

Enforcement of Industrial Environmental Related Regulations

List of Industrial Environmental Related Regulations																						●	Directly Related
																						⊙	Related with Conditions
No.	Regulation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Not related (for reference)	Conditions
1.	Water Standard																						
1.1.	Wastewater standard																						
1.1.1.	Wastewater discharged from factory and industrial estate	●	●	●	●	●	⊙	●	●	●	●	●	●	●	●	●	●	⊙	⊙	●	●		Wastewater from domestic use, and production process that surface coating process is existed.
1.1.2.	Factory having wastewater treatment system must install special facility or equipment	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙		- Wastewater > 10,000 m3/day, must install before 14 January 2005 - Wastewater 3,000-10,000 m3/day, or BOD of effluent ≥ 4,000 kg./day, must install before 14 July 2005 - 1,000 ≤ wastewater ≤ 3,000 m3/day, must install before 14 January 2006 - 500 ≤ wastewater ≤ 1,000 m3/day, must install before 14 July 2006
1.1.3.	Criteria to designate factory having wastewater treatment system that must install special facility or equipment	●	⊙	⊙	X	X	X	●	X	X	X	X	⊙	●	●	●	●	●	●	●	□		● Only factory type 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 16, 17, 19, 20 and 52 of these groups must install BOD meter x Only factory type 22, 24, 29, 38, 40, 42, 44 and 49 of these groups must install COD meter □ Only type 101 of this group must install BOD and COD meters ● In accordance with condition in 1.1.2.
1.1.4.	Criteria to cease operation when a factory discharges untreated wastewater	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		● As considered by DIW
1.1.5.	Measure to control discharge of wastewater to waterway	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙		Only factories that discharge wastewater to waterway
1.2.	Groundwater Standard		⊙						⊙		⊙	⊙			⊙	⊙					⊙		For EIA preparation of factory type 11, 38, 42, 43 (only chemical fertilizer), 49, 47, 59, 60, 88, 89 and 101 of these groups
1.3.	Drinking Water Quality Standard																						
1.3.1.	Industrial standard for drinking water			⊙																		●	Only factory type 20 and 90 of this group
1.3.2.	Bottled drinking water standard			⊙																		●	Only factory type 20 of this group

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2.	Air Quality Standard																						
2.1.	Air quality standard from point source																						
2.1.1.	Industrial emission standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	◎	◎	◎	●		◎ Only a factory having surface coating process
2.1.2.	Emission standard of cement plant														◎								◎ Only factory type 57
2.1.3.	Emission standard of power plant																				◎		◎ Only factory type 88
2.1.4.	Type of factory and production unit that are required to install Continuous Emission Monitoring System	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		Only a factory located in Mab Ta Pud, Pha Daeng, Eastern, and Asia Industrial Estates, Rayong Province
2.1.5.	Emission standard of hazardous waste incinerator				◎	◎	◎	◎	◎	◎	◎	◎					◎	◎	◎	◎	◎		Only a factory categorized as type 101 and a factory having hazardous waste incinerator
2.1.6.	Emission standard of incinerator (non hazardous waste)	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		Only a factory having non-hazardous waste incinerator
2.2.	Air quality standard from mobile source (in-use vehicle)																						
2.2.1.	Emission standard of motorcycle																					●	
2.2.2.	Emission standard of gasoline car																					●	
2.2.3.	Emission standard of diesel car																					●	
2.3.	Noise Standard																						
2.3.1.	Ambient noise standard																					●	
2.3.2.	Standard of nuisance noise																					●	
2.3.3.	Noise standard of vehicle																					●	
2.3.4.	Noise standard of motorcycle																					●	

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3.	Industrial Waste Standard																						
3.1.	Hazardous waste treatment standard				⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿				⦿	⦿		⦿	⦿		Only factory type 22, 29, 30, 34, 36, 37, 38, 41, 42-46, 48-50, 64, 70, 75-80 (with surface coating process), 89, 95, 99, 100, 101, 105, and 106
3.2.	Non-hazardous waste treatment standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
3.3.	Criteria to report hazardous waste information via electronics system				⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿				⦿	⦿		⦿	⦿		Same as 3.1.
3.4.	E-manifest system for hazardous waste transportation				⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿				⦿	⦿		⦿	⦿		Same as 3.1.
4.	Soil Standard																						
4.1.	Standard of soil used for residence and agriculture	⦿																				●	If the product is for exporting and is required by importing country for examination
4.2.	Soil sampling method																					●	
5.	Work Environment Standard																						
5.1.	Work condition standard according to the Notification of Ministry of Interior	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
5.2.	Safety measure related with work condition B.E. 2546 (2003)	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿		- Heat: factory type 11(3)(4), 22(3), 38(1)(2), 51, 54, 57(1), 59, 60, 61-68 and 77-80 (with casting and smelting processes), 74(1), 88, 98, 100(6) and 102 - Light: every series of industry categorized as group 3 - Noise: factory type 3(1), 11(3)(4), 14, 20(3), 22(2), 34(1)(2)(3)(4), 38(1), 53(9), 61-68 and 77-80 (with stamping process), 88

