

**DENR Administrative Order
No. 2004-01
February 16, 2004**

**SUBJECT : Chemical Control Order (CCO) for
Polychlorinated Biphenyls (PCBs)**

Pursuant to the provisions of Republic Act No. 6969, otherwise known as the "Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990" ("RA 6969"), DENR Administrative Order No. 29, Series of 1992, otherwise known as the "Implementing Rules and Regulations of RA 6969" ("IRR"), and other applicable laws, rules and regulations, the following Chemical Control Order ("CCO") for Polychlorinated Biphenyls ("PCBs"), is hereby promulgated:

Section I. Policy Objectives. It is the policy of the State to accomplish the following objectives:

1. Reduce and eliminate the importation, manufacture, sale, transfer, distribution and use of PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB articles and PCB packaging, and to regulate the transport, treatment and disposal of PCBs and PCB wastes, to protect human health and the environment.
2. Reduce the hazards and unreasonable risks posed to human health and the environment from the improper use and management of PCBs, PCB equipment, PCB-contaminated equipment, non-PCB-equipment, PCB articles and PCB packaging, and the subsequent release of PCBs and PCB wastes.
3. Establish responsibilities for the management and handling of PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB articles and PCB packaging, and the subsequent release of PCBs and PCB wastes.
4. Establish requirements, procedures and limitations for the importation, manufacture, use, and proper treatment, storage and disposal of PCBs, PCB equipment, PCB-contaminated

equipment, non-PCB equipment, PCB articles and PCB packaging, and subsequent release of PCBs and PCB wastes.

5. Establish a compliance monitoring program to enforce the provisions of this CCO.
6. Increase public awareness and education on the effects of PCBs to human health and the environment.

Section II. Definition of Terms. For purposes of this CCO, unless inconsistent with the context or subject matter, the following definitions shall apply:

1. **IRR** means DENR DAO 92-29, which is the Implementing Rules and Regulations of RA 6969.
2. **Department** means the Department of Environment and Natural Resources.
3. **Bureau** means the central office of the Environmental Management Bureau.
4. **Polychlorinated Biphenyls (PCBs)** means aromatic compounds formed in such a manner that the hydrogen atoms on the biphenyl molecule (two benzene rings bonded together by a single carbon-carbon bond) may be replaced by up to ten chlorine atoms. The compound has the CAS Number 1336-36-3 and the DENR Hazardous number L 406. The term includes, but is not limited to all the synonyms as listed in Annex A of this CCO.
5. **Dielectric fluid** is an oily substance that is used to provide an insulating barrier in electrical equipment due to its excellent thermal stability and fire resistance.
6. **Capacitor** means a device for accumulating and holding a charge of electricity, and consisting of conducting surfaces separated by a dielectric fluid.
7. **Transformer** is a device that stabilizes or regulates the supply of electricity.

8. **PCB equipment** means any equipment that contain 500 ppm PCB or greater ($\text{PCB} \geq 500 \text{ ppm}$).
9. **PCB-contaminated equipment** means any equipment that contain 50 ppm PCB and higher but less than 500 ppm PCB ($50 \text{ ppm} \leq \text{PCB} < 500 \text{ ppm}$).
10. **Non-PCB equipment** means any equipment that contains PCB concentration of less than 50 ppm ($\text{PCB} < 50 \text{ ppm}$)
11. **PCB-Free material** means any solid or liquid that does not contain any PCB.
12. **PCB wastes** means discarded materials that contain PCBs or have been contaminated with PCBs, that are without any safe commercial, industrial, agricultural or economic usage.
13. **PCB article** means any material, other than PCB wastes, whose surface has been in direct contact with PCBs.
14. **PCB packaging** means any container or pressurized receptacle such as can, bottle, bag, barrel, drum, tank, or other device that contains and secures PCB articles and PCB wastes, respectively.
15. **Name-plated** means any equipment, article or packaging that has an attached manufacturer's plate, label or plaque that bears information not limited to the following; name of manufacturer, date of manufacture, serial number, brand or model, origin, contents and dimension.
16. **Non-plated** means any equipment, article or packaging that has no attached manufacturer's plate, label or plaque.
17. **Commercial Building** means a more or less enclosed structure that is open to the public and which includes, but is not limited to malls, restaurants, schools, hotels, offices, including government buildings and the like.

