

(Garuda Emblem)

**Notification of Ministry of Industry**

**Re: Industrial Waste Disposal**

**B.E. 2548 (2005)**

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By the virtue of clause 13(3) of the Ministerial Regulation No. 2 (B.E. 2535 (1992)) issued pursuant to the Factory Act B.E. 2535(1992) which contains some provisions concerning the limitation of the people rights and liberties that is permissible by the provisions of section 29 together with section 35, section 48 and section 50 of the Constitution of the Kingdom of Thailand, the Minister of Industry hereby issues the Ministerial Notification as follows:

Article 1 A factory according to the Factory Act B.E. 2535 (1992), that are either located outside of or in an industrial zone, an industrial estate, and a factory granted an investment promotion according to the Investment Promotion Act B.E. 2520 (1977) shall be in compliance with this Notification.

Article 2 The Ministerial Notification No.6 (B.E. 2540 (1997)), the Ministerial Notification No.1 (B.E. 2541 (1998)) regarding industrial waste disposal, and its amendment B.E. 2547 (2004) issued pursuant to the Factory Act B.E. 2535(1992) shall be annulled and replaced with this Ministerial Notification.

Article 3 In this Notification,

“Waste” shall mean unusable materials or all types of wastes generated from industrial activity including wastes from raw material, wastes generated from production process, products that are deteriorated in quality, and effluent having hazardous constituents or hazardous characteristics.

“Hazardous waste” shall mean waste having hazardous constituents, being contaminated with hazardous substance, or having hazardous characteristics as prescribed in Annex 2 annexed to this Notification.

“Waste Management” shall mean process of treatment, detoxification, disposal, sale, exchange, or recycle in any form, including storage for such purpose.

“Waste generator” shall mean a factory entrepreneur that generates wastes and has it in possession.

“Waste collector and transporter” shall mean a person who has wastes in possession for transport and one who has wastes in possession for storage or transfer according to the Ministerial Notification regarding hazardous waste manifest system B.E. 2547 (2004).

“Waste Processor” shall mean a factory that has wastes in possession according to the Ministerial Notification regarding hazardous waste manifest system B.E. 2547 (2004), and a factory type 105 that are sorting or landfill facility.

“Manifest sheet” shall mean manifest form 02 annexed to the Ministerial Notification regarding hazardous waste manifest system B.E. 2547 (2004).

“Reporting via the Internet” shall mean reporting of data in accordance with the Ministerial Notification regarding criteria and methods for reporting on industrial wastes via the Internet B.E. 2547 (2004).

## CHAPTER 1

### Waste Codes

Article 4 Waste codes shall be as prescribed in Annex 1 annexed to this Ministerial Notification.

Article 5 The following waste shall be exempt from being in compliance with this Ministerial Notification.

5.1 Non-hazardous wastes from offices, housing and refectory located in a factory area.

5.2 Wastes that have specific law govern as follows:

5.2.1 Radioactive waste

5.2.2 Rubbish under the law on public health

5.3 Wastewater destined for off-site treatment via pipe.

## CHAPTER 2

### Duty of Waste Generator

Article 6 Waste generator shall have waste in possession within a factory premise no longer than the period of 90 days. If the time in possession is longer than that prescribed, a waste generator shall ask permission from Department of Industrial Works using the Form SoKo.1 annexed to this Ministerial Notification. In case of having hazardous waste in possession, a waste generator shall be in compliance with the provisions of the Ministerial Notification regarding hazardous waste manifest system B.E. 2547 (2004).

Article 7 A waste generator shall assure that there is a supervisor with certain expertise of pollution control system as required in a factory in accordance with the Ministerial Notification regarding descriptions of factory types and sizes, procedure for the control of Discharges of wastes, pollutants, or any substances that cause adverse effects on the environment, qualifications of supervisors and operators, and criteria for registration of the supervisors of pollution prevention systems B.E. 2545 (2002), and shall conduct a training for responsible employees so they can perform their job in a properly and safely manner.

Article 8 A waste generator shall establish an emergency response plan in case there is a spill, fire, explosion of wastes, or accident as prescribed in Annex 3 annexed to this Ministerial Notification. A waste generator shall assure that in a factory there is safety equipment, emergency mitigation equipment and evacuation route.

Article 9 It is not allowed to transport waste out of factory premise unless permission is granted from Director-General of Department of Industrial Works or from an authorized person to manage wastes with method and location according to criteria and procedure prescribed in Annex 4 annexed to this Ministerial Notification. For waste treatment or disposal in factory premise, it must be done in accordance with those prescribed in Chapter 4 Article 17 and Article 21-24 as well.

The Form SoKo.2 annexed to this Ministerial Notification shall be used for requesting a permit for off-site waste management.

Article 10 A waste generator shall send off its hazardous waste to waste collector and transporter or waste processor only, otherwise approval from Department of Industrial Works must be granted.

Article 11 Manifest sheet shall be used every time hazardous waste is transported out of factory premise. A waste generator also has to report transport of all wastes under this Notification to Department of Industrial Works by reporting via the internet.

Article 12 A waste generator shall inspect its waste and be liable for its loss, accident, illegal dumping and return due to any dispute in the service agreement between waste generator and waste processor until waste processor agrees to accept such waste in possession.

Article 13 A waste generator shall submit an annual report to Department of Industrial Works using the Form SoKo.3 annexed to this Ministerial Notification by the first date of March of the following year.

Article 14 Import or export of waste into or out of the Kingdom shall be done in accordance with the law governing associated matter and international laws.

### CHAPTER 3

#### Collection and Transportation of Hazardous Waste

Article 15 A waste generator or waste processor who wishes to appoint a representative as its waste collector and transporter; it shall be done in accordance with criteria and procedure as prescribed by Department of Industrial Works.

Article 16 One who appoints a representative and a representative itself shall have liability while waste transportation is in progress and shall assure that its waste collector and transporter shall proceed as follows:

(1) An operation must be in compliance with the Ministerial Notification regarding hazardous waste manifest system B.E. 2547 (2004).

(2) An operation must be in compliance with the Notification of Hazardous Substance Committee Resolution regarding land transportation of hazardous substance B.E. 2545 (2002).

(3) A waste collector and transporter shall submit an annual report to Department of Industrial Works using the Form SoKo.4 annexed to this Ministerial Notification by the first date of March of the following year.

### CHAPTER 4

#### Duty of Waste Processor

Article 17 A waste processor shall implement waste management according to criteria and procedure prescribed by Department of Industrial Works.

Article 18 A waste processor shall implement waste management only permitted waste type and method as prescribe in condition of a factory license and shall inform its customer in written about permitted type of its factory business and waste types, including a copy of factory license.

Article 19 A waste processor shall use manifest sheet and shall be in compliance with the Notification of Hazardous Substance Committee Resolution regarding land transportation of hazardous substance B.E. 2545 (2002). Once receives waste within the premises, a waste processor shall report such data to Department of Industrial Works by reporting via the internet.

Article 20 Once agrees for waste management and endorses in manifest sheet, a waste processor shall be liable for such waste.

Article 21 A waste processor shall have record on physical and chemical analysis of waste prior to proceed with treatment or disposal. The analysis shall be performed by an analytical laboratory of waste processor, public analytical laboratory or an analytical laboratory registered with Department of Industrial Works. The record must be kept for a minimum of three years for inspection.

Article 22 A waste processor shall assure that there is a supervisor with certain expertise of pollution control system as required in a factory in accordance with the Ministerial Notification regarding descriptions of factory types and sizes, procedure for the control of Discharges of wastes, pollutants, or any substances that cause adverse effects on the environment, qualifications of supervisors and operators, and criteria for registration of the supervisors of pollution prevention systems B.E. 2545 (2002), and shall conduct a training for responsible employees so they can perform their job in a properly and safely manner.

Article 23 A waste processor shall establish an emergency response plan in case there is a spill, fire, explosion of wastes, or accident as prescribed in Annex 3 annexed to this Ministerial Notification. A waste processor shall assure that in a factory there is safety equipment, emergency mitigation equipment and evacuation route.

Article 24 A waste processor shall submit an annual report to Department of Industrial Works using the Form SoKo.5 annexed to this Ministerial Notification by the first date of March of the following year.

## CHAPTER 5

### Provisional Chapter

Article 25 Any application under the Ministerial Notification No. 6 (B.E. 2540 (1997)), No. 1 (B.E. 2541 (1998)), and its amendment B.E. 2547 (2004) pending the consideration shall be deemed as the application under this Ministerial Notification mutatis mutandis.

Article 26 Permits issued to any person pursuant to the Ministerial Notification No. 6 (B.E. 2540 (1997)), No. 1 (B.E. 2541 (1998)), and its amendment B.E. 2547 (2004) prior to the coming into force of this Ministerial Notification shall remain valid until expiration of its specified period.

This Ministerial Notification shall be effective on the expiration of 90 days from the date of its publication in the Government Gazette.

Announced on the 27<sup>th</sup> December B.E. 2548  
(2005)

(signed)\_\_\_\_\_

(Mr.Suriya Jungrungreungkij)

Minister of Industry

(Published in the Government Gazette, Volume 123, Special Part 11d, dated 25<sup>th</sup> January  
B.E. 2549 (2006))

**Annex 1**  
**Waste Code**

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No. 1 Wastes are classified into 19 chapters and six-digit code is used as specific waste code as follows:

1.1 The first two digit represents type of industrial activity or type of wastes as follows:

- |            |  |
|------------|--|
| Chapter 01 | Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals  |
| Chapter 02 | Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing   |
| Chapter 03 | Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard  |
| Chapter 04 | Wastes from the leather, fur and textile industries  |
| Chapter 05 | Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal   |
| Chapter 06 | Wastes from inorganic chemical processes   |
| Chapter 07 | Wastes from organic chemical processes   |
| Chapter 08 | Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealant and printing inks |
| Chapter 09 | Wastes from the photographic industry  |
| Chapter 10 | Wastes from thermal processes  |
| Chapter 11 | Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy   |
| Chapter 12 | Wastes from shaping and physical and mechanical surface treatment of metals and plastics   |
| Chapter 13 | Oil wastes and wastes of liquid fuels (except edible oils)   |
| Chapter 14 | Waste organic solvents, refrigerants and propellants (excluding wastes in 07 and 08)   |
| Chapter 15 | Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified   |

Chapter 16	Wastes not otherwise specified in the list
Chapter 17	Construction and demolition wastes (including excavated soil from contaminated sites)
Chapter 18	Wastes from human or animal health care and/or related research
Chapter 19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use

1.2 The middle two digit represents specific process for such industrial activity which generates waste or represents type of wastes.

1.3 The last two digit represents specific waste type such as 05 07 01 means waste resulting from petrochemical industry (05) in the process of natural gas purification (07) which is contaminated with mercury (01).

No. 2 To determine appropriate specific code for certain waste, use the following procedure.

2.1 First consider the entries in Chapters 01 to 12 and 17 to 19 of the table and select the appropriate six-digit code. However it should be noted that six-digit codes ending “99” should not be used at this stage.

2.2 If a suitable waste code cannot be found in 2.1, an appropriate six-digit code from Chapters 13 to 15 should be used.

2.3 If a suitable waste code cannot be found in Chapters 13 to 15, a six-digit code from Chapter 16 should be used to identify the waste.

2.4 Only if no suitable six-digit code can be found in Chapter 16 should a six-digit code ending “99” in associated chapter in 2.1 be used.

No.3 Any waste whose six-digit code is marked with “HA” (Hazardous waste – Absolute entry) or “HM” (Hazardous waste – Mirror entry) is a hazardous waste according to characteristics prescribed in Annex 2. However, the “mirror entries” cover wastes that have the potential to be either hazardous or non-hazardous depending on their actual composition and the concentrations of “dangerous substances” within the waste. Therefore, for waste that is marked with “HM”, analysis should be performed according to criteria prescribed in Annex 2 to demonstrate whether or not waste is hazardous according to this Ministerial Notification.

