



west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street SE
Charleston, WV 25304
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Harold D. Ward, Cabinet Secretary
dep.wv.gov

**CONSENT ORDER
ISSUED UNDER THE
WATER POLLUTION CONTROL ACT
WEST VIRGINIA CODE CHAPTER 22, ARTICLE 11**

TO: Union Carbide Corporation
Washington Street Building 1790
Midland, MI 48674

DATE: July 29, 2021
ORDER NO.: 9994

INTRODUCTION

This Consent Order is issued by the Director of the Division of Water and Waste Management (hereinafter “Director”), under the authority of West Virginia Code 22-11-1 et seq. to Union Carbide Corporation (hereinafter “Union Carbide”).

FINDINGS OF FACT

In support of this Order, the Director hereby finds the following:

1. Union Carbide operates and maintains the closed former Filmont Landfill located in South Charleston, Kanawha County, West Virginia.
2. On October 28, 2020, West Virginia Department of Environmental Protection (WVDEP) personnel conducted an inspection of the outer perimeter of the facility. During the inspection, a violation of the following section of West Virginia State Code was observed and documented:
 - a. 22-11-8(b)(1) – Union Carbide discharged industrial waste, or the effluent therefrom, into waters of the State without authorization pursuant to a valid WV/NPDES permit. Specifically, wastes were discharging directly and indirectly via seeps and pipes from the Filmont Landfill into Ward Branch.

As a result of this inspection, Notice of Violation (NOV) No. W20-20-100701-CEW was issued to Union Carbide. In response to the NOV, Union Carbide maintains that the

violation is alleged, and Union Carbide does not admit to the factual and legal determinations made by the Director and reserves all rights and defenses available regarding liability or responsibility in any proceedings regarding Union Carbide other than proceedings, administrative or civil, to enforce this Order.

3. On November 30, 2020 Union Carbide provided a preliminary response to the NOV requesting additional time to evaluate the allegations and representing that the following actions were taken by Union Carbide:
 - a. On November 5, 2020 Union Carbide inspected the area of alleged pipe discharges and walked the entire perimeter to investigate the presence of any seeps.
 - b. On November 10, 2020 Union Carbide conducted camera inspection of the pipes, which confirmed that the pipes were not connected to any collection system. Union Carbide represented that the pipes appear to be landfill debris.
 - c. On November 12, 2020 Union Carbide monitored the pipes during a rain storm with no discharges observed from the pipe.
 - d. On November 25, 2020 Union Carbide installed inflatable pipe-plugs to prevent any potential discharges from the pipes identified in the NOV.
4. On December 8, 2020, Unilateral Order No. 9943 was issued to Union Carbide in response to the aforementioned violation.
5. On January 7, 2021, Union Carbide appealed Unilateral Order No. 9943 to the West Virginia Environmental Quality Board (EQB). A motion for a stay of the order was filed with the appeal.
6. On February 1, 2021, the EQB issued an Order granting the motion for a stay of certain terms and conditions of Order 9943. The Order allowed an additional thirty (30) day extension of the stay, provided that Union Carbide conducted sampling as required by the Order.
7. On February 2, 2021, the WVDEP Division of Land Restoration (DLR) received Union Carbide's application for entry into the Voluntary Remediation Program (VRP) for the aforementioned site. The application was assigned Project No. 21022.
8. On February 23, 2021, WVDEP and Union Carbide personnel conducted required sampling, as outlined in the EQB Order.
9. On March 25, 2021, WVDEP DLR proposed an extension of the timeframe for acting upon Union Carbide's VRP application until June 23, 2021. The extension was requested to provide time for resolving issues surrounding Order 9943 in such a way that the site would become eligible for participation in the VRP.
10. On April 8, 2021, the EQB issued an Order which provided a stay of Unilateral Order No. 9943 until the resolution of the appeal.
11. On April 26, 2021, WVDEP personnel and representatives of Union Carbide conducted a site visit. During the site visit, Union Carbide representatives stated that a full

investigation of the seep associated with the Filmont Landfill had not been completed, and the role of the adjacent highway property as a source had not been determined. WVDEP personnel observed and documented active flow during the site visit, and WVDEP maintains that the identified seeps originated from the Filmont Landfill and are discharging pollutants into waters of the State. Union Carbide maintains that the discharges are alleged, and Union Carbide does not admit to the factual and legal determinations made by the Director and reserves all rights and defenses available regarding liability or responsibility in any proceedings regarding Union Carbide other than proceedings, administrative or civil, to enforce this Order.

12. On June 16, 2021, WVDEP personnel received correspondence from Union Carbide, which represented that no discharge from Union Carbide property (seep) has been directly sampled during the timeframe documented herein.