18. **Industrial Facilities** means facilities such as, but not limited to, factories, power generation or distribution stations or sub-stations, assembly plants, feed mills and other buildings and structures used in general industrial assembly.
19. **Retro-fill** means the replacement or substitution of PCB fluids in transformers with mineral oils or any other suitable dielectric fluid.
20. **Storage Facility** means the facility where supply or stock is stored for future use, safekeeping or disposal.
21. **Disposal** means the collection, sorting, transport and treatment of wastes, as well as its storage.
22. **Retirement** means removal or decommissioning from service of any equipment for the purpose of disposing, without any intention of reuse.

Section III. Scope and Coverage. This CCO applies to the *importation, manufacture, sale, transfer, distribution* and the *use* of PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB articles and PCB packaging in commercial buildings and industrial facilities, including the use and possession by electric utilities and suppliers, in accordance with the terms hereof. For this CCO, use includes those for enclosed applications, partially enclosed applications, and open-ended applications. This CCO also applies to the generation, storage, transport, treatment and disposal of PCB wastes, including those done by contractors, transporters and disposers.

1. The following Enclosed Applications are covered:

- a. Transformers
- b. Capacitors
- c. Voltage regulators
- d. Liquid filled circuit breakers
- e. Other electrical equipment containing dielectric fluids

2. The following Partially Enclosed Applications are covered:

- a. Hydraulic fluids
- b. Heat transfer fluids

3. The following Open- Ended Applications are covered:

- a. Lubricants
- b. Casting waxes
- c. Surface coatings
- d. Adhesives
- e. Plasticizers
- f. Inks
- g. Other uses

4. The following PCB Wastes are covered:

- a. Contaminated solvents/waters
- b. Used oil and waste oil
- c. Sludges and slurries
- d. Dredged spoils
- e. Contaminated soils/sediments
- f. By products
- g. Scraps
- h. Ballasts and capacitors
- i. Other materials contaminated with PCBs as a result of spills, decommissioning and other demolition activities.

Section IV. Requirements and Procedures

1. Registration

1.1 The following persons/entities shall register with the Bureau by submitting a duly accomplished Registration Form (Annex B) within three months after the effective date of this order:

- a. Owners or operators of industrial facilities/installations, electric utilities and suppliers who are in possession or involved in the use of any PCB equipment, PCB-

- contaminated equipment, non-PCB equipment, PCB wastes, PCB article or PCB packaging.
- b. Owners of commercial buildings installed with or containing any PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB wastes, PCB article, or PCB packaging.
 - c. Electric utilities, suppliers and waste service providers involved in the treatment and disposal of PCB wastes.
 - d. Owners of industrial facilities and commercial buildings containing suspected PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB wastes, PCB article, or PCB packaging.
 - e. Owners or possessors of storage facilities containing PCBs, PCB wastes, PCB articles, or PCB packaging.
- 1.2 The PCB registration certificate(s) and all permit(s) issued by the Bureau, along with applications and attachments, shall be retained at the premises of the registrant for at least five (5) years and be available for inspection at any time by proper officials of the Department and/or the Bureau.
- 1.3 The Department may generate listings of lands or buildings containing PCB articles, PCB wastes or PCB packaging, as may be established through proper inspection, whether or not said PCB articles, PCB wastes or PCB packaging are being properly managed, including those lands or buildings which had history of containing PCB articles, PCB wastes or PCB packaging, in order to safeguard human health and the environment.

2. Annual Reports and Inventory Reports

- 2.1 All persons/entities required to be registered must submit to the Bureau a duly accomplished Annual Report Form (Annex C) provided by the Bureau, which must contain the following information:
- a. General Information

- i. Type of business activity (manufacturer, industrial user, importer, exporter, waste treater, waste transporter);
- ii. Name, address and location of commercial building, industrial facility, storage facility or location of treatment and/or disposal activity;
- iii. Name, address and telephone number of contact person

b. Management Information

- i. Number and category of employees directly and indirectly responsible for the management of PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment and PCB articles in service, and PCB wastes, PCB articles and PCB packaging in storage, and their respective qualifications and training for the job;
- ii. Number of persons with potential risk of exposure to PCBs, and exposure duration;
- iii. Program for storage, if any, including operators and location of storage facilities; and
- iv. Program for treatment and disposal, including schedule, contractor, disposal method and facilities, their premises and locations, and such other information, which the Bureau may require.

- c. The first Annual Report shall be submitted within six months after registration, and subsequent Annual Reports shall be submitted at the end of December of every calendar year.
- d. The registrant must also retain records of manufacture, distribution, and use, in accordance with this CCO.