No.4 Six-digit code of waste under this Ministerial Notification shall be as follows:



<b>01</b>	<b>Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals</b>	
<b>01 01</b>	<b><i>Wastes from mineral excavation</i></b>	
01 01 01		Wastes from mineral metalliferous excavation
01 01 02		Wastes from mineral non-metalliferous excavation
<b>01 03</b>	<b><i>Wastes from physical and chemical processing of metalliferous minerals</i></b>	
01 03 04	HA	Acid-generating tailings from processing of sulfide ore
01 03 05	HM	Other tailings containing dangerous substances
01 03 06		Tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 07	HM	Other wastes containing dangerous substances from physical and chemical processing of metalliferous minerals
01 03 08		Dusty and powdery wastes other than those mentioned in 01 03 07
01 03 09		Red mud from alumina production other than the wastes mentioned in 01 03 07
01 03 99		Wastes not otherwise specified
<b>01 04</b>	<b><i>Wastes from physical and chemical processing of non-metalliferous minerals</i></b>	
01 04 07	HM	Wastes containing dangerous substances from physical and chemical processing of non-metalliferous minerals
01 04 08		Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09		Waste sand and clays
01 04 10		Dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11		Wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12		Tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13		Wastes from stone cutting and sawing other than those mentioned in 01 04 07
01 04 99		Wastes not otherwise specified
<b>01 05</b>	<b><i>Drilling muds and other drilling wastes</i></b>	
01 05 04		Freshwater drilling muds and wastes
01 05 05	HA	Oil-containing drilling muds and wastes
01 05 06	HM	Drilling muds and other drilling wastes containing dangerous substances
01 05 07		Barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06)
01 05 08		Chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06)

01 05 99		Wastes not otherwise specified
<b>02</b>		<b>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>
<b>02 01</b>		<b><i>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</i></b>
02 01 01		Sludges from washing and cleaning
02 01 02		Animal-tissue waste
02 01 03		Plant-tissue waste
02 01 04		Waste plastics (except packaging)
02 01 06		Animal feces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02 01 07		Wastes from forestry
02 01 08	HM	Agrochemical waste containing dangerous substances
02 01 09		Agrochemical waste other than those mentioned in 02 01 08
02 01 10		Waste metal
02 01 99		Wastes not otherwise specified
<b>02 02</b>		<b><i>Wastes from the preparation and processing of meat, fish and other foods of animal origin</i></b>
02 02 01		Sludges from washing and cleaning
02 02 02		Animal-tissue waste
02 02 03		Materials unsuitable for consumption or processing
02 02 04		Sludges from on-site effluent treatment
02 02 99		Wastes not otherwise specified
<b>02 03</b>		<b><i>Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation</i></b>
02 03 01		Sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02		Wastes from preserving agents
02 03 03		Wastes from solvent extraction
02 03 04		Materials unsuitable for consumption or processing
02 03 05		Sludges from on-site effluent treatment
02 03 99		Wastes not otherwise specified
<b>02 04</b>		<b><i>Wastes from sugar processing</i></b>
02 04 01		Soil from cleaning and washing
02 04 02		Off-specification calcium carbonate

02 04 03		Sludges from on-site effluent treatment
02 04 80	HA	Spent lead subacetate
02 04 81	HA	Filter paper contaminated with lead subacetate
02 04 82	HA	Filtrate containing lead subacetate
02 04 99		Wastes not otherwise specified
<b>02 05</b>		<b><i>Wastes from the dairy products industry</i></b>
02 05 01		Materials unsuitable for consumption or processing
02 05 02		Sludges from on-site effluent treatment
02 05 99		Wastes not otherwise specified
<b>02 06</b>		<b><i>Wastes from the baking and confectionery industry</i></b>
02 06 01		Materials unsuitable for consumption or processing
02 06 02		Wastes from preserving agents
02 06 03		Sludges from on-site effluent treatment
02 06 99		Wastes not otherwise specified
<b>02 07</b>		<b><i>Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)</i></b>
02 07 01		Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02		Wastes from spirits distillation
02 07 03		Wastes from chemical treatment
02 07 04		Materials unsuitable for consumption or processing
02 07 05		Sludges from on-site effluent treatment
02 07 99		Wastes not otherwise specified
<b>03</b>		<b>Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard</b>
<b>03 01</b>		<b><i>Wastes from wood processing and the production of panels and furniture</i></b>
03 01 01		Waste bark and cork
03 01 04	HM	sawdust, shavings, cuttings, wood, particle board and veneer containing dangerous substances
03 01 05		sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 01 99		Wastes not otherwise specified
<b>03 02</b>		<b><i>Wastes from wood preservation</i></b>
03 02 01	HA	Non-halogenated organic wood preservatives
03 02 02	HA	Organochlorinated wood preservatives

03 02 03	HA	Organometallic wood preservatives
03 02 04	HA	Inorganic wood preservatives
03 02 05	HM	Other wood preservatives containing dangerous substances
03 02 99		Wood preservatives not otherwise specified
<b>03 03</b>		<b><i>Wastes from pulp, paper and cardboard production and processing</i></b>
03 03 01		Waste bark and cork
03 03 02	HM	Green liquor sludge (from recovery of cooking liquor)
03 03 05	HM	De-inking sludges from paper recycling
03 03 07		Mechanically separated rejects from pulping of waste paper and cardboard
03 03 08		Wastes from sorting of paper and cardboard destined for recycling
03 03 09		Lime mud waste
03 03 10		Fiber rejects, fiber-, filler- and coating-sludges from mechanical separation
03 03 11	HM	Sludges from on-site effluent treatment other than those mentioned in 03 03 10
03 03 99		Wastes not otherwise specified
<b>04</b>		<b>Wastes from the leather, fur and textile industries</b>
<b>04 01</b>		<b><i>Wastes from the leather and fur industry</i></b>
04 01 01		Fleshing and lime split wastes
04 01 02	HM	Liming waste
04 01 03	HM	Degreasing wastes containing solvents without a liquid phase
04 01 04	HM	Tanning liquor containing chromium
04 01 05		Tanning liquor free of chromium i.e., vegetable-tanning liquor
04 01 06	HM	Sludges, in particular from on-site effluent treatment containing chromium
04 01 07		Sludges, in particular from on-site effluent treatment free of chromium
04 01 08	HM	Waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	HM	Wastes from dressing and finishing
04 01 99		Wastes not otherwise specified
<b>04 02</b>		<b><i>Wastes from the textile industry</i></b>
04 02 09		Wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10		Organic matter from natural products (for example grease, wax)
04 02 14	HM	Wastes from finishing containing organic solvents
04 02 15		Wastes from finishing other than those mentioned in 04 02 14
04 02 16	HM	Dyestuffs and pigments containing dangerous substances
04 02 17		Dyestuffs and pigments other than those mentioned in 04 02 16

04 02 19	HM	Sludges from on-site effluent treatment containing dangerous substances
04 02 20		Sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21		Wastes from unprocessed textile fibres
04 02 22		Wastes from processed textile fibres
04 02 99		Wastes not otherwise specified
<b>05</b>	<b>Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal</b>	
<b>05 01</b>	<b><i>Wastes from petroleum refining</i></b>	
05 01 02	HA	Desalter sludges
05 01 03	HA	Tank bottom sludges
05 01 04	HA	Acid alkyl sludges
05 01 05	HA	Oil spills
05 01 06	HA	Oily sludges from maintenance operations of the plant or equipment
05 01 07	HA	Acid tars
05 01 08	HA	Other tars
05 01 09	HM	Sludges from on-site effluent treatment containing dangerous substances
05 01 10		Sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 11	HA	Wastes from cleaning of fuels with bases
05 01 12	HM	Oil containing acids
05 01 13		Boiler feedwater sludges
05 01 14		Wastes from cooling columns
05 01 15	HA	Spent filter clays
05 01 16		Sulfur-containing wastes from petroleum desulfurisation
05 01 17		Bitumen
05 01 99		Wastes not otherwise specified
<b>05 06</b>	<b><i>Wastes from the pyrolytic treatment of coal</i></b>	
05 06 01	HA	Acid tars
05 06 03	HA	Other tars
05 06 04		Wastes from cooling columns
05 06 99		Wastes not otherwise specified
<b>05 07</b>	<b><i>Wastes from natural gas purification and transportation</i></b>	
05 07 01	HM	Wastes containing mercury
05 07 02		Wastes containing sulfur
05 07 99		Wastes not otherwise specified

<b>06</b>	<b>Wastes from inorganic chemical processes</b>	
<b>06 01</b>	<b><i>Wastes from the manufacture, formulation, supply and use (MFSU) of acids</i></b>	
06 01 01	HA	Sulfuric acid and sulfurous acid
06 01 02	HA	Hydrochloric acid
06 01 03	HA	Hydrofluoric acid
06 01 04	HA	Phosphoric and phosphorus acid
06 01 05	HA	Nitric acid and nitrous acid
06 01 06	HA	Other acids
06 01 99		Wastes not otherwise specified
<b>06 02</b>	<b><i>Wastes from the MSFU of bases</i></b>	
06 02 01	HA	Calcium hydroxide
06 02 03	HA	Ammonium hydroxide
06 02 04	HA	Sodium and potassium hydroxide
06 02 05	HA	Other bases
06 02 99		Wastes not otherwise specified
<b>06 03</b>	<b><i>Wastes from the MFSU of salts and their solutions and metallic oxides</i></b>	
06 03 11	HM	Solid salts and solutions containing cyanides
06 03 13	HM	Solid salts and solutions containing heavy metals
06 03 14		Solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 15	HM	Metallic oxides containing heavy metals
06 03 16		Metallic oxides other than those mentioned in 06 03 15
06 03 99		Wastes not otherwise specified
<b>06 04</b>	<b><i>Metal-containing wastes other than those mentioned in 06 03</i></b>	
06 04 03	HM	Wastes containing arsenic
06 04 04	HM	Wastes containing mercury
06 04 05	HM	Wastes containing other heavy metals
06 04 99		Wastes not otherwise specified
<b>06 05</b>	<b><i>Sludges from on-site effluent treatment</i></b>	
06 05 02	HM	Sludges from on-site effluent treatment containing dangerous substances
06 05 03		Sludges from on-site effluent treatment other than those mentioned in 06 05 02
<b>06 06</b>	<b><i>Wastes from the MFSU of sulfur chemicals, sulfur chemical processes and desulfurisation processes</i></b>	
06 06 02	HM	Wastes containing dangerous sulfides

06 06 03		Wastes containing sulfides other than those mentioned in 06 06 02
06 06 99		Wastes not otherwise specified
<b>06 07</b>		<b><i>Wastes from the MFSU of halogens and halogen chemical processes</i></b>
06 07 01	HM	Wastes containing asbestos from electrolysis
06 07 02	HA	Activated carbon from chlorine production
06 07 03	HM	Barium sulfate sludge containing mercury
06 07 04	HA	Solutions and acids, for example contact acid
06 07 99		Wastes not otherwise specified
<b>06 08</b>		<b><i>Wastes from the MFSU of silicon and silicon derivatives</i></b>
06 08 02	HM	Wastes containing dangerous silicones such as chlorosilanes
06 08 99		Wastes not otherwise specified
<b>06 09</b>		<b><i>Wastes from the MFSU of phosphorous chemicals and phosphorous chemical processes</i></b>
06 09 02		Phosphorous slag
06 09 03	HM	Calcium-based reaction wastes containing or contaminated with dangerous substances
06 09 04		Calcium-based reaction wastes other than those mentioned in 06 09 03
06 09 99		Wastes not otherwise specified
<b>06 10</b>		<b><i>Wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertilizer manufacture</i></b>
06 10 02	HM	Wastes containing dangerous substances
06 10 99		Wastes not otherwise specified
<b>06 11</b>		<b><i>Wastes from the manufacture of inorganic pigments and opacifiers</i></b>
06 11 01		Calcium-based reaction wastes from titanium dioxide production
06 11 99		Wastes not otherwise specified
<b>06 13</b>		<b><i>Wastes from inorganic chemical processes not otherwise specified</i></b>
06 13 01	HA	Inorganic plant protection products, wood-preserving agents and other biocides
06 13 02	HA	Spent activated carbon (except 06 07 02)
06 13 03	HA	Carbon black
06 13 04	HA	Wastes from asbestos processing
06 13 05	HA	Soot
06 13 99		Wastes not otherwise specified
<b>07</b>		<b>Wastes from organic chemical processes</b>
<b>07 01</b>		<b><i>Wastes from the manufacture, formulation, supply and use (MFSU) of</i></b>

