

**DENR Administrative Order
No. 97-39
December 23, 1997**

**SUBJECT : Chemical Control Order for Cyanide and
Cyanide Compounds**

Sec. I. Legal Authority

This Chemical Control Order (CCO) is being issued on the basis of authorities given to the Department of Environment and Natural Resources under Republic Act (RA) 6969 of 1990 and DENR Administrative Order (DAO) No. 29, Series of 1992.

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, distribution and use of cyanide and cyanide compounds and the storage, transport and disposal of their wastes.

Sec. II. Policy

It is the policy of DENR to minimize hazards to human health and the environment from the improper use, management, disposal, and subsequent release and exposure to harmful substances.

Sec. III. Definition & Rationale

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

- (1) "Act" means Republic Act 6969 otherwise known as the Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990.

- (2) "Department" means the Department of Environment and Natural Resources.
- (3) "Authorized Officer" means a person appointed under the Act as an authorized officer for the purpose of the Act.
- (4) "Cyanide" means any substance containing the cyanide ion, CN; as found in metallic cyanide and hydrogen cyanide.

Cyanide and cyanide compounds are highly toxic to humans and aquatic life even at low concentrations. Cyanides are used in a variety of industrial applications. These include steel, plastics, synthetic fibers, chemical synthesis, electroplating, metallurgy, and mining. Over the years, however, they have been increasingly used for other purposes which are detrimental to the environment such as in the fishing sector. Also, their careless use has resulted in some incidents and accidents which have disastrous effect on human health and the environment.

This CCO, therefore, is meant to control their use and dispersion into the environment to avoid these adverse consequences.

Sec. IV. Application and Coverage

This CCO applies to the importation, manufacture, processing, use and distribution of cyanide and cyanide compounds. It also addresses the treatment, storage and disposal of cyanide-bearing or cyanide-contaminated wastes in the Philippines. This order will cover the following:

- (1) Importers and distributors
- (2) Manufacturers, processors and industrial users
- (3) Transporters
- (4) Treaters and disposers

Sec. V. Objectives

This CCO has the following objectives:

- (1) Reduce hazards to health and the environment from the use, handling, management, transport and disposal, and subsequent release and exposure to cyanide.
- (2) Establish requirements and procedures for importation (for use in commerce), transport, manufacturing, labeling, re-labeling, spill handling, emergency procedures, and proper treatment, storage, and disposal of cyanide and cyanide compounds as well as cyanide contaminated containers and cyanide-bearing or cyanide-contaminated wastes.
- (3) Establish limitation of use of certain cyanide and cyanide containing substances.
- (4) Control and regulate the disposal of cyanide contaminated wastes and establish requirements so that access to, use and disposal of any cyanide and cyanide-containing materials will be limited to persons who have the expertise and facilities to handle these substances with minimum discharge to the environment.
- (5) Establish a registration, monitoring and compliance program to enforce the tenets and covenants of this Order.

Sec. VI. Exemptions

The following are exempt from this CCO:

- (1) All premises and entities which handle substances and mixtures exempt under Title II of DAO 29, Series of 1992.

- (2) Industries and other users whose exemption claims have been approved by the Department of the time period identified in the Department's approval. Industries must complete the Department's exemption claim form and get approval from the Department.

Sec. VII. General Requirements and Procedures

In addition to the general requirements under Title II of DAO 29, the following requirements and procedures have been established for importers and industrial users of cyanide and cyanide compounds and treaters and disposers of cyanide-bearing or cyanide-contaminated wastes.

These are:

(1) Required Permits

- (a) Any person or entity importing, manufacturing, distributing or using cyanide or cyanide containing products in the Philippines must register with and secure a license to use and to purchase from the Environmental Management Bureau of the Department.
- (b) Any person or premises that imports cyanide or cyanide containing compounds must get an importation clearance from the Environmental Management Bureau of the Department.
- (c) Any person or entity, or premises treating, transporting, storing or disposing of cyanide, cyanide-compounds or cyanide-bearing or cyanide contaminated wastes must register and secure a license for such purposes with the Environmental Management Bureau of the Department.

- (d) As part of the registration process, each premise must submit a Cyanide Management Plan, described in item 5 Section XIII of this CCO, to the Environmental Management Bureau of the Department.

(2) **Reports and Records**

- (a) Any importer, manufacturer, distributor or user of cyanide and cyanide compounds or transporters, treaters and disposers of cyanide-bearing or cyanide-contaminated wastes must submit quarterly reports to the Environmental Management Bureau of the Department as well as retain records of their activities and transactions.
- (b) All reports submitted to the Environmental Management Bureau of the Department and records retained at the premises must include, among others, the names and the addresses of the importer, manufacturer, distributor and purchaser, the end-use category of cyanides or cyanide containing products, quantity of products supplied, and the quantity of wastes produced as a result of manufacturing and industrial uses according to the reporting format(s) issued by the Department under this CCO.
- (c) Records retained by the premises must be available for inspection at any time by any authorized government officer upon request or in times where the health, safety and environmental conditions are compromised or during times of emergency.
- (d) Reports must be submitted to the Department, through the Environmental Management Bureau at frequencies and formats specified later in a Department Circular.