2.2 All registrants shall submit an Inventory Report of all PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB articles and PCB packaging stored and used, and PCB wastes generated and/or stored, in their buildings/facilities/possession, in accordance with the following:

- a. **For name-plated PCB equipment, PCB contaminated equipment, non-PCB equipment, PCB articles and labeled PCB packaging:**
 - i. Registrants shall conduct a survey of PCB equipment, PCB-contaminated equipment, non-PCB equipment, and PCB articles in service, idle or unserviceable, including those PCB wastes and PCB packaging in storage, and submit an Inventory Report as part of the First Annual Report due within six months after registration; and
 - ii. Power generation or distribution companies that operate more than twenty (20) industrial facilities shall be given one (1) year to complete the inventory. However, partial inventory reports should be submitted within six months after registration.

- b. **For non-plated PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB articles and suspected PCB packaging**
 - i. Registrants are required to undertake testing and analysis of non-plated PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB articles and suspected PCB packaging and submit an Inventory Report within one (1) year from effective date hereof, provided that a partial inventory shall be submitted within six months after registration. Provided further that anything which is not proven by the registrant to be non-PCB material shall be deemed to contain PCB and is subject to the regulatory measures provided in this CCO.
 - ii. PCB analysis shall be carried out by laboratories duly recognized by the Bureau for the purpose of specifying the analytical method that will be applied.

- c. For both a. and b., the Inventory Report, which must be signed under oath, shall include the following information:

- i. Volume and concentration of PCBs, and the weight and volume of PCB packaging in the possession of the registrant;
 - ii. Detailed identification which includes specific model (label codes), type of equipment, serial number, name of manufacturer, date of manufacture, electrical/industrial rating, projected retirement period, capacity, and dimensions of each unit of PCB equipment, PCB-contaminated equipment, non-PCB equipment, and PCB articles in use, storage, or intended for disposal;
 - iii. The historical movement of a PCB equipment, PCB-contaminated equipment, non-PCB equipment or PCB article, prior to its present location whether serviceable or unserviceable shall be indicated, including the activities conducted (i.e. retro-filled, repaired, replaced or decommissioned, among others).
 - iv. Quantity of PCB wastes generated (fluids, sludge, slurry, scraps, contaminated equipment, soil, and others) per unit time, and the total quantity at the time of the inventory; and
 - v. Dates of inventory, testing label codes, and type of materials and methods used. The Certificate of Analysis must be attached to the Inventory Report.
- d. An updated Inventory Report shall be submitted as part of the subsequent annual reports.

3. Handling Requirements

The commercial and industrial owners and operators must comply with the requirements for transport, storage and disposal specified under Title III of the IRR for transportation, storage and disposal of PCB wastes.

4. Labeling Requirements

4.1 All PCB equipments, PCB-contaminated equipments, non-PCB equipment, PCB articles and PCB packaging, such as

the following, are required to have clear, visible and readable markings in the English language:

- a. Transformers and capacitors using PCBs;
- b. Electric motors using PCB-containing coolants and hydraulic systems using PCB containing hydraulic fluid;
- c. Other heat transfer systems using PCBs; and
- d. PCB packaging that are stored for treatment and disposal.

4.2 Information on the label should include: a hazard warning or symbol, name of the company, serial number of the unit, other identifying information, contact person, address and telephone number.

4.3 Installations and storage facilities for PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB wastes, PCB articles, PCB packaging, must have a signage with the following information:

- a. "Contains PCBs" in large letters including total volume and total weight of PCBs, total volume and total weight of PCB waste, total volume and total number of PCB packaging, the number and type of PCB equipment, PCB-contaminated equipment, non-PCB equipment and PCB articles;
- b. Warning that it contains toxic chemical and that it must be handled by authorized personnel only; and
- c. Contact person, including address and telephone number.

5. Storage Requirements

5.1 Storage facility for PCBs, PCB wastes, PCB articles and PCB packaging, must meet the following minimum conditions:

- a. The storage facility must be marked clearly, by putting fences, posts or walls in order to limit access to the storage area;

- b. The storage area must be inspected at 30-day intervals. Observations must be recorded in a logbook, indicating the name of the inspector and the date of inspection. Inspection records must be retained;
- c. The date when stored items are placed in the storage facility must be recorded;
- d. Roof and walls must be adequate to prevent rainwater from reaching stored items;
- e. Floors of the storage facilities must be constructed from impervious materials such as concrete or steel to prevent the PCBs and PCB wastes from leaching into the ground;
- f. A spill containment system, such as a continuous curbing with adequate height to accommodate at least twice the volume of the stored PCBs and PCB wastes, must be constructed along the perimeter of the storage facility to prevent any spilled material from flowing out;
- g. The storage facility must be accessible to material handling equipment such as forklift and drum lifters;
- h. There should be no cracks or openings of any kind in the containment floor or walls that could allow the flow of PCBs or PCB wastes outside the area;
- i. Adequate ventilation must be provided to safeguard the health of workers and handlers.
- j. The storage facility must be located far from residential communities, storm drains, bodies of water, flood-prone areas and other environmentally critical areas.

