ANNEX VII

DRAFT

THE LAW OF THE REPUBLIC OF ARMENIA

ON MAKING AMMENDMENTS OF AND ADDITIONS TO THE LAW OF THE REPUBLIC OF ARMENIA "ON ATMOSPHERIC AIR PROTECTION"

ARTICLE 1.In the Law of the Republic of Armenia "On Protection of Atmospheric Air" HO-121 of October 11,1994 (hereinafter – the Law):

Point 9 of Article 1.2 is replaced by the following:

"9) **source of emission from a stationary technical unit** (an installation) – technical unit stationed in a specific area with fixed spatial position, where one or more types of activities technically linked to the activity of the object are performed and which can have organized or unorganized emissions".

Article 2. 2 is added with Point 20 as follows:

"20) **Integrated Environmental Permit** -written permission issued by the Competent Authority set on the basis of Best Available Techniques for the entire or partly exploitation of the relevant installation with high potential of pollution according to the List approved by the Government of the Republic of Armenia"

ARTICLE 2.Paragraph two of the Article 5 of the Law is added with the following:

"- approval of the List of Installations with high potential of pollution and defining the standards of emissions (emission levels) of polluting substances of the relevant industrial sectors according to the List".

ARTICLE 3.In Article 13 of the Law:

1. in Paragraph two the words **"**or of the production units with high potential of pollution**"** shall be added after the word «of the groups».

2. New Paragraphs shall be added after Paragraph two as follows:

"The standards of emissions of polluting substances for the installations with high potential of pollution are defined at industrial sector level. The standards of emission of polluting substances defined for the industrial sector provide the emission levels (intervals) o of polluting substances, based on which the permissible emission limits for each individual or diffuse sources in the installation with high potential of pollution of the given sector are defined associated with the Best Available Techniques applied by the enterprise, factory or organization".

ARTICLE 4.Article 14 of the Law:

1. in the first sentence of the first Paragraph of the Article to add the words “except the industrial sectors with high potential of pollution” after the word “standards”.

2. To add the Article with new paragraphs as follows:

“The Integrated Environmental Permit is issued by the Competent Authority according to the order prescribed by Law for the entire or partly exploitation of the installation with high potential of pollution, which also includes the emission levels defined for the industry and the permissible emission limits of polluting substances defined for the relevant installation on the basis of Best Available Techniques applied.

The framework of the integrated permits provided for the installations with high potential of pollution, the order of issuing permits, dates, principles, requirements, conditions, rights and responsibilities of the Government, Competent Authority, other stakeholders and operators, link to the other environmental functions, methods and peculiarities of control and supervision, liability and economical mechanisms, public involvement and access to information, etc. are defined by the Law. According to the Law, the List of installations with high potential of pollution and emission levels of polluting substances associated with the Best Available Techniques of each industry are defined by the Government of the Republic of Armenia, and the Conclusions of the Reference Document of the Best Available Techniques for each industry is approved by the Competent Body and includes brief description of Best Available Techniques(technical methods, description of technological processes and devices,characteristics of regimes and parameters of polluting substances or indicators),information on assessment of BAT applicability and the environmental management systems of the organization (the levels of emmissions and their reduction,monitoring, complex environmental measures)”.

ARTICLE 6.The present Law shall enter into force on the tenth day following that of its official publication.

DRAFT

DECISION OF THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

ON DEFINING THE STANDARDS (EMISSION LEVELS) FOR ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR ELECTRIC ENERGY PRODUCTION THROUGH GAS COMBUSTION IN ENERGY INDUSTRY

of "____" _____ 201... No _____-N

Guided by Articles 5 and 14 of the Law of the Republic of Armenia "On Atmospheric Air Protection" the Government of the Republic of Armenia ***decides:***

1. To approve the standards (emission levels) for atmospheric air polluting substances for electric energy production through gas combustion in energy industry as per sources of pollution and main polluting substances, according to the Annex.

2. To the Minister of Nature Protection of the Republic of Armenia:

1) Defining the permissible limits of emissions of atmospheric air polluting substances for each installation with high potential of pollution in electric energy production through gas combustion, to be guided by the standards of the emissions of an Annexe of the present Decision.

2) In three months period after the day following that of entering into force of the present Decision to approve the Conclusions of the Reference Document of Best Available Techniques in energy industry, which includesbrief description of Best Available Techniques (technical methods, description of technological processes and devices,characteristics of regimes and parameters of polluting substances or indicators), information on assessment of BAT applicability and the environmental management systems of the organization (the levels of emmissions and their reduction,monitoring, complex environmental measures).

