

DENR ADMINISTRATIVE ORDER No. 02
Series of 2000

Subject: CHEMICAL CONTROL ORDER FOR ASBESTOS

Section 1. Legal Authority

This Chemical Control Order (CCO) is issued on the basis of authority given to the Department of Environment and Natural Resources under the Republic Act of 6969 of 1990 and DENR Administrative Order (DAO) 29, Series of 1992, specifically, Title II, Toxic Chemical Substances (Chapter IV, Section 20) and Title III, Hazardous and Nuclear Wastes (Chapter VII, Section 25).

The requirements and procedures presented in this CCO are in addition to all the other requirements of Title II and Title III of DAO 29 as they pertain to the importation, manufacture and use of asbestos and the storage, transport and disposal of their wastes.

Section 2 Rationale and Policy

Asbestos is a naturally occurring fibrous hydrated mineral silicate that has been used in a wide variety of products and various uses over the years. Its unique properties of fire resistance and insulation have made its use common in a variety of products including friction materials, fire proof clothing, insulation, construction materials, fire and heat shielding equipment, mechanical packings and gaskets, textiles, and other products. Epidemiological studies have linked prolonged exposure to certain varieties of asbestos fibers to forms of lung cancer. Asbestos is considered as known human carcinogen by the International Agency for Research on Cancer. Several countries have prohibited and/or regulated the manufacture, export, and import of asbestos and asbestos containing materials, particularly, Triable asbestos materials and low density products.

This CCO is meant to control and regulate the use and disposal of asbestos into the environment to avoid the aforesaid adverse consequences. It is the policy of the DENR to minimize the hazard to human health and the environment from the improper use, management, disposal and subsequent release, and exposure to harmful substances.

Section 3. Definition

In this CCO, unless inconsistent with the context or subject matter, the following definitions apply:

- (1) **“DAO 29”** means Implementing Rules and Regulations of Republic Act of 6969.
- (2) **“Department”** means the Department of Environment and Natural Resources.
- (3) **“Bureau”** means the Environmental Management Bureau.
- (4) **“Asbestos”** means the fibrous forms of varieties of mineral silicates belonging to rock forming minerals of the serpentine group, i.e. chrysolite (white asbestos); and the amphibole group i.e. actinolite, amosite (brown asbestos, cummingtonitegrunerite), anthophyllite, crocidolite (blue asbestos) and tremolite.
- (5) **“Friable asbestos material”** means any material containing more than one percent (1%) asbestos, as determined using standard polarized light microscopy techniques, which when dry can be crumbled, pulverized, or reduced to powder by hand pressure thereby, releasing airborne fibers.
- (6) **“Non-friable asbestos containing material”** means any material containing more than one percent (1%) asbestos, as determined by using standard polarized light microscopy techniques, which when dry, can not be crumbled, pulverized, or reduced to powder by hand

pressure.

- (7) **“Importer”** means any person or corporation that undertakes the entry of a product or substance into the country which is intended for direct consumption, warehousing or distribution to manufacturers or end users.
- (8) **“Storage”** means supply or stock reserved; put away for future use, safekeeping or disposal.
- (9) **“Disposal”** means throwing away, destroying or getting rid of waste materials.
- (10) **“Manufacturer”** means any person or corporation that undertakes the mechanical or chemical transformation of substances into new products performed either by power-driven machines or by hand.
- (11) **“Asbestos Containing Wastes”** means process residues from manufacturing operations and consumer discards of manufactured products.
- (12) **“Adequately wet asbestos”** means to sufficiently moisten or saturate with water the friable asbestos containing materials that will be exposed during removal or demolition activities to prevent the possible release of asbestos fibers into the air.
- (13) **“Premises”** shall include but not limited to building or part of a building, a tent, stall or other structures whether permanent or temporary, land, vehicle or ship.
- (14) **“Equipment”** shall include but not limited to tools, devices, furnishings, apparatus, and materials for any undertaking such as hoods, enclosures, duets, dust suppressant, among others.

