



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



# Training Guidance

## for the Management of **Medical Waste** during the COVID-19 Outbreak in China

► RESEARCH RESULTS OF FOREIGN  
ENVIRONMENTAL COOPERATION  
CENTER, MINISTRY OF ECOLOGY AND  
ENVIRONMENT OF CHINA

► SERIES OF BOOKS ON THE  
IMPLEMENTATION OF INTERNATIONAL  
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A hand wearing a white nitrile glove is holding a yellow biohazard sharps container. The container has a biohazard symbol and the word 'BIOHAZARD' printed on it. The background is a soft, out-of-focus orange and yellow gradient.

## ACKNOWLEDGEMENTS

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The guidance was compiled under the supervision of FECO (Zhou Guomei and Yu Lifeng), with technical guidance from Ren Yong, Chen Yang, Zheng Yang, Guo Chunxia and Jiang Wenbo.

The editorial board of the Chinese edition is listed in the following page. This English edition was developed based on the original Chinese edition, which was edited by Ren Zhiyuan, Li Qiushuang, Zheng Zhe, Duan Lizhe and Qin Mingyu (executive editors and reviewers) and finally reviewed by Alessandro Flammini (UNIDO Headquarters).

Considerable appreciation is extended to all the above.

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of

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## PREFACE

Medical waste refers to waste with direct or indirect infectivity, toxicity and other hazards produced by medical and health institutions in medical treatment, prevention, health care and other related activities. Standardized management of medical waste is of great significance in providing a high-quality, people-oriented medical service basis, safeguarding effectively people's health and environmental safety, accelerating the construction of ecological civilization and promoting sustainable economic and social development.

2020 has seen the outbreak of a pneumonia epidemic caused by the novel coronavirus (COVID-19) infection and a surge in the amount of medical waste in countries and regions affected by the epidemic. The novel coronavirus has extremely high infectivity. It is therefore crucial to ensure the proper disposal of infectious medical waste and to block effectively the secondary pollution caused by virus transmission, so as to safeguard people's health and safety and win the battle against the pandemic. Ensuring the timely, safe, orderly and efficient disposal of medical waste during the epidemic has become a difficult challenge. In order to further strengthen the standardized management and disposal of medical waste during the epidemic, the Ministry of Ecology and Environment (represented by the Foreign Environmental Cooperation Center (FECO)) and the United Nations Industrial Development Organization (UNIDO) have swiftly cooperated, developed and implemented the Emergency Response Assistance to the Outbreak of Coronavirus Disease 2019 in China, with the support and coordination of the Ministry of Commerce. Under the guidance of the Ministry of Ecology and Environment and with the support of the project, FECO coordinated the National Medical Waste Management Training Base (established by the Shanghai Solid Waste Management Center and Shanghai Solid Waste Disposal Co. Ltd.) to jointly compile and complete the *Training Guidance for the Management of Medical Waste during the COVID-19 Outbreak in China*, which benefited from the expertise of the Technical Center for Solid Waste and Chemicals Management of the Ministry of Ecology and Environment, the Basel Convention Asia Pacific Regional Center (School of Environment, Tsinghua University), the University of Chinese Academy of Sciences, the Henan Ecological Environment Department and other groups.

This Guidance, building upon China's current medical waste management system, combines actual work practices and a series of national measures on medical waste management and emergency response during the epidemic. It covers classified collection and packaging of medical waste, internal transport, temporary storage, handover and registration, disposal, environmental, health and safety (EHS) management, supervision and management within medical institutions, management regulations, management requirements for medical institutions, management requirements for medical waste disposal units, as well as management and disposal cases during the pandemic. The Guidance is also a collection of experiences and wisdom of the cities of Shanghai and Wuhan in the management and disposal of medical waste in the battle against COVID-19.

