IMPLEMENTATION OF INFRASTRUCTURE AND FACILITIES IN HANDLING HOUSEHOLDS WASTE AND OTHER TYPE OF HOUSEHOLD WASTE
(Regulation of the Minister of Public Works Republic of Indonesia Number 03/PRT/M/2013, dated March 14, 2013)

WITH THE BLESSING OF THE ONE AND ONLY GOD
MINISTER OF PUBLIC WORKS OF
THE REPUBLIC OF INDONESIA,

Considering:

Whereas, to implement the provisions in Article 18, paragraph (5), Article 24, paragraph (1) and paragraph (3), and Article 25, paragraph (3) of Government Regulation Number 81 Year 2012 concerning Management of Household Waste and Other Type of Household Waste, it is necessary to stipulate Regulation of the Minister concerning Operation of Infrastructure and Facilities in Handling Household Waste and Other Type of Household Waste;

In view of:

1. Law Number 18 Year 2008 (BN No. 7681 pgs. 15B-19B) concerning Waste Management (Statute Book of the Republic of Indonesia Year 2008 Number 69, Supplement to Statute Book Republic of Indonesia Number 4851);

2. Government Regulation Number 16 Year 2005 concerning Development of Drinking Water Supply System (Statute Book of the Republic of Indonesia Year 2005 Number 33, Supplement to Statute Book of the Republic of Indonesia Number 4490);

3. Government Regulation Number 23 Year 2005 (BN No. 7249 pgs. 3B-10B) concerning Financial Management of Public Service Agency (Statute Book of the Republic of Indonesia Year 2005 Number 48, Supplement to Statute Book of the Republic of Indonesia Number 4505);

4. Government Regulation Number 38 Year 2007 (BN No. 7576 pgs. 1B-6B) concerning Distribution of Administration Affair between the Government, Regional Administration of Province, and Regional Administration of Regency/Municipality (Statute Book of the Republic of Indonesia Year 2007 Number 82, Supplement to Statute Book of the Republic of Indonesia Number 4737);

5. Government Regulation Number 15 Year 2010 concerning Designing Space Layout (Statute Book 2010 Number 21, Supplement to Statute
To stipulate:

REGULATION OF THE MINISTER OF PUBLIC WORKS ON IMPLEMENTATION OF INFRASTRUCTURE AND FACILITIES IN HANDLING HOUSEHOLD WASTE AND OTHER TYPE OF HOUSEHOLD WASTE.

CHAPTER I
GENERAL PROVISION

Article 1

What is meant in this Regulation of the Minister by:

1. Household Waste, shall be waste originating from household daily activities, excluding feces and other specific waste.

2. Other Type of Household Waste, shall be household waste originating from commercial area, industrial area, special area, social facilities, public facilities, and/or other facilities.

3. Residue, shall be waste that is non-processable by changing it into solid form, changing it into compost, recycling into form of material, and/or recycling it into energy.

4. Waste infrastructure hereinafter referred to as infrastructure, shall be basic facilities that may support implementation in waste handling activity.

5. Waste facilities hereinafter referred to as facilities, shall be equipment that may be used in
waste handling activity.

1. Implementation of Infrastructure and Facilities in Waste Handling hereinafter referred to as implementation of PSP, shall be activities on planning, constructing, operating and maintaining, as well as monitoring and evaluating the handling of Household Waste and Other Type of Household Waste.

7. Source of Waste, shall be the origin of waste dumping.

3. Sorting out, shall be sorting out and separating the waste according to the respective type.

9. Accommodation, shall be temporary waste accommodation in individual or communal media at the place of waste origin with due consideration of the types of waste.

10. Collecting, shall be collecting out and moving away the waste from the waste source and place it into the temporary accommodation or to the place of waste processing media using the 3R principles.

11. Transport, shall be transporting the waste from the waste source or temporary accommodation to integrated waste processing media or to the final processing site using motor vehicle designed for waste transport.

12. Temporary Accommodation hereinafter referred to as TPS, shall be the accommodating place before the waste is transported to the recycling, processing site and/or to integrated waste processing site.

13. Processing, shall be activity in changing the characteristic, composition, and/or volume of waste.

14. Waste Processing Site Using 3R Principles (reduce, reuse and recycle), hereinafter referred to as TPS 3R, shall be place where collecting, sorting out, recycling activities, and zonal scale recycling are conducted.

15. Transitional Station, hereinafter referred to as SPA, shall be facilities for moving from small transporting media to larger transporting media, which is required for regency/municipality that has TPA location which capacity is more than 25 km that is supported with waste processing facilities.

16. Integrated Waste Processing Media hereinafter referred to as TPST, shall be media where waste is dumped in, for sorting out, reusing, recycling, processing, and final processing activities.
17. Waste Final Process, shall be restoring back the waste and/or the residue produced by waste processing activity safely into environmental media.

18. Final Processing Place hereinafter referred to as TPA, shall be place to process and restore the waste back to the environmental media.

19. Lindi, shall be liquid produced by garbage arising from infiltration of external water into landfill or waste heap, dissolving and rinsing dissolved material, also including organic material produced by biological decomposition process.

20. Open Piling-up Spot, shall be waste piling up process at TPA without periodical compaction and covering up process.

21. Method of Controlled Landfill Area, shall be method of landfill in waste landfill area, by compacting and covering it with cover soil at least once in seven years. This method is temporary, before capable to apply sanitary landfill area.

22. Method of Sanitary Landfill Area, shall be method for landfiling in waste landfill area made ready and operated systematically, by spreading and compacting the waste in the landfill area, and cover the waste every day.

23. Person, shall be individual person, group of persons, and/or legal entity.

24. Central Government hereinafter referred to as Government, shall be President of the Republic of Indonesia holding the power of administration of the State of the Republic of Indonesia as referred to in Law Dasar of State of the Republic of Indonesia Year 1945.

25. Minister, shall be Minister exercising administration affairs on public works.

Article 2

(1) This Regulation of the Minister is for the purpose of reference for the Government, administration of Province, administration of Regency/Municipality, and the person concerned in implementing PSP.

(2) This Regulation of the Minister is meant to:

a. accomplish effective implementation of PSP with environmental insight;

b. improve coverage of waste handling service;

c. improve the level of community’s health and environmental quality;

d. protect water resource, the land, and air from pollution and mitigate weather change; and

e. formulate waste as resource.