ORDER FOR COMPLIANCE

Now, therefore, in accordance with West Virginia State Code 22-11-1 et seq., it is hereby agreed between the parties, and ORDERED by the Director:

1. Union Carbide shall immediately take all measures to initiate compliance with all pertinent laws and rules.
2. Within sixty (60) days of the effective date of this Order, should Union Carbide be accepted into the WVDEP Division of Land Restoration VRP, proper remediation of the aforementioned site shall be achieved in accordance with the requirements of West Virginia Code, Chapter 22, Article 22, Section 1 et seq., the Voluntary Remediation and Redevelopment Act, and WV Legislative Rule 60CSR3, the Voluntary Remediation and Redevelopment Rule, such that the site meets applicable standards, and a Certificate of Completion shall be requested from the WVDEP Secretary. Should Union Carbide be denied entry into the VRP, fail to adhere to the schedule established in the Voluntary Remediation Agreement or any subsequent modifications, withdraw from VRP enrollment, or otherwise fail to successfully complete the requirements of the VRP, Union Carbide shall be required to submit an approvable alternative remediation plan and schedule within sixty (60) days. The remediation plan and schedule shall include action items and completion dates for how and when Union Carbide will achieve compliance with all pertinent laws and rules.
3. Within sixty (60) days of the effective date of this Order, Union Carbide shall sample the seep originally identified in the aforementioned NOV (No. W20-20-100701-CEW) and the seep identified in the northern drainage ditch. Sample analyses shall include all parameters listed in Appendix C of WV Legislative Rule 47CSR10 (attached).
4. Within thirty (30) days of receiving the sample results described in Order for Compliance Item No. Three (3), Union Carbide shall submit all sample results to WVDEP for review. Should the WVDEP determine that the sample results reflect that any pollutants are present in either seep, Union Carbide shall submit an approvable plan and schedule with

detailed provisions for either applying for a WV/NPDES permit or ceasing the discharge within thirty (30) days of notification by WVDEP.

5. Upon the effective date of this Order, Union Carbide will withdraw the appeal of Unilateral Order No. 9943.
6. Upon its effective date, this Order will supersede Unilateral Order No. 9943.
7. Upon approval by WVDEP, any plan required by this Order shall be incorporated into and become part of this Order, as if fully set forth herein. Failure to submit any approvable plan required by this Order or failure to adhere to any approved plan is a violation of this Order.

All documents required by this Order shall make reference to Order No. 9994 and shall be submitted to:

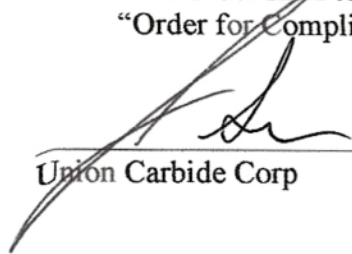
Chief Inspector
Environmental Enforcement - Mail Code #031328
WVDEP
601 57th Street SE
Charleston, WV 25304

OTHER PROVISIONS

1. Union Carbide hereby waives its right to appeal this Order under the provisions of West Virginia State Code 22-11-21. Under this Order, Union Carbide agrees to take all actions required by the terms and conditions of this Order and consents to and will not contest the Director's jurisdiction regarding this Order. However, Union Carbide does not admit to any factual and legal determinations made by the Director and reserves all rights and defenses available regarding liability or responsibility in any proceedings regarding Union Carbide other than proceedings, administrative or civil, to enforce this Order.
2. The Director reserves the right to take further action if compliance with the terms and conditions of this Order does not adequately address the violations noted herein and reserves all rights and defenses which he may have pursuant to any legal authority, as well as the right to raise, as a basis for supporting such legal authority or defenses, facts other than those contained in the Findings of Fact.
3. If any event occurs which causes delay in the achievement of the requirements of this Order, Union Carbide shall have the burden of proving that the delay was caused by circumstances beyond its reasonable control which could not have been overcome by due diligence (i.e., force majeure). Force majeure shall not include delays caused or contributed to by the lack of sufficient funding. Within three (3) working days after Union Carbide becomes aware of such a delay, notification shall be provided to the Director/Chief Inspector and Union Carbide shall, within ten (10) working days of initial notification, submit a detailed written explanation of the anticipated length and cause of the delay, the measures taken and/or to be taken to prevent or minimize the delay, and a

timetable by which Union Carbide intends to implement these measures. If the Director agrees that the delay has been or will be caused by circumstances beyond the reasonable control of Union Carbide (i.e., force majeure), the time for performance hereunder shall be extended for a period of time equal to the delay resulting from such circumstances. A force majeure amendment granted by the Director shall be considered a binding extension of this Order and of the requirements herein. The determination of the Director shall be final and not subject to appeal.

