

Republic of the Philippines

## Department of Environment and Natural Resources

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**DENR ADMINISTRATIVE ORDER**

**NO. 2022 - \_\_\_\_\_**

**SUBJECT** **:** **CHEMICAL CONTROL ORDER (CCO) FOR BENZENE**

Pursuant to the provisions of the Republic Act 6969 otherwise known as the “Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990”, the DENR Administrative Order (DAO) No. 29, Series of 1992 otherwise known as the “Implementing Rules and Regulations of Republic Act 6969”, the DAO No. 05, Series of 2005 entitled “Toxic Chemical Substances for Issuance of Chemical Control Orders (CCO)”, and Republic Act 8749 also known as the “Philippine Clean Air Act of 1999” which mandates the conversion of the Environmental Management Bureau (EMB) from a staff bureau to a line bureau, the following pertinent rules and regulations with procedural requirements for Chemical Control Order (CCO) for benzene and its wastes are hereby promulgated.

**SECTION 1. Basic Policy.** It is the policy of the State to regulate, restrict or prohibit the importation, manufacture, handling, processing, storage, sale, distribution, use, and disposal of chemical substances and mixtures that present unreasonable risk and/or injury to human health and the environment; to prohibit the entry, even in transit, of hazardous and nuclear wastes and their disposal into the Philippine territorial limits for whatever purpose; and to provide advancement and facilitate research and studies on toxic chemicals.

**SECTION 2. Objectives.** Pursuant to the policy statement, this Order aims to do the following:

* 1. Reduce the risk of exposure to human health and the environment of benzene used in industrial processes;
  2. Increase awareness of the toxicity of benzene and the availability of technically superior and safe alternatives;
  3. Ensure the proper implementation of the existing framework and appropriate prevention-based programs to mitigate, reduce, and eliminate risks from the use of benzene; and
  4. Provide guidelines to identify potential benzene release/exposure in industrial facilities to reduce workers’ benzene exposure.

**SECTION 3. Scope and Coverage.**

3.1. **Coverage.** This Order shall cover the following:

* 1. Importers
  2. Distributors
  3. Manufacturers
  4. Industrial Users
  5. Commercial Users
  6. Waste Service Providers (TSD Facilities and Hazardous Waste Transporters)

3.2. **Exemptions.** The uses of benzene and benzene-containing mixtures that are regulated by other laws shall not be covered by this Order including, but are not limited to:

1. Fuels, fuel additives, and petroleum products under the Oil Industry Management Bureau of the Department of Energy (OIMB-DOE)
2. Foodstuff, pharmaceutical drugs, cosmetics, and household/urban hazardous substances under the Food and Drug Administration of the Department of Health (FDA-DOH)
3. Fertilizers, pesticides, and agricultural chemicals under the Fertilizer and Pesticide Authority of the Department of Agriculture (FPA-DA)
4. Benzene and benzene-containing mixtures that are part of an article or as naturally occurring substances, as defined in EMB Memorandum Circular (MC) 2020-005[[1]](#footnote-0), shall be exempted from the CCO requirements, unless otherwise specified in related policies.

**SECTION 4. Definition of Terms.** As used in this Order, the following terms shall be defined as:

4.1. Applicant – the person(s) or entities engaged in importation, manufacture, use, distribution, transport, recycling, and providing waste service (treatment, storage, and disposal) of benzene.

4.2. Benzene – the aromatic hydrocarbon C6H6 with CAS Registry No. 71-43-2[[2]](#footnote-1). It is a stable colorless liquid at room temperature and normal atmospheric pressure. It has a characteristic aromatic odor, a relatively low boiling point (80.1 ℃), and a high vapor pressure, which causes it to evaporate rapidly at room temperature, and is highly flammable. It is slightly soluble in water but miscible with most other organic solvents[[3]](#footnote-2).

4.3. Benzene-containing Mixture - refers to a mixture the benzene content of which exceeds one (1) percent by volume2.

4.4. Benzene Waste – discarded material that contains or has been contaminated with benzene or benzene-containing mixtures that are without any safe commercial, industrial, agricultural, or economical usage as specified under Waste Code G704 for waste non-halogenated organic solvents of DAO 2013-22[[4]](#footnote-3).

4.5. Bureau – refers to the Environmental Management Bureau of the Department of Environment and Natural Resources.

4.6. Commercial User – any juridical entity or corporation that uses benzene or benzene-containing mixtures in a commercial enterprise providing saleable goods or services, including laboratory facilities[[5]](#footnote-4).

4.7. Distributor – any juridical entity or corporation that is engaged in the sale and distribution of benzene and benzene-containing mixtures.

