

(Translation)

Notification of the Ministry of Public Health

Prescribing Criteria and Conditions on Infectious Waste Hauling and Disposal Services in Tambon Municipality and Tambon Administrative Organization
B.E.2558 (2015)

At present, problems in health-care infectious waste disposal are increasing as infectious waste generating health care establishment is located throughout the country, as well as no provincial administrative organization responsible for localities under jurisdiction of Tambon council anymore, while, at the same time, local government has possessed greater potential and been more prepared to handle infectious waste, in order to effectively monitor infectious waste hauling and disposal services in all localities, it is therefore deemed appropriate to prescribe criteria and conditions emphasizing infectious waste hauling and disposal services in Tambon Municipality and Tambon administrative organization, which must be operated in accordance with the criteria and conditions prescribed in this Notification of the Ministry of Public Health.

By virtue of the provision of Clause 2 (2) of the Ministerial Regulation on Infectious Waste Disposal B.E.2545 (2002) issued by virtue of the Public Health Act B.E.2535 (1992), the Minister of Public Health, by the advice of the Public Health Committee issues this Notification of Ministry of Public Health, as follows.

Clause 1. To repeal the Notification of the Ministry of Public Health on exemption from implementation of regulations on infectious waste hauling and disposal in the locality under jurisdiction of local government in the execution of the Ministerial Regulation on Infectious Waste Disposal B.E.2545 (2002), dated November 10, 2004.

Clause 2. The Notification shall come into force on the date immediately following that of its promulgation in the Government Gazette.

Clause 3. Prescribing that the provisions on infectious waste hauling and disposal shall be implemented in the areas under jurisdiction of Tambon municipality and Tambon administrative organization.

Chapter 1 General Provisions

Clause 4. Prescribing that health-care establishment operators, hazardous disease laboratory operators, and the local government, including persons appointed by the local government to be in charge of infectious waste disposal under its control and supervision in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992), and persons obtaining a license from local officials shall operate infectious waste collection, hauling or disposal as a business or for reciprocal benefits at the fees calculated in accordance with section 19 of the Public Health Act B.E.2535 (1992), as the case may be, as follows:

(1) during infectious waste hauling process, there shall be at least one officer responsible for hauling of infectious waste. The officer must obtain at least a bachelor's degree or its equivalent in either Public Health Science or Sanitary Science programs;

(2) during infectious waste disposal process, there shall be at least two officers responsible for the disposal. One of the officers must be qualified as described in (1), while the other officer must obtain a bachelor's degree or its equivalent in one of the following programs: Sanitary Engineering, Environmental Engineering, or Mechanical Engineering;

(3) in the case both (1) and (2) are operated, there shall be at least two officers responsible for infectious waste hauling and disposal, whose qualifications meet the requirements described in (2).

The provision in paragraph one shall not be implemented on infectious waste hauling and disposal operated by the local government, or public hospital, and public veterinary hospital. The local government, or official hospital and official veterinary hospital shall appoint at least one of its staff who meets the requirements described in (2) to be responsible for infectious waste hauling and disposal, or appoint at least one officer, who has completed infectious waste hauling and disposal handler trainings

within a specific scope of courses and hours prescribed by the Ministry of Public Health, which is attached as an appendix to this Notification.

In the case that two or several local governments are located close to one another, they may cooperatively operate infectious waste hauling and disposal services by appointing at least one internal officer qualified as described in (2) to be responsible for infectious waste hauling and disposal services, or may appoint at least one internal officer who has attended in the infectious waste hauling and disposal handler trainings within a specific scope of courses and hours prescribed by the Ministry of Public Health, which is attached as an appendix to this Notification.

A qualified third party may be appointed to be an officer responsible for infectious waste hauling and disposal services under paragraph one, paragraph two, and paragraph three.

Clause 5. Tambon municipality or Tambon administrative organization may settle a mutual agreement with other local government that operates infectious waste disposal systems and is located in a locality to which provisions on infectious waste hauling and disposal already applied. In this case, these provisions on infectious waste hauling and disposal shall be implemented to the locality.

Clause 6. In order to operate infectious waste hauling and disposal services in public health-care establishment, and public veterinary hospital, or private hazardous disease laboratory, the health-care establishment operators, or hazardous disease operators shall monitor health-care establishment practitioner, or hazardous disease laboratory practitioner to ensure that they have appointed officers to be responsible for infectious waste hauling and disposal services in accordance with Clause 4 paragraph one (1), (2), or (3), and manage to haul and dispose of generated infectious waste in accordance with criteria and conditions prescribed in Chapter 2 and Chapter 3 of this Notification.

Clause 7. In order to operate infectious waste hauling and disposal services in local government, or public hospital, or public veterinary hospital, the central government, regional government, local government, Thai Red Cross Society, and other government agency which establish public hospitals or public veterinary hospital, as the case may be, shall monitor local officials or public hospital practitioner, or public veterinary hospital practitioner to ensure that they have appointed officers to be responsible for infectious waste hauling and disposal services in accordance with Clause 4 paragraph two, paragraph three, and paragraph four and

manage to haul and dispose of generated infectious waste in accordance with criteria and conditions prescribed in Chapter 2 and Chapter 3 of this Notification.

