

KINGDOM OF CAMBODIA

Nation – Religion – King

The Royal Government

42 ANRK/BK

ANUKRET on

The Control of Air Pollution and Noise Disturbance

- *Having seen the Constitution of the;*
- *Having seen the Royal Decree No. NS/RKT/1198/72 of November 30, 1998 on the Appointment of the Royal Government of Cambodia;*
- *Having seen Kram No. 02 /NS/94 of July 20, 1994, promulgating the organization and Functioning of the Council of Ministers;*
- *Having seen Kram No. NS/RKM/0194/21 of January 24, 1996, promulgating the Law on the Establishment of the Ministry of Environment;*
- *Having seen Kram No. NS/RKM/1296/36 of December 24, 1996, promulgating the Law on the Environmental Protection and Natural Resources Management;*
- *Having seen Anukret 57/ANK/BK of September 25, 1997 on the Organization and Functioning of the Ministry of Environment;*
- *Pursuant to the approval of the Council of Ministers at its plenary session of June 9, 2000;*

Hereby Decides

CHAPTER 1

General Provisions

Article 1:

The purpose of this sub-decree is to protect the quality of the environment quality and public health from air pollutants and noise disturbance through monitoring, curbing and mitigating activities.

Article 2:

This sub-decree applies to all movable sources and immovable sources of air pollution and noise disturbance.

Article 3:

The meaning of technical terms used in this sub-decree shall be interpreted as follows:

a) a) "Source of pollution" is divided into two types:

- - A movable source refers to an emission source without permanent location such as an aircraft, ship, vehicle, machinery, and all kinds of loud speakers.
- - An immovable source refers to sources with a permanent location such as a factory, enterprise, warehouse, construction site, incinerator, loud speakers, handicraft, and all kinds of farms.

b) "Pollutant" refers to smoke, dust, ash particle substance, gas, vapor, fog, odor, or a radioactive substance.

c) "Flammable substance" refers to fuel oil, coal, natural gas that may be flammable.

d) "Standard" means the maximum level of pollutant substances permissible in the environment or which may be emitted into the environment.

CHAPTER 2

Provisions on Emission of Air Pollutants and Noise

Article 4:

Air quality standard shall be specified in the Annex-1 of this sub-decree.

The standard of maximum quality of hazardous substance permitted in the air shall be specified in the Annex-2 of this sub-decree.

Article 5:

The standard of maximum permissible polluting substances emitted from immobile sources into the atmosphere shall be specified in the Annex- 3 of this sub-decree.

This standard of smoke emission from movable sources shall be specified in the Annex- 4 of the sub-decree.

Article 6:

In necessary cases, the standards as stipulated in the Articles 4 and 5 of this sub-decree shall be recognized and changed every 5 years, based on a proposal of the Ministry of Environment.

Article 7:

The standard for noise emission from various sources like vehicles, manufacturing places and the standard for maximum noise emission for public and residential areas shall be specified in the Annex 5, Annex 6 and Annex 7 of this sub-decree.

Article 8:

The emission of pollutants into the atmosphere, which exceeds the standard as stipulated in the Annex 3 and Annex 4 of this sub-decree, shall be strictly prohibited.

Article 9:

Noise emission, which exceeds the standard as, stipulated in the Annexes 5, 6 and 7 of this sub-decree shall be strictly prohibited.

Article 10:

The importation and production of flammable substances containing sulfur, lead, benzene and hydrocarbon shall be complied with as stipulated in the Annex 8 of this sub-decree.

Article 11:

The importation, utilization, production of vehicle and all kinds of machinery in Cambodia, which emit pollutants and noise exceeding the standard as stipulated in the Annex 4 and Annex 5 of this sub-decree, shall be strictly prohibited.

Article 12:

The discharge or leakage of various flammable substances, fuel-oil, radioactive or chemical substances into the atmosphere, water and land shall be strictly prohibited.

CHAPTER 3

Application for Authorization

Article 13:

The emission of pollutants and noise from immovable source into the atmosphere shall be authorized by the Ministry of Environment and a copy such application shall be sent to the relevant ministries and institutions.

Article 14:

The application for importation of flammable substances shall have attached analytic results indicating the quantity of pollutants, such as sulfur, lead, benzene, or hydrocarbon from the original source of importation or production.

Article 15:

The application for authorization to discharge pollutant substances and noise as stipulated in Article 13 of this sub-decree shall be applicable to both new pollutant sources and existing and on-going activities, provided that there is an evaluation report of environmental impacts.

Article 16:

The owner or person who is responsible for pollution sources as stipulated in the Article 13 of this sub-decree shall applied for authorization from the Ministry of Environment:

- - 40 days before the project commencement in Phnom Penh;
- - 60 days before the project commencement in the province or municipality.