		<b><i>basic organic chemicals</i></b>
07 01 01	HA	Aqueous washing liquids and mother liquors
07 01 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 01 04	HA	Other organic solvents, washing liquids and mother liquors
07 01 07	HA	Halogenated still bottoms and reaction residues
07 01 08	HA	Other still bottoms and reaction residues
07 01 09	HA	Halogenated filter cakes and spent absorbents
07 01 10	HA	Other filter cakes and spent absorbents
07 01 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 01 12		Sludges from on-site effluent treatment other than those mentioned in 07 01 11
07 01 99		Wastes not otherwise specified
<b>07 02</b>		<b><i>wastes from the MFSU of plastics, synthetic rubber and man-made fibres</i></b>
07 02 01	HA	Aqueous washing liquids and mother liquors
07 02 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 02 04	HA	Other organic solvents, washing liquids and mother liquors
07 02 07	HA	Halogenated still bottoms and reaction residues
07 02 08	HA	Other still bottoms and reaction residues
07 02 09	HA	Halogenated filter cakes and spent absorbents
07 02 10	HA	Other filter cakes and spent absorbents
07 02 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 02 12		Sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 13		Waste plastic
07 02 14	HM	Wastes from additives containing dangerous substances
07 02 15		Wastes from additives other than those mentioned in 07 02 14
07 02 16	HM	Wastes containing dangerous silicones such as chlorosilanes
07 02 17		Wastes containing silicones other than those mentioned in 07 02 16
07 02 99		Wastes not otherwise specified
<b>07 03</b>		<b><i>Wastes from the MFSU of organic dyes and pigments (except 06 11)</i></b>
07 03 01	HA	Aqueous washing liquids and mother liquors
07 03 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 03 04	HA	Other organic solvents, washing liquids and mother liquors
07 03 07	HA	Halogenated still bottoms and reaction residues
07 03 08	HA	Other still bottoms and reaction residues



07 03 09	HA	Halogenated filter cakes and spent absorbents
07 03 10	HA	Other filter cakes and spent absorbents
07 03 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 03 12		Sludges from on-site effluent treatment other than those mentioned in 07 03 11
07 03 99		Wastes not otherwise specified
<b>07 04</b>		<b><i>Wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09, wood preserving agents (except 03 02) and other biocides</i></b>
07 04 01	HA	Aqueous washing liquids and mother liquors
07 04 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 04 04	HA	Other organic solvents, washing liquids and mother liquors
07 04 07	HA	Halogenated still bottoms and reaction residues
07 04 08	HA	Other still bottoms and reaction residues
07 04 09	HA	Halogenated filter cakes and spent absorbents
07 04 10	HA	Other filter cakes and spent absorbents
07 04 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 04 12		Sludges from on-site effluent treatment other than those mentioned in 07 04 11
07 04 13	HM	Solid wastes containing dangerous substances
07 04 99		Wastes not otherwise specified
<b>07 05</b>		<b><i>Wastes from the MFSU of pharmaceuticals</i></b>
07 05 01	HA	Aqueous washing liquids and mother liquors
07 05 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 05 04	HA	Other organic solvents, washing liquids and mother liquors
07 05 07	HA	Halogenated still bottoms and reaction residues
07 05 08	HA	Other still bottoms and reaction residues
07 05 09	HA	Halogenated filter cakes and spent absorbents
07 05 10	HA	Other filter cakes and spent absorbents
07 05 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 05 12		Sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 13	HM	Solid wastes containing dangerous substances
07 05 14		Solid wastes other than those mentioned in 07 05 13
07 05 99		Wastes not otherwise specified
<b>07 06</b>		<b><i>Wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics</i></b>

07 06 01	HA	Aqueous washing liquids and mother liquors
07 06 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 06 04	HA	Other organic solvents, washing liquids and mother liquors
07 06 07	HA	Halogenated still bottoms and reaction residues
07 06 08	HA	Other still bottoms and reaction residues
07 06 09	HA	Halogenated filter cakes and spent absorbents
07 06 10	HA	Other filter cakes and spent absorbents
07 06 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 06 12		Sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 06 99		Wastes not otherwise specified
<b>07 07</b>		<b><i>Wastes from the MFSU of fine chemicals and chemical products not otherwise specified</i></b>
07 07 01	HA	Aqueous washing liquids and mother liquors
07 07 03	HA	Organic halogenated solvents, washing liquids and mother liquors
07 07 04	HA	Other organic solvents, washing liquids and mother liquors
07 07 07	HA	Halogenated still bottoms and reaction residues
07 07 08	HA	Other still bottoms and reaction residues
07 07 09	HA	Halogenated filter cakes and spent absorbents
07 07 10	HA	Other filter cakes and spent absorbents
07 07 11	HM	Sludges from on-site effluent treatment containing dangerous substances
07 07 12		Sludges from on-site effluent treatment other than those mentioned in 07 07 11
07 07 99		Wastes not otherwise specified
<b>08</b>		<b>Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealant and printing inks</b>
<b>08 01</b>		<b><i>Wastes from MFSU and removal of paint and varnish</i></b>
08 01 11	HM	Waste paint and varnish containing organic solvents or other dangerous substances
08 01 12		Waste paint and varnish other than those mentioned in 08 01 11
08 01 13	HM	Sludges from paint or varnish containing organic solvents or other dangerous substances
08 01 14		Sludges from paint or varnish other than those mentioned in 08 01 13
08 01 15	HM	Aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances
08 01 16		Aqueous sludges containing paint or varnish other than those mentioned in 08 01 15

08 01 17	HM	Wastes from paint or varnish removal containing organic solvents or other dangerous substances
08 01 18		Wastes from paint or varnish removal other than those mentioned in 08 01 17
08 01 19	HM	Aqueous suspensions containing paint or varnish containing organic solvents or other dangerous substances
08 01 20		Aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19
08 01 21	HA	Waste paint or varnish remover
08 01 99		Wastes not otherwise specified
<b>08 02</b>		<b><i>Wastes from MFSU of other coatings (including ceramic materials)</i></b>
08 02 01		Waste coating powders
08 02 02		Aqueous sludges containing ceramic materials
08 02 03		Aqueous suspensions containing ceramic materials
08 02 99		Wastes not otherwise specified
<b>08 03</b>		<b><i>Wastes from MFSU of printing inks</i></b>
08 03 07	HM	Aqueous sludges containing ink
08 03 08	HM	Aqueous liquid waste containing ink
08 03 12	HM	Waste ink containing dangerous substances
08 03 13		Waste ink other than those mentioned in 08 03 12
08 03 14	HM	Ink sludges containing dangerous substances
08 03 15		Ink sludges other than those mentioned in 08 03 14
08 03 16	HA	Waste etching solutions
08 03 17	HM	Waste printing toner containing dangerous substances
08 03 18		Waste printing toner other than those mentioned in 08 03 17
08 03 19	HA	Disperse oil
08 03 99		Wastes not otherwise specified
<b>08 04</b>		<b><i>Wastes from MFSU of adhesives and sealant (including waterproofing products)</i></b>
08 04 09	HM	Waste adhesives and sealant containing organic solvents or other dangerous substances
08 04 10		Waste adhesives and sealant other than those mentioned in 08 04 09
08 04 11	HM	Adhesive and sealant sludges containing organic solvents or other dangerous substances
08 04 12		Adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 13	HM	Aqueous sludges containing adhesives or sealant containing organic solvents or other dangerous substances

08 04 14		aqueous sludges containing adhesives or sealant other than those mentioned in 08 04 13
08 04 15	HM	Aqueous liquid waste containing adhesives or sealant containing organic solvents or other dangerous substances
08 04 16		Aqueous liquid waste containing adhesives or sealant other than those mentioned in 08 04 15
08 04 17	HA	Rosin oil
08 04 99		Wastes not otherwise specified
<b>08 05</b>		<b><i>Wastes not otherwise specified in 08</i></b>
08 05 01	HA	Waste isocyanates
<b>09</b>		<b>Wastes from the photographic industry</b>
<b>09 01</b>		<b><i>Wastes from the photographic industry</i></b>
09 01 01	HA	Water-based developers and activator solutions
09 01 02	HA	Water-based offset plate developer solutions
09 01 03	HA	Solvent-based developer solutions
09 01 04	HA	Fixer solutions i.e., sodium thiosulfate, ammonium thiosulfate
09 01 05	HA	Bleach solutions and bleach fixer solutions
09 01 06	HM	Wastes containing silver from on-site treatment of photographic wastes
09 01 07		Photographic film and paper containing silver or silver compounds
09 01 08		Photographic film and paper free of silver or silver compounds
09 01 10		Single-use cameras without batteries
09 01 11	HA	Single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03
09 01 12		Single-use cameras containing batteries other than those mentioned in 09 01 11
09 01 13	HA	Aqueous liquid waste from on-site reclamation of silver other than those mentioned in 09 01 06
09 01 99		Wastes not otherwise specified
<b>10</b>		<b>Wastes from thermal processes</b>
<b>10 01</b>		<b><i>Wastes from power stations and other combustion plants (except 19)</i></b>
10 01 01		Bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	HM	Coal fly ash
10 01 03		Fly ash from peat and untreated wood
10 01 04	HM	Oil fly ash and boiler dust
10 01 05		Calcium-based reaction wastes from flue-gas desulfurisation in solid form
10 01 07		Calcium-based reaction wastes from flue-gas desulfurisation in sludge form

10 01 09	HA	Sulfuric acid
10 01 13	HA	Fly ash from emulsified hydrocarbons used as fuel
10 01 14	HM	Bottom ash, slag and boiler dust from co-incineration containing dangerous substances
10 01 15		Bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 16	HM	Fly ash from co-incineration containing dangerous substances
10 01 17		Fly ash from co-incineration other than those mentioned in 10 01 16
10 01 18	HM	Wastes from gas cleaning containing dangerous substances
10 01 19		Wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 20	HM	Sludges from on-site effluent treatment containing dangerous substances
10 01 21		Sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 22	HM	Aqueous sludges from boiler cleansing containing dangerous substances
10 01 23		Aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24		Sands from fluidised beds
10 01 25		Wastes from fuel storage and preparation of coal-fired power plants
10 01 26		Wastes from cooling-water treatment)
10 01 99		Wastes not otherwise specified
<b>10 02</b>		<b><i>Wastes from the iron and steel industry</i></b>
10 02 01		Wastes from the processing of slag
10 02 02		Unprocessed slag
10 02 07	HM	Solid wastes from gas treatment containing dangerous substances
10 02 08		Solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10		Mill scales
10 02 11	HA	Wastes from cooling-water treatment containing oil
10 02 12		Wastes from cooling-water treatment other than those mentioned in 10 02 11
10 02 13	HM	Sludges and filter cakes from gas treatment containing dangerous substances
10 02 14		Sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15		Other sludges and filter cakes
10 02 99		Wastes not otherwise specified
<b>10 03</b>		<b><i>Wastes from aluminium thermal metallurgy</i></b>
10 03 02		Anode scraps
10 03 04	HA	Primary production slags

10 03 05		Waste alumina
10 03 08	HA	Salt slags from secondary production
10 03 09	HA	Black drosses from secondary production
10 03 15	HM	Skimming that are flammable or emit, upon contact with water, flammable gases in dangerous quantities
10 03 16		Skimming other than those mentioned in 10 03 15
10 03 17	HM	Tar-containing wastes from anode manufacture
10 03 18		Carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 19	HM	Flue-gas dust containing dangerous substances
10 03 20		Flue-gas dust other than those mentioned in 10 03 19
10 03 21	HM	Other particulates and dust (including ball-mill dust) containing dangerous substances
10 03 22		Other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10 03 23	HM	Solid wastes from gas treatment containing dangerous substances
10 03 24		Solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 25	HM	Sludges and filter cakes from gas treatment containing dangerous substances
10 03 26		Sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 27	HA	Wastes from cooling-water treatment containing oil
10 03 28		Wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 29	HM	Wastes from treatment of salt slags and black drosses containing dangerous substances
10 03 30		Wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 03 99		Wastes not otherwise specified
<b>10 04</b>		<b><i>Wastes from lead thermal metallurgy</i></b>
10 04 01	HA	Slags from primary and secondary production
10 04 02	HA	Dross and skimmings from primary and secondary production
10 04 03	HA	Calcium arsenate
10 04 04	HA	Flue-gas dust
10 04 05	HA	Other particulates and dust
10 04 06	HA	Solid wastes from gas treatment
10 04 07	HA	Sludges and filter cakes from gas treatment
10 04 09	HA	Wastes from cooling-water treatment containing oil