For infectious waste hauling and disposal services provided by a person appointed by local government to operate infectious waste disposal under the control of the local government in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992), and by a person obtaining a license from local official to operate infectious waste hauling and disposal services as a business or for reciprocal benefits referring to section 19 of the Public Health Act B.E.2535 (1992), the local government or local official, as the case may be, shall monitor the person to ensure that he has appointed officers to be responsible for the duties described in Clause 4 paragraph one (1), (2), or (3), and manage to haul and dispose of generated infectious waste in accordance with criteria and conditions prescribed in Chapter 2 and Chapter 3 of this Notification.

In appointing a person to operate infectious waste disposal services, or issuing a license for a person to operate infectious waste hauling and disposal services, the local government shall designate duration and routes of the operations, including other conditions and procedure that the person is required to follow in the execution of this Notification.

Clause 8. The person appointed by local government to operate infectious waste disposal under the control of the local government in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992), and the person obtaining a license from local official to operate infectious waste collection, hauling, or disposal services as a business or for reciprocal benefits referring to section 19 of the Public Health Act B.E.2535 (1992), as the case may be, shall be responsible for monitoring the operations performed by the officers in charge of infectious waste hauling and disposal services, and manage to haul and dispose of generated infectious waste in accordance with criteria and conditions prescribed in Chapter 2 and Chapter 3 of this Notification.

Clause 9. Prescribing that health-care establishment practitioner, hazardous disease laboratory practitioner, and local official shall be responsible for monitoring its own officers in charge of infectious waste hauling and disposal services, and manage to haul and dispose of infectious waste in accordance with the criteria and conditions prescribed in Chapter 2 and Chapter 3 of this Notification.

Chapter 2
Infectious Waste Hauling

Clause 10. Local government, including the person appointed by local government to operate infectious waste disposal under its control in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992), and the person obtaining a license from local official to operate infectious waste collection, hauling, or disposal services as a business or for reciprocal benefits referring to section 19 of the Public Health Act B.E.2535 (1992), which offer infectious waste hauling service from the waste storage area, health-care establishment, or hazardous disease laboratory, in order to operate infectious waste disposal outside health-care establishment, or hazardous disease laboratory, shall provide:

(1) infectious waste hauling vehicles sufficient to operations or services provided, with specifications as described in Clause 12;

(2) the driver and staff shall possess knowledge about infectious waste by attending the infectious waste hauling and disposal handler trainings within a specific scope of courses and hours prescribed by the Ministry of Public Health, which is attached as an appendix to this Notification;

(3) infectious waste storage containers, which have the same specifications as the infectious waste storage area, shall be wide enough to store infectious waste containers until they are transferred for disposal, and there shall be a permanent warning sign in red color with a clearly visible size, saying "Infectious Waste Container Storage";

(4) for infectious waste collection under (3), there shall be an infectious waste storage area, which can be a room or a separate building with the following specifications:

- a. a specific secure location that affords easy access for staff in charge of handling the infectious waste;
- b. a size appropriate to the quantities of waste produced for at least two days;
- c. its flooring and walls must be flat and easy to clean;
- d. waterspout or drainage that is connected to wastewater treatment system;
- e. allow air and moisture flows;

f. the storage area should be inaccessible for animals and insects and come with a door of which the size is appropriate to the room size or the building size, in order to afford easy access for staff. The door should be possible to lock by a key or other lock methods that shall not enable unauthorized persons to enter;

g. a warning sign in red color with a clearly visible size marked in front of the storage room or building , saying "Infectious Waste Storage Site";

f. a place to clean the cart located close to the infectious waste storage site, with drainage or waterspout to collect wastewater for further wastewater treatment;

In the case that the infectious waste containers have been stored for more than 7 days, the infectious waste storage site under paragraph one shall be managed to control the temperature to within 10 °C.

(5) a specific parking area for infectious waste hauling vehicles shall be wide enough and installed with waterspout or drainage to collect wastewater for further treatment. Maintenance of cleanliness is required regularly.

Clause 11. In order to haul infectious waste from the waste storage site located in health-care establishment or hazardous disease laboratory in order to operate infectious waste disposal outside the health-care establishment, or hazardous disease laboratory, the following hygiene conditions shall be considered:

(1) infectious waste shall be solely hauled by infectious waste hauling vehicles that have specifications as described in clause 10 (1);

(2) infectious waste shall be hauled regularly, according to the provided schedule, by considering quantities of infectious waste and its storage, except only when inevitable.

(3) infectious hauling staff shall perform their duties by following the below hygiene practices.

a. staff must wear personal protective equipment i.e. thick latex gloves, industrial apron, face masks, and boots during the operations. If any part of the body comes into direct contact with infectious waste, the staff shall wash their body or that certain part immediately;

b. infectious waste must be handled with delicacy, without throwing or dragging its containers;

c. if there is breakage or spillage of infectious waste during the operations, it shall not be handled by bare hands, but a gripping plier or thick latex gloves. If it is a liquid waste spill, it should be covered with paper. The infectious spill or paper must

be collected in a new infectious waste container before cleaning the area with disinfectant, followed by a regular floor cleansing.