3. To the Minister of Nature Protection of the Republic of Armenia and the Minister of Justice of the Republic of Armenia:to provide the State registration of the administrative act defined by Sub-Point 2 of Point 2 of the present Decision.

4.The present Decision shall enter into force on the tenth day following that of its official publication.

Annex
of the Decision of the Government of the
Republic of Armenia

of ___ _____ 201.. No ___ -N

THE STANDARDS (EMISSION LEVELS) FOR ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR ELECTRIC ENERGY PRODUCTION THROUGH GAS COMBUSTION IN ENERGY INDUSTRY AS PER SOURCES OF POLLUTION AND MAIN POLLUTING SUBSTANCES

1. The main polluting substances occuring in the process of electric energy production though gas combustion in energy industry that are subject to standardization are the following:

1) nitrogen oxides calculated by nitrogen dioxide (NO_x),

2) carbon monoxide (CO).

2. The standards (emission levels) for the main atmospheric air polluting substances emitted in the process of exploitation of Best Available Techniques for energy production through gas combustion in energy industry as per various production processes, which are the sources of emmissions, are specified in the Table.

The sources of emissions of energy production through gas combustion, the main polluting substances and their emissions levels

Table

Type of Power Installation	Emission Levels (mg/Nm^3)		O_2 (%)[1]
	NOx	CO	
Gas Turbines			
New Gas Turbines	20-50	5–100	15
Existing Gas Turbines	50–90	30-100	15
Gas Engines			
New Gas Engines	20 – 75	30 – 100	15
Existing Gas Engines	20 –100	30 – 100	15
Gas Fired Boilers			
New Gas Fired Boilers	50 – 100	30 – 100	3
Existing Gas Fired Boilers	50 – 100	30 – 100	3
Stream-gas Cycle			
New Steam-gas Cycle	20–50	5–100	15
Existing Steam-gas Cycle	20–90	5–100	15

[1] The residual oxygen content in the flue gases

DRAFT

DECISION OF THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

ON DEFINING THE STANDARDS (EMISSION LEVELS) FOR ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR CEMENT PRODUCTION IN CONSTRUCTION MATERIAL INDUSTRY

"____" _____ 201.. No _____-N

Guided by Articles 5 and 14 of the Law of the Republic of Armenia "On Atmospheric Air Protection" the Government of the Republic of Armenia ***decides:***

1. To approve the standards (emission levels) for the emissions of atmospheric air polluting substances occuring in the process of cement production in construction material industry as per sources of pollution and main polluting substances, according to the Annex.

2. To the Minister of Nature Protection of the Republic of Armenia:

1) Defining the permissible limits of emissions of atmospheric air polluting substances for each installation with high potential of pollution in construction material industy, to be guided by the standards of the emissions of an Annexe of the present Decision

2) In three months period after the day following that of entering into force of the present Decision to approve the Conclusions of the Reference Document of Best Available Techniques in construction materials industry, which includes brief description of Best Available Techniques (technical methods, description of technological processes and devices, characteristics of regimes and parameters of polluting substances or indicators), information on assessment of BAT applicability and the environmental management systems of the organization (the levels of emmissions and their reduction,monitoring, complex environmental measures).

3. To the Minister of Nature Protection of the Republic of Armenia and the Minister of Justice of the Republic of Armenia: to provide the State registration of the administrative act provided for by Sub-Point 2 of Point 2 of the present Decision.

4.The present Decision shall enter into force on the tenth day following that of its official publication.

Annex
of the Decision of the Government of the
Republic of Armenia

of _____ ___ 201.. No ___ -N

THE STANDARDS (EMISSION LEVELS) FOR THE EMISSIONS OF ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR CEMENT PRODUCTION IN CONSTRUCTION MATERIAL INDUSTRYAS PER SOURCES OF POLLUTION AND MAIN POLLUTING SUBSTANCES

1. The main polluting substances occuring in the process of cement production in construction material industry that are subject to standardization are the following:

1) particulate matter(PM) or dust, in the composition of which there are:
- mercury (Hg),
- cadmium (Cd),
- titanium (TI),
- lead (Pb),
- arsenic (As),
- antimony (Sb),
- chrome (Cr),
- copper (Cu),
- manganese (Mg),
- nickel (Ni),
- vanadium (V),

2) nitrogen oxides calculated as nitrogen dioxide (NO_x),
3) sulfur dioxide (SO_2),
4) total carbon (C),
5) hydrogen chloride (HCI),
6) hydrogen fluoride (HF),
7)polychlorinated dibenzodioxins and dibenzofurans (PCDD/F).

