THE UPGRADING OF ADDED VALUE OF MINERALS THROUGH MINERAL PROCESSING AND REFINERY IN THE COUNTRY

(Regulation of the Minister of Energy and Mineral Resources Number 1 Year 2014 dated January 11, 2014)

BY GRACE OF GOD THE ALMIGHTY

THE MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA,

Considering:

That in order to implement the provision of Article 96 and Article 112 C point 5 of Government Regulation Number 23 Year 2010 regarding the Execution of Mineral and Coal Mining Business Activities as already amended twice and the latest by Government Regulation Number 1 Year 2014, it is necessary to stipulate a regulation of the Minister of Energy and Mineral Resources regarding the Upgrading of Added Value of Minerals through Mineral Processing and Refinery in the country;

In view of:

1. Law Number 4 Year 2009 regarding Mineral and Coal Mining (Statute Book of the Republic of Indonesia Year 2009 Number 4, Supplement to Statute Book of the Republic of Indonesia Number 4959);

2. Government Regulation Number 23 Year 2010 regarding the Execution of Mineral and Coal Mining Business Activities (Statute Book of the Republic of Indonesia Year 2010 Number 29, Supplement to Statute Book of the Republic of Indonesia Number 5111) as already amended twice and the latest by Government Regulation Number 1 Year 2014 (Statute Book of the Republic of Indonesia Year 2014 Number 1, Supplement to Statute Book of the Republic of Indonesia Number 5489);

3. Government Regulation Number 55 Year 2010 regarding the Fostering and Supervision over the Implementation of Mineral and Coal Mining Business Management (Statute Book of the Republic of Indonesia Year 2010 Number 55, Supplement to Statute Book of the Republic of Indonesia Number 5142);

4. Presidential Decree Number 59 /P Year 2011 dated October 11,201;

5. Regulation of the Minister of Energy and Mineral Resources Number 34 Year 2009 regarding Prioritization of Supply to the Domestic Need of

Minerals and Coal (State Gazette of the Republic of Indonesia Year 2009 Number 546);

6. Regulation of the Minister of Energy and Mineral Resources Number 18 Year 2010 regarding Organization and Working Mechanism of the Ministry of Energy and Mineral Resources (State Gazette of the Republic of Indonesia Year 2010 Number 552) as already amended by Regulation of the Minister of Energy and Mineral Resources Number 22 Year 2013 (State Gazette of the Republic of Indonesia Year 2013 Number 1022);

D E C I D E S :

To stipulate:

THE REGULATION OF THE MINISTER OF ENERGY AND MINERAL RESOURCES REGARDING THE UPGRADING OF ADDED VALUE OF MINERALS THROUGH MINERAL PROCESSING AND REFINERY IN THE COUNTRY

CHAPTER I

GENERAL PROVISION

Article 1

Referred to in this ministerial regulation as:

1. Mineral shall be an inorganic compound formed in the nature, which has specified physical and chemical characteristics as well as regular crystal structure or combination thereof that forms bitumen, either broken or integrated.
2. Metal Mineral shall be minerals with the main substance containing metal, having metal luster and generally having characteristic as a good heat and electricity conductor.
3. Non-metal Mineral shall be mineral with the main substance consisting of non-metal, such as bentonite, calcite (limestone), quartz sand and others.
4. Rocks shall be solid mass consisting of one kind of mineral or more, which forms earth crust, either massive or loose.
5. Concentrates shall be a concentration product which is rich in valuable minerals as a result of the separation and processing of mineral ores.
6. Ores shall be a group of mineral containing one kind of metal or more, which may be processed profitably.
7. By Product shall be mining product other than the main mining product, which constitutes by product of the processing and refinery that has economic value.
8. Slag shall be waste of material resulting from the smelting or refinery of metal, which is floating in the surface of liquid metal, formed from the mix-

ture of extract, ore/metal polluter, fuel ash and materials laminating furnace.

9. IUP of Production Operation shall be a business license granted following the completion of IUP of Exploration to execute the phase of production operation activity.

10. IUPK of Production Operation shall be a business license granted following the completion of IUP of Exploration to execute the phase of production operation activity in a special mining business license area.

11. Contract of Work shall be an agreement between the Government of the Republic of Indonesia and company in the form of Indonesian legal entity in the framework of foreign investment in order to undertake mining business of extracted minerals, excluding oil, natural gas, geothermal, radioactive and coal.