(4) The driver of infectious waste hauling vehicle and staff shall be vigilant not to drop infectious waste or infectious waste containers during the hauling process.

The infectious waste hauling vehicle shall not be used for other purposes and shall be cleaned and sterilized at least once per week. Except when there is spillage of infectious waste, instant cleaning is required.

Clause 12. Infectious waste hauling vehicle shall meet the following specifications and conditions:

(1) the garbage box body must be opaque and its inside must be padded with durable materials that are easy to clean and leak proof;

(2) if the hauling vehicle have to haul infectious waste from an infectious waste storage site containing the infectious waste for more than 7 days, the infectious waste storage site shall be managed to control the temperature to within 10 °C.

The garbage box body of the vehicle shall be able to control the temperature to within 10 °C and a thermometer must be placed inside to measure and monitor the temperature;

(3) a red message read "For Infectious Waste Only," with a size clearly visible shall be marked on both sides of the garbage box body;

(4) in the case that local government is in charge of infectious waste hauling services, the local government shall be required to display its name in red with a size clearly visible to others at both sides of the garbage box body.

In the case that a person appointed by local government to operate infectious waste disposal under its control in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992) is in charge of infectious waste hauling services, he shall be required to display the name of the appointing local government in red with a size clearly visible to others at both sides of the garbage box body, and a plate with a size clearly visible indicating infectious disposal procedures assigned by the local government, and name, address, telephone number of the person shall be placed inside the infectious waste hauling vehicle, in the area that can be obviously seen by others.

In the case that a person obtaining a license from local official to operate infectious waste collection, hauling, or disposal services as a business or for

reciprocal benefits referring to section 19 of the Public Health Act B.E.2535 is in charge of infectious waste hauling services, he shall be required to display the name of the appointing local government in red with a size clearly visible to others, altogether with a plate of which the size clearly visible, indicating infectious disposal procedures assigned by the local government, and name, address, telephone number of the person at both sides of the garbage box body.

(5) a supply of appropriate personal protective equipment for both driver and staff, equipment or appliances to handle infectious waste leakage and spillage, fire safety equipment, and communications equipment shall be located conveniently within the vehicle at all times during the operation.

Clause 13. In the case that a waste container push cart is utilized to transport infectious waste containers from health-care establishment or hazardous disease laboratory to the disposal site in stead of infectious waste hauling vehicle, the waste container push cart shall at least meet the following specifications and conditions:

(1) made from materials that are easy to clean without viable spots for microbes to exploit and can be cleaned by water;

(2) opaque flooring and nontransparent walls. The lid must be tightly shut to prevent animals and insects when infectious waste containers are placed inside;

(3) a clearly visible message read "Infectious Waste Push Cart. Cannot be Used for Other Activities" in red must be marked on at least two sides;

(4) there shall be a supply of equipment or appliances to handle infectious waste leakage and spillage during transport, altogether with cleaning and sterilization equipment or appliances at all times during the operation.

Clause 14. In the case that a waste container push cart is utilized to transport infectious waste containers from health-care establishment or hazardous disease laboratory to the disposal site instead of infectious waste hauling vehicle, the below hygiene practices shall be followed.

(1) there shall be staff who possess knowledge about infectious waste by attending the infectious waste hauling and disposal staff trainings within a specific scope of courses and hours prescribed by the Ministry of Public Health, which is attached as an appendix to this Notification;

(2) staff must wear personal protective equipment i.e. thick latex gloves, industrial apron, face masks, and boots during the operations. If any part of

the body comes into direct contact with infectious waste, the staff shall wash their body or that certain part immediately;

(3) infectious waste shall be hauled everyday, according to the provided schedule, by considering quantities of infectious waste and its storage, except only when inevitable.

(4) infectious waste containers must be transferred by an infectious waste container push cart that meet the specifications described in Clause 13. However, if the quantity of generated infectious waste is low and not necessary to use the push cart, infectious waste can also be transferred by staff possessing the qualifications described in (1);

(5) optimal routes for infectious waste should be determined. During transporting infectious waste to the infectious waste storage site, the staff are not allowed to stop by or take a break at anywhere;

(6) infectious waste must be handled with delicacy, without throwing or dragging its containers;

(7) if there is breakage or spillage of infectious waste during the operations, it shall not be handled by bare hands, but a gripping plier or thick latex gloves. If it is a liquid waste spill, it should be covered with paper. The infectious spill or paper must be collected in a new infectious waste container before cleaning the area with disinfectant, followed by a regular floor cleansing.

(8) push carts and equipment must be cleaned and sterilized at least once per day. Infectious waste push carts cannot be used for other purposes.

Chapter 3

Infectious Waste Disposal

Clause 14. In order to dispose of infectious waste, below procedures shall be followed.