- (e) Material Safety Data Sheets of the chemical should be made available to all relevant personnel and displayed conspicuously in the premises at all times.

(3) Limitations /Restriction of Use and Disposal

- (a) The use of cyanide and cyanide compounds shall be strictly limited to the following end-users and those exempted under Section VI of this CCO:

- Electroplating industries
- Mining and metallurgy industries
- Steel manufacturing
- Synthetic fibers and chemicals
- Plastic production
- Other sub-sectors legitimately
using cyanide such as jewelry making

- (b) At no instance should cyanide and cyanide compounds be used or made available to the fishery sector.
- (c) No cyanide bearing wastes shall be discharged to the environment without prior approval from the Department.

(4) Handling Requirements

- (a) Containers of cyanide and cyanide compounds and cyanide-bearing or cyanide-contaminated wastes should be corrosion-resistant, and strong enough to withstand breakage during normal handling, transport and storage.

- 1) All manufacturing processes and industrial premises manufacturing or using products containing cyanide or cyanide compounds must report to the Department and retain records of all cyanide containing wastes or cyanide contaminated containers that are: (i) stored and disposed on-site; (ii) transported off-site; (iii) treated, stored, and disposed off-site; (iv) exported and (v) recycled.

 - 2) The Department's clearance and permit will require the importer, manufacturer, and industrial users to state in detail the quantity and methods of storage, recycling and disposal of wastes, containers, and discarded materials generated as a result of handling cyanide and cyanide compounds.

 - 3) The importer, wholesaler and distributor, manufacturer and user must comply with proper storage, labeling, packaging, pre-transport and transport (e.g. shipping) of cyanides and cyanide 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 including proper storage, labeling, packaging, pre-transport, and shipping.
- (b) Any container or vessel containing cyanide must be properly labeled. It should indicate the cyanide and cyanide compound content, precautions required in its handling and emergency response measures to be taken in case of spillage or any untoward incident (e.g. fire).

- (c) Transfer of cyanide or cyanide containing materials should not be undertaken where appropriate facilities for such are not available.
- (d) Cyanide and cyanide compounds should be stored in secure places, with provisions for appropriate emergency response in case of accidents.

Sec. VIII. Disclosure of Information

Relevant information should be disclosed immediately in cases of emergency to the Department through the Environmental Management Bureau and the concerned Department's Regional Offices.

Sec. IX. Revision of Requirements

The Department may review, revise, modify, update and supplement the requirements and standards applicable to this CCO from time to time.

Sec. X. Information, Education and Communication and Training Requirements

- (1) The Department in collaboration with other government agencies, industry associations, non-governmental organizations, professional organizations, and the academe shall promote public awareness on the beneficial use of cyanide and cyanide compounds and the accompanying hazards and risks involved in their usage. It shall likewise strive to increase awareness on the environmental and health risks of cyanide containing wastes, as well as, their proper and safe disposal.

- (2) It is the responsibility of the importer(s) to inform and train transporter(s) and user(s) on the precautions and measures in the handling of said chemicals.
- (3) It is the responsibility of the management of the premises using or storing cyanide and cyanide compounds or treating or disposing of cyanide-bearing or cyanide-contaminated wastes to develop a training and contingency program for all workers handling these materials. Such training should focus on the risks associated with the chemicals, measures to avoid exposure to the chemicals, and requirements for the proper management of the chemicals in an emergency, among others.
- (4) The said premises or entities should inform the local government units, as well as, the nearby communities on the hazards and precautionary measures for cyanide and cyanide containing compounds including emergency preparedness programs.

Sec. XI. Compliance Monitoring Procedure

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

Sec. XII. Penalty Provision

Any violators of the requirements specified in this CCO will be subject to administrative and criminal penalties and liabilities as specified under Title V, Chapter XI, Sections 43 and 44 of DAO 29 series of 1992, pursuant to Section 13, 14 and 15 of RA 6969.

Sec. XIII. 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 outlined in Section VII of this CCO:

(1) Reports

Importers and users must submit quarterly reports in accordance with the Importer's Report Form and the User's Report Form respectively. Quarterly reports must be submitted to the Department, through the Environmental Management Bureau and copy furnished the Regional Office concerned, on or before the 15th day after the end of each quarter (January to March, etc.). The reporting format will be specified in a Department Circular 30 days after the effective date of this Order. Importers will be responsible for securing information for the report pertaining to the transport and distribution of the cyanide and cyanide compounds. Users will be responsible for submitting information on the treatment, storage and transport and disposal of wastes arising from their use of cyanide and cyanide compounds.

