

**Ministerial Regulation No. 2, B.E. 2535 (1992)**

**Issued Pursuant to the Factory Act B.E. 2535**

**Translation**

By virtue of the statements in Section 6 and Section 8 (1) (2) (3) (4) (5) (6) and (8) of the Factory Act B.E. 2535, the Minister of Industry issues a ministerial regulation as follows:

**Section 1**

**Location, Environment, Appearance of the Building and Interior of the Factory**

**Article 1**

Group one factory and Group two factory are prohibited to be located in the following areas:

- (1) Allotted houses for residential purposes, residential condominiums, and rowhouses for residential purposes.
- (2) Within the distance of fifty meters from the areas adjacent to public places such as school or educational institution, temple or religious site, hospital, historic site, and working places of the government bodies and this shall include the conservation sources of natural resources and environment prescribed by the Cabinet.

**Article 2**

Group three factory is prohibited to be located in the following areas:

- (1) Allotted houses for residential purposes, residential condominiums, and rowhouses for residential purposes.
- (2) Within the distance of one hundred meters from the areas adjacent to public places such as school or educational institution, temple or religious site, hospital, historic site, and working places of the government bodies and this shall include the conservation sources of natural resources and environment prescribed by the Cabinet.

**Article 3**

Working places of the government places according to Article 1 (2) or Article 2 (2) do not refer to the specific working places for controlling, supervising, facilitating or servicing the operation of particular factories. In case there is a reasonable ground, the Minister may prescribe, upon publication in the Government Gazette, the shortening or expanding of the distance prescribed in Article 1 (2) or Article 2 (2) or not to have the enforcement of Article 1 (2) to any type of factory in accordance with the conditions prescribed.

**Article 4**

Group three factories, apart from being prohibited to be located in the areas according to Article 2, must also be located in a suitable area and environment having enough space for the industrial operation corresponding to the size and type or kind of the factory without causing any harm, disturbances or damage to a person or other person's properties.

**Article 5**

The factory building must:

- (1) be steady, strong, suitable and spacious enough for a particular industrial operation and have a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette;

- (2) have a suitable ventilation system. The space for doors, windows, and vents combined, excluding those adjoining between each room, must not be less than one tenth of the room space, or there is not less than 0.5 cubic meter of air ventilation per minute per worker;
- (3) have enough doors or exits for the number of people in the factory to escape immediately when there is an emergency. There should be at least 2 exits locating at a moderate distance from one another. The door panel should be easy to open. It must not be less than 110 cm. in width and 200 cm. in height. But if the people in the factory must exit through this way more than fifty people, it must be wider at the ratio of not less than 2 cm. per person and there are at least 2 staircases between each floor located at a moderate distance from one another.
- (4) The staircase must be firm and strong and has the character, size, and number suitable for the factory building and the particular industrial operation. The steps must not be slippery and have equal range of space between each step throughout the staircase. The staircase and the passageway floor that are at least 1.50 meters and more from the ground level must have a firm, strong, and suitable railing. However, the Minister may designate, upon publication in the Government Gazette, other components to prevent danger or the exception of the said railing provision.
- (5) A vertical distance between the floor and the ceiling must not be less than 3.00 meters, unless an air-conditioning system or air purification is properly provided but the said vertical distance must not be less than 2.30 meters.
- (6) The floor must be firm, strong, free of water or not slippery that is likely to cause accidents.
- (7) The area or working room must have the working area not less than 3 square meters per person. The calculation of the area shall also include the area to put working desks, machineries, products or materials moving along the production process.
- (8) Materials used for construction must be suitable for the industrial operation according to the size, type or kind of factory, including those that do not cause the spread of fire.
- (9) The lightening conductor is provided as necessary and appropriate.
- (10) The place must be provided for safe storing of materials or things that may easily cause danger or fire.
- (11) In case there is an elevator, the elevator must have a safe part not less than four times of the weight specified, given that one passenger weighs 70 kg., and it must be the kind that is movable only when the door has been closed. It must also have an alarm system when there is any emergency. The elevator must have a clear and obvious sign indicating number of passengers or weights it can carry.
- (12) There is a toilet, urinal, and place for cleaning the body as follows:
  - (a) There is at least one seat for the rate of worker not more than fifteen persons, two seats for not more than forty workers, three seats for not more than eighty workers, and increases from this at the ratio of one seat for not more than fifty workers. For the factory having both male and female workers more than fifteen persons, a separate toilet shall also be provided for the female workers at the ratio specified above.
  - (b) The factory building having people working in many floors, the toilet and urinal must be provided on each floor as necessary and appropriate.
  - (c) The toilet must have the space not less than 0.9 square meters per one seat.