5.2 Storage Period

- a. Maximum of three (3) years from effective date of this Order:
 - i. Decommissioned PCB equipment, PCB-contaminated equipment and non-PCB equipment that have been drained of PCB fluids;
 - ii. Decommissioned PCB equipment, PCB-contaminated equipment and non-PCB equipment that are sealed and with absolutely no leaks; and
 - iii. PCB articles and PCB wastes placed in a leak-proof PCB packaging.

- b. Maximum of two (2) years after the end of the retirement period or date of determination that the equipment must be disposed, but not later than the phase out period as provided for in this CCO:
 - i. PCBs or PCB-contaminated liquids that are in PCB packaging held as reserve, or which have been drained from PCB equipment, PCB-contaminated equipment, or non-PCB equipment.
 - ii. Leaking PCB equipment, PCB-contaminated equipment, non-PCB equipment, and PCB articles, provided that leaking capacitors must immediately and adequately be packed during storage.
 - iii. Other PCB equipment, PCB-contaminated equipment, non-PCB equipment and PCB articles that are not sealed.
- c. Notwithstanding the foregoing, the Department may direct the owner or possessor to immediately dispose PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB wastes, PCB articles and PCB packaging, to undertake clean up of contaminated sites, to safeguard public health and the environment.

6. Treatment and Disposal Requirements

6.1 The general requirements for treatment, storage, and disposal of PCBs and PCB wastes are as follows:

- a. Preparatory and remedial work plan (i.e. PCB packaging, isolation draining, and treatment of PCB equipment, PCB-contaminated equipment, non-PCB equipment and PCB articles, prior to disposal) that must be submitted to the Bureau along with the transport/treatment permit requirements in accordance with RA 6969 and Title III of its IRR not later than six months prior to the planned transport/treatment schedule;

- b. All treatments and disposals must be approved by the Bureau and should be in conformance with RA 8749 otherwise known as the “Clean Air Act of the Philippines” and other applicable environmental laws and regulations; and

6.2 If necessary, wastes containing high levels of PCBs must be exported in accordance with the provisions of Section IV Item 6.1b of this Order and must meet the requirements for trans-boundary movement of wastes under the Basel Convention.

7. PCB Spill Prevention and Clean-up Plan

Registrants must prepare and retain in an accessible location at the premises, a spill prevention and clean-up plan. The plan must contain detailed descriptions of all of the following and a copy of which must be submitted to the Bureau along with the PCB Management Plan:

- a. Personnel Training Plan;
- b. Markings and Labeling;
- c. Assignments of Responsibilities of Response Team;
- d. Emergency Plans;
- e. Decontamination Procedures;
- f. Disposal of contaminated debris and materials;
- g. Reporting and Record keeping; and
- h. Persons/Institutions to Contact in case of Emergency.

8. PCB Storage Facility Closure Plan

Each owner and operator of a PCB storage facility must prepare and retain in an accessible location at the premises a PCB storage facility closure plan. The plan must contain detailed descriptions of all of the following and a copy of which must be submitted to the Bureau along with the PCB Management Plan:

- a. Certification of financial liability approved by the Bureau;
- b. Steps and procedures for closure;
- c. Post closure conditions and monitoring; and

- d. Cost estimates approved by the Bureau.

9. PCB Management Plan Requirement

A PCB Management Plan must be submitted to the Department within six (6) months after registration to ensure that PCBs are managed in a manner that will eliminate or minimize its release to the environment. The registrant shall be responsible for all costs of managing PCBs including storage, disposal and clean-ups. The details of the management plan will vary depending on the type of premises and the type of activity that is being conducted with a timetable for completion of particular actions. Review and revisions of the management plan should be done at least once every five (5) years.

Below is a general outline for the PCB Management Plan:

- a. General Description
 - i. Name of owner and operator;
 - ii. Location of the facility or the PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB article, PCB packaging or PCB wastes (site specific);
 - iii. Industrial activities at the premises; and
 - iv. Number of employees.