10 04 10		Wastes from cooling-water treatment other than those mentioned in 10 04 09
10 04 99		Wastes not otherwise specified
<b>10 05</b>		<b><i>Wastes from zinc thermal metallurgy</i></b>
10 05 01		Slags from primary and secondary production
10 05 03	HA	Flue-gas dust
10 05 04		Other particulates and dust
10 05 05	HA	Solid wastes from gas treatment
10 05 06	HA	Sludges and filter cakes from gas treatment
10 05 08	HA	Wastes from cooling-water treatment containing oil
10 05 09		Wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 10	HM	Dross and skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities
10 05 11		Dross and skimmings other than those mentioned in 10 05 10
10 05 99		Wastes not otherwise specified
<b>10 06</b>		<b><i>Wastes from copper thermal metallurgy</i></b>
10 06 01		Slags from primary and secondary production
10 06 02		Dross and skimmings from primary and secondary production
10 06 03	HA	Flue-gas dust
10 06 04		Other particulates and dust
10 06 06	HA	Solid wastes from gas treatment
10 06 07	HA	Sludges and filter cakes from gas treatment
10 06 09	HM	Wastes from cooling-water treatment containing oil
10 06 10		Wastes from cooling-water treatment other than those mentioned in 10 06 09
10 06 99		Wastes not otherwise specified
<b>10 07</b>		<b><i>Wastes from silver, gold and platinum thermal metallurgy</i></b>
10 07 01		Slags from primary and secondary production
10 07 02		Dross and skimmings from primary and secondary production
10 07 03		Solid wastes from gas treatment
10 07 04		Other particulates and dust
10 07 05		Sludges and filter cakes from gas treatment
10 07 07	HA	Wastes from cooling-water treatment containing oil
10 07 08		Wastes from cooling-water treatment other than those mentioned in 10 07 07
10 07 99		Wastes not otherwise specified

<b>10 08</b>		<b>wastes from other non-ferrous thermal metallurgy</b>
10 08 04		Particulates and dust
10 08 08	HA	Salt slag from primary and secondary production
10 08 09		Other slags
10 08 10	HM	Dross and skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities
10 08 11		Dross and skimmings other than those mentioned in 10 08 10
10 08 12	HA	Tar-containing wastes from anode manufacture
10 08 13		Carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14		Anode scraps
10 08 15	HM	Flue-gas dust containing dangerous substances
10 08 16		Flue-gas dust other than those mentioned in 10 08 15
10 08 17	HM	Sludges and filter cakes from flue-gas treatment containing dangerous substances
10 08 18		Sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 19	HA	Wastes from cooling-water treatment containing oil
10 08 20		Wastes from cooling-water treatment other than those mentioned in 10 08 19
10 08 99		Wastes not otherwise specified
<b>10 09</b>		<b>Wastes from casting of ferrous pieces</b>
10 09 03		Furnace slag
10 09 05	HM	Casting cores and moulds which have not undergone pouring containing dangerous substances
10 09 06		Casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 07	HM	Casting cores and moulds which have undergone pouring containing dangerous substances
10 09 08		Casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 09	HM	Flue-gas dust containing dangerous substances
10 09 10		Flue-gas dust other than those mentioned in 10 09 09
10 09 11	HM	Other particulates containing dangerous substances
10 09 12		Other particulates other than those mentioned in 10 09 11
10 09 13	HM	Waste binders containing dangerous substances
10 09 14		Waste binders other than those mentioned in 10 09 13



10 09 15	HM	Waste crack-indicating agent containing dangerous substances
10 09 16		waste crack-indicating agent other than those mentioned in 10 09 15
10 09 99		Wastes not otherwise specified
<b>10 10</b>		<b><i>Wastes from casting non-ferrous pieces</i></b>
10 10 03		Furnace slag
10 10 05	HM	Casting cores and moulds which have not undergone pouring containing dangerous substances
10 10 06		Casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 07	HM	Casting cores and moulds which have undergone pouring containing dangerous substances
10 10 08		Casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 09	HM	Flue-gas dust containing dangerous substances
10 10 10		Flue-gas dust other than those mentioned in 10 10 09
10 10 11	HM	Other particulates containing dangerous substances
10 10 12		Other particulates other than those mentioned in 10 10 11
10 10 13	HM	Waste binders containing dangerous substances
10 10 14		Waste binders other than those mentioned in 10 10 13
10 10 15	HM	Waste crack-indicating agent containing dangerous substances
10 10 16		Waste crack-indicating agent other than those mentioned in 10 10 15
10 10 99		Wastes not otherwise specified
<b>10 11</b>		<b><i>Wastes from manufacture of glass and glass products</i></b>
10 11 03	HA	Waste glass-based fibrous materials
10 11 05		Particulates and dust
10 11 09	HM	Waste preparation mixture before thermal processing, containing dangerous substances
10 11 10		Waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 11	HM	Waste glass in small particles and glass powder containing heavy metals (for example from cathode ray tubes)
10 11 12		Waste glass other than those mentioned in 10 11 11
10 11 13	HM	Glass-polishing and -grinding sludge containing dangerous substances
10 11 14		Glass-polishing and -grinding sludge other than those mentioned in 10 11 13
10 11 15	HM	Solid wastes from gas treatment containing dangerous substances
10 11 16		Solid wastes from flue-gas treatment other than those mentioned in 10 11 15

10 11 17	HM	Sludges and filter cakes from flue-gas treatment containing dangerous substances
10 11 18		Sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 19	HM	Solid wastes from on-site effluent treatment containing dangerous substances
10 11 20		Solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
10 11 99		Wastes not otherwise specified
<b>10 12</b>		<b><i>Wastes from manufacture of ceramic goods, bricks, tiles and construction products</i></b>
10 12 01		Waste preparation mixture before thermal processing
10 12 03		Particulates and dust
10 12 05		Sludges and filter cakes from gas treatment
10 12 06		Discarded moulds
10 12 08		Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 09	HM	Solid wastes from gas treatment containing dangerous substances
10 12 10		Solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 11	HM	Wastes from glazing containing heavy metals such as frit
10 12 12		Wastes from glazing other than those mentioned in 10 12 11
10 12 13		Sludge from on-site effluent treatment
10 12 99		Wastes not otherwise specified
<b>10 13</b>		<b><i>Wastes from manufacture of cement, lime and plaster and articles and products made from them</i></b>
10 13 01		Waste preparation mixture before thermal processing
10 13 04		Wastes from calcination and hydration of lime
10 13 06		Particulates and dust (except 10 13 12 and 10 13 13)
10 13 07		Sludges and filter cakes from gas treatment
10 13 09	HM	Wastes from asbestos-cement manufacture containing asbestos
10 13 10		Wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11		Wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 12	HM	Solid wastes from gas treatment containing dangerous substances
10 13 13		Solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14		Waste concrete and concrete sludge
10 13 99		Wastes not otherwise specified

<b>11</b>	<b>Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy</b>	
<b>11 01</b>	<b><i>Wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodizing)</i></b>	
11 01 05	HA	Pickling acids
11 01 06	HA	Acids not otherwise specified
11 01 07	HA	Pickling bases
11 01 08	HA	Phosphatising sludges
11 01 09	HM	Sludges and filter cakes containing dangerous substances
11 01 10		Sludges and filter cakes other than those mentioned in 11 01 09
11 01 11	HM	Aqueous rinsing liquids containing dangerous substances
11 01 12		Aqueous rinsing liquids other than those mentioned in 11 01 11
11 01 13	HM	Degreasing wastes containing dangerous substances
11 01 14		Degreasing wastes other than those mentioned in 11 01 13
11 01 15	HM	Eluate and sludges from membrane systems or ion exchange systems containing dangerous substances
11 01 16	HA	Saturated or spent ion exchange resins
11 01 98	HM	Other wastes containing dangerous substances
11 01 99		Wastes not otherwise specified
<b>11 02</b>	<b><i>Wastes from non-ferrous hydrometallurgical processes</i></b>	
11 02 02	HA	Sludges from zinc hydrometallurgy (including jarosite, goethite)
11 02 03		Wastes from the production of anodes for aqueous electrolytical processes
11 02 05	HM	Wastes from copper hydrometallurgical processes containing dangerous substances
11 02 06		Wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 02 07	HM	Other wastes containing dangerous substances
11 02 99		Wastes not otherwise specified
<b>11 03</b>	<b><i>Sludges and solids from tempering processes</i></b>	
11 03 01	HA	Wastes containing cyanide
11 03 02	HA	Other wastes
<b>11 05</b>	<b><i>Wastes from hot galvanizing processes</i></b>	
11 05 01		Hard zinc
11 05 02		Zinc ash

11 05 03	HA	Solid wastes from gas treatment
11 05 04	HA	Spent flux
11 05 99		Wastes not otherwise specified
<b>12</b>		<b>Wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>
<b>12 01</b>		<b><i>Wastes from shaping and physical and mechanical surface treatment of metals and plastics</i></b>
12 01 01		Ferrous metal filings and turnings
12 01 02		Ferrous metal dust and particles
12 01 03		Non-ferrous metal filings and turnings
12 01 04		Non-ferrous metal dust and particles
12 01 05		Plastics shavings and turnings
12 01 06	HA	Mineral-based machining oils containing halogens (except emulsions and solutions)
12 01 07	HA	Mineral-based machining oils free of halogens (except emulsions and solutions)
12 01 08	HA	Machining emulsions and solutions containing halogens
12 01 09	HA	Machining emulsions and solutions free of halogens
12 01 10	HA	Synthetic machining oils
12 01 12	HA	Spent waxes and fats
12 01 13		Welding wastes
12 01 14	HM	Machining sludges containing dangerous substances
12 01 15		Machining sludges other than those mentioned in 12 01 14
12 01 16	HM	Waste blasting material containing dangerous substances
12 01 17		Waste blasting material other than those mentioned in 12 01 16
12 01 18	HA	Metal sludge (grinding, honing and lapping sludge) containing oil
12 01 19	HA	Readily biodegradable machining oil
12 01 20	HM	Spent grinding bodies and grinding materials containing dangerous substances
12 01 21		Spent grinding bodies and grinding materials other than those mentioned in 12 01 20
12 01 99		Wastes not otherwise specified
<b>12 03</b>		<b><i>Wastes from water and steam degreasing processes (except 11)</i></b>
12 03 01	HA	Aqueous washing liquids
12 03 02	HA	Steam degreasing wastes
<b>13</b>		<b>Oil wastes and wastes of liquid fuels (except edible oils)</b>

<b>13 01</b>		<b><i>Waste hydraulic oils</i></b>
13 01 01	HA	Oils containing PCBs
13 01 04	HA	Chlorinated emulsions
13 01 05	HA	Non-chlorinated emulsions
13 01 09	HA	Mineral-based chlorinated oils
13 01 10	HA	Mineral-based non-chlorinated oils
13 01 11	HA	Synthetic oils
13 01 12	HA	Readily biodegradable oils
13 01 13	HA	Other oils
<b>13 02</b>		<b><i>Waste engine, gear and lubricating oils</i></b>
13 02 04	HA	Mineral-based oils
13 02 05	HA	Mineral-based non-chlorinated oils
13 02 06	HA	Synthetic oils
13 02 07	HA	Readily biodegradable oils
13 02 08	HA	Other oils
<b>13 03</b>		<b><i>Waste insulating and heat transmission oils</i></b>
13 03 01	HA	Oils containing PCBs
13 03 06	HA	Mineral-based chlorinated oils other than those mentioned in 13 03 01
13 03 07	HA	Mineral-based non-chlorinated oils
13 03 08	HA	Synthetic oils
13 03 09	HA	Readily biodegradable oils
13 03 10	HA	Other oils
<b>13 04</b>		<b><i>Bilge oils</i></b>
13 04 01	HA	Bilge oils from inland navigation
13 04 02	HA	Bilge oils from jetty sewers
13 04 03	HA	Bilge oils from other navigation
<b>13 05</b>		<b><i>Oil/water separator contents</i></b>
13 05 01	HA	Solids from grit chambers and oil/water separators
13 05 02	HA	Sludges from oil/water separators
13 05 03	HA	Interceptor sludges
13 05 06	HA	Oil from oil/water separators
13 05 07	HA	Oily water from oil/water separators
13 05 08	HA	Mixtures of wastes from grit chambers and oil/water separators

