

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49

DENR Administrative Order

No. 2022 – ____

SUBJECT: CHEMICAL CONTROL ORDER (CCO) FOR VINYL CHLORIDE

Pursuant to Republic Act 6969 otherwise known as the “Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990”, DENR Administrative Order (DAO) No. 29, Series of 1992, the “Implementing Rules and Regulations of Republic Act 6969” and DAO 05, Series of 2005 “Toxic Chemical Substances for Issuances of Chemical Control Orders, and Republic Act No. 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 Vinyl Chloride, and its wastes are hereby promulgated.

Section 1 POLICY AND OBJECTIVES

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 Philippine territorial limits for whatever purpose, and to provide advancement and facilitate research and studies on toxic chemicals. Pursuant to this policy statement, this Order aims to do the following:

- a. Reduce the risk of exposure to human health and the environment of vinyl chloride used in industrial processes;
- b. Increase awareness about the toxicity of vinyl chloride, as well as the availability of technically superior and safer alternatives;
- c. Ensure the proper implementation of the existing framework and appropriate prevention-based programs to mitigate, reduce and eliminate risks from the use of vinyl chloride; and
- d. Provide guidelines to identify potential vinyl chloride release/exposure in industrial facilities to reduce workers’ vinyl chloride exposure.

Section 2 DEFINITION OF TERMS

As used in this Order, the following terms are hereby defined:

- a. Applicant – person(s) or entities engaged in importation, manufacture, use, distribution, transport, recycling and providing service (Treatment, Storage and Disposal) on vinyl chloride
- b. Article – a manufactured item: (1) which is formed to a specific shape or design during manufacture, (2) which has end use function(s) dependent in whole or in part upon its shape and design during end use, and (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the article, and that result from a chemical reaction that occurs upon

- 50 end use of other chemical substances, mixtures, or articles; except that fluids and particles
51 are not considered articles regardless of shape or design
- 52 c. Bureau – refers to the Environmental Management Bureau of the Department of
53 Environment and Natural Resources
- 54 d. Chemical Control Order (CCO) – a policy issuance that prohibits, limits or regulates the
55 use, manufacture, import, export, transport, process, storage, possession and distribution
56 of chemicals that DENR determined to be regulated, phased-out or banned due to the
57 serious risks they pose to public health, workplace and the environment
- 58 e. Chemical Substance – any organic or inorganic substance of a particular molecular identity
59 excluding radioactive materials and includes – any element or uncombined chemical, and
60 any combination of such substances, or any mixture of two or more chemical substances
- 61 f. Department – refers to the Department of Environment and Natural Resources
- 62 g. Distributor – any entity or corporation that is engaged in the distribution of vinyl chloride
- 63 h. Importer – any juridical person or corporation that undertakes the entry of a chemical or
64 chemical substances into the country
- 65 i. Industrial User – any entity or corporation that uses and processes vinyl chloride for
66 industrial purposes only; includes using vinyl chloride by laboratories of the industries
- 67 j. Manufacturer – any juridical person or corporation that undertakes the physical or chemical
68 transformation of substances into new products performed either by power-driven
69 machines or by hand and markets it under his name or trademark
- 70 k. Monomer – molecule that has reactive functional groups or double/triple bonds capable to
71 forming a polymer. A chemical substance that is capable of forming covalent bonds with
72 two or more like or unlike molecules under the conditions of the relevant Polymer-forming
73 reaction used for the particular process
- 74 **l. Polymer – (1) means a substance consisting of molecules characterized by the sequence of**
75 **one or more types of monomer units and comprising a simple weight majority of molecules**
76 **containing at least three monomer units which are covalently bound to at least one other**
77 **monomer unit or other reactant and consists of less than a simple weight majority of**
78 **molecules of the same molecular weight. Such molecules must be distributed over a range**
79 **of molecular weights wherein differences in the molecular weights are primarily attributed**
80 **to difference in the number of monomer units; (2) is a substance composed of more than**
81 **50% of molecules containing a sequence of at least three monomer units covalently bound**
82 **at least one other monomer unit or other reactant; (3) has molecules distributed over a range**
83 **of MW; and (4) has no single MW molecule reaching 50% (w/w) of total molecules.**
- 84 m. Polyvinyl Chloride – produced by polymerization of the vinyl chloride monomer
- 85 n. Premises – shall include, but not limited to, buildings or parts of buildings, tents, stalls or
86 other facility structures whether permanent or temporary
- 87 o. Process – is the preparation of chemical substance or mixture after its manufacture
88 (industrial operations) for commercial distribution
- 89 p. Storage – containment area for supply or stock reserve kept for future use, safekeeping or
90 disposal
- 91 q. Transporter – a person or entity registered to legally transport vinyl chloride as described
92 in the scope of this Order