Article 3

(1) The scope of this Regulation of the Minister cov-
ers general planning, handling, providing waste processing facilities and final processing facilities, and covering/ rehabilitating TPA.

(2) The waste governed in this Regulation of the Minister covers Household Waste and Other Type of Household Waste.

CHAPTER II
GENERAL PLANNING

Part One
General
Article 4

(1) General planning for PSP implementation covers:
   a. master plan;
   b. feasibility study; and
   c. technical planning and management of waste.

(2) General planning for PSP implementation in big and metropolitan cities comprises:
   a. master plan; and
   b. feasibility study.

(3) General planning for PSP implementation in medium class cities and small cities shall be in the form of technical planning and management of waste.

Part Two
Master Plan
Article 5

(1) The master plan referred to in Article 4, paragraph (1), letter a may be in the form of:
   a. master plan in one municipality administration area;
   b. master plan cross regency and/or municipality; and
   c. master plan cross provinces.

(2) The master plan referred to in paragraph (1), must state, among other things, plan of:
   a. area of service;
   b. need and level of service;
   c. PSP implementation covering technical aspect, institutional, coordination, finance and role of the society; and
   d. phases of implementation.

(3) The technical aspect referred to in paragraph (2) letter c, shall cover among other things, covering the activities below:
   a. limited waste piling up;
   b. waste recycle;
   c. waste re-utilization;
   d. waste sorting out;
   e. was collection;
   f. waste transport;
   g. waste process; and
   h. waste final process.

(4) Preparation of master plan is based on:
   a. condition of the city;
b. city development plan;
c. condition of PSP implementation; and
d. problem in PSP implementation.

(5) The preparation of master plan referred to in paragraph (4) must observe:
a. policy and strategy on PSP implementation;
b. norm, standard, procedure, and criteria stipulated by the Government;
c. Area Space Layout; and
d. integration with development of supply system of drinking water, drainage of effluent and drainage system of the city.

Article 6

(1) The master plan referred to in Article 5, paragraph (1) letter a, shall be compiled and stipulated by the Municipality Administration according to his/her authority.

2) The master plan referred to in Article 5, paragraph (1) letter b, shall be compiled and stipulated by Provincial Administration according to his/her authority.

(3) The master plan referred to in Article 5, paragraph (1) letter c, shall be compiled and stipulated by the Central Government according to his/her authority.

(4) The master plan referred to in paragraph (1), shall be stipulated for a term of at least ten (10) years and will be reviewed periodically for justification with the developing condition.

(5) The Government shall be obliged to make orientation session on the master plan referred to in paragraph (1) based on its authority in the form of public consultation at least once a year once in 12 (twelve) months.

Part Three
Feasibility Study

Article 7

(1) The feasibility study referred to in Article 4, paragraph (1) letter b, is required for provision of waste infrastructure and facilities using processing technology and final technology technology with capacity greater than 100 tons/day.

(2) The feasibility study referred to in paragraph (1), shall be compiled based on:
a. master plan of the stipulated PSP implementation;
b. technical, economical and financial feasibility; and
c. result of environmental, social, law and institutional study.

(3) The Government and/or private party shall compile the feasibility study referred to in paragraph (1) based on their respective authority.
Article 8

(1) The technical feasibility referred to in Article 7, paragraph (2), letter b, must contain among other things:

a. operation technical plan;
b. need for land;
c. need for water and energy;
d. need for infrastructure and facilities;
e. general image of operation and maintenance;
f. term of system service; and
g. need for human resource.

(2) The technical feasibility referred to in paragraph (1), must be based on the result of study pertaining to:

a. heap up, composition, and characteristic of the waste;
b. local technology and resource;
c. operationability and maintenance; and
d. local physical condition.

(3) The technical feasibility referred to in paragraph (1), shall be conducted by means of comparing the proposal or technical planning with that as the stipulated rule, standard, procedure and criteria.

(4) The activities referred to in Article 7 paragraph (1), shall be declared technically feasible, if they comply with the rule, standard, procedure and criteria.

Article 9

(1) The economic feasibility referred to in Article 7, paragraph (2), letter b, shall be valued based on:

a. Economic Benefit Cost Ratio (EBCR);
b. Economic Net Present Value (ENPV); and
c. Economic Internal Rate of Return (EIRR).

(2) The economic feasibility referred to in paragraph (1), shall take into consideration:

a. benefit that can be valued with money (Tangible) in the form of direct benefit and indirect benefit; and
b. benefit that cannot be valued with money (Intangible).

(3) The direct benefit referred to in paragraph (2), letter a, shall be, among other things:

a. benefit and material that may be recycled;
b. utilization of compost constituting fertilizer and/or cover soil for the former TPA;
c. utilization of bio-gas as source of energy; and
d. benefit from utilizing the former TPA location for the need of green open space.

(4) The indirect benefit referred to in paragraph (2), letter a, shall be, among other things:

a. increasing value of land and buildings; and
b. decreasing processing cost of basic drinking water.
(5) The benefit that cannot be valued with money value as referred to in paragraph (2) letter b, shall be, among other things:
   a. decreasing level of pollution;
   b. preservation of water resource is maintained; and
   c. decreasing level of conflict caused by pollution from waste.

(6) Economic feasibility shall be conducted by comparing the benefit received by the society with cost arising thereof, either in the form of operation cost, maintenance cost, capital recovery.

(7) The activities referred to in Article 7, paragraph (1), shall be declared economically feasible, if the economic benefit is greater than the cost arising thereof, either in the form of operation cost, maintenance cost, or capital recovery.

Article 10

(1) The financial feasibility referred to in Article 7, paragraph (2), letter b, shall be valued based on:
   a. period of pay back (Pay Back Period);
   b. Financial Net Present Value (FNPV)); and
   c. rate of internal financial return (Financial Internal Rate of Return (EIRR)).

(2) The financial feasibility referred to in paragraph (1), shall take into the account among other things:
   a. inflation rate;
   b. term of project;
   c. investment cost;
   d. operation and maintenance costs;
   e. general and administration costs;
   f. depreciation cost;
   g. retribution tariff; and
   h. retribution income.