<b>13 07</b>		<b><i>Wastes of liquid fuels</i></b>
13 07 01	HA	Fuel oil and diesel
13 07 02	HA	Petrol
13 07 03	HA	Other fuels (including mixtures)
<b>13 08</b>		<b><i>Oil wastes not otherwise specified</i></b>
13 08 01	HA	Desalter sludges or emulsions
13 08 02	HA	Other emulsions
13 08 99	HA	Wastes not otherwise specified
<b>14</b>	<b>Waste organic solvents, refrigerants and propellants (excluding wastes in 07 and 08)</b>	
<b>14 06</b>		<b><i>Waste organic solvents, refrigerants and foam/aerosol propellants</i></b>
14 06 01	HA	Chlorofluorocarbons, HCFC, HFC
14 06 02	HA	Other halogenated solvents and solvent mixtures
14 06 03	HA	Other solvents and solvent mixtures
14 06 04	HA	Sludges or solid wastes containing halogenated solvents
14 06 05	HA	Sludges or solid wastes containing other solvents
<b>15</b>	<b>Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified</b>	
<b>15 01</b>		<b><i>Packaging</i></b>
15 01 01		Paper and cardboard packaging
15 01 02		Plastic packaging
15 01 03		Wooden packaging
15 01 04		Metallic packaging
15 01 05		Composite packaging
15 01 06		Mixed packaging
15 01 07		Glass packaging
15 01 09		Textile packaging
15 01 10	HM	Packaging containing residues of or contaminated by dangerous substances
15 01 11	HM	metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers
<b>15 02</b>		<b><i>Absorbents, filter materials, wiping cloths and protective clothing</i></b>
15 02 02	HM	Absorbents, filter materials (including oil filters not otherwise specified in 16 01 07), wiping cloths, protective clothing contaminated by dangerous substances
15 02 03		Absorbents, filter materials, wiping cloths and protective clothing other than

		those mentioned in 15 02 02
<b>16</b>	<b>Wastes not otherwise specified in the list</b>	
<b>16 01</b>	<b><i>end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)</i></b>	
16 01 03		End-of-life tyres
16 01 04	HM	End-of-life vehicles
16 01 06		End-of-life vehicles, containing neither liquids nor other hazardous components
16 01 07	HA	Oil filters
16 01 08	HM	Components containing mercury
16 01 09	HA	Components containing PCBs
16 01 10	HA	Explosive components (for example air bags)
16 01 11	HM	Brake pads containing asbestos
16 01 12		Brake pads other than those mentioned in 16 01 11
16 01 13	HA	Brake fluids
16 01 14	HM	Antifreeze fluids containing dangerous substances
16 01 15		Antifreeze fluids other than those mentioned in 16 01 14
16 01 16		Tanks for liquefied gas
16 01 17		Ferrous metal
16 01 18		Non-ferrous metal
16 01 19		Plastic
16 01 20		Glass
16 01 21	HM	Hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 01 22		Components not otherwise specified
16 01 80	HA	Radiator coolant fluids containing dangerous substances such as glycol
16 01 81		Radiator coolant fluids other than those mentioned in 16 01 80
16 01 99		Wastes not otherwise specified
<b>16 02</b>	<b><i>Wastes from electrical and electronic equipment</i></b>	
16 02 09	HA	Transformers and capacitors containing PCBs
16 02 10	HA	Discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09
16 02 11	HM	Discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 12	HM	Discarded equipment containing free asbestos

16 02 13	HM	Discarded equipment containing hazardous components (Hazardous components from electrical and electronic equipment may include accumulators and batteries mentioned in 16 06 and marked as hazardous; mercury switches, glass from cathode ray tubes and other activated glass, etc.) other than those mentioned in 16 02 09 to 16 02 12
16 02 14		Discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 15	HA	Hazardous components removed from discarded equipment
16 02 16		Components removed from discarded equipment other than those mentioned in 16 02 15
<b>16 03</b>		<b><i>Off-specification batches and unused products</i></b>
16 03 03	HM	Inorganic wastes containing dangerous substances
16 03 04		Inorganic wastes other than those mentioned in 16 03 03
16 03 05	HM	Organic wastes containing dangerous substances
16 03 06		Organic wastes other than those mentioned in 16 03 05
<b>16 04</b>		<b><i>Waste explosives</i></b>
16 04 01	HA	Waste ammunition
16 04 02	HA	Fireworks wastes
16 04 03	HA	Other waste explosives
<b>16 05</b>		<b><i>Gases in pressure containers and discarded chemicals</i></b>
16 05 04	HM	Gases in pressure containers (including halons) containing dangerous substances
16 05 05		Gases in pressure containers other than those mentioned in 16 05 04
16 05 06	HM	Laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
16 05 07	HM	Discarded inorganic chemicals consisting of or containing dangerous substances
16 05 08	HM	Discarded organic chemicals consisting of or containing dangerous substances
16 05 09		Discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
<b>16 06</b>		<b><i>Batteries and accumulators</i></b>
16 06 01	HA	Lead batteries
16 06 02	HA	Ni-Cd batteries
16 06 03	HA	Mercury-containing batteries
16 06 04		Alkaline batteries (except 16 06 03)
16 06 05		Other batteries and accumulators
16 06 06	HA	Separately collected electrolyte from batteries and accumulators
<b>16 07</b>		<b><i>Wastes from transport tank, storage tank and barrel cleaning (except 05</i></b>



		<i>and 13)</i>
16 07 08	HA	Wastes containing oil
16 07 09	HM	Waste containing other dangerous substances
16 07 99		Wastes not otherwise specified
<b>16 08</b>		<b><i>Spent catalysts</i></b>
16 08 01		Spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 02	HM	Spent catalysts containing dangerous transition metals (transition metals are scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum) or dangerous transition metal compounds
16 08 03		Spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 08 04		Spent fluid catalytic cracking catalysts (except 16 08 07)
16 08 05	HM	Spent catalysts containing phosphoric acid
16 08 06	HA	Spent liquids used as catalysts
16 08 07	HM	Spent catalysts contaminated with dangerous substances
<b>16 09</b>		<b><i>Oxidizing substances</i></b>
16 09 01	HA	Permanganates, for example potassium permanganate
16 09 02	HA	Chromates, for example potassium chromate, potassium or sodium dichromate
16 09 03	HA	Peroxides, for example hydrogen peroxide
16 09 04	HA	Oxidizing substances, not otherwise specified
<b>16 10</b>		<b><i>Aqueous liquid wastes destined for off-site treatment</i></b>
16 10 01	HM	Aqueous liquid wastes containing dangerous substances
16 10 02		Aqueous liquid wastes other than those mentioned in 16 10 01
16 10 03	HM	Aqueous concentrates containing dangerous substances
16 10 04		Aqueous concentrates other than those mentioned in 16 10 03
<b>16 11</b>		<b><i>Waste linings and refractories</i></b>
16 11 01	HM	Carbon-based linings and refractories from metallurgical processes containing dangerous substances
16 11 02		Carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 03	HM	Other linings and refractories from metallurgical processes containing dangerous substances
16 11 04		Other linings and refractories from metallurgical processes other than those mentioned in 16 11 03

16 11 05	HM	Linings and refractories from non-metallurgical processes containing dangerous substances
16 11 06		Linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
<b>17</b>		<b>Construction and demolition wastes (including excavated soil from contaminated sites)</b>
<b>17 01</b>		<b><i>Concrete, bricks, tiles and ceramics</i></b>
17 01 01		Concrete
17 01 02		Bricks
17 01 03		Tiles and ceramics
17 01 06	HM	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
17 01 07		Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
<b>17 02</b>		<b><i>Wood, glass and plastic</i></b>
17 02 01		Wood
17 02 02		Glass
17 02 03		Plastic
17 02 04	HM	Glass, plastic and wood containing or contaminated with dangerous substances
<b>17 03</b>		<b><i>Bituminous mixtures, coal tar and tarred products</i></b>
17 03 01	HA	Bituminous mixtures containing coal tar
17 03 02		Bituminous mixtures other than those mentioned in 17 03 01
17 03 03	HA	Coal tar and tarred products
<b>17 04</b>		<b><i>Metals (including their alloys)</i></b>
17 04 01		Copper, bronze, brass
17 04 02		Aluminium
17 04 03		Lead
17 04 04		Zinc
17 04 05		Iron and steel
17 04 06		Tin
17 04 07		Mixed metals
17 04 09	HM	Metal waste contaminated with dangerous substances
17 04 10	HM	Cables containing oil, coal tar and other dangerous substances
17 04 11		Cables other than those mentioned in 17 04 10

<b>17 05</b>		<b><i>Soil (including excavated soil from contaminated sites), stones and dredging spoil</i></b>
17 05 03	HM	Soil and stones containing dangerous substances
17 05 04		Soil and stones other than those mentioned in 17 05 03
17 05 05	HM	Dredging spoil containing dangerous substances
17 05 06		Dredging spoil other than those mentioned in 17 05 05
17 05 07	HM	Track ballast containing dangerous substances
17 05 08		Track ballast other than those mentioned in 17 05 07
<b>17 06</b>		<b><i>Insulation materials and asbestos-containing construction materials</i></b>
17 06 01	HM	Insulation materials containing asbestos
17 06 03	HM	Other insulation materials consisting of or containing dangerous substances
17 06 04		Insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05	HM	Construction materials containing asbestos
<b>17 08</b>		<b><i>Gypsum-based construction material</i></b>
17 08 01	HM	Gypsum-based construction materials contaminated with dangerous substances
17 08 02		Gypsum-based construction materials other than those mentioned in 17 08 01
<b>17 09</b>		<b><i>Other construction and demolition wastes</i></b>
17 09 01	HM	Construction and demolition wastes containing mercury
17 09 02	HA	Construction and demolition wastes containing PCB (for example PCB-containing sealants, PCB-containing resin-based floorings, PCB-containing sealed glazing units, PCB-containing capacitors)
17 09 03	HM	Other construction and demolition wastes (including mixed wastes) containing dangerous substances
17 09 04		Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
<b>18</b>		<b>Wastes from human or animal health care and/or related research</b>
<b>18 01</b>		<b><i>Wastes from natal care, diagnosis, treatment or prevention of disease in humans</i></b>
18 01 01		Sharps (except 18 01 03)
18 01 02		Body parts and organs including blood bags and blood preserves (except 18 01 03)
18 01 03	HA	Wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 01 04		Wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)

18 01 06	HM	Chemicals consisting of or containing dangerous substances
18 01 07		Chemicals other than those mentioned in 18 01 06
18 01 08	HA	Cytotoxic and cytostatic medicines
18 01 09		Medicines other than those mentioned in 18 01 08
18 01 10	HA	Amalgam waste from dental care
<b>18 02</b>		<b><i>wastes from research, diagnosis, treatment or prevention of disease involving animals</i></b>
18 02 01		Sharps (except 18 02 02)
18 02 02	HA	Wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 02 03		wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 02 05	HM	Chemicals consisting of or containing dangerous substances
18 02 06		Chemicals other than those mentioned in 18 02 05
18 02 07	HA	Cytotoxic and cytostatic medicines
18 02 08		Medicines other than those mentioned in 18 02 07
<b>19</b>		<b>Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use</b>
<b>19 01</b>		<b><i>Wastes from incineration or pyrolysis of waste</i></b>
19 01 02		Ferrous materials removed from bottom ash
19 01 05		Filter cake from gas treatment
19 01 06	HA	Aqueous liquid wastes from gas treatment and other aqueous liquid wastes
19 01 07	HA	Solid wastes from gas treatment
19 01 10	HA	Spent activated carbon from flue-gas treatment
19 01 11	HM	Bottom ash and slag containing dangerous substances
19 01 12		Bottom ash and slag other than those mentioned in 19 01 11
19 01 13	HM	Fly ash containing dangerous substances
19 01 14		Fly ash other than those mentioned in 19 01 13
19 01 15	HM	Boiler dust containing dangerous substances
19 01 16		Boiler dust other than those mentioned in 19 01 15
19 01 17	HM	Pyrolysis wastes containing dangerous substances
19 01 18		Pyrolysis wastes other than those mentioned in 19 01 17
19 01 19		Sands from fluidised beds

19 01 99		Wastes not otherwise specified
<b>19 02</b>		<b><i>Wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</i></b>
19 02 03		Premixed wastes composed only of non-hazardous wastes
19 02 04	HA	Premixed wastes composed of at least one hazardous waste
19 02 05	HM	Sludges from physico/chemical treatment containing dangerous substances
19 02 06		Sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 02 07	HA	Oil and concentrates from separation
19 02 08	HM	Liquid combustible wastes containing dangerous substance
19 02 09	HM	Solid combustible wastes containing dangerous substances
19 02 10		Combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 02 11	HM	Other wastes containing dangerous substances
19 02 99		Wastes not otherwise specified
<b>19 03</b>		<b><i>Stabilised/solidified wastes (Stabilisation processes change the dangerousness of the constituents in the waste and thus transform hazardous waste into non-hazardous waste. Solidification processes only change the physical state of the waste (e.g. liquid into solid) by using additives without changing the chemical properties of the waste.)</i></b>
19 03 04	HA	Wastes marked as hazardous, partly stabilised (A waste is considered as partly stabilised if, after the stabilisation process, dangerous constituents which have not been changed completely into non-dangerous constituents could be released into the environment in the short, middle or long term.)
19 03 05		Stabilised wastes other than those mentioned in 19 03 04
19 03 06	HA	Wastes marked as hazardous, solidified
19 03 07		Solidified wastes other than those mentioned in 19 03 06
<b>19 04</b>		<b><i>Vitrified waste and wastes from vitrification</i></b>
19 04 01		Vitrified waste
19 04 02	HA	Fly ash and other flue-gas treatment wastes
19 04 03	HA	Non-vitrified solid phase
19 04 04		Aqueous liquid wastes from vitrified waste tempering
<b>19 05</b>		<b><i>Wastes from aerobic treatment of solid wastes</i></b>
19 05 01		Non-composted fraction of municipal and similar wastes
19 05 02		Non-composted fraction of animal and vegetable waste
19 05 03		Off-specification compost
19 05 99		Wastes not otherwise specified
<b>19 06</b>		<b><i>Wastes from anaerobic treatment of waste</i></b>