12. Added Value shall be an addition to the value of minerals as a result of the mineral processing and/or refinery.

13. The upgrading of added value shall be the increase in the value of minerals through the processing and/or refinery so as to result in economic, social and cultural benefits.

14. Minister shall be the minister in charge of mineral mining affairs.

15. Director General shall be the director general assigned to handle and responsible for mineral mining affairs.

CHAPTER II

PROCEDURES FOR UPGRADING ADDED VALUE OF MINERALS

Article 2

(1) Group of mineral mining commodities which may have their added value upgraded shall consist of:

a. Metal Mineral

b. Non-metal Mineral; and

c. Rocks.

(2) The upgrading of the added value of the mineral mining commodities as meant in paragraph (1) shall be executed through activity:

a. processing and refinery, in the case of metal-mineral mining commodity;

b. processing, in the case of non-metal mineral mining commodity; or

c. processing, in the case of rock mining commodity.

(3) The processing of minerals as meant in paragraph (2) shall constitute an effort to upgrade the quality of minerals or rocks which result in products with the physical and chemical

characteristic unchanged from the minerals or rocks of origin, in the form of , among others, metal mineral concentrates and polished rocks.

(4) The refinery of minerals as meant in paragraph (2) shall constitute an effort to upgrade the quality of metal minerals through extraction as well as advanced purity enhancement process in order to produce products physically and chemically different from minerals of origin, in the form of, among others, metal and alloy metal.

Article 3

1) The upgrading of the added value of the mineral mining commodity as meant in Article 2 may be in the form of:
   a. processing and refinery in the case of specified metal minerals, including associated minerals;
   b. processing, in the case of specified non-metal minerals; or
   c. processing, in the case of specified rocks.

(2) The processing and/or refinery of every kind of the specified minerals as meant in paragraph (1) shall be executed on the basis of considerations:
   a. having ore resources and reserves in a large quantity;
   b. driving up metal production capacity in the country;
   c. processing and/or refinery technology already in the proven phase;
   d. end product of the processing and/or refinery as raw material of industry for the domestic need;
   e. by product constituting rest of the processing and/or refinery production for raw material of domestic chemical and fertilizer industry;
   f. as raw material of domestic mineral-based strategic industry;
   g. contributing multiplier effects to the state economically and socially and culturally; and/or
   h. increasing state revenue.

(3) The considerations about the execution of the processing and/or refinery of every kind of the specified mineral mining commodities as meant in paragraph (2) shall become a basis for the stipulation of the minimum content of the processing and/or refinery of the specified mineral mining commodities.

(4) The specified mineral mining commodities as meant in paragraph (1) letter a shall be processed and refined in the country in accordance with the minimum content of the processing and refinery as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(5) The specified non-metal mineral mining commodities as meant in paragraph (1) letter b shall be processed in the country in accordance with the

minimum content of the processing as contained in Attachment II, which constitutes a part inseparable from this ministerial regulation.

(6) The specified rock mining commodity as meant in paragraph (1) letter c shall be processed in the country in accordance with the minimum content of the processing as contained in Attachment III, which constitutes a part inseparable from this ministerial regulation.

Article 4

(1) By product or rest of the processing of metal mineral copper in the form of anode mud and copper telluride shall have the purity upgraded further in the country in accordance with the minimum content of the purification of metal mineral commodities as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(2) By product or rest of the processing of metal mineral tin in the form of zircon, ilmenite, rutile, monazite, and senotim concentrates shall have processed and/or refined in the country in accordance with the minimum content of the processing and/or refinery of metal mineral mining commodities as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(3) By product or rest of the purification of tin concentrates in the form of slag shall have refined in the country in accordance with the minimum content of the purification of metal mineral commodities as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(4) By product or rest of the purification of metal mineral lead and zinc in the form of gold and silver shall have refined in the country in accordance with the minimum content of the purification of metal mineral commodities as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(5) By product or rest of the purification of metal mineral iron sand in the form of slag shall have refined in the country in accordance with the minimum content of the purification of metal mineral commodities as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(6) By product or rest of the processing of non-metal minerals which still contain economically valuable substances or metal minerals shall have processed and refined in the country in accordance with the minimum content of the processing and refinery of metal mineral mining commodities as contained in Attachment I,

which constitutes a part inseparable from this ministerial regulation.