CHAPTER 4

Pollution Source Monitoring

Article 17:

The monitoring of the quantity of flammable substances, air pollutant emissions and noise caused by immovable sources shall be the responsibility of the Ministry of Environment.

Article 18:

The monitoring of gas and noise emissions from movable source is the responsibility of the Ministry of Environment with the cooperation of relevant ministries and institutions. The monitoring procedure shall be determined by a joint declaration among relevant ministries.

Article 19:

The Ministry of Environment shall prepare technical guidelines on the method for monitoring pollution sources, sampling locations, and air and noise quality analysis.

Article 20:

The Ministry of Environment shall take a sample at all emission points of pollution sources. The owner or person who is responsible for a pollution source shall cooperate with and facilitate the work of environmental officials who conduct testing to fulfill their technical duty.

Article 21:

During an environmental inspection or activity aimed at controlling at pollution sources, the Ministry of Environment inspectors may analyze the sample at such place or take them to an environmental laboratory for analysis.

Article 22:

The owner or person who is responsible for pollution sources shall bear the cost of analysis of his/her own sample following the tariff determined by the Ministry of Environment and the Ministry of Economy and Finance. This income shall be transferred to the national budget in order to be allocated to the Environmental Endowment Fund Account.

Article 23:

The owner or person who is responsible for pollution sources may ask to have his/her pollution sample tested at other public or private laboratories which are formally recognized when such laboratories carry out the same analytical method as those used in the Ministry of Environment's laboratory.

Article 24:

The owner or person who is responsible for a pollution source shall:

- - Be responsible for procurement and installation of any equipment to purify toxic substances and to reduce noise and vibration in order to respond to air pollution standard;
- - Be responsible for installing the equipment for measurement of the amount of pollutants contained in his/her pollution sources and maintain the result in its record, a report of which shall be sent to the Ministry of Environment every 3 months;

- - Choose one environmental expert to be responsible for managing environmental affairs and preparing environmental protection plans for their institution for which the ministry of environment provides training at the request of the owner.

Article 25:

If it is found that the discharge of toxic substances and noise from any pollution source fails to meet the standard as stipulated in the Articles 5 and 7 of this sub-decree, the Ministry of Environment shall:

- a) a) Issue a written order requiring the owner or responsible person of such pollution source to correct the violation activities immediately within a specified period of time;
- b) b) Issue a written order requiring the owner or responsible person of such pollution source to stop his/her activities temporarily until the violation is corrected if the violation activities cause any harm to public health and environment quality.

CHATER 5
Monitoring of Air Quality

Article 26:

The Ministry of Environment shall regularly control and monitor the situation of the air quality within the in order to take measures to prevent and reduce air pollution.

Article 27:

The Ministry of Environment shall maintain data relating to the result of air quality testing and to assess the status of air quality and shall publicly disseminate the status of air quality and the situation concerning air pollution within the .

Article 28:

If it is found that any area is affected by air pollution which may threaten human life or environmental quality, the Ministry of Environment shall immediately notify the public about such danger and investigate to find out the sources of pollution and shall take measure to prevent air pollution and to restore the air quality.

CHATER 6

Inspection Procedure

Article 29:

During the course of inspection of pollution sources, the Ministry of Environment's inspector shall apply the following procedures:

- a) a) To present his/her identity card and mission letter when entering into the premise or any site of pollution for conducting inspection or sampling or checking records;
- b) b) Primary minutes and report of inspection or sampling shall be done at the site of inspection with the participation of a witness if necessary;
- c) c) The inspectors may ask questions and require the owner or responsible person of the source of pollution to provide information and other relevant documents which are useful for report making and minutes as evidence;
- d) d) One copy of the minutes or report shall be given to the owner or the responsible person of the source of pollution and one copy to the representative of concerned ministries and another copy shall be kept at the Ministry of Environment.

Article 30:

Where there is a complaint or report that any source of pollution discharges, air pollutant, noise, vibration which cause any harm to human health or public property, the Ministry of Environment, in collaboration with concerned ministries, is entitled to conduct inspection at such source of pollution and take samples for testing.

Article 31:

In the case of serious incident or imminent danger resulting from air pollution or noise, the Ministry of Environment shall make an urgent inspection of the above incident or serious danger and shall inform the concerned ministries and local authority of such problem.

Article 32:

In the case of a clear offense that causes air pollution or noise disturbance, the inspector of the Ministry of Environment shall:

- a) a) Take minutes, collect and withhold evidence of such offense and impose transitional fine if such offense does not cause any serious contamination or affect human health, public properties and environment quality.
- b) b) Collect and withhold evidence of such offense for making statement and forward the case to the competent agency, if this offense causes serious pollution or affect to human health or public properties and environment quality.