- (d) The toilet of which the urinal must be the kind that the cleaning water flows to a septic tank, the floor must be the type that does not absorb water.
- (e) Toilet paper or cleaning water is provided adequately for every toilet.
- (f) Places for body cleaning together with materials and equipment are provided for the workers as necessary and appropriate.
- (g) The air ventilation is adequately provided for every toilet, urinal, and place for body cleaning.
- (h) Regular cleaning of the toilet, urinal, and place for body cleaning is provided to be in a hygienic condition every day.
- (i) In the factory where consuming products are made, a place for cleaning hands, disinfectant or soap must be hygienically provided and they must be located in a suitable location for at least one place for the worker rate of not more than fifteen persons, two places for not more than forty workers, three places for not more than eighty workers, and increases from this at the ratio of one place per not more than fifty workers.

## **Section 2**

### **Machinery, Equipment or Things Used in the Factory**

#### **Article 6**

The machinery, equipment or things used in the factory must be as follows:

- (1) firm, steady, and suitable and in case there is a reasonable ground, the Minister may prescribe, by publishing in the Government Gazette, the kind of machinery, equipment or things used in the factory that required a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette.
- (2) Use the machine that is safe and does not cause a sound vibration or radio wave to disturb people living nearby.
- (3) Have a device to prevent danger that may occur by the moving part of the machine as necessary and appropriate.
- (4) The open well or tank that works reciprocally with the machine that may be dangerous for the worker's operation must have a strong and safe rim or rail on the side accessible by people at the height of not less than 100 cm. from the floor level connected to such well or tank.
- (5) The boiler, the boiling container using liquid or gas to conduct heat, the compressor or the reactor, and the pipe system of the machine or the container working reciprocally having different pressure from the atmosphere used with the said boiler, the boiling container using liquid or gas to conduct heat, the compressor or the reactor must be designed, calculated, and built according to the recognized standard or have been tested for work safety having a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette. The installation must be firm, steady, and safe for work. There is a safety device and necessary components according to the technical principle having a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette.
- (6) The pressure vessel having different pressure from the atmosphere must be in accordance with the recognized standard. There is safety equipment and necessary components according to the technical principle with a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette.

- (7) The container for hazardous substances such as flammable object, explosives, chemical object or any other liquid that may harm a person, animals, plants, possessions or environment that has the size of the container from twenty-five thousand liters and above must be firm and steady according to the recognized standard having a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette. The dam or concrete wall must be built on all sides at the size capable of confining the entire quantity of the said things, except in the case where there are more than one containers, the dam capable of confining such hazardous substances must be build equivalent to the volume of the biggest tank to efficiently prevent the dissemination of the substance contained in case there is a disaster to such container. There must be a provision of substances or chemical products having proper properties to properly and adequately stop or reduce the severity of the dissemination. In case where such container is located in the open area, there must be a lightening conductor to be in accordance with the technical principle and the container that may cause a static electric charge in itself must be connected to the ground line.
- (8) The crane and hoist and the continuous weight carrying part must be firm and steady having suitable character, size, and quantity and the sign indicating maximum safety weight for carrying the load must be clear and easily seen. There must also be a brake capable of stopping the weight not less than one time of the maximum safety weight. In case of the electric crane and hoist, there must be equipment for stopping, lifting and cutting the electrical current when lifting the weight to the maximum position specified.
- (9) The conveyer of which the conveyor belt passes above the area where there are people working or the passageway must have a plated or grated-type prevention for falling items at the sides and to hold the falling items all the way underneath that conveyor. It shall be in the position that brings about safety at work. For the conveyor having a different conveyor belt from the alignment line, there must be a controlling device to allow the conveyor to stop automatically when the machine stops running.
- (10) Installation of pipes and equipment for transmitting the things through the pipe must be in accordance with the recognized technical principle.
- (11) Electrical system, electric wiring, and installation of electrical motor, electrical switch, and other electrical appliances must be in accordance with the recognized technical principle having a certification of the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette.

#### **Article 7**

In case there is a reasonable ground, the Minister may proclaim in the Government Gazette prescribing the criteria and safety testing method for the machine, equipment or things used in the factory according to Article 6 (2) (3) (5) (6) (7) (8) (9) (10) or (11).

### **Section 3**

#### **Workers in the Factory**

#### **Article 8**

For the factory using a boiler or a boiling container using liquid or gas to conduct heat that has different pressure from the atmosphere, the business operator must provide an operator for a boiler or a boiling container using liquid or gas to conduct heat. However, the said operator must hold a High Vocational Certificate in Factory Engineer or Engine Mechanic or a skilled mechanic who has completed a Boiler Operator course of the Ministry of Industry or other institutes certified by the Ministry of Industry.