CHAPTER III

THE UPGRADING OF ADDED VALUE

Article 5

(1) Holders of IUP of Metal Mineral Production Operation and IUPK of Metal Mineral Production Operation shall be obliged to process and refine their mining production in the country in accordance with the minimum content of the processing and refinery of the specified metal minerals as meant in Article 3 paragraph (4).

(2) Holders of IUP of Non-Metal Mineral and Rock Production Operation shall be obliged to process their mining production in the country in accordance with the minimum content of the processing of the specified non-metal minerals and rocks as meant in Article 3 paragraph (5) and paragraph (6).

(3) The processing and/or refinery of mining products produced by the holders of IUP of Production Operation and IUPK of Production Operation as meant in paragraph (1) and paragraph (2) may be executed directly or through cooperation with other holders of IUP of Production Operation and/or holders of special IUP of Production Operation for the processing and/or refinery.

Article 6

(1) The joint cooperation in the processing and/or refinery as meant in Article 5 paragraph (3) may be in the form of:

a. selling and buying raw ores (raw material or ores) or concentrates; or

b. processing and/or refinery.

(2) The plan of joint cooperation in the processing and/or refinery as meant in paragraph (1) shall be only executable after securing approval from:

a. the Minister, in the case of:

1. the plan of joint cooperation between holders of IUP of Production Operation or IUPK of Production Operation issued by the minister and:

a) Other IUP of Production Operation or IUPK of Production Operation issued by the Minister;

b) Other IUP of Production Operation issued by governor or regent/mayor;

c) Special IUP of Production Operation for the processing and/or refinery issued by the Minister.

2. the plan of joint cooperation between holders of IUP of Production Operation issued by 2 (two) different governors;

3. plan of joint cooperation between holders of IUP of Production Operation issued

by 2 (two) regents/mayors with different province;

4. the plan of joint cooperation between holders of IUP of Production Operation issued by regent/mayor or IUP of Production Operation issued by governor and special IUP of Production Operation for the processing and/or refinery issued by the minister.

b. governor, in the case of:
   1. the plan of joint cooperation between holders of IUP of Production Operation issued by the governor and:
      a) other IUP of Production Operation issued by the governor in one province;
      b) other IUP of Production Operation issued by regent/mayor in one province;
      c) special IUP of Production Operation for the processing and/or refinery issued by the governor in one province;
   2. the plan of joint cooperation between holders of IUP of Production Operation issued by regent/mayor and IUP of Production Operation issued by other regent/mayor in one province;
   3. the plan of joint cooperation between holders of IUP of Production Operation issued by regent/mayor and special IUP of Production Operation for the processing and/or refinery issued by governor;
   c. regent/mayor in the case of the plan of joint cooperation between holders of IUP of Production Operation issued by the regent/mayor and:
      1. other IUP of Production Operation issued by regent/mayor in one regency/city;
      2. special IUP of Production Operation for the processing and/or refinery issued by the regent/mayor in one regency/city.

(3) The Special IUP of Production Operation for the processing and/or refinery as meant in Article 5 paragraph 3 shall be granted by the minister, governor or regent/mayor in accordance with the provision of legislation.

(4) In the case of holders of IUP of Production Operation, IUPK of Production Operation and Special IUP of Production Operation for the processing and/or refinery processing and/or refining ores (raw material or ores), concentrates or intermediate product of minerals resulting from other countries, the plan of joint cooperation with supplier shall be obliged to secure approval from the minister.

CHAPTER IV

OBLIGATION OF HOLDERS OF IUP OF PRODUCTION OPERATON, IUPK OF PRODUCTION OPERATION AND SPECIAL IUP OF PRODUCTION OPERATION FOR THE PROCESSING AND REFINERY