Section 4. Scope and Coverage

This CCO applies to the importation and manufacturing of asbestos. It also addresses the treatment, storage, disposal of asbestos containing materials and asbestos containing wastes in the Philippines. This order will cover the following interest groups:

- (1) Importers;
- (2) Manufacturers;
- (3) Transporters;
- (4) Industrial facility owners/operators and contractors;
- (5) Shipbuilders;
- (6) Waste management service providers;
 - (i) Demolition contractors (haulers, transporters and disposers)
 - (ii) Shipbreakers
 - (iii) Owner/operator of a demolition or renovation activity

Section 5. Objectives

- (1) General Objective:

Control and regulate the use and disposal of asbestos to minimize hazards to human health and the environment.
- (2) Specific Objectives:

- (a) Increase awareness on the safe and responsible use of asbestos.
- (b) Develop the framework for the proper management of asbestos raw material, products and wastes.
- (c) Define the requirements and procedures for importation, manufacturing and proper treatment, storage and disposal of asbestos.
- (d) Establish limitation of use of certain variety of asbestos and asbestos containing materials and products.
- (e) Establish a compliance monitoring program to enforce the tenets and covenants of this Order.

Section 6. General Requirements and Procedures

In addition to the general requirements under Title II and III of R.A. 6969, DAO 29, the following requirements and procedures are hereby provided:

- (1) Registration and Permitting
 - (a) Any person or entity who imports and manufactures asbestos and asbestos-containing products in the Philippines must register with the Bureau.
 - (b) Any person or entity who imports asbestos and asbestos-containing products must get an importation clearance from the Bureau.
 - (c) Any person or entity involved in the treatment, storage, demolition, transport and disposal of asbestos and friable asbestos containing wastes must register with the Bureau.
 - (d) Existing industrial, commercial and institutional structures with sprayed on asbestos and friable asbestos containing materials shall register with the Bureau.
- (2) Reports and Records
 - (a) Any importer and manufacturer of asbestos and asbestos-containing products must submit an annual report to the Bureau and retain records of imports and manufactured products in accordance with this CCO.
 - (b) All the reports submitted to the Bureau and records retained at the premise must include, among others, the names and addresses of importer, manufacturer, end-use category of asbestos and asbestos containing products, quantity of wastes produced as a result of manufacturing, in accordance with the reporting format(s) issued by the Department under this CCO.
 - (c) Records retained at the premises must be available for inspection at any time by authorized DENR-EMB personnel upon proper request, during emergency cases when conditions presenting a clear and present hazard to health and environment actually exists.
- (3) Limitations, Prohibitions and Regulations of Use

It is the intention of this CCO to control and regulate the use of asbestos and asbestos containing products.

- (a) The use of asbestos and asbestos-containing materials as high-density products shall be strictly limited to the following:

- (i) Fire proof clothing;
 - (ii) Roofing felts or related products;
 - (iii) Asbestos cement roofing;
 - (iv) Asbestos cement flat sheet;
 - (v) Friction materials;
 - (vi) High temperature textiles products;
 - (vii) Gaskets;
 - (viii) Mechanical packing materials;
 - (ix) High-grade electrical paper;
 - (x) Battery separators; and
 - (xi) Other high - density products.
- (b) The use of Amosite (Brown) and Crocidolite (Blue) Asbestos fibers and of products containing these fibers is strictly prohibited.
- (c) No spraying of all forms of asbestos in buildings shall be allowed.
- (d) No new use of asbestos.
- (e) Other products where new use of all forms of asbestos are prohibited:
- (i) Toys;
 - (ii) Pipe and boiler lagging;
 - (iii) Low-density jointing compounds;
 - (iv) Corrugated and commercial paper;
 - (v) Untreated textiles;
 - (vi) Flooring felt and covering;
 - (vii) Rollboard;
 - (viii) Specialty paper; and
 - (ix) Other low-density products

Section 7. Information, Education, Communication and Training Requirements

- (1) The Department, in conjunction with the Association of Asbestos Industries of the Philippines, Inc., concerned government agencies, and non-government organizations, shall promote industry and public awareness of the ways and means, including technologies, on the safe and responsible use of asbestos.
- (2) The importers and manufacturers of asbestos fibers and friable asbestos containing products shall be responsible for informing and training transporters and users on the precautionary measures in the transit, use, handling and disposal of asbestos and asbestos wastes.

