाना चाहिए. यदि ऐसा नहीं किया गया, नए भुगतान के नियमों का पालन नहीं किया गया तो जितना भी भुगतान बकाया बचता है उसे कर योग्य आय में शामिल किया जाएगा.

क्यों बनाया ये नियम ?

सरकार ने MSME सेक्टर के व्यापारियों को समय पर भुगतान मिल सके इसलिए ये नियम बनाया है. इसके बारे में FAM के प्रेसिडेंट जितेंद्र शाह ने इस बारे में बताया कि एमएसएमई को तय समय पर पेमेंट मिल सके इसके लिए सरकार ने नया नियम बनाया. जिसके कारण बाजार पर इसका उल्टा असर हुआ है. असर ये हुआ कि लघु उद्योग से ग्राहक माल खरीद ही नहीं रहे हैं. जिसके कारण ग्राहकों ने बड़े कारोबारियों की ओर रुख किया

FAM के प्रेसिडेंट ने कहा कि सरकार को इस नियम पर फिर से विचार करना होगा. क्योंकि इससे नए भुगतान के नियमों में लघु उद्योग नहीं टिक पाएंगे. ऐसे व्यापारियों की लिस्ट बनाई जा रही है, जो 50 करोड़ के कारोबार से नीचे हैं, जिन्होंने अपने आप को MSME घोषित करके रखा है. कई ग्राहकों ने तो 31 मार्च, 2024 नजदीक आता देख अपना सामान वापस करना भी शुक्त कर दिया.

MSME का रजिस्ट्रेशन रद्द करवा रहे

भारत मर्चेंट चौंबर्स के ट्रस्ट्री राजीव सिंगल भी सरकार के इस नए नियम के खिलाफ है. उनका कहना है कि बाजार में इस समय भय का माहौल है. नए नियम से बाजार टूट रहा है. जिसके कारण कई लोग अपना एमएसएमई का रजिस्ट्रेशन रह करवा रहे हैं. क्योंकि एमएसएमई से कुछ खरीदारी करने पर उन्हें 15 से 45 दिनों में भुगतान नहीं किया गया तो उस बकाए भुगतान की राशि को आय में शामिल कर लिया जाएगा.

(Source: ET Times Hindi - 21 Feb 2024)

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MEMBERSHIP FORM
GSTIN No.: 07AAAAA0915D1ZI

The General Secretary

All India Plastic Industries Association 203, Hansa Tower, 25, Central Market

Ashok Vihar, Delhi-110052

Phone: 011-49064336, Mob. 9999481273

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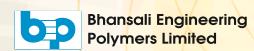
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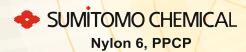
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