Article 7

(1) Holders of IUP of Copper Production Operation, IUPK of Copper Production Operation and Special IUP of Production Operation for the processing and/or refinery of copper as well as special IUP of Production Operation for the hauling and sales that sell mining commodity copper, including by product or rest of the purification of copper concentrates in the form of anode mud and copper telluride to other countries shall be obliged to fulfill the minimum content of the purification of metal minerals as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(2) Holders of IUP of Lead and Zinc Production Operation, IUPK of Lead and Zinc Production Operation and Special IUP of Production Operation for the processing and/or refinery of lead and zinc as well as special IUP of Production Operation for the hauling and sales that sell mining commodity lead and zinc, including by product or rest of the purification in the form of gold and silver to other countries shall be obliged to fulfill the minimum content of the purification of metal minerals as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(3) Holders of IUP of Iron Sand Production Operation, IUPK of Iron Sand Production Operation and Special IUP of Production Operation for the processing and/or refinery of iron sand as well as special IUP of Production Operation for the hauling and sales that sell mining commodity iron sand, including by product or rest of the purification in the form of slag to other countries shall be obliged to fulfill the minimum content of the purification of metal minerals as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

Article 8

(1) In the case of holders of IUP of Tin Production Operation, IUPK of Tin Production Operation and Special IUP of Production Operation for the processing and refinery of tin processing and refining tin metal, the holders shall be obliged to separate the associated minerals such as zircon, ilmenite, rutile, monazite, senotim, and process slag with the minimum content of the processing and/or refinery of metal minerals as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

(2) Holders of IUP of Tin Production Operation, IUPK of Tin Production Operation and Special IUP of

Production Operation for the processing and refinery of tin processing and refining tin metal as well as Special IUP of Production Operation for the hauling and sales that sell tin, including by product or rest of the processing and refinery as well as the associated minerals such as zircon, ilmenite, rutile, monazite, senotim, and slag to other countries shall be obliged to fulfill the minimum content of the processing and/or refinery of metal minerals as meant in paragraph (1).

(3) In the event that holders of IUP of Tin production Operation, IUPK of Tin Production Operation and Special IUP of Production Operation for the processing and refinery of tin have by product and associated minerals, in the form of zircon, ilmenite, rutile, monazite, senotim, and slag not yet fulfilling the minimum content of the processing and refinery as meant in paragraph (1), the by products and associated minerals shall be secured in accordance with the provision of legislation.

CHAPTER V

MISCELLANEOUS PROVISION

Article 9

The obligation to process and/or refine metal minerals, non-metal minerals and rocks in the provision of this ministerial regulation shall not apply to holders of IUP of Production Operation and IUPK of Production Operation of Metal Minerals, Non-Metal Minerals and Rocks that use directly their mining production for the domestic interest.

Article 10

Mineral mining commodities not yet mentioned in Article 3 paragraph (4), Article 3 paragraph (5), and Article 3 paragraph (6) may only be sold to other countries after the minimum content of the processing and/or refinery thereof is stipulated by the Minister.

CHAPTER VI

TRANSITIONAL PROVISION

Article 11

Holders of Contracts of Work of Non-Metal Minerals and Rocks as well as IUP of Production Operation of Non-Metal Minerals and Rocks as meant in Article 112C point 2 of Government Regulation Number 1 Year 2014 regarding the Second Amendment to Government Regulation Number 23 Year 2010 concerning the Execution of Mineral and Coal Mining Business Activities may sell the processing results to other countries after fulfilling the minimum content of the processing as meant in Attachment II and Attachment III, which constitute a part inseparable from this ministerial regulation.

Article 12

1. Holders of Contracts of Work of Metal Minerals as meant in Article 112C point 3 of Government Regulation Number 1 Year 2014 regarding the Second Amendment to Government Regulation

Number 23 Year 2010 concerning the Execution of Mineral and Coal Mining Business Activities may sell the processing result, including the refinery result in a specified quantity to other countries after fulfilling the minimum content of the processing and refinery as meant in Attachment I, which constitutes a part inseparable from this ministerial regulation.

2. Anode mud and copper telluride as by product or rest of the purification of metal mineral copper may be sold to other countries in a specified quantity as long as the refinery has not been executable in the country in accordance with the minimum content of the refinery as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

3. Holders of IUP of Metal Mineral Production Operation as meant in Article 112C point 4 of Government Regulation Number 1 Year 2014 regarding the Second Amendment to Government Regulation Number 23 Year 2010 concerning the Execution of Mineral and Coal Mining Business Activities may sell the processing result, including the refinery result in a specified quantity to other countries after fulfilling the minimum content of the processing and refinery as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation.

4. The sales of the metal mineral processing result to other countries as meant in point 1 and point 3 shall not apply to metal minerals:
   a. nickel ;
   b. bauxite
   c. tin;
   b. gold;
   c. silver; and
   d. chromium.