19 06 03		Liquor from anaerobic treatment of municipal waste
19 06 04		Digestate from anaerobic treatment of municipal waste
19 06 05		Liquor from anaerobic treatment of animal and vegetable waste
19 06 06		Digestate from anaerobic treatment of animal and vegetable waste
19 06 99		Wastes not otherwise specified
<b>19 07</b>		<b><i>Landfill leachate</i></b>
19 07 02	HM	Landfill leachate containing dangerous substances
19 07 03		Landfill leachate other than those mentioned in 19 07 02
<b>19 08</b>		<b><i>Wastes from waste water treatment plants not otherwise specified</i></b>
19 08 01		Screenings
19 08 02		Waste from desanding
19 08 05		Sludges from treatment of urban waste water
19 08 06	HA	Saturated or spent ion exchange resins
19 08 07	HA	Solutions and sludges from regeneration of ion exchangers
19 08 08	HM	Membrane system waste containing heavy metals
19 08 09		Grease and oil mixture from oil/water separation containing edible oil and fats
19 08 10	HA	Grease and oil mixture from oil/water separation other than those mentioned in 19 08 09
19 08 11	HM	Sludges containing dangerous substances from biological treatment of industrial wastewater
19 08 12		Sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11
19 08 13	HM	Sludges containing dangerous substances from other treatment of industrial waste water
19 08 14		Sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 08 99		Wastes not otherwise specified
<b>19 09</b>		<b><i>Wastes from the preparation of water intended for human consumption or water for industrial use</i></b>
19 09 01		Solid waste from primary filtration and screenings
19 09 02		Sludges from water clarification)
19 09 03		Sludges from decarbonation
19 09 04		Spent activated carbon
19 09 05		Saturated or spent ion exchange resins
19 09 06		Solutions and sludges from regeneration of ion exchangers

19 09 99		Wastes not otherwise specified
<b>19 10</b>		<b><i>Wastes from shredding of metal-containing wastes</i></b>
19 10 01		Iron and steel waste
19 10 02		Non-ferrous waste
19 10 03	HM	Fluff-light fraction and dust containing dangerous substance
19 10 04		Fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 05	HM	Other fractions containing dangerous substances
19 10 06		Other fractions other than those mentioned in 19 10 05
<b>19 11</b>		<b><i>Wastes from oil regeneration</i></b>
19 11 01	HA	Spent filter clays
19 11 02	HA	Acid tars
19 11 03	HA	Aqueous liquid wastes
19 11 04	HA	Wastes from cleaning of fuel with bases
19 11 05	HM	Sludge from on-site effluent treatment containing dangerous substances
19 11 06		Sludges from on-site effluent treatment other than those mentioned in 19 11 05
19 11 07	HA	Wastes from flue-gas cleaning
19 11 99		Wastes not otherwise specified
<b>19 12</b>		<b><i>Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</i></b>
19 12 01		Paper and cardboard
19 12 02		Ferrous metal
19 12 03		Non-ferrous metal
19 12 04		Plastic and rubber
19 12 05		Glass
19 12 06	HM	Wood containing dangerous substances
19 12 07		Wood other than that mentioned in 19 12 06
19 12 08		Textiles
19 12 09		Minerals (for example sand, stones)
19 12 10		Combustible waste (refuse derived fuel)
19 12 11	HM	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
19 12 12		Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
<b>19 13</b>		<b><i>Wastes from soil and groundwater remediation</i></b>

19 13 01	HM	Solid wastes from soil remediation containing dangerous substances
19 13 02		Solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 03	HM	Sludges from soil remediation containing dangerous substances
19 13 04		Sludges from soil remediation other than those mentioned in 19 13 03
19 13 05	HM	Sludges from groundwater remediation containing dangerous substances
19 13 06		Sludges from groundwater remediation other than those mentioned in 19 13 05
19 13 07	HM	Aqueous liquid wastes and aqueous concentrates from groundwater remediation containing dangerous substances
19 13 08		Aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those mentioned in 19 13 07
<b>19 80</b>		<b><i>Wastes from air pollution control system not otherwise specified in the list</i></b>
19 80 01	HM	Solid wastes, such as particulates collected from air pollution control system (i.e., Baghouse, ESP, Cyclone, Scrubber), containing dangerous substances
19 80 02		Solid wastes, such as particulates collected from air pollution control system (i.e., Baghouse, ESP, Cyclone, Scrubber), other than those mentioned in 19 80 01
19 80 03	HM	Sludges from air pollution control systems containing dangerous substances
19 80 04		Sludges from air pollution control systems other than those mentioned in 19 80 03
19 80 99		wastes not otherwise specified

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**Annex 2**  
**Characteristic of Hazardous Waste**

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No. 1 Wastes that are ignitable substances with the following properties.

1.1 It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C, as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D 93–79 or D 93–80, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278–78.

1.2 It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

1.3 It is an ignitable compressed gas, which is any material or mixture packed in tank with absolute pressure more than 2.81 kilogram per square centimeter at 21°C or with absolute pressure more than 7.31 kilogram per square centimeter at 55°C, and as determined by using the test method specified in ASTM Standard D 323.

1.4 It is an oxidizer that can excite combustion of organic matter, for instance, compounds of chlorate, permanganate, inorganic peroxide, and nitrate.

No. 2 Wastes that are corrosive substances with the following properties.

2.1 It is aqueous solution and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using USEPA Method 9040.

2.2 It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 millimeters per year at a test temperature of 55 °C as determined by Method of NACE (National Association of Corrosion Engineers) Standard TM-01-69.

No. 3 Wastes that are reactive substances with the following properties.

3.1 It is normally unstable and readily undergoes violent change without detonating.

3.2 It reacts violently with water.

3.3 It forms potentially explosive mixtures with water.

3.4 When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

3.5 It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 11.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

3.6 It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

3.7 It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure (1 atm at 0°C).

No. 4 Wastes that are toxic substances with the following properties.

4.1 It has been shown through experience or testing to pose a hazard to human health or environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties or persistence in the environment such as carcinogenic substances under groups 1, 2A and 2B of International Agency for Research on Cancer.

4.2 It is a substance with the following toxicity.

It has an acute oral LD<sub>50</sub> of rat less than 2,500 milligrams per kilogram, an acute inhalation LC<sub>50</sub> less than 10,000 parts per million as a gas or vapor, or an acute dermal LD<sub>50</sub> of rabbit less than 4,300 milligrams per kilogram. LD<sub>50</sub> means medium lethal dosage that causes 50% death in test animals and has unit of milligram of toxic substance per 1 kilogram of test animal weight. LC<sub>50</sub> means medium lethal concentration in media that causes 50% death in test animals and has unit of part (either volume or weight) of toxic substance per million parts (either volume or weight) of media.

4.3 It has an acute aquatic 96-hour LC<sub>50</sub> less than 500 milligrams per liter when measured in soft water (total hardness 40 to 48 milligrams per liter of calcium carbonate) with fathead minnows (*Pimephales promelas*), rainbow trout (*Salmo gairdneri*) or golden shiners (*Notemigonus crysoleucas*) according to procedures described in Part 800 of the "Standard Methods for the Examination of Water and Wastewater (16th Edition)," American Public Health Association, 1985.

4.4 It contains any of the following substances at a single or combined concentration equal to or exceeding 0.001 percent by weight:

4.4.1 2-Acetylaminofluorene (2-AAF)

4.4.2 Acrylonitrile

4.4.3 4-Aminodiphenyl

4.4.4 Benzidine and its salts

4.4.5 bis (Chloromethyl) ether (BCME)

- 4.4.6 Methyl chloromethyl ether
- 4.4.7 1,2-Dibromo-3-chloropropane (DBCP)
- 4.4.8 3,3'-Dichlorobenzidine and its salts (DCB)
- 4.4.9 4-Dimethylaminoazobenzene (DAB)
- 4.4.10 Ethyleneimine (EL)
- 4.4.11 alpha-Naphthylamine (1-NA)
- 4.4.12 beta-Naphthylamine (2-NA)
- 4.4.13 4-Nitrobiphenyl (4-NBP)
- 4.4.14 N-Nitrosodimethylamine (DMN)
- 4.4.15 beta-Propiolactone (BPL)
- 4.4.16 Vinyl chloride (VCM)

No. 5 Wastes having the following substance as constituent.

5.1 It contains following substances (inorganic persistent and bioaccumulative toxic substances and organic persistent and bioaccumulative toxic substances) at a concentration in milligrams per kilogram in the waste (mg/kg; wet weight), as determined using the total analysis, which equals or exceeds its listed total threshold limit concentration (TTLC).

Antimony and/or antimony compounds	500 mg/kg
Arsenic and/or arsenic compounds	500 mg/kg
Asbestos	1.0(as percent)
Barium and/or barium compounds (excluding barite and barium sulfate)	10,000 mg/kg
Beryllium and/or beryllium compounds	75 mg/kg
Cadmium and/or cadmium compounds	100 mg/kg
Chromium (VI) compounds	500 mg/kg
Chromium and/or chromium (III) compounds	2,500 mg/kg
Cobalt and/or cobalt compounds	8,000 mg/kg
Copper and/or copper compounds	2,500 mg/kg
Fluoride salts	18,000 mg/kg
Lead and/or lead compounds	1,000 mg/kg
Mercury and/or mercury compounds	20 mg/kg
Molybdenum and/or molybdenum compounds (excluding molybdenum disulfide)	3,500 mg/kg

Nickel and/or nickel compounds	2,000 mg/kg
Selenium and/or selenium compounds	100 mg/kg
Silver and/or silver compounds	500 mg/kg
Thallium and/or thallium compounds	700 mg/kg
Vanadium and/or vanadium compounds	2,400 mg/kg
Zinc and/or zinc compounds	5,000 mg/kg
Aldrin	1.4 mg/kg
Chlordane	2.5 mg/kg
DDT, DDE, DDD	1.0 mg/kg
2,4-Dichlorophenoxyacetic acid	100 mg/kg
Dieldrin	8.0 mg/kg
Dioxin (2,3,7,8-TCDD)	0.01 mg/kg
Endrin	0.2 mg/kg
Heptachlor	4.7 mg/kg
Kepone	21 mg/kg
Lead compounds, organic	13 mg/kg
Lindane	4.0 mg/kg
Methoxychlor	100 mg/kg
Mirex	21 mg/kg
Pentachlorophenol	17 mg/kg
Polychlorinated biphenyls (PCBs)	50 mg/kg
Toxaphene	5 mg/kg
Trichloroethylene	2,040 mg/kg
Silvex; 2,4,5-Trichlorophenoxypropionic acid	10 mg/kg

(Note: - TTLC values are calculated on the concentrations of the elements, not the compounds.

- In the case of asbestos and elemental metals, the specified concentration limits apply only if the substances are in a friable, powdered or finely divided state. Asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.)

5.2 It contains following substances (inorganic persistent and bioaccumulative toxic substances and organic persistent and bioaccumulative toxic substances) at a concentration in milligrams per liter of waste extract, as determined using the Waste Extraction Test (WET), which equals or exceeds its listed soluble threshold limit concentration (STLC).

Arsenic and/or arsenic compounds	5.0	mg/L
Barium and/or barium compounds (excluding barite and barium sulfate)	100	mg/L
Beryllium and/or beryllium compounds	0.75	mg/L
Cadmium and/or cadmium compounds	1.0	mg/L
Chromium (VI) compounds	5	mg/L
Chromium and/or chromium (III) compounds	5	mg/L
Cobalt and/or cobalt compounds	80	mg/L
Copper and/or copper compounds	25	mg/L
Fluoride salts	180	mg/L
Lead and/or lead compounds	5.0	mg/L
Mercury and/or mercury compounds	0.2	mg/L
Molybdenum and/or molybdenum compounds (excluding molybdenum disulfide)	350	mg/L
Nickel and/or nickel compounds	20	mg/L
Selenium and/or selenium compounds	1.0	mg/L
Silver and/or silver compounds	5	mg/L
Thallium and/or thallium compounds	7.0	mg/L
Vanadium and/or vanadium compounds	24	mg/L
Zinc and/or zinc compounds	250	mg/L
Aldrin	0.14	mg/L
Chlordane	0.25	mg/L
DDT, DDE, DDD	0.1	mg/L
2,4-Dichlorophenoxyacetic acid	10	mg/L
Dieldrin	0.8	mg/L
Dioxin (2,3,7,8-TCDD)	0.001	mg/L
Endrin	0.02	mg/L
Heptachlor	0.47	mg/L
Kepone	2.1	mg/L
Lindane	0.4	mg/L
Methoxychlor	10	mg/L
Mirex	2.1	mg/L
Pentachlorophenol	1.7	mg/L

Polychlorinated biphenyls (PCBs)	5.0	mg/L
Toxaphene	0.5	mg/L
Trichloroethylene	204	mg/L
Silvex (2,4,5-Trichlorophenoxypropionic acid)	1.0	mg/L

(Note: - TTLC values are calculated on the concentrations of the elements, not the compounds.)