2. The standards (emission levels) for the main atmospheric air polluting substances emitted in the process of exploitation of Best Available Techniquesfor cement production in construction material industry as per various production processes, which are the sources of emmissions, are specified in the Table.

The sources of emissions of cement production, the main polluting substances and their emissions levels

Table

Process and equipment	**Emission levels for PM**	**Emission levels for NOx**	**Emission levels for SO_2**	**Emission levels for total C**	**Emission levels for HCI**	**Emission levels for HF**	**Emission levels for PCDD/F**	**Emission levels for metal compounds in PM**
Material handling, storage and preparation of raw, grinding, blending, drying, and feeding	≤10 mg/Nm^3	-	-	-	-	-	-	-
Clinker burning (rotary kiln)	<10-20mg/Nm^3	- 500mg/Nm^3 (with cyclone preheater) - 400-800mg/Nm^3(long rotary kiln)	50 - 400mg/Nm^3	1 − 80 mg/Nm^3	<10 mg/Nm^3	<1 mg/Nm^3	<0,05–0,1ngI-TEQ/Nm^3	- Hg < 0.05 mg/Nm^3 - Σ (Cd, TI) < 0.05 mg/Nm^3 - Σ (As, Sb, Pb, Cr, Co, Cu, Mg, Ni, V) < 0.5mg/Nm^3
Clinker cooling and cement grinding	10 - 20mg/Nm^3	-	-	-	-	-	-	-

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DECISION OF THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

ON DEFINING THE STANDARDS (EMISSION LEVELS) FOR ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR COPPER PRODUCTION IN NON-FERROUS METALS INDUSTRY

"____" _____ 201.. No _____-N

Guided by Articles 5 and 14 of the Law of the Republic of Armenia "On Atmospheric Air Protection" the Government of the Republic of Armenia ***decides:***

1. To approve for non-ferrous metal industry sector:

1) the standards (emission levels) for the emissions of atmospheric air polluting substances occuring in the process of primary copper productionin as per sources of pollution and main polluting substances, according to the Annex 1.

2) the standards (emission levels) for the emissions of atmospheric air polluting substances occuring in the process of exploitation of Best Available Techniques for secondary copper productionin as per sources of pollution and main polluting substances, according to the Annex 2

2. To the Minister of Nature Protection of the Republic of Armenia:

1) Defining the permissible limits of emissions of atmospheric air polluting substances for each installation with high potential of pollution in non-ferrous metals industry, to be guided by the standards of the emissions of Annexes of the present Decision.

2) In three months period after the day following that of entering into force of the present Decision to approve the Conclusions of the Reference Document of Best Available Techniques in non-ferrous metals industry, which includes brief description of Best Available Techniques (technical methods, description of technological processes and devices, characteristics of regimes and parameters of polluting substances or indicators), information on assessment of BAT applicability and the environmental management systems of the organization (the levels of emmissions and their reduction, monitoring, complex environmental measures).

3. To the Minister of Nature Protection of the Republic of Armenia and the Minister of Justice of the Republic of Armenia: to provide the State registration of the administrative act provided for by Sub-Point 2 of Point 2 of the present Decision.

4.The present Decision shall enter into force on the tenth day following that of its official publication.

AnnexI

of the Decision of the Government of the Republic of Armenia

of _____ ___ 201.. No ___ -N

THE STANDARDS (EMISSION LEVELS) FOR THE EMISSIONS OF ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR PRIMARY COPPER PRODUCTION IN NON FERROUS METALS INDUSTRYAS PER SOURCES OF POLLUTION AND MAIN POLLUTING SUBSTANCES

1. The main polluting substances occuring in the process of primary copper production in non ferrous metals industry that are subject to standardization are the following:

1) particulate matter (PM) or dust, in the composition of which there are:

- lead (Pb),
- arsenic (As),

2) sulfur dioxide (SO_2),

2. The standards (emission levels) for the main atmospheric air polluting substances emitted in the process of exploitation of Best Available Techniques for primary copper production in non ferrous metals industry as per various production processes, which are the sources of emmissions, are specified in the Table 1.