- 93 r. Treatment, Storage and Disposal (TSD) Facility – Facility where hazardous wastes are
94 transported, stored, treated, recycled, reprocessed, and disposed of
- 95 s. Unreasonable risk – expected high frequency of undesirable effects or adverse responses
96 arising from a given exposure to a substance
- 97 t. Vinyl Chloride – a colourless highly flammable gas, with a mild, sweet odour
- 98 u. Waste Generator – any person who generates or produces hazardous wastes through any
99 institutional, commercial, industrial, or trade activities.

100 Section 3 COVERAGE

101 3.1 This Order shall cover the following:

- 102 3.1. Importers
- 103 3.2. Distributors
- 104 3.3. Manufacturers, processors, and industrial users
- 105 3.4. Transporters
- 106 3.5. Treatment, Storage and Disposal (TSD) Facilities
- 107 3.6. Laboratory Facilities

108
109 Vinyl chloride was included in the Priority Chemicals List (PCL) under DENR
110 Administrative Order No. 1998-58 and 2005-27, wherein importers-distributors, importer-user-
111 manufacturers, and user-manufacturers of PCL chemicals were required to submit reports and
112 comply with PCL requirements. Vinyl chloride reported under the PCL shall continue under this
113 Administrative Order.

114
115 Exemptions under EMB Memorandum Circular Nos. 2014-003 and 2017-007 are required
116 to apply under this Order. Previously exempted importers-distributors, distributors, importer-user-
117 manufacturers and user-manufacturers of vinyl chloride are required to register under this Order
118

119 Unreacted vinyl chloride monomers in polyvinyl chloride resins and vinyl chloride
120 monomers of any polymer is not covered under this CCO. The processing of polyvinyl chloride
121 resins into polyvinyl chloride products shall follow the standards set forth by the Bureau of Product
122 Standards (BPS) of the Department of Trade and Industry (DTI).
123

124 Section 4 REQUIREMENTS AND PROCEDURES

125 In addition to the general requirement under Title II of DAO 1992-29, the following
126 requirements and procedures have been established for any person or entity importing,
127 manufacturing, distributing, and allowed users of vinyl chloride; and those treating, handling,
128 transporting, storing and disposing of vinyl chloride-bearing or vinyl chloride contaminated
129 wastes. These are:
130

131 4.1. Registration and Permitting

132 All applicants shall register online through the Online Permitting and Monitoring System
133 (OPMS) of the Bureau and other documentary requirements.
134

- 135 a. Any person or entity that is a new applicant and/or newly involved in the importation,
136 manufacture, distribution and industrial use of vinyl chloride.
137

- 138 b. Any person or entity with existing PCL Compliance Certificate, with PCL exemption
139 issued under MC 2014-003 and MC 2017-007 for vinyl chloride. The proponent shall
140 apply for a CCO Registration.
141
- 142 c. Any person or entity involved in the transport, recycling, treatment, storage and
143 disposal of vinyl chloride containing wastes must register and comply with all
144 applicable provisions of the RA 6969 rules and regulations on hazardous waste
145 management.
146

147 **4.2. Importation Requirements**

148 Any person or entity that imports vinyl chloride shall apply for an Importation Clearance
149 online through the OPMS of the Bureau. The validity of the importation clearance shall be
150 for a period of **six (6) months**. Importation clearances shall be issued per trade name of the
151 chemical mixture.
152

153 **4.3. Required Documents**

154 The application for registration and importation clearance, including importation clearance
155 renewal must be accompanied by the following documents:
156

