



**DENR ADMINISTRATIVE ORDER
NO. 2025 - _____**

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”, Republic Act 8749 also known as the “Philippine Clean Air Act of 1999”, and the DAO No. 05, Series of 2005 entitled “Toxic Chemical Substances for Issuance of Chemical Control Orders (CCO)”, the following pertinent rules and regulations with procedural requirements for Chemical Control Order (CCO) for benzene and benzene-containing mixtures 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:

- 2.1. Reduce the risk of exposure to human health and the environment of benzene used in industrial processes;
- 2.2. Increase awareness of the toxicity of benzene and the availability of technically superior and safer alternatives;
- 2.3. 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
- 2.4. Provide guidelines to identify potential benzene release/exposure in industrial facilities to reduce human exposure to benzene.

SECTION 3. Scope and Coverage.

3.1. Coverage. This Order shall cover the following:

- 3.1.1. Importers
- 3.1.2. Distributors
- 3.1.3. Manufacturers
- 3.1.4. Industrial Users
- 3.1.5. Commercial Users

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

- 3.2.1. Fuels, fuel additives, and petroleum products under the Oil Industry Management Bureau of the Department of Energy (OIMB-DOE)

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- 3.2.2. Foodstuff, pharmaceutical drugs, cosmetics, and household/urban hazardous substances (HUHS) under the Food and Drug Administration of the Department of Health (FDA-DOH)
- 3.2.3. Fertilizers, pesticides, and agricultural chemicals under the Fertilizer and Pesticide Authority of the Department of Agriculture (FPA-DA)
- 3.2.4. Benzene and benzene-containing mixtures that are part of an article or as naturally occurring substances, as defined in EMB Memorandum Circular (MC) 2020-005¹, 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 juridical person or entity engaged in the importation, manufacture, use, and distribution of benzene and benzene-containing mixtures.
- 4.2. Benzene – the aromatic hydrocarbon C₆H₆ with CAS Registry No. 71-43-2². 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 °C), 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 solvents³.
- 4.3. Benzene-containing Mixture - refers to a mixture the benzene content of which exceeds one (1) percent by volume.
- 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 2013-22⁴.
- 4.5. Bureau – refers to the Environmental Management Bureau of the Department of Environment and Natural Resources.
- 4.6. Chemical Control Order (CCO) – a regulation issued by the Department of Environment and Natural Resources that either prohibit, limit, or place such controls and conditions on the use, manufacture, import, export, transport, process, storage, possession, or sale of the chemical substances to abate their risks to public health and the environment.
- 4.7. Chemical synthesis – the intentional manufacture or process of transforming one substance into another through a chemical reaction
- 4.8. Commercial User – any juridical person or entity that uses benzene or benzene-containing mixtures in a commercial enterprise providing saleable

¹ EMB MC 2020-005 Data Requirements for Pre-Manufacture and Pre-Importation Notification (PMPIN) Procedures

² Adapted definition from the International Labor Organization (1971). Benzene Convention (No. 136): Convention Concerning Protection Against Hazards of Poisoning Arising from Benzene.

³ Adapted definition from the World Health Organization (1993). International Program on Chemical Safety: Environmental Health Criteria No. 150 on Benzene

⁴ DENR AO 2013-22 Revised Procedures and Standards for the Management of Hazardous Wastes (Revising DENR AO 2004-36)

goods or services, including laboratory facilities⁵. This is sometimes referred to as a professional user.

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

4.10. Fuel additives – refers to any branded oil-soluble substance, whether organic or inorganic chemical/compound, which is not an inherent component of petroleum product, added or blended to petroleum fuels in minimal dosage to enhance or alter chemical or physical properties and improve performance/usage of the fuels⁶.

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

4.12. Industrial User – any juridical person or entity 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 repackaged.

4.13. Manufacturer – any juridical person or entity 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 substances.

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

4.15. 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:

- 5.1. Manufacture/production of benzene
- 5.2. Use of benzene for chemical synthesis
- 5.3. Use of benzene in motor fuel
- 5.4. Use of benzene and benzene-containing mixtures for analytical or research work carried out in laboratories
- 5.5. Other 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:

- 6.1. Paints, varnishes, coatings, solvents, and thinners
- 6.2. Glues, contact cement, and rubber goods
- 6.3. Solutions for textiles, fabrics, and leathers
- 6.4. Inks and dyes
- 6.5. Cleaning and degreasing agents
- 6.6. Toys and other children's products

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

⁶ Adapted definition from the DOE DC 2007-02-0001 Guidelines Implementing the Registration of Fuel Additives under Republic Act Nos. 8479 & 8749

SECTION 7. General Requirements and Procedures. In addition to the general requirements under Title II of DAO 1992-29⁷, the following requirements and procedures have been established for any juridical person or entity allowed in the importation, manufacture, distribution, and use of benzene and benzene-containing mixtures:

7.1. Registration and Permitting. The following applicants covered under Section 3.1 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:

7.1.1. Any juridical person or entity that is a new applicant and/or newly involved in the importation, manufacture, distribution, and use of benzene;

7.1.2. Any juridical person or entity with an existing Priority Chemical List (PCL) Compliance Certificate, with PCL exemptions issued under EMB MC 2014-003⁸, or users of benzene whose PCL fall under EMB MC 2017-007⁹; and