4.8. Importer – any juridical entity or corporation that undertakes the entry of benzene and benzene-containing mixtures into the Philippine territory.

4.9. Industrial User – any juridical entity or corporation that uses and processes benzene and benzene-containing mixtures at its premises for which they are consumed as a reactant; incorporated into a formulation, mixture, reaction product, or article; or repackaged5.

4.10. Manufacturer – any juridical entity or corporation that undertakes the manufacture or production of benzene and benzene-containing mixtures for commercial purposes, including the extraction of a component chemical substance from a previously existing chemical substance or complex combination of chemical substances5.

4.11. Treatment, Storage, and Disposal (TSD) Facility – a facility wherein hazardous wastes are transported, stored, treated, recycled, reprocessed, or disposed of.

4.12. Storage – containment area for supply or stock reserve kept for future use/, safekeeping, or disposal.

**SECTION 5. Allowed Use.** The following are governed by the general requirements, compliance monitoring procedures, specific standards, and penalty provisions on activities that involve benzene and benzene-containing mixtures:

1. Manufacture/production of benzene
2. Use of benzene for chemical synthesis
3. Use of benzene in motor fuel
4. Use of benzene and benzene-containing mixtures for analytical or research work carried out in laboratories
5. Industrial and commercial use of mixtures the benzene content of which is equal to or less than one (1) percent by volume

**SECTION 6. Prohibited Use.** Unless no technically and economically feasible alternative for replacement is available, this Order prohibits the importation, manufacture, or use of benzene and benzene-containing mixtures in the following applications:

1. Paints, varnishes, coatings, solvents, and thinners
2. Glues, cement, and rubber goods
3. Solutions for textiles, fabrics, and leathers
4. Inks and dyes
5. Cleaning and degreasing agents

**SECTION 7. General Requirements and Procedures.** In addition to the general requirements under Title II of DAO 1992-29, the following requirements and procedures have been established for any person or entity allowed in the importation, manufacture, distribution, and use of benzene and benzene-containing mixtures, as well as waste service providers of benzene wastes:

7.1. **Registration and Permitting.** All applicants covered under Section 3 shall accomplish the CCO Registration (CCOR) module of the Online Permitting and Monitoring System (OPMS), submit the required documents, and secure the corresponding Registration Certificate.

* 1. Any person or entity that is a new applicant and/or newly involved in the importation, manufacture, distribution, and use of benzene;
  2. Any person or entity with an existing Priority Chemical List (PCL) Compliance Certificate, with PCL exemptions issued under EMB MC 2014-003[[6]](#footnote-5), or users of benzene whose PCL fall under EMB MC 2017-007[[7]](#footnote-6); and
  3. Any person or entity involved in the transport, recycling, treatment, storage and disposal of benzene wastes must register and comply all applicable provisions of RA 6969 rules and regulations on hazardous waste management.

7.2. **Importation and Permitting.** Any person or entity that imports benzene shall apply for an Importation Clearance online through the Online Permitting and Monitoring System (OPMS) of the Bureau. The validity of importation clearance shall be for a period of six (6) months.

7.3. **Required Documents.** The application for registration and importation clearance, including imporation clearance renewal, must be accompanied by the following documents:

* 1. Environmental permits, including:

1. Hazardous Waste Generator (HWG) Registration Certificate
2. Valid Wastewater Discharge Permit (DP)[[8]](#footnote-7)
3. Valid Permit to Operate (PTO) Air Pollution Source Equipment or Installation (APSE/APSI)[[9]](#footnote-8)
4. Environmental Compliance Certificate (ECC)[[10]](#footnote-9)
5. Valid Pollution Control Officer (PCO) Accreditation[[11]](#footnote-10)
   1. Globally Harmonized System (GHS) compliant Safety Data Sheet (SDS)
   2. Process flow chart specific to the use of benzene
   3. Certificates of worker training on benzene safety
   4. Photos of storage and/or process facility
   5. Latest Self-Monitoring Report (SMR)[[12]](#footnote-11)
   6. For importers: Proof of import entry, e.g. Bill of Lading, BOC Single Administrative Document, and/or Packing List
   7. Proof of payment of application fee

7.4. **Chemical Management Plan.** As integrated into the CCOR module, the applicant shall provide information on how benzene and benzene-containing mixtures are managed in its facility to eliminate or minimize their risk to human health and the environment, subject to the requirements in Sections 7.6 to 7.9. The information includes:

* 1. General chemical exposure prevention and release control program
  2. Housekeeping and occupational hygiene practices implemented
  3. Equipment and devices used in handling the chemical
  4. Personal Protective Equipment (PPE) provided to the workers

7.5. **Contingency and Emergency Plan.** As integrated into the CCOR module, the applicant shall provide information on their incident response procedure in case of accidents and calamities leading to benzene exposure or unintentional release e.g., chemical spill, fire, explosion, earthquake, etc. It shall follow the requirements under Section 8.2.3 of DENR AO 2013-224 and in conformity with the SDS (Refer to Annex E, Sections 4 to 6 of EMB MC 2015-01112).