Section 8. Compliance Monitoring Procedure

Compliance with the requirements established in this CCO will be monitored through review of reports or other related documents and on-site inspection by authorized personnel of the Department.

Section 9. Specific Requirements and Standards

All persons, entities and premises covered by this CCO shall comply with the following specific requirements and standards for implementation of the general requirements stated in Section VI of this CCO.

(1) Annual Report

The report will be submitted in accordance with the Asbestos Annual Report Form provided by the Bureau, which includes the following information:

(a) General Information

Name, address, location of importer, manufacturer and others; Type of premises;

(b) Production and management information

Quantity of bulk asbestos (in kilos), type or variety of asbestos; and kind of asbestos-containing products imported and/or manufactured;

(c) Number and category of employees that may be exposed to asbestos releases, if any;

(d) Description of any pollution control and safety devices as well as preventive measures used to prevent or reduce the releases of asbestos to the environment;

(e) Asbestos waste generated and categorized into friable and non-friable asbestos waste materials; and

(f) Treatment, storage, and disposal information (type of treatment, storage facilities, and land disposal premises, their locations, and methods of TSD, among others).

(2) Manifest

All the regulated premises must comply with the manifest requirements specified under Title III of DAO 29 and those to be prescribed by the Bureau for the transportation and treatment, storage and disposal of asbestos wastes off-site.

(3) Labeling Requirements

(a) All manufacturers, TSD facilities and premises, transporter, haulers, and disposers of asbestos-containing materials and asbestos-containing waste must comply with the labeling requirements as hereinafter stated.

(b) Visible signs will be required on all packaging for all asbestos and asbestos-containing products as described in (a) above, after the lapse of one (1) year from the effective date of this Order. The signs must clearly mark that the product contains asbestos and disposal of friable asbestos containing wastes is regulated under this CCO.

(4) Handling Requirements

(a) Manufacturers of products containing asbestos must report to the Bureau and retain records of friable asbestos containing wastes that are: (I) stored and disposed on-site; (ii) transported off-site; (iii) treated, stored, and disposed off-site.

(b) Prior to the issuance of the Bureau's clearance and permit, the importers and

manufacturers are required to identify in detail the quantity and methods of storage and disposal of friable asbestos containing wastes, containers, and discarded materials generated as a result of handling of asbestos.

- (c) The importer and manufacturer must comply with proper storage, labeling and transport of asbestos-containing materials as required by this CCO, other requirements under Titles II and III of DAO 29, and the standards adopted by the Department of Transportation and Communication regarding transport and shipping.
 - (d) Removal and ultimate disposal of friable asbestos and non-friable asbestos that has become friable in any industrial and commercial activities will be limited to persons who are accredited by the Bureau to handle these materials subject to Occupational Safety and Health standards.
- (5) Manufacturing Requirements
- (a) Appropriate engineering and dust control, preventive measures, work practices and housekeeping program should be provided to ensure safety.
 - (b) Workers should be provided with appropriate respiratory protective equipment and be well-informed on possible exposure to asbestos.
 - (c) No visible emissions to the outside air from any manufacturing operations are permitted.
 - (d) Air monitoring of the workplaces to an airborne concentration of asbestos should not exceed 2 fibers per cubic centimeter of air as an eight-hour time weighted average by Light Microscopy or an equivalent reference method.
 - (e) Regular inspections of each potential source of emissions from any part of the manufacturing premises, including air cleaning device and ventilation system at least once a week during day light hours for emissions to the outside air.
- (6) Renovation, Removal and Demolition Requirements
- (a) The duly authorized owner or operator of a renovation or demolition activity shall thoroughly inspect and assess the facility or part of the facility where the activity will occur to verify the presence of any friable asbestos-containing materials or non-friable asbestos-containing materials that have become friable prior to the commencement of any renovation or demolition activity.
 - (b) Each person or entity that will undertake demolition, removal or renovation activity will provide the Bureau with the following information:
 - (i) A written notice of the intention to demolish or renovate a structure with friable asbestos-containing materials at least 30 days before any activity begins on the project that will disturb asbestos material and which may cause unwarranted releases of asbestos fibers into the air.
 - (ii) Name, address, and telephone number of:
 - Premises owner;
 - Premises operator;