(3) Financial feasibility shall be conducted by comparing income from tariff or retribution with the cost arising thereof, either in the form of operation cost or capital recovery cost.

(4) The activities referred to in Article 7, paragraph (1), shall be declared financial feasible, if tariff income or retribution is greater than the cost arising thereof, either in the form of operation cost, maintenance cost, or capital recovery cost.

Article 11

(1). The environmental study referred to in Article 7, paragraph (2), letter c, shall be based on the result of Analysis on Environmental Impact (AM-DAL) or Environmental Management Effort (UKL) and Environmental Monitoring Effort (UPL), and implemented in accordance with the statutory regulation.
(2) The study on social matter referred to in Article 7, paragraph (2), letter c must take into consideration the people’s aspiration in accepting the PSP implementation plan.

(3) The study on law referred to in Article 7, paragraph (2), letter c, shall be among other things:
   a. provisions in the statutory regulation;
   b. policy; and
   c. required permits.

(4) The study on institution referred to in Article 7, paragraph (2), letter c, shall cover:
   a. human resource;
   b. principal structure and duty of the operating institution; and
   c. alternative governmental cooperation institution and private party.

Part Three
Technical Planning and Waste Management

Article 12

(1) The Technical Planning and Waste Management referred to in Article 4, paragraph (1) letter c, shall among other things, contain:
   a. regional service plan;
   b. service level;
   c. implementation phases; and
   d. PSP implementation plan that contain elements of technical feasibility, economy feasibility, financial feasibility, law and institutional feasibility.

(2) Technical Planning and Waste Management referred to in paragraph (1), must be compiled by Regency/Municipality administration.

Article 13

Further provision on general planning on PSP implementation shall be as specified in Attachment I constituting inseparable part of this Regulation of the Minister.

CHAPTER III
WASTE HANDLING

Article 14

Waste handling shall cover the activities below:
   a. sorting out;
   b. collecting;
   c. transport;
   d. processing; and
   e. waste final process.

Part One
Sorting Out

Article 15

(1) The sorting out referred to in Article 14, letter a, shall be conducted by sorting out the waste to at least five (5) types of waste comprising:
   a. waste that contains hazardous and toxic material and effluent of hazardous and toxic material;
b. waste that is easily broken down or scattered;
c. waste that may be re-used;
d. waste that may be re-cycled; and
e. other waste.

(2) Waste that contains hazardous and toxic material and effluent of hazardous material as referred to in paragraph (1), letter a, such as, pesticide container, oil container, drugs container, expired drugs, electrical device, and household electronic instrument.

(3) Waste that can be easily broken down as referred to in paragraph (1), letter b, shall among other things, originating from plants, animals, and/or parts thereof that may be broken down to pieces by other living creature and/or micro organism, such as food waste and trash.

(4) Waste that may be reused as referred to in paragraph (1), letter c, shall be waste that may be utilized without going through process such as, carton paper, beverage bottle, and can.

(5) Waste that may be recycled as referred to in paragraph (1), letter d, shall be waste that may be re-utilized after having been processed such as, the remnant of cloth, plastic, paper, and glass.

(6) The other waste referred to in paragraph (1) letter e, shall be residue.

Article 16

(1) The sorting out of waste referred to in Article 14, letter a, must be conducted by:
a. every person where the waste originates;
b. management of residential area, commercial area, industrial area, special area, public facilities, social facilities, and other facilities; and
c. regency/municipality administration element.

(2) The management of residential area, commercial area, industrial area, special area, public area, social facilities, and other facilities in sorting out waste, shall be obliged to provide facilities for sorting out waste with zonal scale.

(3) Regency/Municipality administration shall be obliged to provide facilities for sorting out and media for waste with regency/municipality scale.

Article 17

(1) The requirements for sorting out facilities and media referred to in Article 16 paragraph (2), and paragraph (3), must be based on:
a. volume of waste;
b. type of waste;
c. placement;
d. schedule for collection; and
e. type of collecting facilities and transport.

(2) The sorting out facilities and media referred to in paragraph (1) must:
Article 18

(1) Types of media referred to in Article 17, may be in the form of:
   a. individual; and
   b. communal.

(2) The individual media referred to in paragraph (1), letter a, may be in the form of bin or other form of media that complies with the requirements.

(3) The communal media referred to in paragraph (1), letter b, may in the form of TPS.

Part Two
Collecting Activity

Article 19

(1) The waste collecting activity referred to in Article 14, letter b, shall be prohibited from re-mixing the sorted out waste and placing it in the media provided thereof.

(2) The collecting of waste referred to in paragraph (1), also covers the:
   a. individual directly;
   b. individual indirectly;
   c. community directly;
   d. community indirectly; and
   e. road cleaning.

(3) The collecting of waste of the same type as has been sorted out as referred to in paragraph (1), shall be conducted by:
   a. coordinating schedule for collecting activity according to the type of waste that has been sorted out and the source of waste; and
   b. provision of accommodating facilities for sorted out collected waste.

(4) The type of waste collecting facilities referred to in paragraph (3), letter b, may be in the form of:
   a. waste wagon;
   b. waste cart; and/or
   c. waste bicycle.

Article 20

(1) The waste collection referred to in Article 19, shall be conducted by the:
   a. management of residential area, commercial area, industrial area, special area, and other facilities; and
   b. Regency/Municipality administration.

(2) The management of residential area, commercial area, industrial area, special area, public facilities, social facilities, and other facilities in conducting waste collection shall be obliged to provide:
   a. TPS;
b. TPS 3R; and/or

c. special collecting tool for sorted out waste.

(3) Regency/Municipality administration shall provide TPS and/or TPS 3R at residential areas.

(4) The TPS referred to in paragraph (3), must comply with the technical criteria below:

a. area of TPS must be up to 200 m²;

b. provide facilities to accommodate sorted out waste to at least five (5) types of waste;

c. type of waste temporary accommodating media must be non-permanent;

d. area of location and capacity must be as needed;

e. the location thereof must be easily accessible;

f. must not cause pollution to the environment;

g. placement thereof must not disrupt aesthetic and traffic; and

h. must must have schedule of collecting and transportation.

Article 22

Waste Transportation

(1) Waste transportation from TPS and/or TPS 3R to TPA or TPST referred to in Article 14 letter c, shall prohibit from re-mixing sorted out waste into the waste accommodating media.