5. The overseas sales of the processing result in specified quantity as meant in point 1 and point 3, including anode mud and copper as meant in point 2, may be executed in no later than 3 (three) years as from the promulgation of this ministerial regulation.

6. The overseas sales in the specified quantity as meant in point 5 may only be executed after securing recommendation from the Director General on behalf of the Minister.

7. The recommendation as meant in point 6 shall be used by holders of contracts of work of metal minerals and IUP of Metal Mineral Production Operation, including other party producing anode mud and copper telluride as a basis to secure export approval from the Minister of Trade.

8. In order to secure the recommendation, holders of contract of work of metal minerals and IUP of Metal Mineral Production Operation shall fulfill the

following requirements:

a. having sufficient reserves to conduct the processing and refinery in the country in accordance with age of the processing and refinery facility operated directly or in cooperation with other party;

b. showing the perseverance to build the refinery facility directly or in cooperation with other party by submitting plan for the development of the refinery facility; and

c. fulfilling the good environmental management performance.

Application fulfilling the requirements to secure the recommendation as meant in point 8 shall be furnished with, among others:

a. feasibility study document already approved;
b. environmental document already approved by the authorized institution;
c. payment form of the settlement of financial payment liabilities to the state;
d. clear and clean certificate, in the case of holder of IUP of Production Operation;
e. timetable of the plan for the development of refinery facility in the country, which has been approved in accordance with the provision of legislation;
f. the approved work plan and budget of cost in the current year; and/or
g. plan of the sales of the processing result, containing, among others, kind and quality of product, quantity, price and port of loading.

10. The Director General on behalf of the Minister shall evaluate the application as meant in point 8 and point 9 to stipulate:
    a. kind and quality of product already matching the minimum content of the processing of metal minerals as contained in Attachment I, which constitutes a part inseparable from this ministerial regulation;
    b. the specified quantities of the sales of the processing result, which is determined on the basis of consideration about:
        1) environmental management performance;
        2) reserves;
        3) capacity of the refinery facility; and
        4) progress of the development of the refinery facility.

11. In order to secure the recommendation, other party producing anode mud and copper telluride shall meet the following requirements:
    a. showing the perseverance to build refinery facility directly or in cooperation with other party by submitting plan for the development of the refinery facility; and
    b. fulfilling good environmental management performance;

12. Application fulfilling the requirements to secure the recommendation as meant in point 11 shall be furnished with, among others:
    a. timetable of plan for the development of refinery facility in the country already approved in accordance with the provision of legislation;
    b. plan of sales, containing among others kind and quality of product, quantity, price and port of loading;
    c. the approved work plan and budget of cost in the current year; and/or
    d. environmental document already approved by the authorized institution.
13. The Director General on behalf of the Minister shall evaluate the application as meant in point 11 and point 12 to stipulate the specified quantity of the sales, which is determined on the basis of consideration about:
    a. environmental management performance;
    b. capacity of the refinery facility; and
    c. progress of the development of refinery facility.
14. Based on the evaluation as meant in point 10 and point 13, the Director General on behalf of the Minister shall grant the recommendation as meant in point 6 to holders of contracts of work of metal minerals and IUP of metal mineral Production Operation, including other party producing anode mud and copper telluride for a period of 6 (six) months.
15. The holders of Contracts of Work of Metal Minerals and IUP of Metal Mineral Production Operation as meant in point 1 and point 3, after 3 (three) years as from the promulgation of this ministerial regulation, may only sell the production already purified to other countries in accordance with the minimum content of the purification as contained in the attachment, which constitutes a part inseparable from this ministerial regulation.
16. Other party producing anode mud and copper telluride, after the 3 (three) years period as from the promulgation of this ministerial regulation may only sell the production already purified to other countries in accordance with the minimum content of the purification as contained in the attachment, which constitutes a part inseparable from this ministerial regulation.

CHAPTER VII

CONCLUSION

Article 13

Following the enforcement of this ministerial

regulation, Regulation of the Minister of Energy and Mineral Resources Number 07 Year 2012 regarding the Upgrading of Added Value of Minerals Through Mineral Processing and Refinery (State Gazette of the Republic of Indonesia Year 2012 Number 165) as already amended twice and the latest by Regulation of the Minister of Energy and Mineral Resources Number 20 Year 2013 (State Gazette of the Republic of Indonesia Year 2013 Number 993), shall be revoked and declared null and void.