There are no national boundaries for the virus, and the epidemic endangers all races and nationalities. Mankind is a community with a shared future. Only through solidarity, cooperation and joint response can the international community overcome the epidemic. Solidarity and cooperation are the most powerful weapons. To fight the global war against COVID-19 resolutely, China is ready to share its beneficial practices in epidemic prevention and control with other countries and provide assistance within its capacity to the countries to which the epidemic is spreading. In order to promote the transformation of China's experience in effective disposal and management of infectious medical waste into a powerful tool for other countries, this Guidance was translated into English. In this global battle against the pandemic, it is believed that the publication of this book will contribute to helping mankind to overcome the epidemic.

The compilation of this book is an exploratory work. It is the result of significant joint efforts from all of the editors and reviewers, with generous guidance from relevant leaders and experts. Appreciation is extended to all of them. Due to the lack of time, certain deficiencies in this book are inevitable. Your valuable comments and suggestions are welcomed.

The Writing Group  
May 2020



# CONTENTS

<b>PART ONE Basic Concepts of Medical Waste</b>	<b>7</b>
<b>1 Definition and Overview of Medical Waste</b>	<b>8</b>
1.1 What is the definition of medical waste?	8
1.2 What are the hazards that may be caused by medical waste?	8
1.3 Whom does medical waste harm?	8
1.4 How to classify medical waste?	8
1.5 What are the requirements of WHO for the management of medical waste?	11
1.6 What are the requirements of the Stockholm Convention on persistent organic pollutants for the management of medical waste?	11
1.7 What are the requirements of the Basel Convention for the management of medical waste?	12
1.8 What laws and regulations promulgated in China are related to the management of medical waste ?	12
<b>PART TWO Whole-process Management of Medical Waste</b>	<b>13</b>
<b>2 Classified Collection and Packaging of Medical Waste</b>	<b>14</b>
2.1 Can different types of medical waste be mixed and collected together?	14
2.2 What belongs in high-risk medical waste? How to deal with it before collection?	14
2.3 How shall the medical waste generated by infectious patients be collected?	14
2.4 How shall chemical medical waste be collected and disposed of?	14
2.5 What are the requirements for the frequency and time limit for medical waste collection?	15
2.6 What requirements shall be met by classified collection points for medical waste?	15
2.7 What emergency measures shall be taken when a medical waste accident occurs in medical institutions?	15
2.8 What are the key requirements for packaging containers specific to medical waste?	15
<b>3 Transport and Temporary Storage of Medical Waste within Medical Institutions</b>	<b>16</b>
3.1 What are the requirements for transport time and route of medical waste?	16
3.2 Must the transport tools be specific to medical waste?	16
3.3 What shall be checked before transporting medical waste?	16
3.4 What shall be considered when transporting medical waste?	17
3.5 What are the requirements for the temporary storage facilities and equipment for medical waste?	17
3.6 How shall medical waste be stored if it is difficult to set up an independent temporary storage warehouse for medical waste?	17
3.7 How long is the temporary storage period of medical waste in medical institutions?	17
3.8 What are the requirements for the cleaning and disinfection of temporary storage warehouse for medical waste?	18