Renovation, removal or demolition contractor; and

Location of the premises to be demolished or renovated.

- (iii) The transporter and the disposal facility to be used for the removed, renovated or demolished material.
 - (iv) Estimate of the amount of friable asbestos-containing materials to be removed from the building in terms of linear meters of pipe, square meters of surface area, and cubic feet of facility components.
 - (v) Schedule of start and completion date for the removal, demolition, or renovation activity.
 - (vi) Description of the planned work to be performed and methods to be employed, including any controls and measures to be used to comply with this Order.
 - (vii) Name and location of the disposal site to be used for the friable asbestos containing wastes.
- (c) Remove all friable asbestos and non-friable asbestos-containing materials that have become friable prior to other renovation and demolition activities.
- (d) Adequately wet all friable asbestos-containing materials that will be exposed during removal or demolition activities. If wetting presents a **safety hazard or damage to** equipment, then an exemption must be requested from the Bureau. However, if other emission control devices are used to ensure no emissions of asbestos, wetting the material is not required.
- (e) Air monitoring must be conducted in the area during and after the demolition to ensure that asbestos level in the air is within the Permissible Exposure Limit (PEL) of 2 fibers per cubic centimeter of air on an eight-hour time weighted average.
- (7) Storage Requirements
- (a) On the ground level, asbestos must be managed to ensure proper storage and no fiber releases will occur.
 - (b) The asbestos fibers must be placed in a heavy duty polyethylene bags approximately 0.2 mm. thick or other approved containers.
- (8) Disposal Requirements
- (a) All friable asbestos and friable asbestos containing wastes must be placed in a special waste disposal site, the plans and specifications of which are in accordance with the DENR standards and criteria. During the disposal operations there should be no visible emissions of asbestos fibers. Materials for disposal should be transported and handled in accordance with the requirements of Section IX (4).
 - (b) Once asbestos-containing waste material has been placed in the disposal site at the end of the operating day, it must be covered with at least 15 centimeters of compacted non-asbestos-containing material or dust suppression agent that effectively binds dust and controls emissions from wind erosion.
 - (c) The waste disposal premises and facilities must maintain records of all shipments received. The information includes the following:
 - (i) Name and address of the waste generator;
 - (ii) Name and address of the transporter;

- (iii) Quantity of the asbestos-containing waste material in cubic meters; and
- (iv) Date of receipt of the waste.

This information will be submitted to the Bureau as part of the Annual Report due March 31 of the following year.

- (d) The owners/operators of on-site landfill sites shall submit an abandonment plan as part of the plans and specifications mentioned under Section (a) hereof to be similarly approved and registered with the Bureau.
- (e) Non-friable asbestos containing waste materials can be disposed of in any authorized municipal or industrial landfills.

Section 10. 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.

Section 11. Penalty Provision

Any violation of the requirements specified in this CCO will subject those person or persons responsible therefore to administrative and criminal sanctions as specified under Title V, Chapter XI, Sections 41 and 42 of DAO 29, Series of 1992.

Section 12. Effectivity

These Rules and Regulations shall take effect six (6) months after formal publication of this CCO in the Official Gazette and in two (2) newspapers of general circulation.

(Sgd.) **ANTONIO H. CERILLES**

Secretary

06 January 2000