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6.	Other Environmental Standards																								
6.1.	Type and size of project or activity requiring EIA			⦿						⦿		⦿	⦿			⦿	⦿						⦿		Only factory type 11, 38, 42, 43 (only chemical fertilizer), 49, 57, 59, 60, 88, 89 and 101
6.2.	Type and size of factory requiring an environmental personnel, training, and standard examination			⦿	⦿	⦿	⦿			⦿		⦿	⦿			⦿	⦿	⦿	⦿	⦿	⦿	⦿			- Factory having organic wastewater ≥ 500 m3/day, or BOD load of influent ≥ 100 kg/day - Factory having wastewater ≥ 50 m3/day and use Zn, Cd, CN, P (organic compound), Pb, Cu, Ba, Se, Ni, Mn, Cr+6, As, Hg - Factory type 11, 38, 42, 43, 49, 50, 57, 59, 60, 88, 89, 101, 105, and 106 of these groups
6.3.	Criteria to consider location and environmental condition of lead smelting from used battery																⦿						⦿		Only factory type 60 and 106
6.4.	Duty of lead smelting from used battery business operator regarding waste disposal																⦿						⦿		Only factory type 60 and 106

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Classification of industry by types of raw materials, products and production processes

1. Basic agro-industry

<u>Type</u>	<u>Type of Industry</u>
1	tea or tobacco curing
2	agricultural products
9	Plant grain or root
21	tobacco, pipe tobacco, strip tobacco, chewing tobacco or snuff

2. Food and related industry

<u>Type</u>	<u>Type of Industry</u>
4	non-aquatic animals
5	milk
6	aquatic animals
7	oil from vegetable or animal, fat from animal
8	vegetable, plants, or fruit
10	food from flour
11	sugar
12	tea, coffee, cocoa, chocolate or candy
13	ingredient or food flavoring
14	ice production
15	animal feed
92	Cold storage

3. Beverage

<u>Type</u>	<u>Type of Industry</u>
16	alcoholic liquor
17	Ethy alcohol
18	Producing or blending liquors from fruits
19	malt or beer
20	drinking water, non-alcoholic beverage, carbonated water, or mineral water
90	supplying, purifying or distributing water to building or factory

4. Textile

<u>Type</u>	<u>Type of Industry</u>
22	yarn spinning, weaving, dyeing and bleaching, printing
23	textile products, other than clothing
24	knitting cloth, lace
25	mat or carpet
26	rope, mesh, fishing net
27	production of products by any methods other than weaving or knitting
28	wearing apparel other than shoes
98	laundering, dry cleaning, ironing or dyeing clothes

5. Leather products and footwear

<u>Type</u>	<u>Type of Industry</u>
29	soaking, cutting crushing or grinding, tanning, polishing and finishing, currying, embossing or coloring animal hide
30	scraping, tanning ,bleaching, dyeing, polishing or finishing fur
31	producing carpet or other articles from hide or fur
32	producing products that are not wearing apparel or footwear
33	producing shoes or parts
93	repairing footwear or leatherwear

6. Wood and wood products

<u>Type</u>	<u>Type of Industry</u>
34	wood-related business
35	producing containers or appliances from bamboo, rattan, straw, reed, bulrush or water hyacinth
36	wood or cork products

7. Furniture and Fixture

<u>Type</u>	<u>Type of Industry</u>
37	household furniture, interior decoration items made from wood, glass, rubber or non-metal
83	producing or assembling watches or clocks, time devices, or parts
96	repairing watches or clocks, timing devices, or ornaments made of diamond, gems, gold, platinum, silver, copper alloy, or precious stone

8. Paper and paper products

<u>Type</u>	<u>Type of Industry</u>
38	producing pulp or paper
39	producing receptacles from paper of any kinds or fiberboard
40	pulp, paper or cardboard related production