(2) If there is waste containing hazardous and toxic material, transportation of such waste must comply with the provisions in the statutory regulation.

Article 23

(1) Transportation of waste referred to in Article 22, paragraph (1), shall be conducted based on the provisions below:

a. maximize capacity of the transporting vehicle used;

b. route of transportation must be short as possible with the least obstacle;

c. frequency of transportation from TPS and/or TPS 3R to TPA or TPST must be exercised based the existing volume of waste; and

d. rotation shall be made with due consideration of efficient and effective transportation.

(2) Waste transport operation referred to in paragraph (1), must observe:

a. pattern of transportation;

b. transportation facilities; and

c. route of transportation.

Further provision on technical requirement for waste collection and provision of TPS and/or TPS 3R shall be as specified in Attachment II constituting inseparable part of this Regulation of the Minister.

Part Three
Article 24
The pattern of transportation referred to in Article 23, paragraph (2), letter a, consists of:
a. waste transportation using direct collecting system from the waste source to the TPA provided that the waste source is larger than 300 liters/unit and the topography of service area makes it impossible to use cart; and
b. waste collection using transferring system at the TPS and/or TPS 3R.

e. support power of facilities maintenance.

Article 26
The route of waste transportation referred to in Article 23, paragraph (2), letter c, must take the following into consideration:
a. traffic regulation;
b. traffic condition;
c. workers, measurement and type of transporting instrument;
d. volume of heaped-up waste transported; and
e. pattern of transportation.

Article 27
(1) The transportation referred to in Article 23, shall be exercised by Regency/Municipality administration.

(2) The Regency/Municipality administration in transporting waste as referred to in paragraph (1) shall:
a. provide waste transporting instrument, including sorted out waste that shall not cause pollution to the environment; and
b. transport the waste from TPS and/or TPS 3R to TPA or TPST.

(3) In transporting the waste, the Regency/Municipality administration shall provide transitional terminal.
(4) If two or more regencies/municipalities conduct waste processing and needs waste transportation across regencies/municipalities, the Regency/Municipality administration shall propose to Provincial administration to provide transitional terminal and its transporting media.

(5) The transporting media referred to in paragraph (4), must be a big transporting media with particular specification.

Part Four
Waste Processing
Article 28

(1) Waste processing referred to in Article 14, letter d, shall cover the activities below:
   a. compacting;
   b. converting to compost;
   c. recycling the material; and
   d. converting the waste into energy resource.

(2) Waste processing referred to in paragraph (1), shall take the following into consideration:
   a. characteristics of waste;
   b. environmental friendly processing technology;
   c. occupational safety; and
   d. social condition of the community.

(3) The processing technology referred to in paragraph (2), may be in the form of:

a. physical processing technology in the form of reduction of waste volume, compacting, systematic sorting out, period of type, and optic type;

b. chemical processing technology in the form of insertion of chemical substance or other substance to enable easy process thereafter;

c. biological precessing technology in the form of aerobic and/or anaerobic such as changing process into compost and/or biogasification;

d. termal processing technology in the form of incineration, pyroliyis, and/or gasification;

and

e. waste process may also be conducted using other technology so as to produce fuel, Refused Derifed Fuel (RDF);

(4) Application of technology referred to in paragraph (3), must prioritize recovery of material and energy from such process.

(5) The technology referred to in paragraph (3), must be applied in phases by means of feasibility study and profesional operation.

Article 29

to be continued
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Article 29

(1) The waste process referred to in Article 28, paragraph (1), must be conducted by:

a. any person at its source;

b. the management of residential area, commercial area, industrial area, special area, public facilities, social facilities, and other facilities;

c. Regency/Municipality administration.

(2) The management of residential area, commercial area, industrial area, special area, public facilities, and other facilities, are obliged to provide processing facilities with area scale in the form of TPS 3R.

(3) Regency/Municipality administration shall be obliged to provide waste processing facilities at the locations below:

a. TPS 3R;

b. SPA;

c. TPA; and/or

d. TPST.

Article 30

(1) Requirements for TPS 3R referred to in Article 29, paragraph (2), and paragraph (3), letter a, must comply with the technical requirements such as:

a. area of TPS 3R, must be larger than 200 m2;

b. available facilities for sorting out the waste to at least five (5) types of waste;

c. TPS 3R must be equipped with sorting space, making organic compost, and/or bio-gas producing unit, supporting area, and not disrupting aesthetic and traffic.

d. type of construction to accommodate remnants of he waste processing at the TPS 3R must not be permanent;

e. TPS 3R must be located as close as possible to the service area within radius not exceeding 1 km;

f. area of the location and capacity must be base on need;

g. the location must easily accessible;
h. must not cause environmental pollution; and
i. must have schedule of collection and transportation.

(2) The TPS 3R referred to in paragraph (1) including scale of residential environment shall be exercise using method based on the community’s decision.

(3) The existence of TPS 3R referred to in paragraph (2), may be integrated with waste processing system based on the community’s need such as waste bank.

Article 31

(1) SPA referred to in Article 29, paragraph (3), letter b, consists of SPA with city scale and SPA with residential environment scale.

(2) SPA with city scale referred to in paragraph (1), must comply with the technical requirements such as:
   a. area of SPA is larger than 20,000 m2;
   b. waste piling up exceeds 500 ton/hari
   c. SPA will be located within the city;
   d. SPA facilities of city-scale must be equipped with ramp, compacting facilities, special transporting facilities, and alkaline accommodating media;
   e. alkaline will be processed at the SPA or TPA;

   f. SPA will be located at the nearest residential area of at least 1 km.

(3) SPA of residential environmental scale referred to in paragraph (1), must comply with the technical terms as below:
   a. area of SPA is at least 600 m2;
   b. waste heap up is 20 – 30 ton/day;
   c. accommodating media is located at the center point of residential environmental area;
   d. SPA facilities of city-scale must be equipped with ramp and compacting facilities and accommodating alkaline substance; and
   e. alkaline will be processed at SPA or TPA.