Article 14

The ministerial regulation shall come into force as from the date of promulgation.

For public cognizance, the ministerial regulation shall be promulgated by placing it in State Gazette of the Republic of Indonesia.

Stipulated in Jakarta

On January 11, 2014

THE MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA

sgd

JERO WACIK

Promulgated in Jakarta

On January 11, 2014

THE MINISTER OF LAW AND HUMAN RIGHTS OF THE REPUBLIC OF INDONESIA

sgd

AMIR SYAMSUDIN

STATE GAZETTE OF THE REPUBLIC OF INDONESIA YEAR 2014 NUMBER 35

ATTACHMENT I

REGULATION OF THE MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA NUMBER 1 YEAR 2014 REGARDING THE UPGRADING OF ADDED VALUE OF MINERALS THROUGH MINERAL PROCESSING AND REFINERY IN THE COUNTRY

MINIMUM CONTENT OF THE PROCESSING AND REFINERY OF METAL MINERALS IN THE COUNTRY

No.	Commodities		Processing and/ or Refinery	Products	Minimum Content
	Ores	Minerals			
1.	Copper (smelting)	a. Chalcopyrite b. Digenit c. Bornit d. Kuprit e. Kovelit	Processing	Copper concentrates	≥15% Cu
			Refinery	a. Copper cathode	Metal Cu ≥ 99%
				b. Anode mud	a. Metal Au ≥99%; b. Metal Ag ≥99%; c. Bullion Pb ≥90%; d. Metal Pd ≥99%; e. Metal Pt ≥99%; f. Metal Se ≥99%; g. Metal Te ≥99%; h. PbO ≥98%; i. PbO2≥98%; j. SeO2> 98%; and/or k. Rare metal and rare earth (referring to requirement for metal rare earth in tin).

				c. Copper telluride	a. Metal Cu ≥99%; b. Metal Te ≥99%; c. TeO2 ≥98%; and/or d. Te(OH)4 ≥98%.
	Copper (leaching)	a. Chalcopyrite b. Digenit c. Bornit d. Kuprit e. Kovelit	Refinery	Metal	a. Metal Cu ≥99%; b. Metal Au ≥99%; c. Metal Ag ≥99%; d. Metal Pd ≥99%; e. Metal Pt ≥99%; f. Metal Se ≥99%; g. Metal Te ≥99%; and/or h. Rare metal and rare earth (referring to requirement for metal rare earth in tin).
2.	Nickel and/or cobalt (smelting) a. Saprolite b. Limonite	a. Pentlandit b. Garnerit c. Serpentine-nit d. Karolit e. Pyrite f. Gutit	Refinery	Nickel matte, alloy metal and nickel metal	a. Ni Matte ≥70% Ni; b. FeNi ≥10%Ni; c. Nickel Pig Iron (NPI) ≥4% Ni; d. Metal Ni ≥ 93%; e. Metal Fe ≥ 93%; and/or f. NiO > 70% Ni.

	Nickel and/or cobalt (leaching) limonite			Metal, metal oxide, metal sufide, mix hydroxide/ sulfide precipitate, and hydroxide nickel carbonate	a. Metal Ni ≥93%; b. Mix Hydroxide Precipitate (MHP) > 25% Ni; c. Mix Sulfide Precipitate (MSP) ≥ 45% Ni; d. Hydroxide Nickel Carbonate (HNC) ≥40% Ni; e. NiS ≥40% Ni and/or; f. Metal Co >93% g. CoS ≥40% Co; h. Metal Cr ≥ 99%; i. Cr2O3 ≥40%; and/or j. MnO2 with content Mn ≥15%.
	Nickel and/or cobalt (reduction) a. Saprolite b. Limonite		Refinery	Metal alloy	a. FeNispon (Sponge FeNi) ≥ 4% Ni; b. Luppen FeNi ≥ 4% Ni; and/or c. Nuget FeNi ≥ 4% Ni.
3.	Bauxite	a. Gibsit b. Diaspor c. Buhmit	Refinery	Metal oxide/ hydroxide and metal	a. Smelter grade alumina ≥ 98% Al2O3;