(1) infectious waste shall be disposed of by any of the disposal procedures described in Clause 16;

(2) infectious waste must be disposed of within the period prescribed by the local government, but not exceed thirty days from the day the waste is

transported from the infectious waste storage site, which is located in health-care establishment or hazardous disease laboratory;

(3) before disposal of infectious waste, the waste shall be collected in infectious waste containers that are stored in an infectious waste container storage of which the specifications are identical to those of the infectious waste storage site under Clause 10 (4). The size of the storage must be wide enough to store infectious waste containers until they are transferred for disposal, and there shall be a warning sign in red color marked in a clearly visible size, saying "Infectious Waste Container Storage";

(4) there shall be staff who possess knowledge about infectious waste by attending the infectious waste hauling and disposal staff trainings within a specific scope of courses and hours prescribed by the Ministry of Public Health, which is attached as an appendix to this Notification;

(5) a supply of appropriate personal protective equipment, equipment or appliances to handle infectious waste leakage and spillage, and fire safety equipment shall be located conveniently in the infectious waste disposal system area;

(6) in the case that health care establishment, hazardous disease laboratory, or authorized persons adopt other infectious waste disposal methods rather than the incineration method under Clause 16 (1), this Notification prescribes that the health care establishment, hazardous disease laboratory, or authorized persons shall assess and analyze the waste conditions according to Clause 18 in order to perform monthly infectious waste standardized criteria inspection. The assessment and analysis outcomes shall be reported to the local government within the fifth day of every month.

Clause 16. Infectious waste disposal methods are as follows:

(1) incineration;

(2) steam sterilization;

(3) dry heat sterilization;

(4) other methods promulgated in the Government Gazette by the Ministry of Public Health;

Clause 17. For infectious waste disposal by incineration, the incinerator must have an infectious waste incineration chamber and a smoking chamber. Infectious waste must be incinerated at a temperature of no less than 760 °C, and no less than 1,000 °C in the smoking chamber. The incinerator must meet the specifications

prescribed or approved by the Public Health Ministry, and there shall be an air pollution control promulgated in the Government Gazette by the Public Health Ministry.

Clause 18. For infectious disposal by steam or dry heat sterilization, or other methods under Clause 16 (2), (3), or (4), it shall be operated to meet bio standardized criteria with proficiency in completely destroying bacteria, fungus, virus, and parasite in the infectious waste.

After infectious waste disposal by using methods described in paragraph one, the bio standardized criteria shall be assessed by analyzing *Bacillus stearothermophilus* or *Bacillus subtilis*, as the case may be, in accordance with criteria and procedure promulgated in the Government Gazette by the Public Health Ministry.

Clause 19. For remainders obtained from infectious waste incineration under Clause 17, or from infectious waste sterilization under Clause 18, the remainders shall be disposed of by using general waste disposal methods, except as otherwise prescribed by the Public Health Ministry.

Chapter 4 Transitory Provisions

Clause 20. Health-care establishment operators, hazardous disease laboratory operators, and the local government, including persons appointed by the local government to be in charge of infectious waste disposal under its control and supervision in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992), and persons obtaining a license from local officials shall operate infectious waste collection, hauling or disposal as a business or for reciprocal benefits referring to section 19 of the Public Health Act B.E.2535 (1992), as the case may be, which have been operating infectious waste disposal services prior to the enforcement of this Notification shall be able to operate infectious waste hauling or disposal services in accordance with their settled employment agreements until the agreements come to an end. However, all the operations shall comply with criteria and conditions prescribed in Chapter 2 and Chapter 3 of this Notification within ninety days, from the day this Notification comes into force and each local government is required to

inform its authorized party of the announcement within sixty days, from the day this Notification comes into force.

Prescribing that the local government, health-care establishment, hazardous disease laboratory shall comply with the criteria and procedure prescribed in this Notification within one hundred eighty days from the date of enforcement of this Notification.

Announced on the 9th Day of September 2015

Piyasakol Sakolsatayadorn

Public Health Minister

**Appendix of Infectious waste handlers training courses attached to the
Notification of Public Health Ministry
Prescribing Criteria and Conditions for Infectious Waste Hauling and
Disposal Services in Tambon Municipality and Tambon Administrative
Organization B.E.2558 (2015)**

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By virtue of the Notification of Public Health Ministry regarding criteria and conditions for infectious waste hauling and disposal services in Tambon municipality and Tambon administrative organization B.E.2558 (2015), it prescribes that Clause 10 (2) driver and staff of infectious waste hauling vehicle, Clause 14 (1) infectious container transporter, and Clause 15 (4) infectious waste disposal handlers shall possess knowledge about infectious waste by attending the infectious waste hauling and disposal staff training within a specific scope of courses and hours prescribed by the Ministry of Public Health. Therefore, infectious waste handlers training courses are outlined as follows:

Clause 1. In this Appendix,

“program” means a training program regarding prevention and control of infection and dangers that may be caused by infectious waste, which is provided for infectious waste handlers. The program comprises of topics, course outline, and duration as described in the table attached to this Notification;

“training agency” means the Department of Health, Health Center no. 1-12, provincial public health office, hospitals established under the Ministry of Public Health (health care establishment, hospital, and community hospital), hospitals established under universities, universities, or other organizations which possess potential to provide training programs and are approved by the Department of Health;

“Infectious waste handlers” means the driver and staff in charge of infectious waste hauling services by using waste hauling vehicles, infectious waste container transporters, and infectious waste disposal staff.

