

(Garuda Emblem)

Notification of Department of Industrial Works
Re: Approval criteria for factory requiring installation of wastewater continuous
monitoring equipment and type of equipment to be installed
B.E. 2547 (2004)

To clarify and ease the compliance with the Ministerial Notification regarding type of factory requiring installation of wastewater continuous monitoring equipment and type of equipment to be installed B.E. 2547 (2004) and to prevent dispute concerning such Ministerial Notification, Department of Industrial Works hereby announces approval criteria for factory requiring installation of wastewater continuous monitoring equipment and type of equipment to be installed as follows:

No. 1 Factories under Article 2 of the Ministerial Notification regarding type of factory requiring installation of wastewater continuous monitoring equipment and type of equipment to be installed B.E. 2547 (2004) shall carry on the installation according to the following criteria.

1.1 Factories requiring installation of monitoring equipment for Biochemical Oxygen Demand (BOD) are,

- Factory type 4: factories engaging in business related to animals other than aquatic animals.
- Factory type 5: factories engaging in business related to milk.
- Factory type 6: factories engaging in business related to aquatic animals.
- Factory type 7: factories engaging in business related to oil from plants or animals or fat from animals.
- Factory type 8: factories engaging in business related to vegetables, plant and fruits.
- Factory type 9: factories engaging in business related to plant seed or plant bulb.
- Factory type 10: factories engaging in business related to food from flour.
- Factory type 11: factories engaging in business related to sugar made from sugar cane, beech, stevia or other sweetening plants.
- Factory type 13: factories engaging in business related to food seasonings or food ingredients.
- Factory type 15: factories engaging in business related to animal feed.
- Factory type 16: factories engaging in business related to distilleries or liquor blending houses.
- Factory type 17: factories engaging in business related to production of ethyl alcohol, excluding production from extracted sulfide for pulp mill.
- Factory type 19: factories engaging in business related to production of malts or beers.
- Factory type 20: factories engaging in business related to production of non-alcoholic drinks or soft drinks.

- Factory type 52: factories engaging in business related to rubber.

1.2 Factories requiring installation of monitoring equipment for Chemical Oxygen Demand (COD) are,

- Factory type 22: factories engaging in business related to textiles, yarn, or fiber, excluding asbestos.
- Factory type 24: factories engaging in business related to weaving of fabric, lace or apparel with yarn or fiber, or bleaching and dyeing or finishing of fabric, lace or apparel woven with yarn or fiber.
- Factory type 29: factories engaging in business related to fermenting, eviscerating, roasting, pulverizing or grinding, tanning, polishing and finishing, embossing or paint-coating animal hides.
- Factory type 38: factories engaging in business related to pulps and paper.
- Factory type 40: factories engaging in business related to pulps or cardboards.
- Factory type 42: factories engaging in business related to chemical products, chemical substances, or chemical materials that are not fertilizers.
- Factory type 44: factories engaging in business related to production of synthetic resin, elastomer, plastic, or synthetic fiber that is not fiber glass.
- Factory type 49: factories engaging in business related to petroleum refinery.

1.3 Factory requiring installation of monitoring equipment for both Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) is,

- Factory type 101: central waste treatment plant.

Factory types other than prescribed in No.1 that have effluent discharge exceeding 10,000 cubic meters per day, or 3,000 – 10,000 cubic meters per day, or with influent BOD load of at least 4,000 kilograms per day are required to install monitoring equipment for Biochemical Oxygen Demand and/or Chemical Oxygen Demand determination with approval from Department of Industrial Works.

No. 2 Monitoring equipment for Biochemical Oxygen Demand and/or Chemical Oxygen Demand determination under No.1 shall analyze wastewater sample by drawing out sample of effluent for continuous analysis. The method of analysis shall be in accordance with Manual for Water and Wastewater Analysis by the Environmental Engineering Association of Thailand or Standard Methods for the Examination of Water and Wastewater by American Public Health Association, American Water Works Association, and Water Environment Federation.

If for any reason that paragraph one cannot be achieved, other determination equipment for BOD or COD shall be used instead, and they must provide the result equivalent to BOD or COD determination of the same sample analyzed by a public analytical laboratory or private analytical laboratory registered with Department of Industrial Works. Such equipment shall be as follows:

- (1) BOD and COD determination shall use analyzing time not exceeding 30 minutes per sample.

(2) The measured BOD or COD values shall be within 15% of the result from BOD or COD determination of the same sample analyzed by a public analytical laboratory or private analytical laboratory registered with Department of Industrial Works.

No.3 Factories shall have waste management system for waste generated from determination procedure under No.2 for environmental protection.

No.4 Data transmission under Article 3 of the Ministerial Notification regarding type of factory requiring installation of wastewater continuous monitoring equipment and type of equipment to be installed B.E. 2547 (2004) shall be able to link and compatible with remote pollution monitoring system of Department of Industrial Works.

This shall, thus, enter into force on the day following the date of its publication in the Government Gazette.

Announced on the 28th day of December B.E. 2547 (2004)

(signed)

(Mr.Issara Shoteburakarn)

Director-General of Department of Industrial Works

(Published in the Government Gazette, Volume 122, Part 13d, dated 16th February B.E. 2548 (2005))