7.6. **Handling and Storage Requirements.** The applicant shall ensure that its facility complies with the following:

* + 1. Availability and accessibility of the SDS at all times
    2. Proper stacking/stockpiling, packaging, chemical compatibility arrangement, containment, and storage conditions, including good security practices, in conformity with the SDS (Refer to Annex E, Sections 7 to 8 of EMB MC 2015-01112)
    3. Adequate engineering controls with proper signage and labeling of chemicals
    4. Maintain an updated inventory of stored chemicals

7.7. **Labeling Requirements.** Storage containers and packaging of benzene shall be properly classified and labeled following the current GHS implementation. On the other hand, benzene wastes labelling shall be in accordance with current procedural manual on hazardous waste management.

7.8. **Manufacturing Requirements.** The applicant shall ensure that its facility and workers comply with the following:

1. Operation flow chart and process description where benzene is used. All necessary measures and procedures by means of engineering controls, good work practices, and industrial hygiene to reduce dispersion of benzene into the environment and to minimize employee exposure to benzene.
2. Properly wear Personal Protective Equipment (PPE) in hazardous areas as prescribed by the Occupational Health and Safety Center of the Department of Labor and Employment (OSHC-DOLE).
3. Establish regulated areas to be classified as hazardous zones wherever an employee’s exposure to concentrations of benzene is high and shall ensure that these areas are demarcated from the rest of the workplace, thereby alerting the workers of the boundaries where PPEs should be worn.
4. Secure environmental permits as enumerated in Section 7.3.1.
5. Conduct self-monitoring of potential sources of benzene in compliance with DENR-EMB standards for wastewater effluents8 and air emissions9 and report them accordingly in the SMR.

7.9. **TSD and Hazardous Waste Transport Requirements**. All waste service providers of benzene and benzene-containing shall comply with the procedural manual on hazardous waste management.4

7.10. **Training Requirements.** Basic awareness training, knowledge-sharing, and other capacity-building activities shall be conducted regularly for workers involved in handling benzene. They shall include discussions on the health and environmental hazards of benzene, safe handling, risks in the workplace, proper disposal, incident response, and other regulatory requirements.

7.11. **Substitution and Phase-out Plan.** The Department, through the Bureau, may develop a phase-out plan for the allowed uses of benzene, subject to consultations with relevant stakeholders and government agencies.

**SECTION 8. Information, Education, Communication (IEC).** The Department, through the Bureau, in collaboration with the chemical industry, concerned government agencies, the academe, and non-government organizations, shall promote industrial compliance and public awareness of this Order’s requirements and the hazards posed by using benzene in the workplace and its release into the environment.

The proper handling and disposal of benzene shall be included in the IEC activities to highlight such safety protocol. The use of benzene-free substances and materials shall also be promoted to minimize the exposure to human health and release of benzene into the environment.

**SECTION 9. Public Access to Records and Confidential Business Information (CBI).** The public shall have access to records, reports, or information obtained by the DENR upon request pursuant to this Order, in accordance with Section 12 of RA 6969 except information regarding trade secrets (formulations), sales figures, methods of production, or industrial processes, distributions that would adversely affect the competitive position of such importers, manufacturers and industrial users.

Exemptions to this “no disclosure of information” shall be made subject to the conditions of Section 40 of the IRR of RA 6969 or as may be amended.

**SECTION 10.** **Compliance Monitoring Procedure.** The EMB Regional Offices shall monitor compliance based on duly accomplished and submitted Self-Monitoring Report (SMR) per DAO No. 2003-27 13 or its revision or amendment. The EMB-CO shall integrate the regional monitoring report for management action. In any complaints of non-compliance, sampling and testing shall be made, as necessary, using a method that conforms with international and/or national standards.

**SECTION 11. Devolution of CCO Applications to EMB Regional Offices.** The issuance of the CCOR and CCOIC shall be devolved to the EMB Regional Offices three (3) years from the effectivity of this Order.

**SECTION 12. Revision of Requirements.** The Department may amend, modify, and/or supplement the requirements and standards in this Order after prior consultation with the stakeholders and after due notice and hearing with the public on matters to be revised. The Bureau may issue clarificatory guidelines, if necessary.

**SECTION 13. Capacity Building.** The EMB Central Office shall develop and conduct continuing training program for both the regulated community and regulators to ensure proper compliance with this Order.

