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भारत सरकार/Government of India

कृषि एवं किसान कल्याण मंत्रालय/Ministry of Agriculture&Farmers Welfare

कृषि, सहकारिता एवं किसान कल्याण विभाग/Department of Agriculture, Co-operation & FW

वनस्पति संरक्षण, संगरोध एवं संग्रह निदेशालय

DIRECTORATE OF PLANT PROTECTION, QUARANTINE & STORAGE

केंद्रीय कीटनाशी बोर्ड एवम पंजीकरण समिति

Central Insecticides Board and Registration Committee

एन. एच. 4, फरीदाबाद (हरियाणा)-121001

N.H. IV, FARIDABAD (HARYANA)-121001

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Dated the 19th February, 2021.

PUBLIC NOTICE

Subject: Classification of Pesticides container and disposal thereof-reg.

In pursuance of the decision taken by the Registration Committee at Agenda item No. 10.24 in the 425th RC Meeting held on 25.01.2021 wherein the Committee has noted the contents of the project proposal on disposal of used pesticide containers and also the comments of the Network coordinator, AINPR and directed the Secretariat to issue a public notice for inviting comments/views from the stakeholders within 30 days of the publication of the said minutes.

2. Accordingly, all the related stakeholders are requested to submit views/comments on the draft proposal (enclosed at Annexure) through e-mail at cibsecy@nic.in within 30 days of uploading of the public notice on the official website of this Secretariat, for further decision of the RC.

Encl.: As above.

Ajay Kumar
19/2/2021

(Ajay Kumar)
Sr. Administrative Officer

Copy to:

1. Notice Board at CIB&RC, Faridabad.
2. IT Cell for uploading on website of CIB&RC/Dte. of PPQ&S, Faridabad.
3. All Divisions/Sections in CIB&RC, Faridabad.

Disposal of Packaging of Pesticides

Background:

Used empty agrochemical containers constitute about 15,000 tonnes of hazardous waste (As per Grant Thornton Report, 2015 commissioned by Crop Life India). This comprises 0.18% of the total hazardous waste generated each year. Although the volume of empty agrochemical containers is only a small proportion of the total plastic and packaging waste, it needs to be managed properly to minimize the risk of negatively affecting humans and the environment.

Pesticide containers for end users are usually manufactured from Plastic [High density polyethylene (HDPE), Polyethylene Terephthalate (PET) (Both 13%)], [aluminum, Tin (Both 52%)], [Pouches also Duplex Boards (35%)]. Whereas, pesticide containers for manufacturers (mostly 200 liters) are usually manufactured from plastic (HDPE), Steel, Fiber.

It is often noticed that most of these containers are left in the farms or end up in farm households. Considering the current hazardous waste management practices in India, disposal has been the only recommended option for empty agrochemical containers. Meanwhile, re-use as agrochemical containers, recycling of materials for other applications, energy recovery in cement kilns or power plants, destruction at approved incineration plants or sanitary landfills are some of the other available options for container management; but are not without limitations. Re-use of agrochemical containers is not widely recommended due to its potential for misuse in domestic households and its entry into counterfeit products. Also, energy recovery by incineration and burial in landfill facilities should be the last option. Hence the re-cycling approach appears to be a more responsible and sustainable approach for empty agrochemical container management.

The existing guidance for safe disposal of empty containers mandated under Insecticide Act, 1968 is limited to directions on labels and leaflets accompanying the agrochemical container suggesting its break-up and burial away from habitation. However, discarded containers pose a serious threat to soil and groundwater pollution besides poisonings risks. The problem is further aggravated because small and scattered land holdings in India lead to extensive use of smaller packs wherein collection becomes a challenge. Collection and recovery programs for agrochemical containers also cannot be initiated before destination value chain of the collected material is established and the recycling application developed and approved by relevant authorities. This will require relook at the regulations that would positively influence recovery and recycling options within the umbrella of the existing policy framework viz., namely Plastic Waste (Management and Handling) Rules, 2016 and Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016.

The International Code of Conduct of the distribution and use of agrochemicals (WHO/ FAO 2008) provides general guidelines on the management options for empty agrochemical containers to minimize potential health and environmental impacts associated with their disposal. The report also recommends that countries should address the issue of waste classification for

emptied, cleaned agrochemical containers as non-hazardous waste. There is considerable data available to demonstrate that properly rinsed used containers (i.e. triple-rinsed or pressure-rinsed) should be classified as nonhazardous. It is reported that regardless of formulation type, triple rinsing reduced 99.99% of the residues in agrochemical containers and therefore, classified as non-hazardous material.

It is also reported that both FAO and CropLife International accept and recommend the above mentioned approach and many countries have adopted a non-hazardous classification (Table 1). This classification increases the recycling value of the plastic as non-hazardous material, which is then considered as a raw material for recycling rather than waste.

