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EMB Memorandum Circular
No. 2015- D04

SUBJECT: CLARIFICATIONS TO THE CHEMICAL CONTROL ORDER (CCO) FOR POLYCHLORINATED BIPHENYLS (PCBs)

Pursuant to Republic Act (RA) 6969 otherwise known as the Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990, its Implementing Rules and Regulations (DAO 1992-29), the Revised Procedures and Standards for the Management of Hazardous Wastes (DAO 2013-22) and Executive Order 192 (1987) or the Reorganization Act of the Department of Environment and Natural Resources (DENR), this Circular is hereby issued to provide clarifications for the CCO for Polychlorinated Biphenyls (PCBs) (DAO 2004-01), its congeners, and wastes.

Section 1. Basic Policy. In consonance with the avowed policy under RA 6969, the State shall regulate, restrict, or prohibit the importation, manufacture, processing, sale, distribution, use, and disposal of chemical substances and mixtures that present unreasonable risk and/or injury to health or the environment; prohibit the entry, even in transit, of hazardous and nuclear wastes and their disposal into Philippine territorial limits for whatever purpose, and provide advancement and facilitate research and studies on toxic chemicals to protect human health and the environment.

Section 2. Objectives. This Circular shall set forth the clarifications in enforcing environmentally sound management (ESM) of PCBs. Specifically, it intends to:

- 2.1 Strengthen the prohibition on importation, manufacture, distribution, trade, sale, transfer, use, the regulation on processing, reuse or recycling, handling, storage, transport, treatment, and/or disposal of PCBs;
- 2.2 Ensure the mandatory declaration of ownership of PCBs by providing a system for inventory and regular updating or reporting on the status of the product life cycle management to ensure their traceability until elimination;
- 2.3 Ensure enforcement of the regulatory requirements on decommissioning and decontamination;
- 2.4 Ensure proper handling and storage including specifications for containers, equipment and storage sites;
- 2.5 Ensure enforcement of the requirements for the development, implementation, and monitoring of PCB Management Plan;

- 2.6 Harmonize the requirements on PCB wastes transportation and environmentally sound treatment and disposal including requirements for waste management and disposal facilities; and
- 2.7 Increase public awareness and education on the effects of PCBs to human health and the environment.

Section 3. Definition of Terms. Unless otherwise specified, the following terms shall be used as defined in this Circular:

- 3.1 Chemical Control Order (CCO) - an order which prohibits, limits, and regulates the import, manufacture, distribution, transfer, sale, use, processing, possession, transport, storage, treatment, and/or disposal of PCBs and their waste products.
- 3.2 Decontamination- an operation to ensure a sustainable level of PCBs in oil and porous materials of below 2 parts per million (ppm) or PCBs in non-porous materials or equipment at less than or equal to 10 micrograms per 100 square centimeter ($\mu\text{g}/100\text{ cm}^2$).
- 3.3 Dielectric fluid- an oily substance that is used to provide an insulating barrier in electrical equipment due to its excellent thermal stability and fire resistance.
- 3.4 Environmental Management Bureau (EMB) -Registered Laboratory- a laboratory facility that passed the proficiency requirements of EMB for laboratory analysis of PCBs in liquids, solid materials, or wastes.
- 3.5 Establishment - a recognizable economic unit under a single ownership or control, i.e., under a single legal entity, which engages in one or predominantly one kind of economic activity. This includes industrial, commercial, and institutional establishments.
- 3.6 Non-PCB Equipment - any equipment containing dielectric oil with PCB concentration from 2 to less than 50 ppm.
- 3.7 PCB - aromatic compounds formed in such a manner that the hydrogen atoms on the biphenyl molecule (two benzene rings bonded together by a single carbon bond) may be replaced by up to 10 chlorine atoms. It includes any one of a number of 209 congeners containing 1 to 10 chlorine atoms attached to a biphenyl group.
- 3.8 PCB-Contaminated Equipment - any equipment containing dielectric oil with PCB concentration from 50 to less than 500 ppm ($50\text{ ppm} \leq \text{PCB} < 500\text{ ppm}$).
- 3.9 PCB-Contaminated Solid Non-Porous Materials- any non-porous material with PCB concentration greater than $10\text{ }\mu\text{g}/100\text{ cm}^2$ based on a wipe test of the non-porous surface [$10 \times 10\text{ cm}^2$] that have been in direct contact with PCBs ($\text{PCB} > 10\text{ }\mu\text{g}/100\text{ cm}^2$).
- 3.10 PCB-Contaminated Oil - oil with PCB concentration from 2 to less than 500 ppm ($2\text{ ppm} \leq \text{PCB} < 500\text{ ppm}$).
- 3.11 PCB-Contaminated Solid Porous Materials- any porous material with PCB concentration greater than or equal to 2 ppm ($\text{PCB} \geq 2\text{ ppm}$).
- 3.12 PCB Equipment - any equipment containing dielectric oil with PCB concentration equal to or greater than 500 ppm ($\text{PCB} \geq 500\text{ ppm}$).