Clause 2. Local government, including the person appointed by local government to operate infectious waste disposal under its control in accordance with section 18 paragraph three of the Public Health Act B.E.2535 (1992), and the person obtaining a license from local official to operate infectious waste collection, hauling, or disposal services as a business or for reciprocal benefits referring to section 19 of

the Public Health Act B.E.2535 (1992), health-care establishment operators, and hazardous disease laboratory operators shall assign their infectious waste handlers to attend trainings regarding prevention and control of infection and dangers that may be caused by infectious waste within a specific scope of courses and hours described in the Appendix.

Clause 3. Infectious waste handlers who successfully complete the training program under Clause 2 shall be awarded a certificate as in Appendix 2.

Schedule for trainings provided for infectious waste handlers

Topic	Objective	Description	Duration
(1) Infectious waste and its effect to health and environment	1) To impart basic knowledge about contagious diseases and disinfection. 2) To impart knowledge about effect of infectious waste disposal to health and environment and how to prevent danger from infectious waste.	1) Effect to health <ul style="list-style-type: none"> • Contagious diseases caused by infectious waste • Disinfection • Health risks and danger that may be caused by infectious waste 2) Effect to environment <ul style="list-style-type: none"> • Water, air, and noise pollution, or dust 	1 hour
(2) Basic knowledge and general principles of infectious waste disposal	1) To impart knowledge about places of origin and types of infectious waste. 2) To impart knowledge about procedures of infectious waste disposal. 3) To impart knowledge about the Ministerial	1) Type of waste and waste sorting in public health service site <ul style="list-style-type: none"> • General waste • Recyclable waste • Hazardous waste • Infectious waste 2) Infectious waste management <ul style="list-style-type: none"> • Origins, type, of infectious waste and segregation • Infectious waste management steps 3) Ministerial Regulation on Infectious Waste Disposal	1 hour

	Regulation on Infectious Waste Disposal B.E.2545 (2002). 4) To impart knowledge about organizations' infectious waste disposal policies.	B.E.2545 (2002) 4) Infectious waste management policies of the organization	
(3) Personal preventive measures for ancillary workers	To prevent danger that may be caused by infectious waste.	Preventive measures: <ul style="list-style-type: none"> • Prevent contagious diseases and promote occupational health • Medical check-up, types of diseases that require to be checked at suitable frequency • Personal protection and appropriate sanitary behaviors • Work and ergonomic environmental effects to health 	1 hour
(4) Waste segregation	To impart knowledge about type-dependent segregation procedures	1) waste segregation procedures 2) waste segregation methods (demonstration and practice lessons)	45 minutes
(5) Infectious waste collection and transfer	1) To impart knowledge about waste container specifications in accordance with	1) Infectious waste collection <ul style="list-style-type: none"> • Specifications of infectious waste containers • Suitable infectious waste collection procedures based 	45 minutes

	<p>sanitary principles.</p> <p>2) To collect and haul infectious waste correctly.</p>	<p>on types and quantities</p> <ul style="list-style-type: none"> • Guidelines to handle spillage and leakage of infectious waste. <p>2) Infectious waste hauling</p> <ul style="list-style-type: none"> • Types of cart • Hauling, loading, and unloading procedures • Hauling by push carts, routes, and schedules • Cleaning of hauling push cart, containers and equipment • Infectious waste collection from infectious waste storage site • Hygiene conditions and cleaning of the infectious waste storage building • Disease-carrying animal and insect control 	
(6) Infectious waste transport guidelines	<p>1) To impart knowledge about infectious waste transport criteria and procedures</p> <p>2) To collect and haul infectious waste correctly.</p>	<p>Driving and infectious waste collection</p> <ul style="list-style-type: none"> • Specifications of infectious waste hauling vehicles • Guidelines in driving and infectious waste collection - Waste collection plan, routes, and duration - Suitable infectious waste container loading and placing, such as loading postures/prohibitions for 	45 minutes

		<p>infectious waste loading</p> <ul style="list-style-type: none"> - Laws and regulations on infectious waste hauling - Guidelines to handle spillage and leakage of infectious waste, or during accidents - Cleaning of equipment and vehicles 	
(7) Infectious waste disposal technologies	<p>1) To impart knowledge about suitable infectious waste disposal</p> <p>2) To correctly apply the knowledge to hospital practices</p>	<p>1) Infectious waste disposal technologies</p> <ul style="list-style-type: none"> • Incineration • Steam sterilization • Dry heat sterilization <p>2) Infectious waste disposal guidelines</p> <ul style="list-style-type: none"> • Correct infectious waste transfer for disposal from infectious waste storage sites • Disposal system control in accordance with guidelines • Fundamental inspection, maintenance, and cleaning of appliances and equipment 	45 minutes

(Official Emblem)

(Training Agency)

has awarded this certificate to certify that

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has successfully completed a training program for workers in charge of
infectious waste hauling and disposal services
in accordance with the Notification of the Ministry of Public Health on

Prescribing Criteria and Conditions on Infectious Waste Hauling and Disposal Services in
Tambon Municipality and Tambon Administrative Organization B.E.2558 (2015)
issued in the execution of the Public Health Act B.E.2535 (1992)

Given on.....