Article 32

The requirements for TPST referred to in Article 29, paragraph (3), letter d, must comply with the technical requirements below:
   a. area of TPST, exceeds 20,000 m2;
   b. TPST may be located within the city or at TPA;
   c. distance from TPST to the nearest residential area is at least 500 m;
   d. waste processing at TPST may use the technology referred to in Article 31 paragraph (3); and
   e. TPST facilities must be equipped with sorting space, waste processing installation, waste processing installation, environmental pollution control, residue handling, supporting facilities, and supporting area.
Part Five
Waste Final Process

Article 33

(1) Waste final process referred to in Article 14, letter e, will be conducted using:
   a. method of controlled land-filling;
   b. method of sanitary land-filling; and/or
   c. friendly environmental technology.

(2) The waste final process referred to in paragraph (1), will be conducted at the TPA, covering:
   a. filling-in/compacting;
   b. soil covering;
   c. alkaline processing; and
   d. gas handling.

Article 34
Waste final process at TPA as referred to in Article 33, must observe:
   a. the waste that may put into the TPA shall be household waste, household waste of the same type, and residue;
   b. waste that is prohibited from filling-into TPA covers:
      1). Liquid waste originating from household activities;
      2). Waste categorized as hazardous and toxic material based on the statutory regulation; and
      3). Medical waste originating from health medication service.
   c. Residue referred to in letter a, not categorized as hazardous and toxic substance or containing hazardous and toxic substance;
   d. In the presence of waste categorized hazardous and toxic substance or containing hazardous and toxic substance at the TPA, this must be stored in temporary storage place according to the provisions in the statutory regulation on processing of hazardous and toxic substance; and
   e. is prohibited from cattle rearing at the TPA.

Article 35

(1) The TPA requirements referred to in Article 29, paragraph (3), letter c, shall cover provision and operation must observe selection of the location, physical condition, operability, environmental aspect, and social aspect.

(2) Selection of TPA location referred to in paragraph (1), must at least comply with the criteria below:
   a. geology, means, it must not be located within fault that is still active, not within dangerous geological zone, such as volcanic area, karst area, peat soil area, and it is suggested to be located within impermeable soil or clay;
   b. hydrogeology, such as, in the form of land water surface is not less than three meters, land condition is not more than 10-6 cm/
second, and the distance from drinking wa-
ter resource is more than 100 m (one hun-
dred meters) at downstream.

c. zone slope, is located at aclivity or slope of
less than 20% (twenty percent).

d. distance from landing field, exceeds 3000 m
(three thousand meters) for turbo jet landing
and exceeding 1500 m (one thousand five
hundred meters) for other types of aircrafts
landing;

e. distance from residential area, exceeds one
(1) km with due observance of alkaline pol-
lution, bad odor, disease spread, and social
aspect;

f. is not located within natural environment
zone; and/or

g. is not an area that is prone to floods within
at least during the last 25 (twenty-five) years.

(3) If the TPA is located at unavoidable peat soil
area as referred to in paragraph (2), letter a, TPA
must be technologically engineered so as to be
located at impermeable layer using natural water
resistance media and/or artificial water resistance
media, such as geo-synthesis and/or other mate-
rial that complies with the requirements for hy-
drogeology, and the foundation and working floor
of TPA is reinforced by repairing the construction
of the bottom land surface.

(4) If the TPA location referred to in paragraph (2)
letter b, is unavoidable such TPA must be techno-
logically engineered so as to be located on imper-
meable layer using natural water resistance media
and/or artificial water resistance media, such as
geo-synthesis and/or other material that complies
with the requirements for hydrogeology not ex-
ceeding 10-6 cm/detik.

(5) If the TPA location that has been operating fails
to comply with the requirements referred to in
paragraph (2), letter e, the TPA must be oper-
ated using controlled land-fill or sanitary land-fill
method covering:
a. cover the waste with cover soil periodically;
b. process produced alkaline so that the effluent
coming out thereof meet the standard quality;
c. process produced bio-gas according to appli-
cable technical requirement; and
d. grow supporting plants area around the TPA
location.

Article 36

(1) Determination of area of land and capacity of TPA
must observe the waste heap up, level of service,
and activity to be exercised at the TPA.
(2) Technically the age of TPA shall be at least 10 (ten) years.

Article 37
(1) TPA infrastructure and facilities cover:
   a. basic facilities;
   b. environmental protection facilities;
   c. operational facilities; and
   d. supporting facilities.
(2) Basic facilities referred to in paragraph (1) consist of:
   a. entry road;
   b. operational road;
   c. electricity or genset;
   d. drainage;
   e. potable water;
   f. fence; and
   g. office.
(3) Environmental protection facilities referred to in paragraph (1), consist of:
   a. impermeable layer;
   b. alkaline collecting channel;
   c. alkaline processing installation;
   d. supporting zone;
   e. test or monitoring well; and
   f. gas handling.
(4) Operational facilities referred to in paragraph (1) consist of:
   a. heavy equipment;
   b. soil transporting truck; and
   c. land.
(5) Supporting facilities referred to in paragraph (1), consist of:
   a. workshop;
   b. garage;
   c. place for cleaning transporting media and heavy equipment;
   d. first aid tools for accident;
   e. weigh bridge;
   f. laboratory; and
   g. parking space.
(6) TPA must be equipped with recycling facilities, converting to compost, and/or gbio-gas.

Article 38
(1) In conducting waste final process Regency/Municipality administration is obliged to provide and operate TPA.
(2) In the case of special condition or cooperate in waste handling cross Regency/Municipality, the Provincial administration may provide and operate TPA.
(3) In providing the TPA referred to in paragraph (1), the Regency/Municipality administration shall:
a. select the location based on the layout plan of provincial area and/or regency/municipality area;

b. refer to SNI concerning Procedure of Selection of Waste TPA Location;

c. conduct analysis of the cost and technology; and

d. prepare technical plan.

Article 39
Further provision on technical requirements on provision, operation, covering, or rehabilitation of TPA shall be as specified in Attachment III constituting inseparable part of this Regulation of the Minister.

CHAPTER IV
PROVISION OF WASTE PROCESSING FACILITIES AND WASTE FINAL PROCESS

Article 40
Provision of waste processing facilities and final process shall be made in phases:

a. technical planning;

b. construction;

c. operation and maintenance; and

d. monitoring and evaluating.

Part One
Technical Planning

Article 41
(1) The technical planning referred to in Article 40, letter a, must be compiled based on the stipulated master plan, result of feasibility study, or PTMP, and technical requirement.