5.3 The WET shall be carried out if the total concentration in the waste, or other material, of any substance listed equals or exceeds the STLC value in 5.2, but does not exceed the TTLC value in 5.1, given for that substance, or when such wastes are destined to be disposed of by landfilling.

No. 6 Determination of total concentrations of substances listed, waste extraction test and analysis for hazardous substance concentrations in waste extract shall be as follows:

6.1 Samples shall be prepared for analysis for total and extractable concentration of substances as follows:

6.1.1 Type i: if the waste or other material is a millable solid, the sample shall be passed directly, or shall be milled to pass, through a standard sieve before it is analyzed. If the sample contains non-friable solid particles which do not pass directly through a sieve and which are extraneous and irrelevant as hazardous constituents to the waste or other material, they shall be removed to the extent feasible by mechanical means and discarded. Solids which remain in the waste or other material after removal of the aforesaid extraneous particles shall be milled to pass through a sieve and shall then be combined and mixed well with the solids which passed through the sieve without milling. The reconstituted sample shall then be ready for analysis.

6.1.2 Type ii: if the waste or other material is a filterable mixture of liquid and solids in which the solids constitute five-tenths (0.5) percent by weight or greater of the sample, the liquid and solids shall be separated by filtration through a 0.45 micron membrane filter. The filtrate so obtained is to be designated as Initial Filtrate. Its volume is determined, and it is retained. The separated solids shall be sieved in a sieve and any nonfriable extraneous particles which do not pass through the sieve shall be removed to the extent feasible by mechanical means and discarded. The solids which remain after removal of the extraneous particles shall be milled to pass through a sieve and shall be recombined with solids which passed through the sieve without milling. This recombined solid material shall be further extracted following the procedure in 6.4. A ratio of 10 milliliters of extraction solution per gram of solid shall be utilized with appropriate modifications for extraction

vessel size. After completion of solids extraction, the filtered extractant is combined with Initial Filtrate, mixed thoroughly and analyzed as described in 6.5.2.

6.1.3 Type iii: if the waste or other material is a nonfilterable and nonmillable sludge, slurry, or oily, tarry or resinous material, it shall be analyzed as received unless it contains non-friable extraneous and irrelevant solid particles. If it contains such solid particles and they are of such size as not to pass through a sieve, they shall be removed to the extent feasible by mechanical means and discarded. The remainder of the sample shall then be ready for analysis.

6.1.4 If it is necessary to dry a solid sample or the solids fraction of a sample before sieving, milling or removal of extraneous solids, or if a sample is dried prior to analysis, all weight losses due to drying shall be determined, and these losses and the conditions of drying shall be reported.

6.1.5 A No. 10 (two millimeter) standard sieve shall be used in preparing sample for determination of total concentration of substance in milligram per kilogram and for determination of extractable concentration of substance in waste extract in milligram per liter, except for determination of total concentration of toxic organic substance in milligram per kilogram a one- millimeter standard sieve shall be used instead.

6.2 If the waste or other material is a liquid containing less than five-tenths (0.5) percent by weight of undissolved solids, it shall not be subject to the WET procedure, but shall be analyzed directly for the substances listed. The waste shall be classified as a hazardous waste if the total concentration in the waste of any substances listed exceeds the TTLC value given for that substance.

If, however, the total concentration is less than the TTLC but exceeds the STLC when expressed on a milligrams per liter basis, the waste or other material shall be filtered through a 0.45 micron membrane filter, the solids discarded and the filtrate shall be analyzed directly for the substances listed. The waste shall be classified as a hazardous waste if the concentration in the filtrate of any of the substances listed exceeds the STLC value given for that substance.

6.3 The WET extraction solution shall consist of 0.2 M sodium citrate at pH  $5.0 \pm 0.1$ , which is prepared by titrating an appropriate amount of analytical grade citric acid in deionized water with 4.0 N NaOH, except that the extraction solution for the determination of chromium (VI) shall consist of deionized water.

6.4 The Waste Extraction Test (WET) procedures shall be as follows:

6.4.1 Fifty grams of sample shall be placed in a clean polyethylene or glass container designated the Treatment, capable of physically withstanding the extraction procedure and which was rinsed previously with, in succession, an aqueous 1:1 ratio by volume nitric acid solution and deionized water. If the extract will be analyzed for any of the organic substances listed, a glass container shall be used.

6.4.2 Five hundred milliliters of extraction solution shall be added to the Treatment container, which shall be then fitted with covered air scrubbers extended well into the extraction solutions and flushed vigorously with nitrogen gas for 15 minutes so as to remove and exclude atmospheric oxygen from the extraction medium. After deaeration the containers shall be quickly sealed with tightly fitting caps and agitated, using a table shaker, an overhead stirrer or a rotary extractor, operated at a speed which shall maintain the sample in a state of vigorously agitated suspension for 48 hours.

If the sample is to be analyzed for any volatile substance, such as trichloroethylene, the sample shall be added after deaeration with nitrogen to avoid volatilization loss.

6.4.3 After 48 hours of extracting, the contents of the Treatment containers shall be either filtered directly or centrifuged and then filtered. Filtering shall be through a medium porosity prefilter and then through a 0.45 micron membrane filter, using a clean, thick-walled suction flask. For coarser solids, prefiltration shall not be necessary. Pressure filtration shall be an optional alternative to vacuum filtration. If the extracts are first centrifuged, glass or polyethylene bottles shall be used as prescribed for extraction. For very fine solids, centrifuging at as high as 10,000 X G may be necessary. After centrifugation, the liquids shall be decanted, prefiltered if necessary, and then passed through a 0.45 micron membrane filter.

6.4.4 All filters shall be of low and identified extractable heavy metals, fluoride and organic chemicals content.

6.4.5 Necessary equipment and instrument shall be as described in Method 1310 in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, "SW-846, 3<sup>rd</sup> edition, U.S. Environmental Protection Agency, 1986.

6.4.6 The temperature during the extraction shall be maintained between 20 and 40 degrees Celsius.

6.4.7 If the filtered extracts are to be analyzed only for the metal elements, the filtered extracts from 6.4.3 shall be transferred to clean polyethylene bottles and



acidified with nitric acid to five percent by volume acid content soon after each extract is filtered.

6.4.8 If the filtered extracts are also to be analyzed for the toxic organic substances or for the toxic organic substances only, the filtered extracts from 6.4.3 shall be transferred to clean glass bottles. If the extracts are to be analyzed for fluoride, they shall be transferred to clean polyethylene bottles.

These extracts, containing organic substances or fluoride, shall not be acidified, but shall be frozen soon after each extract is obtained and held frozen until the day of analysis, unless the extracts are analyzed within 24 hours.

6.4.9 In order to determine whether the extractable concentration (EC) in the waste or other material exceeds the STLC for any of the substances listed. The extracts shall be analyzed according to the procedures identified in 6.5.2.

6.5 Sample analysis for total concentration of toxic substance shall be as follows:

6.5.1 For metals and metal compounds, extraction methods shall be as prescribed in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, "SW-846, 2<sup>nd</sup> edition, U.S. Environmental Protection Agency, 1982 as follows:

6.5.1.1 Method 3050 for all metals and metal compounds, except hexavalent chromium.

6.5.1.2 Method 3060 for hexavalent chromium.

6.5.2 For toxic inorganic and organic substances other than organic lead compounds, extraction methods shall be as prescribed in Chapter Two, "Choosing the Correct Procedure" in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, "SW-846, Third Edition and Updates.

6.5.3 For organic lead compounds, extraction method shall be as prescribed in Annex 11 of California Code of Regulations, Title 22 Social Security, Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Chapter 11 Identification and Listing of Hazardous Waste.

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**Annex 3****Emergency Plan and Emergency Response Plan**  
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No. 1 A factory entrepreneur shall prepare an emergency plan and an emergency response plan to protect human health and the environment from damage resulting from fire, explosion or unexpected accident including spill and leakage of hazardous waste or its component to the environment.

No. 2 An emergency plan and an emergency response plan, at minimum, shall consist of the following detail:

2.1 Procedural step in implementation in response to fire, explosion or unexpected accident including spill and leakage of hazardous waste or its component.

2.2 Cooperation with local authority such as Tambon administrative organization, police station, fire fighter station, hospital and rescue unit, etc to assist and cooperate during an emergency.

2.3 There shall be a list of name address and phone number (home and office) of responsible personnel and facilitator during an emergency and this list must be updated. If there are several responsible persons, name list should be in order of responsibility that is a person with direct responsibility should be on top of the list.

2.4 There shall be a list of safety equipment and emergency equipment in a facility (such as fire fighter system, spill kit, communication and warning system (both outside and inside) and decontamination equipment) including specific information on storage location for such equipment and detailed description of how to use these equipments.

2.5 There shall be an evacuation plan for worker of such facility if necessary. The plan should describe a sign or signal that will be used in prompting an evacuation, evacuation route and alternative route (in case there is leakage and fire in the main route)

No. 3 Information, copy of plan and operating procedure should be available for local police station, fire fighter station, hospital and rescue unit in order to respond to emergency quickly and properly.

No. 4 After an accident or an emergency, operating procedure for treatment, storage or disposal of waste arisen from such event, and remediation plan should be prepared. In case there is contamination of hazardous waste to the environment, preventive maintenance plan shall be established to determine flawed point, malfunction, mistake during

implementation and spill or leakage of hazardous substance which leads to the environment and potentially harmful to human and the environment.

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**Annex 4**  
**Criteria and Method in Waste Management**

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No. 1 A factory entrepreneur wishes to manage its waste within factory premise shall comply with the following.

1.1 Landfill: There shall be lining system, leakage detection system, gas ventilation system, and leachate treatment system appropriate for type and characteristic of wastes without adverse effect on the environment, also must be approved from Department of Industrial Works.

1.2 Incineration of non-hazardous waste shall be done so that stack emission is in compliance with the Notification of Ministry of Science Technology and Environment regarding emission standard for solid waste incinerator dated 17<sup>th</sup> June B.E. 2540 (1997).

Incineration of hazardous waste is not allowed unless it is approved by Department of Industrial Works.

1.3 Other management methods such as composting, land reclamation, recycle shall be approved by Department of Industrial Works.

No. 2 The following three-digit code shall be used as treatment and disposal codes for reporting waste data using Form SoKo.3 and requesting for off-site waste treatment permit.

2.1 Waste management can be classified into 8 methods as follows:

- 2.1.1 Method 01    Sorting
- 2.1.2 Method 02    Storage
- 2.1.3 Method 03    Reuse
- 2.1.4 Method 04    Recycle
- 2.1.5 Method 05    Recovery
- 2.1.6 Method 06    Treatment
- 2.1.7 Method 07    Disposal
- 2.1.8 Method 08    Others

2.2 Three-digit treatment and disposal codes for waste management corresponding to 8 methods in 2.1 shall be as follows:

- 011    Sorting for resale
- 021    Storage (specify type of packing and containers)
- 031    Use as raw material substitution (specify process or product)

- 032 Return to original producer for disposal (specify name of producer)
- 033 Return to original producer for reuse or refill (specify name of producer)
- 039 other reuse methods (please specify)
- 041 Use as fuel substitution or burn for energy recovery
- 042 Fuel blending
- 043 Burn for energy recovery (specify type of combustion)
- 044 Use as co-material in cement kiln or rotary kiln (specify product)
- 049 other recycle methods (please specify)
- 051 Solvent reclamation/regeneration
- 052 Reclamation/regeneration of metal and metal compounds
- 053 Acid/base regeneration
- 054 Catalyst regeneration
- 059 other recovery unlisted materials (please specify)
- 061 Biological treatment
- 062 Chemical treatment
- 063 Physical treatment
- 064 Physico-chemical treatment
- 065 Physico-chemical treatment of wastewater
- 066 Direct discharge to central wastewater treatment plant
- 067 Chemical stabilization
- 068 Chemical fixation using cementitious and/or pozzolanic material
- 069 Other detoxification methods (please specify)
- 071 Sanitary landfill (for non-hazardous waste only)
- 072 Secure landfill
- 073 Secure landfill of stabilized and/or solidified wastes
- 074 Burn for destruction in solid waste incinerator (for non-hazardous waste only)
- 075 Burn for destruction in hazardous waste incinerator
- 076 Co-incineration in cement kiln
- 077 Deepwell or underground injection; sea-bed insertion
- 079 Other disposal methods (please specify)
- 081 Collect and export
- 082 Land reclamation (for non-hazardous waste only)
- 083 Composting or soil conditioner (for non-hazardous waste only)

084 As component in animal feed (for non-hazardous waste only)

-----

### Form for requesting for extension of waste storage in a factory

(Part 1: for a factory entrepreneur)

at .....