Country	Scheme name	Legal status	Classification of the Plastic	Website
Argentina	AgroLimpio	Voluntary	Hazardous (special waste in some provinces)	www.casafe.org
Australia	DrumMuster	Industry-Government	Non-hazardous	**www.drummster.com.au**
Austria	Fcio	Legally mandated	Non-hazardous	**www.fcio.at**
Belgium	Phytofar recover	Legally mandated	Non-hazardous	**www.phytofarrecover.eu**
Brazil	Inpev	Legally mandated	Non-hazardous	**www.inpev.org.br**
Canada	Cleanfarms	Voluntary	Non-hazardous	**www.cleanfarms.ca**
Chile	Campolimpio	Voluntary	Non-hazardous	**www.afipa.cl/web**
Colombia	CampoLimpio	Legally mandated	Hazardous	**www.campolimpio.org**
Croatia	Crocpa	Legally mandated	Hazardous	**www.crocpa.hr**
Dom republic	CampoLimpio	Voluntary	Hazardous	**www.afipard.org**
Ecuador	CampoLimpio	Legally mandated	Special waste	**www.innovagro.org.ec**
El salvador	CampoLimpio	Voluntary	Hazardous	**www.apaelsalvador.com**
France	Adivalor	Legally mandated	Non-hazardous	**www.adivalor.fr**
Germany	Pamira	Legally mandated	Non-hazardous	**www.pamira.de**
Greece	Hcpa	Legally	Non-hazardous	**www.esyf.gr**

		mandated		
Guatemala	CampoLimpio	Voluntary	Non-hazardous	www.agrequima.com.gt

Source: Position Paper on Used Agrochemical Containers Management email dated 10th October 2019 by CLI.

Disposal

In most cases, the only option for dealing and with unused and obsolete pesticides stocks is to destroy them. But destroying pesticide waste is neither cheap nor technically simple. Destruction processes vary depending on the type of contaminant. But in general high temperature incineration is the most widely used method.

FAO understands that the incineration of hazardous waste is not without its problems. It can create toxic emissions, and although these emissions are relatively low compared to many other sources, they are nevertheless measurable. The incineration process also leaves ash that is hazardous and the filters that remove the toxic emissions become toxic. While incineration is not the perfect solution, doing nothing is also not an option. The very real threat to health and environment that obsolete pesticides pose in developing countries, demands urgent solutions. The technology to deal with hazardous chemical waste safely does not currently exist in most developing countries. Providing temporary solutions such as repackaging and storage in the hope that a better solution will emerge in the foreseeable future is unacceptable, since long terms security and integrity of the pesticides and their containers cannot be guaranteed. The search for environmentally benign destruction technologies has also so far been unsuccessful. Therefore, at present, the only available technology for the destruction of most obsolete pesticides is dedicated high temperature incineration.

Operational Issues in India

Limitations posed by the current regulations, lack of infrastructure and awareness act as barriers to establishment of a sustainable container management system. An effective container management scheme should address the legal regulations and habits of the retailers, farmers, and TSDFs (Treatment, Storage and Disposal Facilities). Successful container management schemes can be achieved only with the engagement and support of majority stakeholders namely the government, manufacturers, channel partners, farmers, recyclers and end-users through a community-based approach.

Recently Ministry of Environment, Forest and Climate Change notified Plastic Waste Management Rules, 2016 on 18th March, 2016. "As per the Rules, **the generators of waste have been mandated to take steps to minimize generation of plastic waste,** not to litter the plastic waste, ensure segregated storage of waste at source and handover segregated waste to local bodies or agencies authorised by the local bodies. **The rules also mandate**

the responsibilities of local bodies, gram panchayats, waste generators, retailers and street vendors to manage plastic waste.

As per the Rules, "producer" is defined as persons engaged in manufacture or import of carry bags or multilayered packaging or plastic sheets or like, and includes industries or individuals using plastic sheets or like or covers made of plastic sheets or multilayered packaging for packaging or wrapping the commodity;. Therefore, **responsibility of working out the modalities for waste collection system based on Extended Producers Responsibility lies with the manufacturers, importers and users.** In the rules, ***the primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers [manufacturers, importers and users (brand owners)], Importers and Brand Owners who introduce the products in the market.*** They need to establish a system for collecting back the plastic waste generated due to their products. The rules mandate the producer (manufacturers, importers and users (brand owners)) to apply to the Pollution Control Board or the Pollution Control Committee, as the case may be for grant of registration. Fundamentally, Producer is defined in such a way that the definition covers all manufacturers, importers and users (brand owners) as producer.