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Position.....

**Appendix of Infectious waste handlers training courses attached to the
Notification of Public Health Ministry
Prescribing Criteria and Conditions for Infectious Waste Hauling and
Disposal Services in Tambon Municipality and Tambon Administrative
Organization B.E.2558 (2015)**

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By virtue of the Notification of Public Health Ministry on prescribing criteria and conditions for infectious waste hauling and disposal services in Tambon municipality and Tambon administrative organization B.E.2558 (2015), Clause 4 paragraph two and paragraph three, it prescribes that there shall be officers responsible for infectious waste hauling and disposal services, who have to complete the training programs for infectious waste hauling and disposal staff within a specific scope of courses and hours prescribed by the Ministry of Public Health. Therefore, infectious waste handlers training courses are outlined as follows:

Clause 1. In this Appendix,

“program” means training programs for officers responsible for infectious waste hauling and disposal services that are designated to be provided for officers of local government, or public hospital, or public veterinary hospital, or in the case that two or several local governments are located close to one another, they may cooperatively operate infectious waste hauling and disposal services by appointing at least one internal officer or one of the officers working in any local government to be responsible for infectious waste hauling and disposal services. The program shall consist of qualifications of attendees and topics, course outline, and duration as described in the table attached to this Notification;

“training agency” means the Department of Health, Health Center no. 1-12, provincial public health office, hospitals established under the Ministry of Public Health (health care establishments, hospitals, and community hospital), hospitals established under universities, universities, or other organizations which possess potential to provide training programs and are approved by the Department of Health;

“officers in charge of infectious waste hauling and disposal services” means officers responsible for infectious waste hauling and disposal services with the duties to monitor infectious waste hauling and disposal service as appointed by an appointment order or assigned to be responsible for monitoring infectious waste hauling and disposal services provided in local government, or public hospital, or public veterinary hospital, or in the case that two or several local governments are located close to one another, they may cooperatively operate infectious waste hauling and disposal services by appointing at least one internal officer or one of the officers working in any local government, whose qualifications meet the requirements for training attendees, to be responsible for infectious waste hauling and disposal services.

“attendees in infectious waste hauling and disposal staff training programs” means

(1) a person responsible for or in charge of infectious waste hauling and disposal services appointed by local government, or public hospital, or public veterinary hospital, or in the case that two or several local governments are located close to one another, they may cooperatively operate infectious waste hauling and disposal services by appointing at least one internal officer or one of the officers working in any local government to be responsible for infectious waste hauling and disposal services.

(2) a person whose name is listed in the appointment order or is appointed to be responsible for monitoring infectious waste hauling and disposal services provided in local government, or public hospital, or public veterinary hospital, or in the case that two or several local governments are located close to one another, they may cooperatively operate infectious waste hauling and disposal services by appointing at least one internal officer or one of the officers working in any local government, whose qualifications meet the requirements for training attendees, to be responsible for infectious waste hauling and disposal services.

(3) qualifications of the training attendees

3.1) government officials or government officers or government employees in the locality of the local government or public hospitals or public veterinary hospital, or in the case that two or several local governments are located close to one another, they may cooperatively operate infectious waste hauling and disposal services by

appointing at least one internal officer or one of the officers working in any local government to be responsible for infectious waste hauling and disposal services;

3.2) bachelor's degree or its equivalent;