					b. Chemical Grade Alumina ≥ 90% Al2O3 ≥ 90% Al(OH)3; and/or c. Metal Al ≥ 99%.
4.	Iron ores	a. Hematite b. Magnetite c. Pyrite	Processing	Iron concentrates	≥ 62% Fe
		Gutit/ laterite	Processing	Leterite iron concentrates	≥ 51% Fe Content (Al2O3 + SiO2) > 10%
			Refinery	Sponge, metal and metal alloy	Sponge iron ≥ 75% Fe; Pig iron ≥ 90% Fe; and/or Alloy ≥ 88% Fe.
5.	Iron sand	a. Titanomag-netit b. Ilmenite	Processing	Iron sand concentrates	≥58% Fe; and/or
				Pellet	>56% Fe.
			Refinery	Metal	a. Sponge iron ≥ 75% Fe; and/or b. Pig iron ≥ 90% Fe.
				Slag	a. TiO2 ≥ 90%; b. TiCl4 ≥ 98%; c. Metal alloy ≥ 65% Ti; d. V2O5≥ 90%;

					e. Metal alloy ≥ 65% V; and/or f. Rare metal and rare earth (referring to requirement for metal rare earth in tin).
6.	Tin	Kasiterit	Processing	By product of zircon, ilmenite and rutile concentrates	Referring to the requirement for zircon, ilmenite, rutile in non-metal mineral zircon
				Monazite and centime concentrates	a. Metal rare earth oxide (REO) ≥99%; b. Metal rare earth hydroxide (REOH) ≥99%; and/or c. Metal rare earth > 99%.
			Refinery	Metal Slag	Metal Sn ≥ 99,90% a. Metal W ≥ 90%; b. Ta2O5≥ 90%; c. Nb2O5≥ 90%; and/or d. Sb2O5≥ 90%.
7.	Manganese	a. Pirolusit b. Psilomelan c. Braunit	Processing	Manganese concentrates	≥ 49% Mn

		d. Manganit	Refinery	Metal, metal alloy and chemical manganese	a. Ferro Manganese (FeMn), Mn ≥60 %; b. Silica Manganese (SiMn), Mn ≥ 60%; c. Manganese Monoxide (MnO), Mn≥47,5%, MnO2≤4%; d. Manganese Sulfate (MnSO4)≥90%; e. Manganese Chloride (MnCl2)≥90%; f. Manganese Carbonate Synthetic (MnCO3)≥90%; g. Kalium Permanganate (KMnO4)≥90%; h. Mangani Oxide (Mn3O4)≥90%; i. Manganese Dioxide Synthetic (MnO2)≥98%; and/or j. Manganese Sponge (Direct Reduced Manganese) Mn≥49%, MnO2≤4%

8.	Lead and zinc	a. Galena b. Spalerit c. Smitsonit d. Hemimor- fit (kalamide)	Processing Refinery /hydroxide	Zinc concentrates Lead concentrates Metal, metal oxide	≥ 52% Zn ≥ 57% Pb a. Bullion ≥ 90% Pb; b. PbO ≥ 98%; c. Pb(OH)2 ≥ 98%; d. PbO2 ≥ 98%; e. Bullion ≥ 90% Zn; f. ZnO ≥ 98%; g. ZnO2 ≥ 98%; h. Zn(OH)2 ≥ 98%. i. Metal Au ≥ 99% and/or j. Metal Ag ≥ 99%
9.	Gold	a. Native b. Associated minerals	Refinery	Precious metal	a. Metal Au ≥ 99% b. Metal Au ≥ 99%
10.	Silver	a. Native b. Associated minerals	Refinery	Precious metal	a. Metal Ag ≥ 99% b. Metal Ag ≥ 99%
11.	Chromium	Chromate	Refinery	Metal and alloy	a. Metal Cr ≥ 99%; and/or b. Metal alloy ≥ 60% Cr

THE MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA

Sgd

JERO WACIK

ATTACHMENT II

REGULATION OF THE MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA NUMBER 1 YEAR 2014 REGARDING THE UPGRADING OF ADDED VALUE OF MINERALS THROUGH MINERAL PROCESSING AND REFINERY IN THE COUNTRY