The sources of emissions of primary copper production, the main polluting substances and their emissions levels

Table1

Processes and Equipment	**Emission levels for PM**	**Emission levels for sulfur dioxide (SO_2)**
The material reception, storage, loading and unloading, blending, grinding, drying	≤5 mg/Nm^3	-
Concentrate drying	≤10 mg/Nm^3	≤ 300 mg/Nm^3
Concentrate burning/smelting		200 – 500 mg/Nm^3 (SO_2< 1 %)
Converting	- PM ≤10 mg/Nm^3 - Pb =1-3 mg/Nm^3 - As ≤1 mg/Nm^3	
Metal melting/casting	- PM ≤ 5 mg/Nm^3 - Pb =1-3mg/Nm^3 - As ≤ 1 mg/Nm^3	≤ 300 mg/Nm^3
Slag cleaning	- PM ≤5 mg/Nm^3 - Pb = 3 mg/Nm^3	≤ 200 mg/Nm^3
Single contact/single absorption processes(SO_2>1%, but ≤4.5%vol.)	-	100-450 mg/Nm^3
Double contact/double absorption processes(SO_2>4.5% vol.)	-	200-770 mg/Nm^3

Annex II

of the Decision of the Government of the Republic of Armenia

of _____ ___ 201.. No ___ -N

THE STANDARDS (EMISSION LEVELS) FOR THE EMISSIONS OF ATMOSPHERIC AIR POLLUTING SUBSTANCES FOR SECONDARY COPPER PRODUCTION IN NON FERROUS METALS INDUSTRYAS PER SOURCES OF POLLUTION AND MAIN POLLUTING SUBSTANCES

1. The main polluting substances occuring in the process of secondary copper production in non ferrous metals industry that are subject to standardization are the following:

1) Particulate matter (PM) or dust, in the composition of which there are:

- lead (Pb),
- arsenic (As),

2) Polychlorinated dibenzodioxins and polychlorinated dibenzofurans (PCDD/F)

3) Total carbon

4) Sulfur dioxide (SO_2),

2. The standards (emission levels) for the main atmospheric air polluting substances emitted in the process of exploitation of Best Available Techniques for secondary copper production in non ferrous metals industry as per various production processes, which are the sources of emmissions, are specified in the Table.

The sources of emissions of secondary copper production, the main polluting substances and their emissions levels

Table 2

Processes and Equipment	Emission levels for PM	Emission levels for Total Carbon	Emission levels for PCDD/F	Emission levels for sulfur dioxide (SO_2)
The material reception, storage, loading and unloading, blending	≤5 mg/Nm^3	-	≤ 10 mg/Nm^3	-
Deoiling	-	-	≤ 10 mg/Nm^3	-
Smelting	- PM ≤ 5 mg/Nm^3 - Pb =1-3 mg/Nm^3 - As≤1 mg/Nm^3	≤0.1- 0.5 ng TEQ/[2]Nm^3	-	100 – 300 mg/Nm^3 (< 1 % SO_2)
Converting				
Metal melting	- ЧЦ ≤ 5 mg/Nm^3 - Pb =1 mg/Nm^3 - As ≤ 1 mg/Nm^3		≤ 10 mg/Nm^3	≤ 300 mg/Nm^3
Casting	-	-	-	
Copper furnace	≤5 mg/Nm^3	-	-	-
Skag cleaning	- PM ≤ 5 mg/Nm^3 - Pb = 3 mg/Nm^3	-	-	≤ 200 mg/Nm^3

[2] Dioxins are generally found in mixtures containing several kinds of dioxins and dioxin-like compounds, each having its own degree of toxicity. To express the overall toxicity of such a mixture as a single number, the concept of "International Toxic Equivalents" (TEQ) has been developed. The "Toxic Equivalents" (TEQ) scheme weighs the toxicity of the less toxic compounds as fractions of the toxicity of the most toxic TCDD. Each compound is attributed a specific "Toxic Equivalency Factor" (TEF). This factor indicates the degree of toxicity compared to 2,3,7,8-TCDD (tetrachlorodibenzo-p-dioxin), which is given a reference value of 1.To calculate the total TCDD toxic equivalent (TEQ) of a dioxin mixture, the amounts of each toxic compound are multiplied with their Toxic Equivalency Factor (TEF) and then added together.

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DECISION OF THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

"___" _____ N

On making amendments in the Decision of the Government of the Republic of Armenia N259 of April 22, 1999 "On approval of the order of state registration of adverse impacts on atmospheric air"

The Government of the Republic of Armenia decided

1. In the Annex of the Decision of the Government of the Republic of Armenia of April 22, 1999 "On approval of the order of state registration of adverse impacts on atmospheric air" to amend Point 4a) as follows:

a) registration of the organizations with sources of emissions of harmful substances into the atmosphere, as well as types of activities of those organizations.