- 3.13 PCB-Free Certificate - the certificate of laboratory analysis declaring PCB content of less than 2 ppm (PCB < 2 ppm).
- 3.14 PCB-Free Equipment - any equipment containing dielectric oil with PCB concentration less than 2 ppm (PCB < 2 ppm).
- 3.15 PCB-Free Oil - oil with PCB concentration of less than 2 ppm (PCB < 2 ppm).
- 3.16 PCB Oil- oil with PCB concentration greater than or equal to 500 ppm
- 3.17 PCB Owner - a person, organization, or establishment that distributes, uses, operates, recycles, reprocesses, stores, treats, or disposes any equipment, materials, or wastes that are contaminated with, in direct contact with, or containing PCB Oil, PCB Contaminated Oil, PCB equipment, PCB contaminated equipment, Non-PCB equipment, PCB contaminated solid porous materials, PCB contaminated solid non-porous materials and PCB wastes.
- 3.18 PCB Wastes - any equipment or materials that contain PCBs or have been in contact with PCBs that are without any safe commercial, industrial, agricultural, or economic usage as defined in the Implementing Rules and Regulations for Hazardous Waste Management (DAO 1992-29).
- 3.19 Persistent Organic Pollutants (POPs) - are chemical substances that persist in the environment, bio-accumulate through the food web, can travel long distances, and pose a risk of causing adverse effects to human health and the environment.
- 3.20 Personal Protective Equipment (PPE) - clothing or ensembles for eye, skin, and/or respiratory protection, the level of which is dependent on the hazards and the routes of exposure.
- 3.21 Pollution Control Officer (PCO) - a technical person competent in pollution control and environmental management, performing the duties and responsibilities in a particular establishment and officially accredited by an EMB Regional Office (RO).
- 3.22 ppm- parts per million equivalent is the concentration in a liquid and in a solid equivalent to mg/kg
- 3.23 Retro-fill is the replacement or substitution of PCB fluids in transformers with mineral oils or any other suitable dielectric fluid.
- 3.24 Transport - any mode of conveyance whether by air, water, and land.
- 3.25 Risk -the likelihood of potential adverse effects resulting from a given exposure to PCBs.
- 3.26 Waste Generator - a person or entity which generates PCB Wastes, through any institutional, commercial, industrial, or trade activities.
- 3.27 Waste Transporter - a person or entity registered to legally transport PCBs as described in the scope of this Order.
- 3.28 Treatment, Storage and Disposal (TSD) Facilities- are the facilities where hazardous wastes are transported, stored, treated, recycled, reprocessed or disposed of.

Section 4. Scope and Coverage. This Circular shall cover PCB Owners of the following chemical substances and mixtures, equipment, materials, or wastes in the Philippines:

- a. PCB Oil
- b. PCB-contaminated oil
- c. PCB equipment
- d. PCB-contaminated equipment
- e. Non-PCB equipment
- f. PCB-contaminated solid porous materials
- g. PCB-contaminated solid non-porous materials
- h. PCB wastes

Section 5. Inventory of PCB Owners and PCBs. All PCB Owners as defined in this Circular shall register with the concerned EMB RO through the Online PCB Database (www.emb.gov.ph/philpcbtracker). PCB Owners who have not yet registered pursuant to DAO 2004-01 titled, "Chemical Control Order for Polychlorinated Biphenyls" must register online not later than one (1) month from the effectivity of this Circular. Previously registered PCB Owners based on DAO 2004-01 shall review and update the required information in the Online PCB Database not later than one (1) month from the effectivity of this Circular.