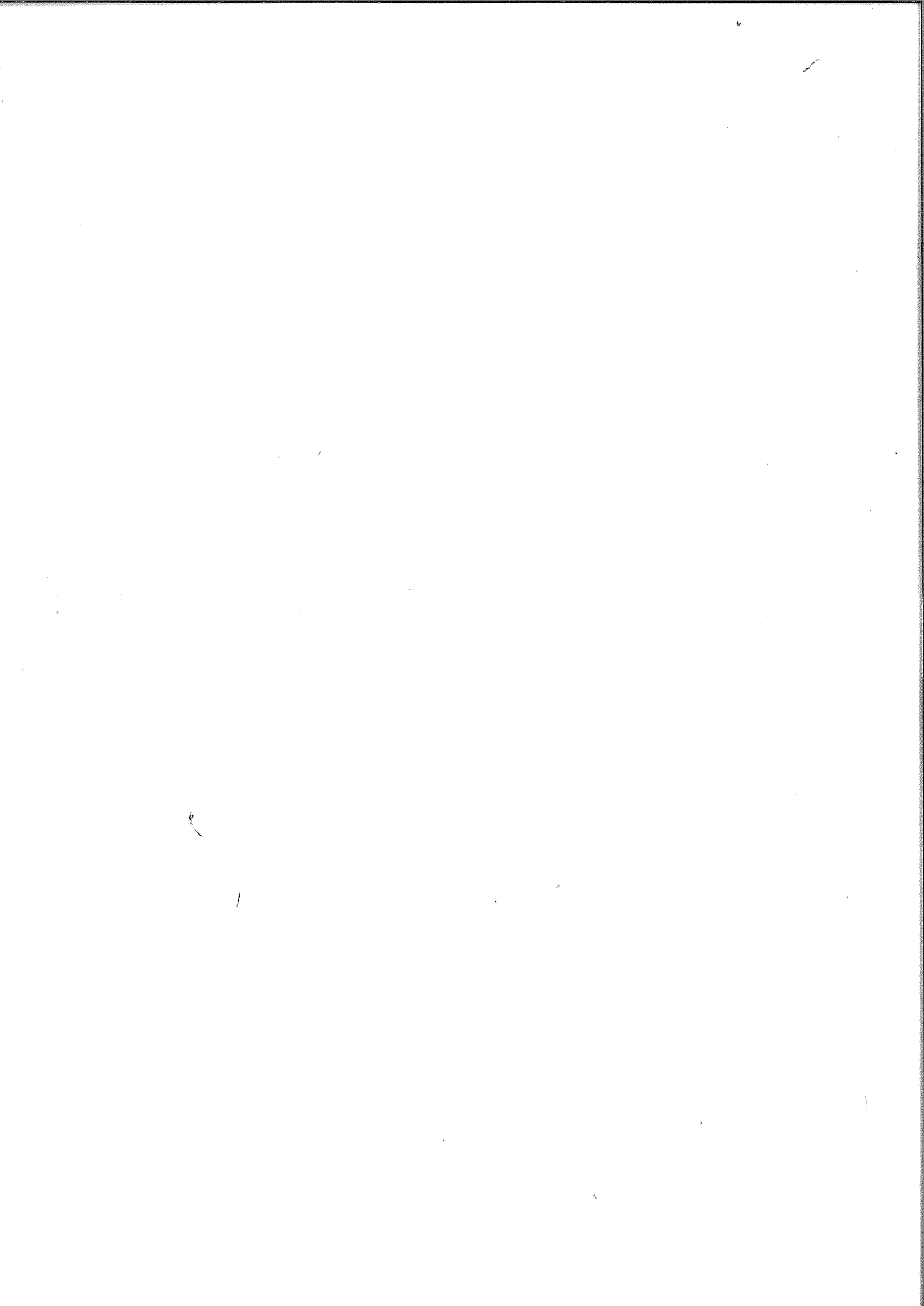
3.3) experience in working in the field of public health or in the field of health for at least 2 years;

Clause 2. In the case that infectious waste hauling and disposal services are operated by local government or public hospital or public veterinary hospital, or in the case that two or several local governments are located close to one another and may cooperatively operate infectious waste hauling and disposal services by appointing at least one internal officer to be in charge of infectious waste and disposal, it prescribes that the organization shall assign its officer in charge of infectious waste hauling and disposal services to attend infectious waste hauling and disposal staff training programs within a specific scope of courses and hours described in Appendix 1.

Clause 3. Officers in charge of infectious waste hauling and disposal services who successfully complete the training programs under Clause 2 shall be awarded a certificate as in Appendix 2.

**Schedule for trainings
provided for infectious waste hauling and disposal staff**

Topic	Objective	Description	Duration
(1) Infectious waste and its effect to health and environment	1) To impart basic knowledge about contagious diseases and disinfection. 2) To impart knowledge about effect of infectious waste disposal to health and environment and how to prevent danger from infectious waste.	1) Effect to health <ul style="list-style-type: none"> • Contagious diseases caused by infectious waste • Disinfection • Health risks and danger that may be caused by infectious waste 2) Effect to environment <ul style="list-style-type: none"> • Water, air, and noise pollution, or dust 	1 hour
(2) Basic knowledge and general principles of infectious waste disposal	1) To impart knowledge about places of origin and types of infectious waste. 2) To impart knowledge about procedures of infectious waste disposal. 3) To impart knowledge about the Ministerial Regulation on Infectious Waste Disposal B.E.2545 (2002). 4) To impart knowledge	1) Type of waste and waste sorting in public health service site <ul style="list-style-type: none"> • General waste • Recyclable waste • Hazardous waste • Infectious waste 2) Infectious waste management <ul style="list-style-type: none"> • Origins, type, of infectious waste and sorting • Infectious waste management steps 3) Ministerial Regulation on Infectious Waste Disposal	1 hour



	about organizations' infectious waste disposal policies.	B.E.2545 (2002) 4) Infectious waste management policies of the office	
(3) Personal preventive measures for ancillary workers	To prevent danger that may be caused by infectious waste.	Preventive measures: <ul style="list-style-type: none"> • Prevent contagious diseases and promote occupational health • Medical check-up, types of diseases that require to be checked at suitable frequency • Personal protection and appropriate sanitary behaviors • Work and ergonomic environmental effects to health 	1 hour
(4) Waste segregation	To impart knowledge about type-dependent segregation procedures	1) waste segregation procedures 2) waste segregation methods (demonstration and practice lessons)	45 minutes
(5) Infectious waste collection and transfer	1) To impart knowledge about waste container specifications in accordance with sanitary principles. 2) To collect and haul infectious waste correctly.	1) Infectious waste collection <ul style="list-style-type: none"> • Specifications of infectious waste containers • Suitable infectious waste collection procedures based on types and quantities • Guidelines to handle spillage and leakage of infectious waste. 2) Infectious waste hauling <ul style="list-style-type: none"> • Types of push cart • Hauling, loading, and 	45 minutes