2. The Decision shall enter into force on the tenth day following that of its official publication.

DRAFT

DECISION OF THE GOVERNMENT OF THE REPUBLIC OF ARMENIA

"___" ____ _____ N

On making amendments in the Decision of the Government of the Republic of Armenia No1673 –N of December 27, 2012 "On the order of drafting and approval of the standards of permissible limits of emissions of harmful substances into the atmosphere and on repealing the Decisions of the Government of the Republic of Armenia of 30.03.1999 No192 and 21.08.2008 No953 –N"

The Government of the Republic of Armenia decided:

1. To supplement the Point b of Annex 3 with the following sentence: "when taking measures aimed at reduction of emissions, the priority is given" to the introduction of "Best Available Techniques".
2. The Decision shall enter into force on the tenth day following that of it official publication.

DRAFT

MINISTRY OF NATURE PROTECTION OF THE REPUBLIC OF ARMENIA

ORDER

"-------" ---------- 201... No - N

ON APPROVAL OF THE CONCLUSIONS OF THE REFERENCE DOCUMENT OF BEST AVAILABLE TECHNIQUES OF COPPER PRODUCTION IN NON-FERROUS METAL INDUSTRY

Guided byArticle 14 of the Law of the Republic of Armenia “On Atmospheric Air Protection” and byPoint 2 of the Decision of the Government of the Republic of Armenia"_____" 201.. "____" No ___-N

ORDER:

1. To approve “The Conclusions of the Reference Document of Best Available Techniques of Copper Production in Non-ferrous Metal Industry of the Republic of Armenia”, according to the Annex.

2. To define, that the provisions included in the Annex approved by Point 1 of the present Order are subject to compulsory application:

1) by those organizations engaged in primary and secondary copper production and included in the List of Installations with high potential of pollution in the Republic of Armenia, approved by point …. Of the Decision of the Government of the Republic of Armenia of *"_____" "____" 201.. No _____-N,* to which Integrated Environmental Permits must be issued according to the order provided by Law,

2) By the Ministry of Nature Protection and relevant State governing authorities of the Republic of Armenia involved in the process of Integrated Environmental Permits.

MINISTER A. HARUTYUNYAN

DRAFT

MINISTRY OF NATURE PROTECTION OF THE REPUBLIC OF ARMENIA

ORDER

"-------" ---------- 201... No - N

ON APPROVAL OF THE CONCLUSIONS OF THE REFERENCE DOCUMENT OF BEST AVAILABLE TECHNIQUESOF CEMENT PRODUCTION IN CONSTRUCTION MATERIALS INDUSTRY

Guided byArticle 14 of the Law of the Republic of Armenia “On Atmospheric Air Protection” and byPoint 2 of the Decision of the Government of the Republic of Armenia"_____" 201.. "____" No ___-N

ORDER:

1. To approve “The Conclusions of the Reference Document of Best Available Techniques of Cement Production in Construction Materials Industry of the Republic of Armenia”, according to the Annex.

2. To define, that the provisions included in the Annex approved by Point 1 of the present Order are subject to compulsory application:

1) by those organizations engaged in cement production and included in the List of Installations with high potential of pollution in the Republic of Armenia, approved by point …. Of the Decision of the Government of the Republic of Armenia of *"_____" "____" 201.. No _____-N,* to which Integrated Environmental Permits must be issued according to the order provided by Law,

2) By the Ministry of Nature Protection and relevant State governing authorities of the Republic of Armenia involved in the process of Integrated Environmental Permits.

MINISTER A. HARUTYUNYAN

DRAFT

MINISTRY OF NATURE PROTECTION OF THE REPUBLIC OF ARMENIA

ORDER

"-------" ---------- 201... No - N

ON APPROVAL OF THE CONCLUSIONS OF THE REFERENCE DOCUMENT OF BEST AVAILABLE TECHNIQUESOF ELECTRICAL ENERGY PRODUCTION THROUGH GAS COMBUSTION IN ENERGY INDUSTRY

Guided byArticle 14 of the Law of the Republic of Armenia “On Atmospheric Air Protection” and byPoint 2 of the Decision of the Government of the Republic of Armenia"_____" 201.. "____" No ___-N

ORDER:

1. To approve “The Conclusions of the Reference Document of Best Available Techniques of Electric Energy Production Through Gas Combustion in Energy Industry of the Republic of Armenia”, according to the Annex.

2. To define, that the provisions included in the Annex approved by Point 1 of the present Order are subject to compulsory application:

1) by those organizations engaged in electric energy production through gas combustion and included in the List of Installations with high potential of pollution in the Republic of Armenia, approved by point …. Of the Decision of the Government of the Republic of Armenia of *"_____" "____" 201.. No _____-N,* to which Integrated Environmental Permits must be issued according to the order provided by Law,

2) By the Ministry of Nature Protection and relevant State governing authorities of the Republic of Armenia involved in the process of Integrated Environmental Permits.

MINISTER A. HARUTYUNYAN