All PCB Owners shall conduct an inventory of PCBs and report the same through the Online PCB Database not later than one (1) month from receiving the electronic approval of the PCB CCO Registration or registration certificate.

After testing, screening, and analysis of PCB equipment, PCB-contaminated equipment, non-PCB equipment, and PCB wastes have been conducted, the PCB Owners shall update their inventory and provide all applicable information as required in the Online PCB Database. The Updated PCB Inventory shall be the basis for the preparation of the PCB Management Plan.

All PCB equipment, PCB-contaminated equipment, and non-PCB equipment shall be regularly monitored and the resulting monitoring information shall form part of the Inventory Updating. Any maintenance activities (such as decontamination, topping of oil, etc.) shall also be included in the Inventory Updating.

The procedures in the conduct of the inventory of PCBs shall include, but not be limited to the process of identifying and classifying the equipment, materials, or wastes that may contain or suspected to contain PCBs; screening and laboratory analysis; use of the online PCB inventory database; and use of appropriate personal protective equipment (PPE) during the inventory.

Section 6. Use and Phase-out of Remaining PCB. No additional PCB equipment, PCB-contaminated equipment, non-PCB equipment shall be used. Remaining PCB equipment, PCB-contaminated equipment, Non-PCB equipment in use and PCB wastes that were not disposed after March 19, 2014 shall be subject to phase-out and environmental sound treatment and disposal at the earliest possible time with a timetable to be indicated in the PCB Management Plan and subject for approval by the EMB Regional Office.

Section 7. Technical Guidance Document for PCB Management. The EMB shall prepare a Technical Guidance Document for PCB Management within three (3) months after the effectivity of this circular to guide the concerned stakeholders' compliance with this Circular.

Section 8. Handling, Storage and Transport. All PCB Owners shall comply with the requirements for handling, storage, and transport of PCBs in accordance with the EMB Technical Guidance Document for PCB Management.

Section 9. PCB Management Plan. PCB Owners are required to submit their PCB Management Plan through the Online PCB Database (www.emb.gov.ph/philpcbtracker) within six (6) months from the issuance of the Technical Guidance Document by the EMB. PCB Owners that previously submitted their PCB Management Plan shall submit an updated PCB Management Plan based on their most recent PCB Inventory and in accordance with the requirements of this Circular.

The PCB Management Plan shall contain the following at a minimum:

- 9.1 Decommissioning or Retirement, Treatment and Decontamination, and Disposal Plan with specific timelines.
- 9.2 Health and Safety Plan;
- 9.3 Emergency Preparedness and Response Plan, and
- 9.4 Storage Facility Closure Plan shall include: detailed procedures for closure and post-closure conditions and monitoring with cost estimates.

The PCB Owners shall access the Online PCB Database and shall completely provide the required information and submit all required documents as attachments. Correspondingly, the EMB Regional Office (RO) shall evaluate the submitted information and documents through the Online PCB Database. The EMB RO shall conduct inspections and data validation as part of the evaluation process.

The approved PCB Management Plan shall be implemented accordingly by the PCB Owners. They shall report the status of their implementation as part of their quarterly Self-Monitoring Report (SMR) through the Online PCB Database.

The EMB Central Office (CO) shall develop detailed guidelines and procedures in the preparation of PCB Management Plan consistent with this Circular. These shall be included in the Technical Guidance Document for PCB Management mentioned in Section 6.

Section 10. Environmentally Sound Treatment and Disposal. All PCBs as defined in this Circular shall be treated, decontaminated, and disposed of in an environmentally sound manner and consistent with RA 6969, DAO 1992-29, DAO 2004-01, DAO 2013-22 and other relevant environmental laws.