4. Compliance with the terms and conditions of this Order shall not in any way be construed as relieving Union Carbide of the obligation to comply with any applicable law, permit, other order, or any other requirement otherwise applicable. Violations of the terms and conditions of this Order may subject Union Carbide to additional penalties and injunctive relief in accordance with the applicable law.
5. The provisions of this Order are severable and should a court or board of competent jurisdiction declare any provisions to be invalid or unenforceable, all other provisions shall remain in full force and effect.
6. This Order is binding on Union Carbide, its successors and assigns.
7. This Order shall terminate upon Union Carbide's notification of full compliance with the "Order for Compliance" and verification of this notification by WVDEP.


James Sprague
Union Carbide Corp

8/03/2021
Date

Public Notice begin:

Date

Public Notice end:

Date

Katheryn Emery, P.E., Acting Director
Division of Water and Waste Management

Date

Appendix C -- Permit Testing Requirements

Table I -- Testing Requirements for Organic Pollutants by Industrial Category for Existing Dischargers

Industrial category	GC/MS fraction 1			
	Volatile	Acid	Base/ neutral	Pesticide
Adhesives and Sealants	(*)	(*)	(*)
Aluminum Forming	(*)	(*)	(*)
Auto and Other Laundries	(*)	(*)	(*)	(*)
Battery Manufacturing	(*)	(*)
Coil Coating	(*)	(*)	(*)
Copper Forming	(*)	(*)	(*)
Electric & Electronic Components	(*)	(*)	(*)	(*)
Electroplating	(*)	(*)	(*)
Explosives Manufacturing	(*)	(*)
Foundries	(*)	(*)	(*)
Gun and Wood Chemicals	(*)	(*)	(*)	(*)
Inorganic Chemicals Manufacturing	(*)	(*)	(*)
Iron & Steel Manufacturing	(*)	(*)	(*)
Leather Tanning and Finishing	(*)	(*)	(*)	(*)
Mechanical Products Manufacturing	(*)	(*)	(*)
Nonferrous Metals Manufacturing	(*)	(*)	(*)	(*)
Ore Mining	(*)	(*)	(*)	(*)
Organic Chemicals Manufacturing	(*)	(*)	(*)	(*)
Paint and Ink Formulation	(*)	(*)	(*)	(*)
Pesticides	(*)	(*)	(*)	(*)
Petroleum Refining	(*)	(*)	(*)	(*)
Pharmaceutical Preparations	(*)	(*)	(*)
Photographic Equipment & Supplies	(*)	(*)	(*)	(*)
Plastic and Synthetic Materials Manufacturing	(*)	(*)	(*)	(*)
Plastic Processing	(*)
Porcelain Enameling	(*)	(*)	(*)
Printing and Publishing	(*)	(*)	(*)	(*)
Pulp and Paper Mills	(*)	(*)	(*)	(*)
Rubber Processing	(*)	(*)	(*)
Soap and Detergent Manufacturing	(*)	(*)	(*)
Steam Electric Power Plants	(*)	(*)	(*)
Textile Mills	(*)	(*)	(*)	(*)
Timber Products Process Processing	(*)	(*)	(*)	(*)

1 The toxic pollutants in each fraction are listed in Table II

* Testing required.

Appendix C - Continued

Table II -- Organic Toxic Pollutants in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS)

Volatiles

1V	acrolein
2V	acrylonitrile
3V	benzene
5V	bromoform
6V	carbon tetrachloride
7V	chlorobenzene
8V	chlorodibromomethane
9V	chloroethane
10V	2-chloroethylvinyl ether
11V	chloroform
12V	dichlorobromomethane
14V	1,1-dichloroethane
15V	1,2-dichloroethane
16V	1,1-dichloroethylene
17V	1,2-dichloropropane
18V	1,2-dichloropropylene
19V	ethylbenzene
20V	methyl bromide
21V	methyl chloride
22V	methylene chloride
23V	1,2,2,2-tetrachloroethane
24V	tetrachloroethylene
25V	toluene
26V	1,2-trans-dichloroethylene
27V	1,1,1-trichloroethane
28V	1,1,2-trichloroethane
29V	trichloroethylene
31V	vinyl chloride

Acid Compounds

1A	2-chlorophenol
2A	2,4-dichlorophenol
3A	2,4-dimethylphenol
4A	4,6-dinitro-o-cresol
5A	2,4-dinitrophenol
6A	2-nitrophenol
7A	4-nitrophenol
8A	p-chloro-m-cresol
9A	pentachlorophenol
10A	phenol
11A	2,4,6-trichlorophenol