		<p>unloading procedures</p> <ul style="list-style-type: none"> • Hauling by push carts, routes, and schedules • Cleaning of hauling push cart, containers and equipment • Infectious waste collection from infectious waste storage site • Hygiene conditions and cleaning of the infectious waste storage building • Disease-carrying animal and insect control 	
(6) Infectious waste transport guidelines	<p>1) To impart knowledge about infectious waste transport criteria and procedures</p> <p>2) To collect and haul infectious waste correctly.</p>	<p>Driving and infectious waste collection</p> <ul style="list-style-type: none"> • Specifications of infectious waste hauling vehicles • Guidelines in driving and infectious waste collection - Waste collection plan, routes, and duration - Records and reports of infectious waste quantities collected from infectious waste storage areas located in health-care centers to disposal sites - Suitable infectious waste container loading and placing, such as loading postures/prohibitions for infectious waste loading 	1 hour

		<ul style="list-style-type: none"> - Laws and regulations on infectious waste hauling - Guidelines to handle spills and leaks of infectious waste, or during accidents - Cleaning of equipment and vehicles 	
(7) Infectious waste transport control and monitoring	To be able to control and monitor infectious waste transport in accordance with guidelines and procedures	<p>1) Infectious waste collection and transfer system structure inspection/evaluation</p> <ul style="list-style-type: none"> • Pre-operation assessment/evaluation and outcome reports • Operation assessment/evaluation during the hauling process until reaching the disposal site and outcome report <p>2) Maintenance and infectious waste collection and transport expenses</p> <ul style="list-style-type: none"> • Maintenance operations and expense analysis • Annual maintenance expense forecast • Alternative and durable equipment acquisition plan/project 	1 hour
(8) Infectious waste disposal technologies	<p>1) To impart knowledge about suitable infectious waste disposal</p> <p>2) To correctly apply knowledge to hospital</p>	<p>1) Infectious waste disposal technologies</p> <ul style="list-style-type: none"> • Incineration • Steam sterilization • Dry heat sterilization 	2 hours

	practices	<p>2) Infectious waste disposal and pollution control guidelines</p> <ul style="list-style-type: none"> • Correct infectious waste transfer for disposal from infectious waste storage sites • Disposal system control in accordance with relating laws and guidelines • Durable appliances and equipment assessment and maintenance 	
(9) Infectious waste disposal control and monitoring	To be able to control and monitor waste disposal in accordance with infectious waste disposal criteria and procedure	<p>1) Infectious waste disposal and pollution control system structure assessment/evaluation</p> <ul style="list-style-type: none"> • Pre-operation assessment/evaluation and outcome report • Operation assessment/evaluation during the hauling process until reaching the disposal site and outcome report • Post-operation assessment /evaluation and outcome report <p>2) Maintenance and infectious waste disposal and pollution control expenses</p> <ul style="list-style-type: none"> • Maintenance operations and expense analysis • Annual maintenance expense forecast 	2 hours

		<ul style="list-style-type: none"> • Alternative and durable equipment acquisition plan/project <p>3) Execution of employment contract/management/control</p> <ul style="list-style-type: none"> • Assessment/evaluation of employment contract documents executed with private agencies to operate infectious waste collection, hauling, and disposal services • Monitoring of private agencies in charge of infectious waste collection, hauling, and disposal services in the execution of the employment contract • Evaluation of expenses to be spent on execution of an employment contract with a private agency in infectious waste collection, hauling, and disposal services 	
(10) Field practice in specific responsible area	To increase skills and ability in applying knowledge acquired under topics (1)-(9) in the field practices	Practice in the field and provide operational reports by analyzing/synthesizing/summarizing of issues and improvement guidelines (if any) under topics (1)-(9) and submit to the Department of Health or training agencies approved by the Department of Health within 1 year	6 consecutive months after being trained of topics (1)-(9)

(Official Emblem)

(Training Agency)

has awarded this certificate to certify that

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has successfully completed a training program for workers in charge of
infectious waste hauling and disposal services
in accordance with the Notification of the Ministry of Public Health on

Prescribing Criteria and Conditions on Infectious Waste Hauling and Disposal Services in
Tambon Municipality and Tambon Administrative Organization B.E.2558 (2015)
issued in the execution of the Public Health Act B.E.2535 (1992)

Given on.....

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(.....)

Position.....