- 157 a. Photocopy of Environmental Permits such as the following:
- 158 • Hazardous Waste Generator's ID
 - 159 • Valid Discharge Permit
 - 160 • Valid Permit to Operate
 - 161 • Environmental Compliance Certificate (ECC)
- 162 b. Photocopy of registration with Securities and Exchange Commission (SEC) or
163 Department of Trade and Industry (DTI), with an updated list of its officers;
- 164 c. Photocopy of Business Permit
- 165 d. Photocopy of the Safety Data Sheet (SDS) from the manufacturing firm;
- 166 e. Vinyl Chloride Management Plan
- 167 f. Emergency and Contingency Plan
- 168 g. Photo of storage facility
- 169 h. Notarized certificate of liabilities to compensate damage to life and property
- 170 i. Copy of PCO Accreditation Certificate
- 171 j. Latest Self-Monitoring Report (SMR)
- 172 k. Summary of Importation data
- 173 l. List of Customers/Users
174

175 **4.4. Vinyl Chloride Management Plan**

176 The applicant shall submit the Chemical Management Plan, following the prescribed
177 outline in Annex A, and the chemical's Safety Data Sheet to ensure that vinyl chloride is managed
178 in a manner that will eliminate or minimize its risk to human health and the environment.
179

180 Furthermore, distributors of vinyl chloride are required to have a record of users of their
181 materials.
182

183 **4.5. Labeling Requirements**

184 The applicant shall abide with the following:

- 185 4.5.1. Labeling requirements conforming to the provisions of Globally Harmonized
186 System (GHS) as promulgated by the Bureau in accordance to DAO 2015-009,
187 "Rules and Procedures for the Implementation of GHS of Classification and
188 Labelling of Chemicals in Preparation of Safety Data Sheet (SDS) and Labelling
189 Requirements of Toxic Chemical Substances" and EMB MC 2015-011, "Guidance
190 Manual for DAO 2015-009";
- 191 4.5.2. Storage cabinets, housing specimens and objects suspected of, or known to be
192 contaminated with vinyl chloride shall be labelled with a warning sign that indicates
193 "Vinyl Chloride" and stating its main hazards;

- 194 4.5.3. Waste Labeling shall be in accordance with current procedural manual on
195 hazardous waste management. Vinyl chloride wastes shall be stored in secured
196 places, with provision for appropriate emergency response in case of accidents.
197

198 **4.6. Emergency and Contingency Plan**

199 The applicant shall provide the company's emergency plan in cases of accidents and
200 foreseeable incidents involving vinyl chloride including but not limited to spills, fire, exposure and
201 natural calamities. **The Emergency and Contingency Plan shall be in accordance to Section 8.2 of**
202 **DAO 2013-22 and in relation with Section 8 of the Safety Data Sheet (Exposure controls/Personal**
203 **Protection).**
204

205 **4.7. Manufacturing Requirements**

206 The applicant shall comply with the following:

- 207 4.7.1. Management Operation Flow Chart and process description where vinyl chloride is
208 used. All necessary measures and procedures by means of engineering controls,
209 work practices and hygiene facilities and practices to reduce the dispersion of vinyl
210 chloride into the environment and to minimize employee exposure to vinyl
211 chloride;
212
- 213 4.7.2. Provision of appropriate personal protective equipment (PPE) to workers. Proper
214 PPEs should be used when handling vinyl chloride. Some examples of protective
215 clothing and equipment that may be necessary includes, but are not limited to,
216 gloves, aprons, coveralls, foot coverings and goggles. (refer also to the Safety Data
217 Sheet (SDS) of the chemical);
218
- 219 4.7.3. Establish a regulated area wherever an employee's exposure to airborne
220 concentrations of vinyl chloride is high and shall ensure that said areas are
221 demarcated from the rest of the workplace in a manner that adequately establishes
222 and alerts employees of the boundaries of the regulated area;
223
- 224 4.7.4. Appropriate environmental permits or requirement such as Discharge Permit (RA
225 9275), Permit to Operate (RA 8749), DENR Hazardous Waste Generator's ID
226 (RA 6969 Title III), and Environmental Compliance Certificate (ECC) (PD 1586);
227 and other environmental permits/clearances.
228