The factory with a boiler capacity of 20 tons per hour and more, apart from taking action in providing the said operator, the business operator must also provide the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette to work as an operating and directing engineer for use of a boiler.

#### **Article 9**

The factory engaged in a business related to building or repairing a boiler or a boiling container using liquid or gas to conduct heat, the business operator must provide the professional practitioner or other person prescribed by the Minister upon publication in the Government Gazette to work as an operator of the building or repairing.

#### **Article 10**

The factory must have a controlling method for the release of waste or any pollution affecting environment following the Minister's prescription by publishing in the Government Gazette, and must provide a person in charge for the toxic environment prevention system who has the qualifications as prescribed by the Minister upon publication in the Government Gazette.

#### **Article 11**

The factory using a radioactive substance must provide an officer having the qualifications as prescribed by the Minister upon publication in the Government Gazette to specifically process this matter.

#### **Article 12**

The workers in the factory as prescribed in this category must not be ones who have committed an offense according to the law governing the factory unless it is the case where the Minister prescribes by publishing in the Government Gazette.

### **Section 4**

#### **Control of the Release of Waste, Pollution or Anything Affecting Environment**

#### **Article 13**

Disposal of trash, garbage and waste:

- (1) The factory must be kept clean and without trash and garbage at all time. There must be a place to contain or a place to dispose of trash and garbage as necessary and appropriate.
- (2) Garbage or waste contaminated with hazardous substances or cloth cotton or thread remnants smeared with flammable substances must be stored in a separate container that is proper and has a tight lid and the specific disposal of the said items must be provided with the safe method and it does not cause any disturbance and nuisance.
- (3) The factory operator having garbage or disused materials with the same characteristic and property as the Minister prescribes by publishing in the Government Gazette must proceed regarding the disposal of garbage or disused materials as follows:
  - (A) Garbage or waste is not allowed outside the factory area unless with the permission from the Director-General of the Department of Industrial Works or a person assigned by the Director-General of the Department of Industrial Works to bring the item outside for the purpose of destroying the effect, disposal, discarding or burying with the method and place pursuant to the criteria and methods the Minister prescribes by publishing in the Government Gazette.

- (B) The type, number, character, property, and storage place for such garbage and disused materials must be informed in details together with the method of destroying the effect, disposal, discarding, burying, moving, and transportation pursuant to the criteria and methods the Minister prescribes by publishing in the Government Gazette.

#### **Article 14**

It is prohibited to discharge wastewater from the factory unless any or several actions have been taken until that waste water has the characteristic as the Minister prescribes by publishing in the Government Gazette but all these does not include the dilution method.

#### **Article 15**

In case there is a wastewater treatment system, the business operator must proceed as follows:

- (1) install a specific electricity usage volume meter for the wastewater treatment system in the place easy for inspection and record the unit and daily electricity usage volume as well;
- (2) in case the chemical substance or bio-substance is used in the wastewater treatment system, the usage of chemical substance or bio-substance in the daily wastewater treatment must be recorded and there must be a proof of the procurement of the said chemical substance or bio-substance.

#### **Article 16**

It is prohibited to ventilate the polluted air out of the factory, unless any or several actions have been taken until the ventilated air does not contain more amount of contaminant than the standard value prescribed by the Minister upon publication in the Government Gazette. However, the dilution method must not be used.

#### **Article 17**

The noise arising from the operation must not exceed the standard the Minister prescribes by publishing in the Government Gazette.

### **Section 5**

#### **Safety of Factory Operation**

#### **Article 18**

Which type of factory requires what kind of operational safety protection measure shall be in accordance with the criteria and methods the Minister prescribes by proclaiming in the Government Gazette

#### **Article 19**

Which type of machine, equipment or things used in the factory requires what kind of safety protection measure shall be in accordance with the criteria and methods the Minister prescribes by proclaiming in the Government Gazette, Transitory Provision.

#### **Article 20**

The statements in Article 1, Article 3, and Article 3 of Section 1 shall not apply to the factory already received a factory operation license prior to the enforcement date of this Ministerial Regulation.

Given on the 24th day of September B.E. 2535

Mr. Sippanon Kettat  
Minister of Industry

**Note:** The reason for proclaiming this Ministerial Regulation is that whereas Section 8 of the Factory Act B.E. 2535 has provided the Minister with the power to prescribe the criteria concerning the location, factory, environment, appearance of the building or interior of the factory, and character of type or kind of the machinery, equipment, or things used in the factory, workers in the factory, designation of controlling method for the release of waste, pollution or anything affecting environment and safety for the factory operation. It is therefore necessary to issue this Ministerial Regulation.

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