9. Printing, publishing, allied products

<u>Type</u>	<u>Type of Industry</u>
41	printing, file manufacturing, book-binding, cover producing, or metal mould

10. Chemical and chemical products

<u>Type</u>	<u>Type of Industry</u>
42	chemical products
43	fertilizer or pesticide
44	resin or synthetic fiber
45	paint, varnish, lacquer, or shellac
46	medicine product
47	soap, cosmetics
48	chemical substances

11. Petroleum products

<u>Type</u>	<u>Type of Industry</u>
49	petroleum refining
50	petroleum, coal, lignite products
89	producing, supplying or distributing non-natural gas

12. Rubber products

<u>Type</u>	<u>Type of Industry</u>
51	repairing, retreading tyres or tubes for vehicles
52	rubber-related products

13. Plastic products

<u>Type</u>	<u>Type of Industry</u>
53	plastic products

14. Non-metallic products

<u>Type</u>	<u>Type of Industry</u>
3	any activities relating with stone, ravel, sand, or dirt for construction
54	producing of glass, fiber glass, or glassware
55	porcelain or ceramics products
56	producing brick, tile or pipe or construction of crucible architectural terracotta
57	cement, lime or plaster related activities
58	non-metallic products

15. Basic metal products

<u>Type</u>	<u>Type of Industry</u>
59	smelting, fusing, casting, rolling, drawing or producing iron and steel basic industries
60	smelting, alloying, refining, melting, casting, rolling, drawing, or producing non-ferrous metal basic industries

16. Fabricated products

<u>Type</u>	<u>Type of Industry</u>
61	producing, finishing, altering or repairing tools or appliances made of iron or steel
62	producing, finishing or repairing household furniture or interior decoration items made from metal
63	metal products for construction or installation
64	metal products
102	producing or distributing steam
104	producing, assembling, altering, or repairing boilers or containers for boiling water using liquid or gas as heat conducting medium

17. Machinery

<u>Type</u>	<u>Type of Industry</u>
65	producing, assembling, altering or repairing engines, turbines and their components
66	producing, assembling, altering or repairing machinery and components for agriculture or livestock raising
67	machines, parts or equipments for producing metal or wood products
68	producing, assembling, altering or repairing machines for paper, chemical, food, textile, printing, cement, claywork, construction, mining, petroleum exploration, or oil refining industries
69	producing, assembling, altering or repairing calculating, accounting and card-punching machines, digital or analog computers or electronic data processing equipment machine
70	producing, assembling, altering or repairing water pumps, air or gas compressors, blowers, air conditioners or

ventilators, sprinkler-type fire extinguishers, refrigerators, washing machine, dry-cleaning or ironing machines

18. Electrical machinery and supplies

<u>Type</u>	<u>Type of Industry</u>
71	producing, assembling, altering or repairing machines or products under Series 70 that use electrical power, electric motor, generator, transformer, switch gear or switchboard
72	radio set, tv set, sound amplifier or recorder, gramophone, dictaphone, tape recorder, video tape player or recorder related activities
73	producing, assembling, altering electric instruments or appliances not included in any series, including component
74	electric equipment related production
81	scientific or medical instrument related activities
94	repairing household or personal electrical instrument
107	CD-R production

19. Transport equipment

<u>Type</u>	<u>Type of Industry</u>
75	ships related activities
76	trains, streetcars, or cable-cars related activities
77	cars or trailers related activities
78	motorcycles, tricycles or bicycles related activities
79	aircraft or hovercrafts related activities
80	producing, assembling, altering or repairing hand-drawn or animal-drawn wheeled vehicles, which are not bicycles, including their components
95	engine-driven vehicles, trailers, motorcycles, bicycles and their components

Type
100

Type of Industry

improving or changing qualities of products or components without production

20. Other manufacturing industry

<u>Type</u>	<u>Type of Industry</u>
82	producing ophthalmic instruments, lenses, optical instrument, or photographic or photocopying equipment
84	diamonds, gems, gold, silver, copper alloy, or precious stone related activities
85	producing musical instruments, and their components
86	producing or assembling tools or instruments for sports, physical exercise, billiard, bowling, or angling, and their components
87	toys, tools or instruments not specified in other series
88	generating, supplying or distributing electric power
91	packaging or filling goods without production
97	repairing products not specified in any series
99	producing, repairing, altering or modifying firearms, ammunition, explosive, weapon or other object having power to kill, destroy or disable as firearm
101	central waste treatment plant
103	salt related activities
105	sorting or landfill plant
106	recycling of waste to be raw materials