(2) The technical planning referred to in paragraph (1), must at least contain:

a. technical drawing;

b. technical specification;

c. memo on design;

d. volume of work;

e. standard operation and procedure;

f. cost budget plan; and

g. schedule of implementation.

Part Two
Construction

Article 42
(1) The construction activity referred to in Article 40, letter b, shall be conducted based on technical planning document.

(2) The construction activity referred to in paragraph (1), shall cover:

a. construction preparation;

b. construction, supervision and test of material;

c. trial test of laboratory and trial test of the field (trial run);

d. trial test of system (Commissioning Test);

e. maintenance period; and

f. hand-over of the work.
Construction activity must observe the Contract Quality Plan or Rencana Mutu Kontrak/Kegiatan (RMK) and Contract Occupational Safety and Health or Rencana Keselamatan dan Kesehatan Kerja Kontrak/Kegiatan (RK3K), that has been compiled by the operator or service provider for the construction.

**Part Three**

**Operation and Maintenance**

**Article 43**

(1) PSP operation and maintenance activities referred to in Article 40, letter c, covers:

a. operation; and

b. maintenance.

(2) Operation and maintenance must be supported by sufficient operation cost and maintenance cost based on the calculation in the financial analysis.

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**Article 44**

PSP operation activity referred to in Article 43, paragraph (1), letter a, cover operation facilities:

a. waste process in the form of TPS 3R, SPA, and TPST operation; and

b. final process in the form of TPA operation, alkaline process, and gas handling.

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**Article 45**

SPA operation referred to in Article 44, letter a, must comply with the provisions:

a. no waste may be kept in the SPA more than 24 hours;

b. routine sweeping and watering activities must be conducted to guarantee that no disruption to hygiene takes place within or around the SPA; and

c. all waste mixed with water categorized contaminated must be placed immediately into the media for further transport to the alkaline processing location.

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**Article 46**

(1) The operation of TPS 3R and TPST as referred to in Article 44 letter a, covers the activities below:

a. waste accommodating;

b. waste sorting out;

c. organic waste processing;

d. non-organic waste recycle;

e. process of household specific waster and B3 according to the applicable provisions; and

f. collecting residual waste and placing it into container for transport to the waste TPA.

(2) Organic waste and inorganic waste referred to in paragraph (1) letter a and letter d may be processed and recycled using the technology referred to in Article 27 paragraph (3).
(3) Residue waste from TPS 3R and/or TPST may be collected and transported to the 1TPA referred to in paragraph (1) letter f, if the container is full by means according to transportation schedule.

Article 47

The TPA referred to in Article 44, letter b, operated either by means of controlled land-filling or sanitary-filling must be able to secure the function of:

a. controlling disease;
b. alkaline collection and processing system;
c. gas handling;
d. maintenance of esthetic surrounding the environment;
e. implementation of occupational safety; and
f. handling emergency alert from fire and landslide.

Article 48

(1) Control of disease referred to in Article 47, paragraph (1), letter a, shall be exercised by waste compacting, waste covering by safe and controlled insecticide spraying.

(2) The waste referred to in paragraph (1), shall be compacted using heavy equipment in order to achieve waste compact of at least 600 kg/m3 with the slope of waste filling of maximum 300 m3.

(3) The waste referred to in paragraph (1), must be covered by soil and/or other water resistant material.

(4) The waste referred to in paragraph (3), must be covered at least once in every seven days using controlled land-filling and every day using sanitary-filling method.

Article 49

(1) Operation of alkaline process referred to in Article 47, paragraph (1), letter b, is meant to minimize alkaline content from causing pollution.

(2) Minimization of alkaline content to avoid pollution referred to in paragraph (1) is affected by:

a. TPA operational process;
b. rainfall;
c. dimension of alkaline processing installation (IPL);
d. detention time; and
e. depth of processing pool.

(3) Flow of alkaline must be prioritized using gravitation system.

(4) Alkaline must be processed biologically, physically, chemically and/or using combined biological, physical and chemical process.

(5) Alkaline biological process is conducted by first exercising acclimatization or adaptation.
(6) Requirement for effluent resulting from alkaline processing must be based on quality standard.

(7) If quality of effluent resulting from alkaline processing fails to comply with the quality standard, the effluent must be re-circulated.

Article 50

(1) The gas referred to in Article 47, paragraph (1), letter c, must be handled for the purpose of minimizing the gas effect arising from glass house:
   a. produced during decomposition process at TPA is prohibited from letting it free to open air; and
   b. use vertical and/or horizontal gas pipeline that functions to flow accumulated gas to be burned or utilized as energy resource.

(2) Accumulated gas must be monitored and controlled periodically.

Article 51

Maintenance of esthetic and environment referred to in Article 47, paragraph (1), letter d, shall be conducted by providing supporting zone and conducting re-vegetation.

Article 52

Occupational safety referred to in Article 47, paragraph (1), letter e, shall be exercised by providing health facilities at the TPA site and by using standard working tools to secure occupational safety.

Article 53

In the case of emergency alert on fire hazard and landslide referred to in Article 47, paragraph (1), letter f, in the form of:

(1) occurrence of fire at the TPA, fire fighting shall be conducted by:
   a. use of water;
   b. dig and excavate the heap of waste; and
   c. control oxygen from direct contact to the waste.

(2) In the occurrence of landslide at TPA this must be handled based on:
   a. level of landslide;
   b. victims of landslide; and
   c. damage to facilities.

(3) In evacuating victims of disaster, this needs to be coordinated with the relevant agency pertaining to handling disaster at the relevant regency/municipality.

Paragraph 2

Maintenance

Article 54

(1) Maintenance activity referred to in Article 43, paragraph (1), letter b, is to make sure that the
PSP is reliable.

(2) Maintenance activity referred to in paragraph (1), covers:
   a. routine maintenance; and
   b. periodical maintenance.

(3) Routine maintenance referred to in paragraph (2), is maintenance conducted routinely to preserve the age of PSP from use without replacing any tools or spareparts.

(4) Periodical maintenance referred to in paragraph (2), is maintenance conducted periodically to extend the age of PSP from use by replacing any tools or spareparts.

Part Four
Monitoring and Evaluation

Article 55
(1) Monitoring and evaluation referred to in Article 40, letter d, cover:
   a. monitoring;
   b. evaluation; and
   c. reporting.