(2) Manifest

All importers and users of cyanide and cyanide compounds, and treaters and disposers of cyanide-bearing or cyanide-contaminated wastes must comply with the manifest requirements specified under the relevant sections of DAO 29 and those to be prescribed by the Environmental Management Bureau of the Department.

(3) Labeling or Re-labeling Requirements

The labels and marks are required for all containers of cyanide and cyanide containing products or cyanide-bearing or cyanide-contaminated must clearly indicate that the material contains cyanide and that the same is regulated under this CCO. The labels, at a minimum, should contain the following information:

Chemical Name of the Material

Chemical Composition/Formula

Warning: Contains a Toxic Material

First Aid Measures

Accidental release/spillage measures

Handling and Storage

Exposure Controls

Toxicological Information

Disposal Consideration

Expiry or Best Use Before information

Visible labels and marks shall be strictly required for all such containers sixty (60) days after the effective date of this Order.

(4) Storage Requirements

Storage areas for cyanide and cyanide compounds or cyanide-bearing or cyanide-contaminated wastes items must meet the following conditions:

- (a) The storage area should be marked or delineated clearly by fencing, posts, or walls in order to limit access to it.

- (b) A recording system on the condition of the storage area should be established, details of which shall include the observations, name of inspector, date inspected, etc.
- (c) The dates when cyanide and cyanide-containing materials were placed in the storage area should be indicated on the container and duly recorded.
- (d) The storage area should have adequate roof and walls to prevent rain water from reaching the cyanides and cyanide-containing material.
- (e) There should be no cracks or openings of any kind in the containment floor or walls that could allow the flow of cyanides outside the area.
- (f) Floors of the storage area must be constructed of impervious material such as concrete or steel, and if the cyanide are in liquid form, should be surrounded by a bund wall to contain spills.
- (g) Visible warning signs and notices must be placed in conspicuous areas in the premises.
- (h) Drainage facilities should be installed in premises where cyanide and related compounds are used and handled to contain possible spillage or releases.
- (i) Emergency showers and eyewash units with adequate water supply should be made available in premises where cyanide and cyanide compounds are used or handled.

- (j) Fire-fighting facilities should be in place for use in case of fire(s).
- (k) Access to cyanide and its compounds should be restricted to those with adequate training for such purpose.
- (l) A copy of the material Safety Data Sheet should always be available in the area.
- (m) Segregation, adequate ventilation and ideal condition for storage of the chemical should be maintained in the area.
- (n) Adequate security siting and access to the area should be ensured.
- (o) Proper loading or unloading of containers should be observed.
- (p) A workable emergency plan must be in place and implemented immediately in case of accidental spillage and other emergencies.
- (q) Only trained personnel should be handling containers in storage as well as in the transport of such substances or mixtures.

(5) Management Requirements

A Cyanide Management Plan must be submitted with the registration form to the Environmental Management Bureau of the Department. The objective of the management plan is to ensure that cyanide is being managed in a manner that will eliminate or minimize its risks to people and the environment. Through the management plan a premise will show that it has the necessary mechanisms to manage the raw materials or products so that they are used for their intended purposes and are not released to the environment. It will describe any manufacturing process that involves cyanide and show a mass balance for the chemical. The plan will also contain information on the waste management practices

and provide a description of all releases to all environmental media. An important aspect of the plan will be a description of the premises' waste minimization programs or pollution prevention programs. These programs to look for ways to minimize or eliminate the use of cyanide in processes used at the premises. The details of the management plan will vary depending on the type of premises and the type of activity being conducted, which may include importing, packaging or manufacturing or whether the operator or owner is the end-user. Below is a general outline for the management plan.

General Description

- (a) Location, owner, operator
- (b) Industrial activities at the premises
- (c) Number of employees

Uses of Cyanide at the Premises

- (a) Description of the processes that use cyanide
- (b) Listing of raw materials used containing cyanide
- (c) Listing of waste containing cyanide generated
 - wastewater
 - air
 - solid wastes
- (d) Mass balance of cyanide
- (e) Description of pollution control devices in use
- (f) Description of compliance with the Department's rules and regulations

- (g) Description of emergency procedures and contingency plans in case of accidents

Waste Minimization Program and Pollution Prevention Program

Training Program

- (a) Workers in contact with the chemical
- (b) Workers managing wastes

Sec. XIV. 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, import or export for the chemical substance does not comply with this CCO.

Any importer or distributor selling to non-authorized persons or end-users shall be held liable under R.A. 6969. Chemicals may be confiscated and storage fees of confiscated chemicals shall be charged jointly and solidarily to the importer and/or distributor and the 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, distribution, storage, transport, treatment and disposal of cyanides and cyanide compounds.

Sec. XV. Effectivity

These Rules and Regulations shall take effect thirty (30) days after completion of publication in the Official Gazette or in a newspaper of general circulation.

(Sgd.) VICTOR O. RAMOS
Secretary