<b>4</b>	<b>Handover and Transfer of Medical Waste</b>	<b>18</b>
4.1	How shall medical waste in medical institutions be transferred?	18
4.2	What is the content of medical waste registration (standing book)? How long shall the registration document be kept?	18
4.3	What shall be registered for the handover of medical waste from medical institutions to centralized disposal units?	18
4.4	What requirements shall medical waste transport vehicles meet?	19
4.5	How shall medical waste transport vehicles be equipped?	19
4.6	What are the rules for the cleaning and disinfection of medical waste transport vehicles?	19
4.7	Can medical waste be transported by water/railway/air?	19
<b>5</b>	<b>Medical Waste Disposal</b>	<b>19</b>
5.1	What qualifications shall a centralized disposal unit for medical waste obtain?	19
5.2	What are the disposal methods of medical waste?	20
5.3	What are the principles and characteristics of incineration disposal technology for medical waste?	20
5.4	What are the main points for the operation and management of the incineration facility?	20
5.5	What are the principles and characteristics of autoclave treatment of medical waste?	21
5.6	What are the main points for the operation and management of autoclave treatment facility?	21
5.7	What are the principles and characteristics of chemical disinfection treatment of medical waste?	22
5.8	What are the main points for the operation and management of chemical disinfection treatment facility?	22
5.9	What are the principles and characteristics of microwave disinfection treatment of medical waste?	22
5.10	What are the main points for the operation and management of microwave disinfection treatment facility?	23
5.11	What are the principles and characteristics of high-temperature dry heat treatment of medical waste?	23
5.12	What are the main points for the operation and management of high-temperature dry heat treatment facility?	23
<b>6</b>	<b>EHS Management in Medical Waste Treatment Process</b>	<b>24</b>
6.1	What aspects does EHS management include?	24
6.2	What pollution control standards shall medical waste treatment process meet?	24
6.3	Does the centralized disposal unit for medical waste need to install an automatic monitoring system for pollutant emission?	24
6.4	Is medical waste incineration residue a kind of hazardous waste or general solid waste?	24
6.5	Where shall disposal units for medical waste be set up and what kind of warning symbols shall they carry?	25
6.6	How shall medical waste disposal practitioners carry out occupational health protection?	25
6.7	How shall medical waste collection and transport personnel implement occupational health protection?	25
6.8	How shall medical waste disposal practitioners disinfect themselves, the equipment and the protective tools they use?	25
6.9	What disinfection method shall be used for medical waste transport tools?	29
6.10	What are the roles involved in the supervision and management of medical waste disposal?	26
6.11	How to supervise and inspect medical waste in medical institutions?	26
6.12	How to supervise and inspect centralized medical waste disposal units?	26

## PART THREE Management of Medical Waste during an Epidemic 27

### 7 Regulations on the Management of Medical Waste during an Epidemic 28

- 7.1 What normative documents did China issue on the management of medical waste during the COVID-19 epidemic? 28
- 7.2 How is COVID-19 epidemic-related medical waste defined? 28
- 7.3 How shall the technical route for emergency disposal of medical waste be determined during the COVID-19 epidemic? 28
- 7.4 How to manage and dispose of medical waste in rural areas? 29
- 7.5 What are the special management requirements for the qualification of medical waste disposal facilities during an epidemic? 29
- 7.6 How shall areas with insufficient medical waste disposal capacity manage and dispose of medical waste during an epidemic? 29
- 7.7 How shall medical waste disposal be reported during the coronavirus (COVID-19) epidemic? 29

### 8 Management Requirements for Medical Institutions during an Epidemic 30

- 8.1 How shall the used masks be treated during an epidemic? 30
- 8.2 During an epidemic, is the household garbage at the initial diagnosis isolation point considered medical waste? 30
- 8.3 What are the special requirements for classified collection of medical waste during an epidemic? 30
- 8.4 What are the special requirements for medical waste packaging during an epidemic? 30
- 8.5 What are the special requirements to transport medical waste in medical institutions during an epidemic? 31
- 8.6 What are the special requirements for the temporary storage of medical waste during an epidemic? 31
- 8.7 What are the special requirements for medical waste accounting during an epidemic? 31
- 8.8 What are the requirements for temporary hospitals to build temporary storage warehouses during an epidemic? 32

### 9 Management Requirements for Medical Waste Disposal Units during an Epidemic 32

- 9.1 What are the special requirements for the collection and transport of medical waste during an epidemic? 32
- 9.2 What exemptions can be provided to facilitate emergency disposal of COVID-19-related medical waste? 32
- 9.3 What are the special requirements for the storage time limit of medical waste in centralized disposal units during an epidemic? 32
- 9.4 Is it necessary to set up an isolation area for medical waste disposal during an epidemic? 33

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