229 **4.8 Training Requirements**

- 230
- 231 4.8.1. Regular basic awareness, knowledge and training of employees and industrial users
232 shall be conducted for appropriate work practices to minimize the risk of exposure
233 to vinyl chloride during production or on the risks and hazard potentials involved
234 in the storage, handling, use, manufacture, transport and/or disposal of generated
235 wastes of vinyl chloride. The following documents/records shall be submitted:
236 a. Copies of training certificates or training modules on vinyl chloride
237 b. PCO accreditation certificate
238

239 **4.9. Handling and Storage Requirements**

240 The applicant shall comply with the following:

- 241 4.9.1 Proper inventory, stacking/stockpiling and security practices;
242
- 243 4.9.2 Available and accessible SDS at all times;
244
- 245 4.9.3 Adequate and secure storage facility with proper labeling, signage and
246 compatibility with other chemicals and safety equipment; and
247
- 248 4.9.4 Maintenance of storage records and packaging.
249

250 **4.10. Transport, Treatment, Storage and Disposal (TSD) Requirements**

251 All hazardous waste generators, transporters and TSD facilities must comply with the
252 current procedural manual on hazardous waste management.

253 **4.11. Substitution and Phase-out Plan**

254 The Department through the Bureau may develop a phase-out plan for uses of vinyl
255 chloride. Such phase-out plan will be for consultation to related stakeholders and agencies.
256

257 **Section 5 PREVIOUS COMPLIANCE WITH PRIORITY CHEMICALS LIST (PCL)**

258 Prior to the issuance of this Order, vinyl chloride is listed under the PCL pursuant to DENR
259 Administrative Order Nos. 1998-58 and 2005-27. All these regulated chemicals listed in PCL are
260 required to comply with DENR Administrative Order No. 2007-23 as part of the requirements for
261 registration. Applicant shall submit proof of its compliance through the submission of its PCL
262 Compliance Certificate for vinyl chloride.
263

264 **Section 6 INFORMATION, EDUCATION AND COMMUNICATION (IEC)**

265 The Department, through the Bureau, in collaboration with the industry, concerned
266 government agencies, the academe and the non-government organizations, shall promote industrial
267 compliance and public awareness on this Order's requirements and on the hazards posed by the
268 use and release of vinyl chloride in the workplace and into the environment.
269

270 The proper handling and disposal of vinyl chloride shall be included in the information
271 dissemination in order to highlight such safety protocol.
272

273 **Section 7 PUBLIC ACCESS TO RECORDS AND CONFIDENTIAL BUSINESS 274 INFORMATION (CBI)**

275 The public shall have access to records, reports or information obtained by the DENR upon
276 request pursuant to this Order, in accordance with Section 12 of RA 6969 except information
277 regarding trade secrets (formulations), sales figures, methods of production or industrial processes
278 and distributions that would adversely affect the competitive position of such importers,
279 manufacturers and industrial users.
280

281 Exemptions to this "no disclosure of information" shall be made subject to the conditions
282 of Section 40 of the IRR of RA 6969 or other applicable laws and regulations.
283

284 **Section 8 COMPLIANCE MONITORING PROCEDURE**

285 The EMB Regional Offices shall monitor compliance based on duly accomplished and
286 submitted Self-Monitoring Report (SMR) per DAO No. 27, series of 2003 and the EMB-CO shall
287 integrate the regional monitoring report for management action. In any complaints of non-
288 compliance, sampling and testing, if necessary, shall be made using a method that conforms to
289 international and/or national standards.
290

291 **Section 9 REVISION OF REQUIREMENTS**

292 The Department may amend, modify, and/or supplement the requirements and standards
293 in this Order after prior consultation with the stakeholders and after due notice and hearing with
294 the public on matters to be revised. The Bureau Director may issue clarificatory guidelines, if
295 necessary.
296
297
298
299
300
301
302
303
304
305
306
307

308 **Section 10 CAPACITY BUILDING**

309

310 The EMB Central Office shall develop and conduct continuing training program for both
311 regulated community and regulators to ensure proper compliance of this Order.

312

313 **Section 11 LIABILITY**

314

315 The Secretary or his duly authorized representative may cause the impoundment or
316 confiscation of any chemical substance and its conveyance and container if there is reasonable
317 ground to believe that the sale, storage, possession, use, manufacture, transport, import for the
318 chemical substance does not comply with this CCO following the guidelines under EMB MC
319 2020-12. Any importer or distributor selling to non-authorized persons or end-users shall be held
320 liable under RA 6969.