Appendix C - Continued

Base/Neutral

1B	acenaphthene
2B	acenaphthylene
3B	anthracene
4B	benzidine
5B	benzo(a)anthracene
6B	benzo(a)pyrene
7B	3,4-benzofluoranthene
8B	benzo(ghi)perylene
9B	benzo(K)fluoranthene
10B	bis(2-chloroethoxy)methane
11B	bis(2-chloroethyl)ether
12B	bis(2-chloroisopropyl)ether
13B	bis(2-ethylhexyl)phthalate
14B	4-bromophenyl phenyl ether
15B	butylbenzyl phthalate
16B	2-chloronaphthalene
17B	4-chlorophenyl phenyl ether
18B	chrysene
19B	dibenzo(a,h)anthracene
20B	1,2-dichlorobenzene
21B	1,3-dichlorobenzene
22B	1,4-dichlorobenzene
23B	3,3'-dichlorobenzidine
24B	diethyl phthalate
25B	dimethyl phthalate
26B	di-n-butyl phthalate
27B	2,4-dinitrotoluene
28B	2,6-dinitrotoluene
29B	di-n-octyl phthalate
30B	1,2-diphenylhydrazine (as azobenzene)
31B	fluoranthene
32B	fluorene
33B	hexachlorobenzene
34B	hexachlorobutadiene
35B	hexachlorocyclopentadiene
36B	hexachloroethane
37B	indeno(1,2,3-cd)pyrene
38B	isophorone
39B	naphthalene
40B	nitrobenzene
41B	N-nitrosodimethylamine
42B	N-nitrosodi-n-propylamine
43B	N-nitrosodiphenylamine
44B	phenanthrene
45B	pyrene
46B	1,2,4-trichlorobenzene

Appendix C - Continued

Pesticides

1P	aldrin
2P	alpha-BHC
3P	beta-BHC
4P	gamma-BHC
5P	delta-BHC
6P	clordane
7P	4,4'-DDT
8P	4,4'-DDE
9P	4,4'-DDD
10P	dieldrin
11P	alpha-endosulfan
12P	beta-endosulfan
13P	endosulfan sulfate
14P	endrin
15P	endrin aldehyde
16P	heptachlor
17P	heptachlor epoxide
18P	PCB-1242
19P	PCB-1254
20P	PCB-1221
21P	PCB-1232
22P	PCB-1248
23P	PCB-1260
24P	PCB-1016
25P	toxaphene

Table III -- Other Toxic Pollutants: Metals, Cyanide, and Total Phenols

Antimony, Total
 Arsenic, Total
 Beryllium, Total
 Cadmium, Total
 Chromium, Total
 Copper, Total
 Lead, Total
 Mercury, Total
 Nickel, Total
 Selenium, Total
 Silver, Total
 Thallium, Total
 Zinc, Total
 Cyanide, Total
 Phenols, Total

Appendix C - Continued**Table IV -- Conventional and Nonconventional Pollutants required to be Tested
by Existing Dischargers If Expected to be Present**

Bromide
 Chloride
 Chlorine, Total Residual
 Color
 Fecal Coliform
 Fluoride
 Nitrate-Nitrite
 Nitrogen, Total Organic
 Oil and Grease
 Phosphorus, Total
 Radioactivity
 Sulfate
 Sulfide
 Sulfite
 Surfactants
 Aluminum, Total
 Barium, Total
 Boron, Total
 Cobalt, Total
 Iron, Total
 Magnesium, Total
 Molybdenum, Total
 Manganese, Total
 Tin, Total
 Titanium, Total

**Table V – Toxic Pollutants and Hazardous Substances Required to be Identified
by Existing Dischargers if Expected to be Present****Toxic Pollutants**

Asbestos

Hazardous Substances

Acetaldehyde
 Allyl alcohol
 Allyl chloride
 Amyl acetate
 Aniline
 Benzonitrile
 Benzyl chloride
 Butyl acetate
 Butylamine
 Captan

Appendix C - Continued

Carbaryl	Furfural
Carbofuran	Guthion
Carbon disulfide	Isoprene
Chlorpyrifos	Isopropanolamine
Coumaphos	Kelthane
Cresol	Kepone
Crotonaldehyde	Malathion
Cyclohexane	Mercaptodimethur
Strychnine	Methoxychlor
Cyclohexane	Methyl mercaptan
2,4-D(2,4-Dichlorophenoxy acetic acid)	Methyl methacrylate
Diazinon	Methyl parathion
Dicamba	Mevinphos
Dichlobenil	Mexacarbate
Dichlone	Monoethyl amine
2,2-Dichloropropionic acid	Monomethyl amine
Dichlorvos	Naled
Diethyl amine	Napthenic acid
Dimethyl amine	Nitrotoluene
Dinitrobenzene	Parathion
Diquat	Phenolsulfanate
Disulfoton	Phosgene
Diuron	Propargite
Epichlorohydrin	Propylene oxide
Ethanolamine	Pyrethrines
Ethion	Quinoline
Ethylene diamine	Resorcinol
Ethylene dibromide	Strontium
Formaldehyde	