- b. Uses of PCBs at the Premise
 - i. Description of the uses of PCBs at the premises;
 - ii. Listing of PCB equipment, PCB contaminated equipment, non-PCB equipment and PCB articles;
 - iii. Listing of PCB wastes generated at the premises;
 - iv. Mass balance of PCBs through the premises;
 - v. Description of pollution control devices in use at the premises;
 - vi. Description of compliance with the environmental laws and regulations; and
 - vii. Description of emergency procedures and contingency plan in case of accidents.

- c. Pollution Prevention Program
 - i. Pollution prevention/control devices;
 - ii. Inspection schedule and checklist; and
 - iii. Equipment and/or materials to be used during spills and/or emergencies.
- d. Training Program
 - i. Scope or coverage of training or a copy of the Training Manual.
 - ii. List of personnel trained, particularly those workers in contact with PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB wastes, PCB articles or PCB packaging
- e. A copy of the PCB Spill Prevention and Clean-up Plan as described in Section IV – 7.
- f. A copy of the PCB Storage Closure Plan as described in Section IV – 8.

10. Insurance and Surety Bond Requirements

All entities required to be registered under the provisions of this CCO are required to provide pollution liability insurance coverage separate from any existing general or public liability insurance to guarantee payment for clean-up, damage claims and other environmental liabilities that may arise in case of accidents (i.e. PCB spills, fires), in an amount determined as sufficient by the Department, and post an annual surety bond equivalent to 150% of the current cost of proper PCB disposal to guarantee payment of the same in case of untimely closure and abandonment. The insurance and the surety bond shall be submitted yearly, together with the annual report.

Section V. Ban and Phase-out on Importation, Sale, Transfer and Use of PCBs.

1. Upon the effective date of this Order:

- a. The local/domestic manufacture or production of PCBs, PCB equipment, PCB contaminated equipment and non-PCB equipment, or the use of such, including PCB articles and PCB wastes, as raw materials, shall be strictly prohibited.
 - b. All importation, sale, transfer or distribution of PCBs, PCB equipment, PCB-contaminated equipment, PCB wastes, PCB articles, or PCB packaging shall no longer be allowed.
 - c. The use of PCBs in open-ended applications and partially enclosed applications shall no longer be allowed.
 - d. All existing PCBs, PCB equipment, PCB-contaminated equipment, non-PCB equipment, PCB packaging, PCB articles and PCB wastes other than in a totally enclosed, intact, non-leaking and serviceable system shall be considered as hazardous wastes and shall be handled, stored and treated in accordance with Title III of the IRR.
 - e. A PCB equipment, PCB-contaminated equipment or non-PCB equipment may only be replaced with equipment that contains and uses only, PCB-Free materials, as certified by the manufacturer.
2. Three (3) years after the effective date of this Order, the importation, sale, transfer or distribution of non-PCB equipment as defined under this CCO shall no longer be permitted.
 3. Ten (10) years after the effective date of this Order, the use or storage for reuse of any PCBs, PCB equipment, PCB – contaminated equipment, or PCB article, including those in totally enclosed applications, shall no longer be allowed. Likewise, on the same date, the storage of PCB packaging and PCB wastes shall no longer be allowed.
 4. Notwithstanding the foregoing, however, PCBs may, for an indefinite period, be imported, sold, transferred or used in small quantities, for research and development, in a manner other than totally enclosed, provided proper authorization is obtained from the Department. Authorized research and development activities include, but are not limited to: the

chemical analysis of PCBs; determination of the physical properties of PCBs; studies of environmental transport properties; studies of biochemical transport processes; studies of the effects of PCBs on the environment; and studies on the effects of PCBs on human health.

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

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

Section VIII. Compliance Monitoring Procedure. Compliance with the requirements established in this CCO will be monitored by the Department, through the Bureau, through review of reports and registration information submitted, as required by this CCO, and on-site inspection by authorized personnel of the Bureau.

Section IX. Revision of Requirements. The Department may amend, modify, and/or supplement the requirements and standards in this CCO after prior consultation with stakeholders and after proper notice and hearing to the public on matters to be revised. The EMB Director shall hereby issue clarification guidelines.

Section X. Penalty Provision. Any violation of the requirements specified in this CCO will subject the person or persons responsible thereof to the applicable administrative and criminal sanctions as provided for under RA 6969 and other applicable laws and regulations.

Section XI. Separability Clause. Should any provision or portion of this CCO be declared unconstitutional or invalid, all other provisions of this CCO shall remain valid and enforceable.

Section XII. Effectivity. This CCO shall take effect one (1) month after publication in the Official Gazette or two (2) newspaper of general circulation.



ELISEA G. GOZUN
Secretary

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