7.2. Importation and Permitting. Any juridical person or entity that imports benzene shall apply for an Importation Clearance 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 the renewal of importation clearance, must be accompanied by the following documents:

7.3.1. Environmental permits, if applicable, including:

7.3.1.1. Hazardous Waste Generator (HWG) Registration Certificate

7.3.1.2. Valid Wastewater Discharge Permit (DP)¹⁰

7.3.1.3. Valid Permit to Operate (PTO) Air Pollution Source Equipment or Installation (APSE/APSI)¹¹

7.3.1.4. Environmental Compliance Certificate (ECC)¹²

7.3.1.5. Valid Pollution Control Officer (PCO) Accreditation¹³

7.3.2. Globally Harmonized System Compliant Safety Data Sheet (SDS)

7.3.3. Process flow chart specific to the use of benzene

7.3.4. Certificates of worker training on benzene safety

7.3.5. Photos of storage and/or process facility

⁷ Title II of the DENR AO 1992-29 Toxic Chemical Substances of the Implementing Rules and Regulations of Republic Act 6969

⁸ EMB MC 2014-003 Supplemental Guidelines for the DENR AO 2007-23 (Prescribing Additional Requirements for the Issuance of the Priority Chemical List (PCL) Compliance Certificate)

⁹ EMB MC 2017-007 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)

¹⁰ DENR AO 2005-10 Implementing Rules and Regulations of the Philippine Clean Water Act of 2004 (Republic Act 9275)

¹¹ DENR AO 2000-81 Implementing Rules and Regulations of the Philippine Clean Air Act of 1999 (Republic Act 8749)

¹² DENR AO 2003-30 Implementing Rules and Regulations for the Philippine Environmental Impact Statement (EIS) System (Presidential Decree 1586)

¹³ DENR AO 2014-02 Revised Guidelines for Pollution Control Officer Accreditation

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7.3.6. Latest Self-Monitoring Report (SMR)¹⁴

7.3.7. For importers: Proof of import entry, e.g., Bill of Lading, BOC Single Administrative Document, and/or Packing List

7.3.8. 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:

7.4.1. General chemical exposure prevention and release control program;

7.4.2. Housekeeping and occupational hygiene practices implemented;

7.4.3. Equipment and devices used in handling the chemical; and

7.4.4. 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 2013-22 and in conformity with the SDS (Refer to Annex E, Sections 4 to 6 of EMB MC 2015-011¹⁵).

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

7.6.1. Availability and accessibility of the SDS at all times;

7.6.2. 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 2015-011);

7.6.3. Adequate engineering controls with proper signage and labeling of chemicals; and

7.6.4. 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 guidelines. On the other hand, benzene waste labeling shall be in accordance with the current procedural manual on hazardous waste management.

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

7.8.1. Management 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

¹⁴ DENR AO 2003-27 Amending DAO 26, DAO 29, and DAO 2000-81 Among Others on the Preparation and Submission of Self-Monitoring Report (SMR)

¹⁵ EMB MC 2015-011 Guidance Manual for DAO 2015-09 "Rules and Procedures for the Implementation of the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances"

reduce the dispersion of benzene into the environment and minimize employee exposure to benzene.

7.8.2. Proper wearing of 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).

7.8.3. 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.

7.8.4. Secure environmental permits, if applicable, as enumerated in Section 7.3.1.

7.8.5. Conduct self-monitoring of potential sources of benzene in compliance with DENR-EMB standards for wastewater effluents and air emissions and report them accordingly in the SMR.

7.9. TSD Facilities and Hazardous Waste Transporter Requirements. All waste service providers of benzene waste shall comply with the procedural manual on hazardous waste management.

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, shall develop a phase-out plan for the allowed uses of benzene, subject to consultations with relevant stakeholders and government agencies.

SECTION 8. Communication, Education and Public Awareness (CEPA). 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 the required safety protocol. The use of benzene-free substances and materials shall also be promoted to minimize the exposure to human health and the 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 or its revision or amendment. The EMB-CO shall integrate the regional monitoring report for management action. For 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. Moreover, the Department may issue clarificatory guidelines if necessary.

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

SECTION 14. Coordination With Other Government Agencies. The Department shall coordinate with other government agencies, particularly those mandated by other laws on chemical regulation, and align their policies and programs to ensure the safe use of benzene and benzene-containing mixtures.

SECTION 15. 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 2020-12¹⁶. Any manufacturer, importer, or distributor selling to non-authorized persons or end-users, including in online marketplace and electronic commerce systems, 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. They 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 16. Penalty Provision. Any violation of the requirements specified in this Order shall subject the juridical person(s) liable to the applicable administrative and criminal sanctions as provided for under Sections 14 and 15 of RA 6969, Sections 43 and 44 of DENR AO 1992-29, and DENR MC 2005-003¹⁷.

SECTION 17. 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 18. Repealing Clause. All Orders and other similar issuances inconsistent herewith are hereby revoked, amended, or modified accordingly.

SECTION 19. Effectivity. This Order shall take effect fifteen (15) days after its publication in a newspaper of general circulation and upon filing of three (3) certified

¹⁶ EMB MC 2020-012 Rules on the Confiscation of Illegal Chemicals, Chemicals Substances, and Apprehension of Hazardous Waste under RA 6969

¹⁷ DENR MC 2005-003 Prescribing Graduated Administrative Fines Pursuant to Republic Act No. 6969 and DENR Administrative Order No. 29, Series of 1992

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