**SECTION 14. Liability.** The Secretary or his duly authorized representative may cause the impoundment or confiscation of any chemical substance and its conveyance and container if there is reasonable ground to believe that the sale, storage, possession, use, manufacture, transport, or import of the chemical substance does not comply with this CCO following the guidelines under EMB MC 2020-12[[13]](#footnote-12). Any importer or distributor selling to non-authorized persons or end-users shall be held liable under RA 6969.

Chemicals may be confiscated, and storage fees of confiscated chemicals shall be charged jointly and solidarily to the importer and/or distributor and end-user. The importer and distributor shall likewise be held liable together with the end-user in cases of injury or damage to public health and the environment and shall properly compensate the affected parties and restore the damaged area or areas resulting from any incident or accident involving the use, sale, manufacture, and distribution of benzene and storage, transport, treatment, and disposal of benzene wastes.

**SECTION 15. Penalty Provision.** Any violation of the requirements specified in this Order shall subject the person(s) liable thereof to the applicable administrative and criminal sanctions as provided for under Section 14 of RA 6969, Sections 41 and 43 of DENR AO 1992-29, and DENR MC 2005-003[[14]](#footnote-13).

SECTION 16. Separability Clause. If any provision of this Order shall be held invalid or unconstitutional, the other portions or provisions hereof which are not affected shall continue in full force and effect.

SECTION 17. Repealing Clause. All Orders and other similar issuances inconsistent herewith are hereby revoked, amended, or modified accordingly.

SECTION 18. Effectivity. This Order shall take effect fifteen (15) days after its publication in a newspaper of general circulation and upon acknowledgment of the receipt of the copy thereof by the Office of the National Administrative Register (ONAR).

**MA. ANTONIA YULO-LOYZAG**

Secretary

1. EMB MC 2020-005 (12 February 2020): Data Requirements for Pre-Manufacture and Pre-Importation Notification (PMPIN) Procedures. [↑](#footnote-ref-0)
2. Adapted definition from the International Labor Organization (1971). Benzene Convention (No. 136): Convention Concerning Protection Against Hazards of Poisoning Arising from Benzene. [↑](#footnote-ref-1)
3. Adapted definition from the World Health Organization (1993). International Program on Chemical Safety: Environmental Health Criteria No. 150 on Benzene. [↑](#footnote-ref-2)
4. DENR AO 2013-22 (04 December 2013): Revised Procedures and Standards for the Management of Hazardous Wastes (Revising DENR AO 2004-36). [↑](#footnote-ref-3)
5. Adapted definition from the US Environmental Protection Agency (2012). 40 CFR Subchapter R – Toxic Substances Control Act, Part 711 – TSCA Chemical Data Reporting Requirements. [↑](#footnote-ref-4)
6. EMB MC 2014-003 (13 March 2014): Supplemental Guidelines for the DENR AO 2007-23 (Prescribing Additional Requirements for the Issuance of the Priority Chemical List (PCL) Compliance Certificate). [↑](#footnote-ref-5)
7. EMB MC 2017-007 (13 October 2017): Clarification on the Coverage of Laboratory Facilities under the Requirements of DENR AO 2007-23 (Prescribing Additional Requirements for the Issuance of Priority Chemical List (PCL) Compliance Certificate). [↑](#footnote-ref-6)
8. DENR AO 2005-10 (16 May 2005): Implementing Rules and Regulations of the Philippine Clean Water Act of 2004 (Republic Act 9275). [↑](#footnote-ref-7)
9. DENR AO 2000-81 (08 November 2000): Implementing Rules and Regulations of the Philippine Clean Air Act of 1999 (Republic Act 8749). [↑](#footnote-ref-8)
10. DENR AO 2003-30 (30 June 2003): Implementing Rules and Regulations for the Philippine Environmental Impact Statement (EIS) System (Presidential Decree 1586). [↑](#footnote-ref-9)
11. DENR AO 2014-02 (03 February 2014): Revised Guidelines for Pollution Control Officer Accreditation. [↑](#footnote-ref-10)
12. DENR AO 2003-27 (04 July 2003): Amending DAO 26, DAO 29, and DAO 2000-81 Among Others on the Preparation and Submission of Self-Monitoring Report (SMR). [↑](#footnote-ref-11)
13. EMB MC 2020-012 (12 March 2020): Rules on the Confiscation of Illegal Chemicals, Chemicals Substances, and Apprehension of Hazardous Waste under RA 6969. [↑](#footnote-ref-12)
14. DENR MC 2005-003 (21 April 2005): Prescribing Graduated Administrative Fines Pursuant to Republic Act No. 6969 and DENR Administrative Order No. 29, Series of 1992. [↑](#footnote-ref-13)