321

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

329

330 **Section 12 PENALTY PROVISION**

331

332 Any violation of the requirements specified in this Order shall subject the person(s) liable
333 thereof to the applicable administrative and criminal sanction as provided for under Section 14 of
334 RA 6969, Sections 41 and 43 of DAO 1992-29 and DENR Memorandum Circular No. 2005-003
335 (Prescribing Graduated Administrative Fines Pursuant to Republic Act No. 6969 and DENR
336 Administrative Order No. 29, Series of 1992).

337

338 **Section 13 SEPARABILITY CLAUSE**

339

340 Should any provisions or portion of this Order be declared unconstitutional or invalid, all
341 the other provisions of this Order shall remain valid and enforceable.

342

343 **Section 14 REPEALING CLAUSE**

344

345 All other existing orders and related issuances inconsistent with this Order shall be repealed
346 and modified accordingly.

347

348 **Section 15 EFFECTIVITY**

349

350 This Administrative Order shall take effect fifteen (15) days after its publication in a
351 newspaper of general circulation and upon acknowledgment of receipt of a copy hereof by the
352 Office of the National Administrative Register (ONAR), UP Law Center.

353

354

355

356

357

358

359

360 Recommending Approval:

361

362

363 **ENGR. WILLIAM P. CUÑADO**

364 EMB Director

ROY A. CIMATU

Secretary

VINYL CHLORIDE MANAGEMENT PLAN OUTLINE

This Outline serves as a guideline for the company's Management Plan. The details of the management plan will vary depending on the type or premises and the type of activity that is being conducted with a timetable for completion of particular actions.

I. STRUCTURE AND RESPONSIBILITIES / ACCOUNTABILITIES

- a. Management (e.g. CEO, Line Managers, Supervisors)
- b. Safety Officers and Pollution Control Officers
- c. Emergency Response Team
- d. Production Operators
- e. Drivers

II. PROCESS DESCRIPTION WHERE VINYL CHLORIDE IS USED**III. TRANSPORT**

- a. Transport procedure within the facility
- b. Transport procedure outside the facility
 - (i) Labeling
 - (ii) Documents necessary during transport (e.g. SDS, relevant permits)
 - (iii) Safety equipment/PPEs on board (e.g. fire extinguisher, mask)

IV. STORAGE

- a. Storage specification
 - (i) Stacking
 - (ii) Storage temperature / ventilation
 - (iii) Security
 - (iv) Storage compatibility with other chemicals
 - (v) Packaging
- b. Safety
 - (i) Emergency Equipment (e.g. fire extinguishers, emergency shower, emergency eyewash, vacuum, etc.)
 - (ii) Signage/Labeling.
 - (iii) Containment

V. HANDLING

- a. Personal Protective Equipment.
- b. Production Equipment using lead (general description).
 - (i) equipment maintenance (e.g. filter cleaning, exhaust check)
- c. Handling procedure / precautions
- d. Inventory

VI. DISPOSAL

- a. Waste handling

- 420 b. Waste storage
- 421 c. Waste inventory / tracking
- 422 d. Transport
- 423 e. Treatment (on-site)
- 424 f. Treatment (3rd party)

425

426 **VII. SUBSTITUTION AND PHASE-OUT PLAN**

427

- 428 a. Alternatives
- 429 b. Phase Out Timelines

430

431 **VIII. CONTINGENCY PLAN**

432

- 433 a. Spills / leaks
- 434 b. Contact (inhalation, ingestion, contact)
- 435 c. Remediation plan/clean-up plan in case of environmental contamination to restore
- 436 damaged areas; The company shall be responsible for all costs of managing Vinyl
- 437 Chloride including the use, storage, handling, disposal and clean-ups.

438

439 **IX. RECORDS**

440

- 441 a. Inventory reports
- 442 b. Training Records of personnel
- 443 c. Medical Surveillance Report
- 444 d. Record of Transport and Treatment
- 445 e. Waste water/Ground water analysis
- 446 f. Accident / Incident reports