Global Practice Countries like Belgium, Czech Republic, **Ireland, Italy, France, Netherlands, Norway, Portugal,** Spain have the scheme where obliged **industry creates one common non -profit entity that collects the necessary funding, cooperates with local authorities and ensures recycling in the most cost-efficient and environmental way.** This reduces its public spending spent on waste management by almost 15%. The countries like **Austria,** Germany, Sweden have adopted **dual model where Industry has full operational and financial responsibility over collection, sorting and recycling.** There is a separate collection system designated to local authorities but their influence is minimal. The **United Kingdom has a model where a customer at time of purchasing a product pays the price of the product however a fraction may be reserved with the shopkeeper until the container of the item is returned.** Under European Commission's model the major goal set up was to have all member states recycle 25% of their total packaging material which was accomplished by 2010.

Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers, Importers and Brand Owners who introduce the products in the market. They need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal. The rule says that the Brand Owners whose consent has been renewed before the notification of these rules shall submit such plan within one year from the date of notification of these rules and implement with two years thereafter. It also states that manufacture and use of multi-layered plastic which is non-recyclable or non-energy recoverable or with no alternate use should be

phased out in Two years' time.

Concept of Uniform Framework on EPR "Extended Producer Responsibility":

It may be defined as a policy principle to promote total life cycle environmental improvements of product systems by extending the responsibilities of the manufacturer of the product to various parts of the entire life cycle of the product, and especially the take-back, recycling and final disposal of the product.

1 . The system is based on the premise that producers are required to provide financial incentive to the collection systems, processing facilities and the recycling industry to collect and process plastic waste in order to meet the targets set out by the Government. The plane interpretation of the Plastic Waste Management Rules, 2016 illustrates the primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers (manufacturers, importers and users (brand owners)). Importers and Brand Owners who introduce the products in the market. They need to establish a system for collecting back the plastic waste generated due to their products.

The Rule 6(3) mentions that the local body for setting up of system for plastic waste management shall seek assistance of producers. However, the Rule is silent on allocating any responsibility to the producer/importer/brand owner for establishing other part of waste management system like transportation, material recovery, recycling and final disposal. For the overall implementation of the EPR framework it is important that the producer/importer/ brand owner should be involved in overall implementation of the projects and not only the collection.

Online portal for registration and record keeping:

The uniform framework for EPR shall be based on creation of national registration and database repository through which all the registration of various stakeholders will be done online. Further, the stakeholders need to timely update the requisite information in the database for proper functioning. The Ministry through reputed software/website development agency will develop the web portal for the purpose in consultation with the stakeholders. All transactions under EPR shall be governed through the web portal. The monitoring system shall be established by CPCB to monitor the implementation of EPR mechanism through the portal.

The compliance of all registration related activities, as stipulated in the PWM Rules, 2016, shall be governed through the uniform framework portal. It is also mentioned that the State Pollution Control Board or the Pollution Control Committee shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) along with a certificate

of registration issued by the District Industries Centre or any other Government agency authorised in this regard.

The producer, importer and brand owners as prescribed in the Rules shall have to register to the portal irrespective of the quantity of plastic being used by them. Further, PROs, recyclers and other stakeholders as per the requirement shall have to register to the portal. Additionally various models have also been proposed in the PWM rule.

Conclusion:

Empty agrochemical container management will accrue below benefits for Indian farmers and other stakeholders:

1. Check environmental & water pollution and thereby improve rural environment
2. Minimize the risk of re-use of empty agrochemical containers, particularly for food and water
3. Sustainable use of plant protection products
4. Support transition towards a circular economy for plastics. Employment and entrepreneurship generation throughout the recycling value chain

Proposal:

Pesticides fall under hazardous waste category and they are to be disposed according the rules governing the same through Treatment Storage & Disposal Facility (TSDF) of respective states. At present there are 42 TSDF across various states of India. Therefore, a protocol is required to be prepared, in which the international practice of triple rinsing of empty pesticide container with water and managing of such rinsed water may be explored in detail. Further on policy issue of converting hazardous pesticide containers into non-hazardous category, the matter is required to be taken up with HSMD, M/o EF&CC.

However, at present either of the following two approaches can be taken:

1. Formation of local collection points at retailer level wherein the incentive can be provided to the farmers/ end users bringing back the empty pesticide container. This can be done with the support of Industry and local Government. From collection point the aggregator will then pick up the waste and dispose of them in the manner as prescribed under the law. This may be done on similar lines as is done for plastic waste management and some monetary incentive may be built in for bringing back the empty rinsed container.

2. The companies selling the pesticides in the states shall be given the responsibility District wise to collect the empty container by their ways and means such as putting up large dustbin marked for dumping the empty pesticide container around the fields. For this State Governments may be directed to identify nodal industry district wise who had to manage the above either by recycling or by treating it at TSDF facilities.

Reference

1. The International Code of Conduct of the distribution and use of Pesticides (WHO/ FAO 2008)*, Guidelines on Mangement options for Empty Pesticide Containers.
2. *http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Agrochemicals/Code/Monitorin_questionnaire_2010.pdf
3. Guideline Document Uniform Framework for Extended Producers Responsibility (Under Plastic Waste Management Rules, 2016) Ministry of Environment, Forest and Climate Change June, 2020.