(2) The monitoring and evaluation activities referred to in paragraph (1), shall be conducted periodically, at least once in six (6) months.

Paragraph 1

Monitoring
Article 56
(1) The monitoring activity referred to in Article 55, letter a, are meant to obtain data and/or technical information and non-technical information on the implementation of PSP.

(2) The technical performance referred to in paragraph (1), covers:
   a. condition and function of PSP;
   b. operation of PSP; and
   c. quality of the environment.

(3) Non-technical performance referred to in paragraph (1) covers:
   a. institutional;
   b. management;
   c. finance;
   d. society’s role; and
   e. law.

Article 57
(1) Monitoring activity referred to in Article 56, may be conducted directly or indirectly.

(2) Direct monitoring referred to in paragraph (1), is conducted by means of field visit to obtain the direct image or feature on the implementation of PSP.

(3) Indirect monitoring referred to in paragraph (1),
is conducted by reviewing the data and report on
the implementation of PSP.

(4) Indirect monitoring referred to in paragraph (3),
may be conducted using information system on
the implementation of PSP or other electronic
data.

Paragraf 2
Evaluation
Article 58

(1) Evaluation activity referred to in Article 55, let-
ter b, is meant to evaluate the result thereof and
identify any obstacles on the implementation of
PSP.

(2) Evaluation activity referred to in paragraph (1),
is conducted by comparing the result of monitor-
ing with the Standard, Guideline, Manual and SNI,
both technically and non-technically.

Paragraf 3
Reporting
Article 59

(1) The operator of PSP submits report on waste
management as cited below:
   a. national level operator submits report to the
      Minister;
   b. provincial level operator submits report to the
      Governor; and
   c. regency/municipality level submits report to
      the Regent/Mayor.

(2) Report on implementation of PSP covers report
on the volume and number of waste heap-ups,
characteristics, effluent quality sampling, alkaline
processing installation, monitoring well and
water.

(3) The operator submits report on evaluation of
waste management referred to in paragraph (1),
at least once a year.

(4) Report on waste management must be collected,
processed and filed as database for information
development on waste matter.

Article 60

Further provisions on procedure for providing
waste processing and final processing facilities are as
specified in Attachment IV constituting inseparable
part of this Regulation of the Minister.

CHAPTER V

CLOSURE OR REHABILITATION OF TPA

Article 61

(1) TPA may be closed if it complies with the criteria,
such as:
   a. TPA is full and it is non-expandable;
   b. existence of TPA no longer justifies with the
      RTRW/RTRK of regency/municipality, and/or
   c. is piled up with waste.
(2) TPA may be rehabilitated if it complies with the criteria such as:

a. TPA has caused environmental problem;

b. TPA encountering disaster but technically it is still reasonable for use;

c. TPA is operated by open piling up;

d. it is still difficult for the regency/municipality administration to acquire land for potential development of new TPA;

e. condition of TPA is still feasible for rehabilitation, either by conducting compost mining process first or directly reuse it;

f. TPA is still operable within a period of at least 5 years and/or having an area of more than 2 Ha;

g. TPA location complies with the technical provision for selecting TPA location;

h. location for TPA must be allocated according to zonal allocation plan and Space Layout Plan / City (RTRW / K); and

i. support the social condition and economy of the community surrounding location community.

(3) A decision on whether to close or rehabilitate any TPA shall be based on the result of risk index.

Article 62
(1) The Minister shall involve the Ministry Environment on assessment of risk index as referred to in Article 61, paragraph (3), for metropolitan city, big city, and regional TPA.

(2) The Minister will issue recommendation whether to close or rehabilitate a TPA for metropolitan city, big city, and regional TPA.

(3) The Governor shall evaluate the risk index referred to in Article 60, paragraph (3), and issue recommendation whether to close or rehabilitate a TPA for medium and small scale city.

(4) Regency/Municipality administration is obliged to close or rehabilitate any TPA within two (2) years after recommendation has been issued.

Article 63
Further provision on risk index on whether to close or rehabilitate the place for waste processing is as specified in Attachment V constituting inseparable part of this Regulation of the Minister.

Article 64
(1) The closing of TPA referred to in Article 61, paragraph (1), shall cover:

a. preparation of closing technical plan;

b. pre-closing;

c. closing activity; and

d. post closing.
(2) Technical plan for closing TPA as referred to in paragraph (1) must be prepared within one (1) year prior to closing a TPA.

Article 65

Pre-closing activity referred to in Article 64, paragraph (1), letter b, covers:

a. collection of physical data on the condition of land in the form of topographic measurement of the entire area of TPA;

b. collection of data of climate, hydrogeology and geotechnical;

c. study on potential existence of gas and alkaline within the heap of waste; and

d. orientation of TPA closing plan by installing announcement board at the TPA location and on the local mass media.

Article 66

The closing activity referred to in Article 64, paragraph (1), letter c, covers:

a. preparation of stability within the piled-up waste by forming contour line;

b. provision of soil layer for final closing;

c. forming safeguarding dike to prevent the waste from sliding;

d. forming drainage pipes;

e. alkaline control;

f. gas control;

g. water pollution control;

h. fire and bad odor control;

i. prevent illegal waste discharge;

j. greening;

k. supporting zone;

l. removing action plan of rubbish collector; and

m. TPA security.

Article 67

(1) Control of alkaline referred to in Article 66, letter e, shall be conducted at alkaline processing installation.

(2) If no alkaline processing installation is available yet, construction of alkaline processing installation shall be necessary by first conducting investigation and technical planning.

(3) If alkaline processing installation is available, the collecting network, processing system and quality of effluent must be evaluated.

Article 68

(1) Gas control referred to in Article 66, letter f, must be conducted using vertical and horizontal pipeline.

(2) If no vertical pipeline referred to in paragraph (1), is yet installed, vertical gas capture system up to the final ventilation shall be necessary.

(3) If the vertical pipeline referred to in paragraph (1) has been installed, this may be connected up to the final ventilation.
(4) The final ventilation referred to in paragraph (2) and paragraph (3) must be connected with the horizontal pipeline to the gas collecting facilities.

(5) The collected gas referred to in paragraph (4) will be burned and/or utilized.