Correspondingly, non-hazardous residues of the treatment and decontamination process shall likewise be disposed of in an environmentally sound manner and consistent with RA 9003 or the Ecological Solid Waste Management Act of 2000 and its implementing Rules and Regulations and other relevant environmental laws.

10.1 Requirements for Treatment and Decontamination of PCB-oil, PCB-Contaminated Oil, PCB Equipment, PCB Contaminated Equipment and PCB Contaminated Solid Materials (Porous and Non-porous), Non-PCB Equipment and PCB Wastes. All PCB oil, PCB-contaminated oil, PCB equipment, PCB-contaminated equipment, PCB-contaminated solid materials (porous and non-porous), Non-PCB equipment, and PCB

wastes shall undergo treatment and decontamination in accordance with this Circular before a PCB-free declaration can be attained; provided that a PCB-free Certificate from an EMB-registered laboratory is secured and subject to validation process of EMB; provided, further that only EMB-registered Treatment, Storage and Disposal (TSD) Facilities are allowed to perform treatment and decontamination of PCB oil, PCB-contaminated oil, PCB equipment, PCB-contaminated equipment and PCB contaminated materials (porous and non-porous), non-PCB equipment, and PCB wastes unless otherwise PCBs must be exported.

Establishments that perform decontamination and treatment activities shall be considered as TSD facilities and shall secure a TSD Registration in accordance with the requirements of DAO 2013-22; provided that the following additional requirements are complied with as part of securing the EMB RO notice of acceptance for the TSD facility to perform the aforementioned activities:

10.1.1 CCO Registration number;

10.1.2 Availability of a PCB screening equipment;

10.1.3 List of trained personnel that can perform treatment, decontamination, and screening of dielectric oil, equipment, materials, and wastes before and after decontamination;

10.1.4 Memorandum of Agreement with an EMB-registered laboratory for PCB analysis, and

10.1.5 Health and safety protocol for decontamination and treatment.

All spent solvents generated from the decontamination and treatment process are considered as hazardous wastes and shall be handled and disposed of in accordance with DAO 2013-22.

Consistent with the requirements of DAO 2013-22, the TSD Facility shall submit a Certificate of Completion of Treatment and/or Decontamination with an attached photocopy of the last page of the manifest form duly signed by the PCB waste generator, waste transporter, and TSD representative to the PCB owner and the EMB RO.

10.2 Requirements for the Reuse of Decontaminated Equipment, Solid Materials or Wastes. All equipment, materials or wastes shall undergo sampling and analysis after decontamination in accordance with this Circular to certify that these are PCB-free.

Decontaminated solid non-porous material shall only be reused if the resulting laboratory analysis showed that the PCB concentration is less than or equal to $10 \mu\text{g}/100 \text{ cm}^2$ based on the wipe test of the non-porous surface [$10 \times 10 \text{ cm}^2$] that have been in direct contact with PCBs; provided that such laboratory analysis was performed by an EMB-registered laboratory to perform PCB analysis in oil, materials, or wastes.

Treatment and reuse of decontaminated equipment, PCB contaminated solid non-porous and solid porous materials, and wastes shall form part of the PCB Management Plan to be submitted to and approved by the EMB RO.

Retro-filling of PCB equipment and PCB contaminated equipment is not allowed.

Section 11. Monitoring and Validation of PCB Management Plan. The EMB shall develop and enforce procedures/guidelines for monitoring and validating PCB Management Plans submitted by the PCB Owners to ensure that the objectives of this Circular are achieved.

All EMB ROs shall monitor and validate the implementation of the PCB Management Plan of the PCB Owners in accordance with the set procedures and guidelines for monitoring and validation until such time that the PCB Owner is declared as PCB-free by the concerned EMB Regional Office (RO).

Section 12. Reporting Requirements for PCB Equipment, PCB Contaminated Equipment and Non-PCB Equipment. Establishments with PCB equipment, PCB contaminated equipment and Non-PCB equipment shall report to the EMB RO their retirement period and update inventory through the PCB online database.

Section 13. Other Regulatory Requirements. All PCB Owners shall designate a Pollution Control Officer (PCO) and secure accreditation with the EMB RO in accordance with the guidelines for PCO Accreditation. Correspondingly, the EMB RO-accredited PCO must comply with all reporting requirements e.g., quarterly submission of the Self-Monitoring Reports (SMR).