Date .....

Company/Limited partnership/Factory .....

Engaging in a business of ..... Factory license number

..... Location of factory..... Moo..... Soi.....

Street..... Tambon.....

District..... Province..... Contact phone

number.....Facsimile..... Email address.....

Identification number .....

wish to request for time extension of waste storage in a factory premise from date ..... to  
 ..... due to the reason that ..... (specify reason )

.....  
 .....

**Waste Information**

No.	Waste code	Name of waste	Quantity (Ton)	Type of container

Signed .....Grantee of Factory license  
 ( )

(Part 2: for officials)

No. ....

To Grantee of factory License

Refer to your requesting form for extension of waste storage in a factory, Industrial Waste Management Bureau, Department of Industrial Works would like to inform you that your request has been processed and extension of waste storage in a factory has been granted until the date of .....

Sign .....  
 ( )

**Application Form for Offsite Waste Treatment**

under the Notification of Ministry of Industry regarding industrial waste disposal

Receiving number ..... Date .....

At.....  
 Date .....

Company/Limited partnership/Factory .....engaging in a business of  
 ..... Factory license number .....Location of factory..... Moo.....  
 Soi..... Street..... Tambon..... District.....  
 Province..... Contact phone number.....Facsimile..... Email  
 address.....Taxpayer ID no.....

wishes to take waste out off a premise for off-site waste management from date ..... to .....  
 as shown in the table below.

Number	Detail of waste		Amount (Ton)	Disposal Method	Factory license of Waste processor
	Waste code	Name/Description			

And have attached the following documentation:

- Copy of factory license of both waste generator and waste processor or comparable document.
- Detail of treatment/disposal method
- Flowchart of production process and waste generating process
- Copy of land owner certificate with permission letter for land reclamation
- Authorization letter with stamp duty
- Service of agreement between waste generator and waste processor\*\*
- Copy of legal entity registration letter with copies of ID of authorized person of both waste generator and processor
- Component analysis of waste/waste characteristic
- Material Safety Data Sheet (for chemicals)
- Analysis result of Waste Extraction Test (WET)
- Liability agreement letter (SoToKo.1 and SoToKo.2)\*\*
- Other (please specify) ....

\*\* Service of agreement or Liability agreement letter must still be valid for more than 1 month counting from date of application to the end date of such agreement.

Sign .....

( ..... )

Factory entrepreneur



Method of Disposal

011	Sorting for resale	065	Physico-chemical treatment of wastewater
021	Storage (specify type of packing and containers)	066	Direct discharge to central wastewater treatment plant
031	Use as raw material substitution (specify process or product)	067	Chemical stabilization
032	Return to original producer for disposal (specify name of producer)	068	Chemical fixation using cementitious and/or pozzolanic material
033	Return to original producer for reuse or refill (specify name of producer)	069	Other detoxification methods (please specify)
039	other reuse methods (please specify)	071	Sanitary landfill (for non-hazardous waste only)
041	Use as fuel substitution or burn for energy recovery	072	Secure landfill
042	Fuel blending	073	Secure landfill of stabilized and/or solidified wastes
043	Burn for energy recovery (specify type of combustion)	074	Burn for destruction in solid waste incinerator (for non-hazardous waste only)
044	Use as co-material in cement kiln or rotary kiln (specify product)	075	Burn for destruction in hazardous waste incinerator
049	other recycle methods (please specify)	076	Co-incineration in cement kiln
051	Solvent reclamation/regeneration	077	Deepwell or underground injection; sea-bed insertion
052	Reclamation/regeneration of metal and metal compounds	079	Other disposal methods (please specify)
053	Acid/base regeneration	.....	.....
054	Catalyst regeneration	.....	.....
059	other recovery unlisted materials (please specify)		
061	Biological treatment	081	Collect and export
062	Chemical treatment	082	Land reclamation (for non-hazardous waste only)
063	Physical treatment	083	Composting or soil conditioner (for non-hazardous waste only)
064	Physico-chemical treatment	084	As component in animal feed (for non-hazardous waste only)

Warning:

1. An application with incomplete documentation shall not be accepted.
2. If a permit is not granted and you disagree with such order, you can appeal in written to Director-General of Department of Industrial Works within 15 days from the day you have received such order.
3. If you attempt to violate by taking waste offsite without permission, it shall be considered as violation under section 45 of the Factory Act B.E. 2535 (1992), and shall be subject to a fine not exceeding two hundred thousand Baht.

### Report of Waste data for Waste Generator

Date .....

I ..... a factory entrepreneur

Office Location ..... Moo..... Soi.....Street.....

Tambon..... District..... Province.....

Contact phone number.....Facsimile..... Factory license number .....

Location of factory..... Moo..... Soi.....Street.....

Tambon..... District..... Province.....

Contact phone number.....Facsimile.....

Waste generator ID .....

Wishes to report waste data as follows:

- |       |   |                            |
|-------|---|----------------------------|
| No. 1 | Description of waste and method of disposal                                       | as shown in Document no. 1 |
| No. 2 | Flowchart of production process<br>and waste generating process                   | as shown in Document no. 2 |
| No. 3 | Schematic of storage/sorting/management facility<br>in a factory                  | as shown in Document no. 3 |
| No. 4 | Change in quantity and toxicity of waste<br>compared to last year data            | as shown in Document no. 4 |
| No. 5 | Detail information of waste transporter<br>and waste processor                    | as shown in Document no. 5 |
| No. 6 | Emergency plan  | as shown in Document no. 6 |
| No. 7 | Mitigation report and environment impact<br>assessment of the occurring emergency | as shown in Document no. 7 |



**Flowchart of production process and waste generating process**

Prepared by Signed \_\_\_\_\_  
( \_\_\_\_\_ )  
Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

**Schematic of storage/sorting/management facility in a factory**

Prepared by Signed \_\_\_\_\_  
( \_\_\_\_\_ )  
Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

**Change in quantity and toxicity of waste compared to last year data**

No.	Waste code	Name and description	Year/Period		Year/Period		Year/Period		Year/Period	
			Quantity	Concentration	Quantity	Concentration	Quantity	Concentration	Quantity	Concentration

Remark: Attach waste analysis if available.

Prepared by \_\_\_\_\_

( \_\_\_\_\_ )

Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur

( \_\_\_\_\_ )

Date \_\_\_\_\_

**Detail information of waste transporter and waste processor**

Name of Entrepreneur 1 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 2 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 3 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 4 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Remark: Specify type of entrepreneur according to its business. If such person take your waste and use it as raw material to produce other product, he should be specified as waste generator and also specify the process being employed. If such person is not registered and is not entrepreneur, please specify method of transportation and method of waste utilization.

**Emergency Plan**

signed \_\_\_\_\_ Factory entrepreneur

( \_\_\_\_\_ )

Date \_\_\_\_\_



**Document no. 7**

**Mitigation report and environment impact assessment of the occurring emergency**

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

### Report of Waste data for Waste Transporter

Date .....

I ..... a waste transporter

Office Location ..... Moo..... Soi.....Street.....

Tambon..... District..... Province.....

Contact phone number.....Facsimile..... Factory license number .....

Location of Collection and Transfer facility..... Moo..... Soi.....

Street..... Tambon..... District.....

Province..... Contact phone number.....Facsimile.....

Waste transporter ID .....

Wishes to report waste data as follows:

No. 1 Description of waste and method of transportation as shown in Document no. 1

No. 2 Flowchart showing management in waste collection,  
sorting and transfer facility as shown in Document no. 2

No. 3 Detail information of waste generator  
and waste processor as shown in Document no. 3

No. 4 Emergency plan as shown in Document no. 4

No. 5 Mitigation report and environment impact  
assessment of the occurring emergency as shown in Document no. 5

## Description of waste and method of transportation for the year of .....

Waste generator	Identification number	Waste code	Name and Description	Amount (specify unit)	Packaging and method of transportation	Waste processor	Identification number

Prepared by Signed \_\_\_\_\_  
 ( \_\_\_\_\_ )  
 Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur  
 ( \_\_\_\_\_ )  
 Date \_\_\_\_\_

**Flowchart showing management in waste collection, sorting and transfer facility**

Prepared by Signed \_\_\_\_\_  
( \_\_\_\_\_ )  
Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

**Detail information of waste generator and waste processor**

Name of Entrepreneur 1 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 2 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 3 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 4 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Remark: Specify type of entrepreneur according to its business. If such person take your waste and use it as raw material to produce other product, he should be specified as waste generator and also specify the process being employed. If such person is not registered and is not entrepreneur, please specify method of transportation and method of waste utilization.

**Emergency Plan**

signed \_\_\_\_\_ Factory entrepreneur

( \_\_\_\_\_ )

Date \_\_\_\_\_

**Mitigation report and environment impact assessment of the occurring emergency**

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

### Report of Waste data for Waste Processor

Date .....

I ..... a factory entrepreneur  
 Office Location ..... Moo..... Soi.....Street.....  
 Tambon..... District..... Province.....  
 Contact phone number.....Facsimile..... Factory license number .....  
 Location of factory..... Moo..... Soi.....Street.....  
 Tambon..... District..... Province.....  
 Contact phone number.....Facsimile.....  
 Waste processor ID .....

Wishes to report waste data as follows:

- |       |   |                            |
|-------|---|----------------------------|
| No. 1 | Description of waste and method of disposal   | as shown in Document no. 1 |
| No. 2 | Flowchart of treatment and disposal process<br>with description of process and obtained product | as shown in Document no. 2 |
| No. 3 | Schematic of collection, detoxification, disposal,<br>or landfill facility and monitoring point | as shown in Document no. 3 |
| No. 4 | Detail information of waste generator<br>and waste transporter                                  | as shown in Document no. 4 |
| No. 5 | Emergency plan  | as shown in Document no. 5 |
| No. 6 | Mitigation report and environment impact<br>assessment of the occurring emergency               | as shown in Document no. 6 |
| No. 7 | Result of groundwater monitoring<br>and pollution control                                       | as shown in Document no. 7 |



**Description of waste and method of disposal for the year of .....**

No.	Waste generator	Waste Transporter	Waste code	Name and Description	Amount (specify unit)	Method of disposal	Remark

Remark: For method of landfill, please specify position and number of cell being landfilled.

Prepared by Signed \_\_\_\_\_ signed \_\_\_\_\_ Factory entrepreneur  
 ( \_\_\_\_\_ ) ( \_\_\_\_\_ )  
 Position \_\_\_\_\_ Date \_\_\_\_\_



**Flowchart of treatment and disposal process with description of process and obtained product**

Prepared by Signed \_\_\_\_\_  
( \_\_\_\_\_ )  
Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

**Document no. 3**

**Schematic of collection, detoxification, disposal, or landfill facility and monitoring point**

Prepared by Signed \_\_\_\_\_  
( \_\_\_\_\_ )  
Position \_\_\_\_\_

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

**Detail information of waste generator and waste transporter**

Name of Entrepreneur 1 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 2 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 3 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Name of Entrepreneur 4 .....  Waste generator  
 ID number .....  Waste Transporter  
 Address .....  Waste Processor  
 .....

Phone number..... Facsimile .....  
 Method of disposal/transport.....

Remark: Specify type of entrepreneur according to its business. If such person take your waste and use it as raw material to produce other product, he should be specified as waste generator and also specify the process being employed. If such person is not registered and is not entrepreneur, please specify method of transportation and method of waste utilization.

**Emergency Plan**

signed \_\_\_\_\_ Factory entrepreneur

( \_\_\_\_\_ )

Date \_\_\_\_\_

**Document no. 6**

**Mitigation report and environment impact assessment of the occurring emergency**

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_

**Result of groundwater monitoring and pollution control**

signed \_\_\_\_\_ Factory entrepreneur  
( \_\_\_\_\_ )  
Date \_\_\_\_\_