MINIMUM CONTENT OF THE PROCESSING OF NON-METAL MINING COMMODITIES IN THE COUNTRY

No.	Commodities	Products	Minimum Content

1.	Zircon	Zirconium, zircon silicate, chemical substance zircon, sponge zircon, metal zircon, and hafnium	a. (ZrO2 + HfO2) > 99%;
			b. Zircon sand (ZrSiO4), (ZrO2 > 65,5%) passing filter 60 mesh > 95%;
			c. Zirconium Silicate (ZrSiO4), (ZrO2 > 64%) passing filter 325 mesh > 95%;
			d. Zirconium Silicate (ZrSiO4), (ZrO2 > 63%) d50 = 1,43 + 0,16 μm;
			e. Zirconium Silicate (ZrSiO4), (ZrO2 > 62%) d50 = 1,1 + 0,2 μm;
			f. Zirconium Oxychloride (ZOC) ZrOCl2.8H2O > 90%;
			g. Zirkonium Sulfat (ZOS) Zr(SO4)2.4H2O > 90%;
			h. Sulfate-based Zirconium (ZBS) Zr5O8(SO4)2. xH2O > 90%;
			i. Carbonate-based Zirconium (ZBC) ZrOCO3. xH2O > 90%;
			j. Amonium Zirconium Carbonate (AZC) (NH4)3ZrOH(CO3)3 .2H2O > 90%;
			k. Zirconium Acetate (ZAC) H2ZrO2(C2H3O2)2 > 90%;
			l. Kalium Heksafloro Zirkonat (KFZ) K2ZrF6 > 90%;

			m. Zirconium Spon > 85%Zr; n. Zirdonium > 95% Zr; and/or o. Hafnium > 95% Hf.
		Associated minerals	
		a. Ilmenite	FeTiO3 > 98%
		b. Rutile	TiO2 > 90%
2.	Kaolin	Processed Kaolin	a. Brightness ≥ 79%; b. Granule size passing filter 325 mesh ≥ 99%; c. SiO2 ≤ 46%;and d. Al2O3 ≥ 36%.
3.	Zeolite	Processed Zeolite	KTK ≥ 80 meq/100g
4.	Bentonite	Processed Bentonite	Bleaching power ≥ 70%
5.	Silica (quartz sand)	Cullet, gravel pack sand	a. SiO2 ≥ 80% in the form of cullet b. Gravel Pack Sand 1) SiO2 ≥ 98,5%; 2) Roundness ≥ 60%; 3) Spherecity ≥ 70%; 4) Solubility in acid ≤ 1,3%; and 5) Breakable at the pressure 5000 psi, faction size -40 + 70 mesh ≤ 6,2%.
6.	Calcite (limestone)	Unslaked lime	a. CaO ≥ 96%; b. Ca(OH)2, 70-74%; c. Granule size r ≤ 1000 mesh;

			d. $CaCO_3 > 98\%$; and e. Gravity $\leq 0,7$ g/cc.
7.	Feldspar	Processed Feldspar	a. $(K_2O + Na_2O) \geq 10\%$; and b. $Fe_2O_3 \leq 1\%$.
8.	Diamond	Jewel, metal Au, metal Ag	a. Diamond; b. Metal Au $\geq$ 99%; and c. Metal Pt $\geq$ 99%.

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ATTACHMENT III

REGULATION OF THE MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA NUMBER 1 YEAR 2014 REGARDING THE UPGRADING OF ADDED VALUE OF MINERALS THROUGH MINERAL PROCESSING AND REFINERY IN THE COUNTRY

MINIMUM CONTENT OF THE PROCESSING AND REFINERY OF MINING COMMODITY ROCKS IN THE COUNTRY

No.	Commodities	Minimum Content	Remarks
1.	Marble	Cutting and/or polishing	Floor tile, block, slab
2.	Granite	Size sorting or cutting	Decorative stone, floor tile, slab and beam
3.	Onyx		
4.	Opal	Polishing	Gemstone
5.	Jade		

6.	Agate		
7.	Topaz		
8.	Perlite	Polishing and heating	Perlite powder
9.	Toseki	Processing	
10.	Slate	Cutting	
11.	Granodiorit	Size sorting or cutting	
12.	Gabro		
13.	Peridotit		
14.	Basalt		
15.	Chalcedon	Polishing	
16.	Cert.		
17.	Jasper		
18.	Krisopras		
19.	Garnet		

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