Article 69

(1) Post closing activity referred to in Article 64, paragraph (1), letter d, covers maintenance, monitoring and evaluating activities on the impact from TPA operation during the course of 20 years.

(2) The maintenance, monitoring and evaluation activities referred to in paragraph (1) must be conducted in the form of at least:
   a. routine inspection;
   b. greenery maintenance;
   c. maintenance of drainage pipe and alkaline processing installation;
   d. monitoring of declining waste layer and slope stability; and
   e. monitoring the quality of environment such as quality of alkaline, ground water, surface water, ambient water quality, and disease factor around the TPA.

(3) Monitoring activity of environmental quality referred to in paragraph (2), letter e, must be conducted once in six (6) months using laboratory that has been accredited or appointed by the Governor.

Article 70

(1) Utilization of previous TPA location after being closed is allocated for green open space.

(2) Plants used for green open space must be in the form of food crop.

Article 71

(1) TPA rehabilitation activity referred to in Article 61, paragraph (2), covers:
   a. preparation of action plan against rehabilitation plan;
   b. evaluation of land physical condition post operation;
   c. planning and designing rehabilitation;
   d. provision of minimum soil for closing and soil for final closing;
   e. alkaline control;
   f. gas control;
   g. rehabilitation and/or construction of drainage system;
   h. water pollution control; and
   i. control of environmental quality.

(2) TPA must be rehabilitated according to the technical plan.

(3) The rehabilitated TPA referred to in paragraph (1), is prohibited from operation by by means of open filling-in.
(4) Compost originating from TPA referred to in Article 65, paragraph (2), letter e, must not be used for food crop.

Article 72
Further provision on technical requirements for provision, operation, or rehabilitation of TPA shall be as specified in Attachment III constituting inseparable part of this Regulation of the Minister.

CHAPTER VI
COMPETENCE
Article 73
(1) Any person that is on duty to conduct transport, process, and final process of waste is obliged to hold certificate on competence.

(2) The certificate on technical competence for waste processing as referred to in paragraph (1), is issued by the Minister.

CHAPTER VII
INVESTIGATION AND DEVELOPMENT
Article 74
(1) To support implementation of PSP, the Research and Development Agency of the Ministry of Public Works shall:

a. investigate and develop application of friendly environmental technology in accordance with national policy and strategy in order to support waste treatment activity;

b. facilitate regional administration in research and development of friendly environmental technology for waste handling by providing technical advice and orientate the result obtained by Research and Development of the Ministry of Public Works.

(2) In carrying out technology development and application, the Research and Development Agency of the Ministry of Public Works shall coordinate with other research and development institution, universities, business entity and/or LSM operating on waste handling.

CHAPTER VIII
ROLE OF THE SOCIETY AND PRIVATE PARTY
Part One
Role of Society
Article 75
(1) The society takes role in making decision, in implementing, supervising implementation of PSP exercised by the Government and/or regional administration.

(2) The participation of the society referred to in paragraph (1), may be in the form of:

a. provide report, proposal, consideration, and/or suggestion to the Government and/or regional administration;
b. give suggestion and opinion pemberian saran dan pendapat dalam perumusan kebijakan dan strategi;

c. implementation of waste handling activity handled independently and/or in partnership with regency/municipality administration; and/or

d. provide education and training, initiate campaign, and provision of assistance by groups of society to members of the society in waste handling and change the attitude of members of the society.

(3) Participation of the society referred to in paragraph (2), letter a and letter b, must be notified in a forum the members of which consist of the relevant parties.

Part Two
Role of Prive Sector
Article 76
(1) Regency/municipality administration severally or jointly may cooperate with private sector / business entity in implementing PSP.

(2) Partnership may be exercised on phases of transportation, processing, and final processing of waste in part of or in the entire service area.

(3) Procedure for partnership referred to in paragraph (2), shall be exercised in accordance with the statutory regulation.

CHAPTER IX
DEVELOPMENT AND SUPERVISION
Part One
Development
Article 77
(1) The Minister shall exercise development of regional administration in implementing PSP.

(2) The development referred to in paragraph (1), will be exercised by means of:

a. provision of norm, standard, procedure, and criteria;

b. dissemination of statutory regulation on implementation of PSP;

c. education and training on implementation of PSP;

d. facilities for dispute settlement inter-regions;

e. facilitating cooperation between regional administration, business entity, and the society in implementing PSP; and/or

f. facilitate technical assistance for implementation of PSP.

(3) The Governor shall exercise development of regency/municipality administration in implementing PSP by means of:

a. technical assistance;
b. technical development/foster;
c. disseminated of regional Regulation on implementation of PSP;
d. education and training on implementation of PSP; and/or
e. facilitate dispute settlement in implementation of PSP inter-regencies/municipalities.

Part Two
Supervision

Article 78

(1) Supervision, control and evaluation of performance in the implementation of PSP nation level shall be exercised by the Minister.

(2) Supervision, control and evaluation of performance in the implementation of PSP cross regencies/municipalities shall be exercised by the Governor.

(3) Supervision, control, and evaluation of performance in the implementation of PSP of regency/municipality shall be exercised by the Regent/Mayor.

(4) The supervision and control referred to in paragraph (1), paragraph (2) and paragraph (3) shall be based on the norm, standard, procedure, and criteria.

CHAPTER X
OTHER PROVISIONS

Article 79

(1) Household waste, household waste of the same type, and residue may be discharged to TPA until Year 2025.

(2) After Year 2025 only residue may be discharged into TPA.
CHAPTER XI
CLOSING PROVISION

Article 80

(1) This Regulation of the Minister comes to force on the date it is enacted.

(2) For public cognizance, this Regulation of the Minister shall be announced by placing it in the State Gazette of the Republic of Indonesia.

Stipulated in Jakarta
Dated March 14, 2013
MINISTER OF PUBLIC WORKS
OF THE REPUBLIC OF INDONESIA,
sgd.
DJOKO KIRMANTO

Enacted in Jakarta
Dated March 25, 2013
MINISTER OF LAW AND HUMAN RIGHTS
OF THE REPUBLIC OF INDONESIA,
sgd.
AMIR SYAMSUDIN

STATE GAZETTE OF THE REPUBLIC OF INDONESIA
YEAR 2013 NUMBER 470

Note from Editor:
Due to technical reason no Attachment is provided herein.

(MA)