The provisions in this Circular are without prejudice to other laws and regulations applicable to all PCB Owners.

Section 14. Information, Education, Communication and Training Requirements. The EMB, in collaboration with the industry, concerned government agencies, the academe, and the non-government organizations, shall promote industry and public awareness of the CCO requirements and compliance and the hazards posed by the use and release of PCBs in the workplace and into the environment.

Section 15. Public Access to Records, Reports or Notifications. The public shall have access to records, reports, or notification obtained by the Department pursuant to this CCO, in accordance with Section 12 of RA 6969.

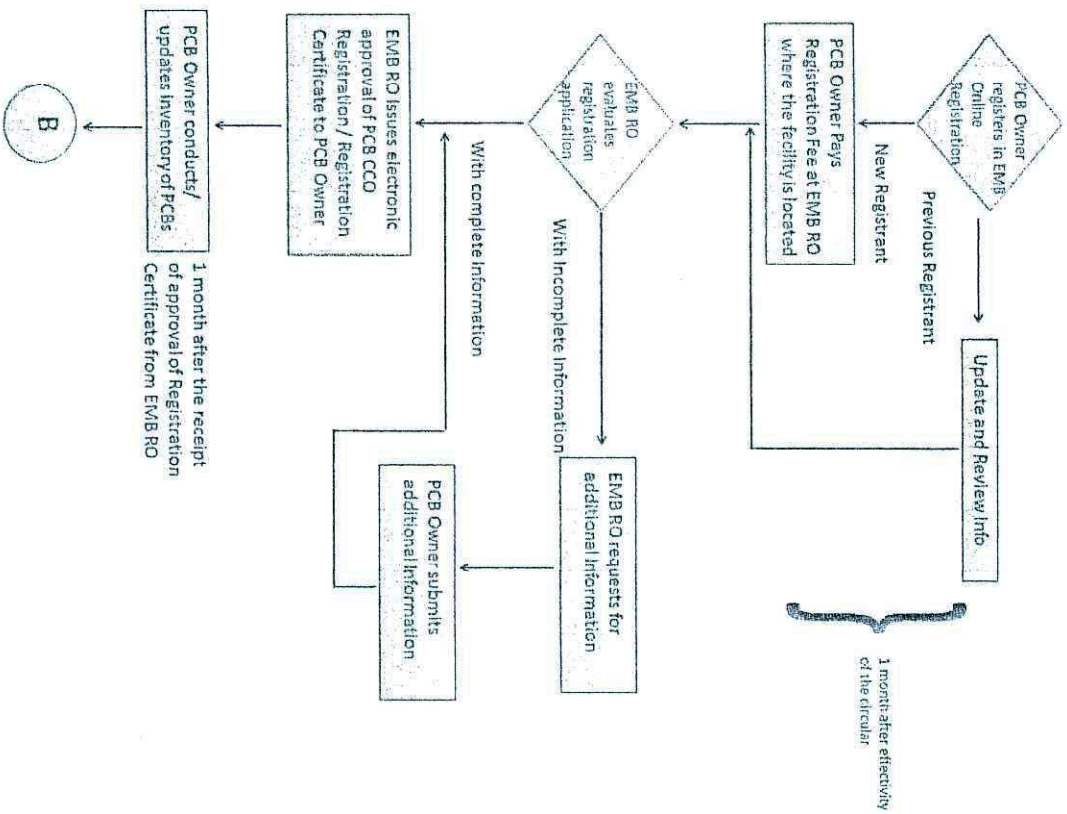
Section 16. Separability. If any provision of this Circular is declared unconstitutional or invalid, the same shall not affect the validity and effectivity of the other provisions hereof.

Section 17. Effectivity. This Circular shall take effect fifteen (15) days after its publication in a newspaper of general circulation and its registration with the Office of the National Administrative Registry (ONAR).


ATTY. JONAS R. LEONES
Undersecretary and concurrent EMB Director

ANNEX 1

Flowchart A – Online Registration of PCB Owner



Flowchart B – PCB Management Plan