CHAPTER 7

Penalty

Article 33:

Violations of this Sub-decree shall be fined and punished according to the Articles 20, 21, 22, 23 and 25 of the Chapter 9 of the Law on Environmental Protection and Natural Resource Management.

Article 34:

The Ministry of Environment's official is responsible for making a report of prosecution for any person who violates any article of this sub-decree. The Ministry of Environment shall take legal action against any offense of this sub-decree.

Article 35:

Any environmental inspection official or agent who is negligent, fails to pay attention to, fails to comply with the Ministry's regulations, or conspires with a violator or facilitates the commission of a violation, shall be subject to administrative sanction or face prosecution before the court.

CHAPTER 8

Final provisions

Article 36: Any provision contrary to this sub-decree shall be deemed abrogated.

Article 37:

The Minister in charge of the Council of Ministers, the Ministers of relevant ministries and institutions shall co-operate with Ministry of Environment and implement this sub-decree according to their duty

Article 38:

This sub-decree shall enter into legal force from the date of signature.

Phnom Penh, July 1, 2000

Hun Sen

Having submitted to Samdech

Prime Minister for signature.

Minister of Environment: **Mok Mareth**

ANNEX 1

Ambient Air Quality Standard

No.	Parameter	1 Hour Average mg/m ³	8 Hours Average mg/m ³	24 Hours Average mg/m ³	1 Year Average mg/m ³
1	Carbon Monoxide (CO)	40	20		
2	Nitrogen dioxide (NO ₂)	0,3		0,10	
3	Sulfur dioxide (SO ₂)	0,5		0,30	0,10
4	O Zone (O ₃)	0,2			
5	Lead (Pb)			0,005	
6	Total Suspended Particulate (TSP)			0,33	0,10

Remark:

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- This standard applies to ambient of air quality and to monitoring of air pollution status.
- Method for analysis of ambient air quality is specified in the guideline of the Ministry of Environment.
- TSP = Total Suspended Particulate.

ANNEX 2
Maximum Allowable Concentration of Hazardous
Substance in Ambient Air

No.	Name Chemical Substance	Formula	Maximum Level (mg/m ³)
1	Aniline	C ₆ H ₅ NH ₂	0,03
2	Ammonia	NH ₃	0,2
3	Acetic Acid	CH ₃ COOH	0,2
4	Sulfuric Acid	H ₂ SO ₄	0,3
5	Nitric Acid	HNO ₃	0,4
6	Ben Zene	C ₆ H ₆	1
7	Ben Zidine	NH ₂ C ₆ H ₄ C ₆ H ₄ NH ₂	
8	Carbondisulfide	CS ₂	0,02
9	Chloroform	CHCl ₃	0,01
10	Carbontetrachloride	CCl ₄	3
11	Particle containing Asbestos	-	
12	DDT	C ₆ H ₁₁ Cl ₄	0,5
13	Formaldehyde	HCOH	0,012
14	Hydrogen Arsenic	AsH ₃	0,002
15	Hydrogen Cyanide	HCN	0,01
16	Hydrogen Fluoride	HF	0,002
17	Hydrogen Sulfide	H ₂ S	0,001
18	Phenol	C ₆ H ₅ OH	0,01
19	Styrene	C ₆ H ₅ CHCH ₂	0,003
20	Tetra Chloroethylene	C ₂ Cl ₄	0,1
21	Tetraethyle Lead	Pb(C ₂ H ₅) ₄	0,005
22	Tri Chloroethylene	ClCHCCl ₂	0,2
23	Toluene	C ₆ H ₅ CH ₃	0,4
24	Vinyl Chloride	ClCHCH ₂	0,05

25	Arsenic (Compound organic)	AS	0,00001
26	Cadmium (Compound & Oxide)	Cd	0,003
27	Chromium(Compound & Metal)	Cr	0,0015
28	Nickel (Compound & Metal)	Ni	0,0002
29	Mercury (Compound & Metal)	Hg	0,0001
30	Petrol		5

Remark:

This standard applied to control of hazardous substance that permitted in ambient air.

ANNEX 3

Maximum Allowable Standard of Pollution
Substance for Immovable Sources in Ambient Air

No.	Parameter	Maximum Level of Discharge
1	Particulate in smoke of:	
	- Incinerator	400 mg/m ³
	- Heating Metal	400 mg/m ³
	- Bad Stone, lime, cement manufacturing	400 mg/m ³
	- Asphalt concrete plant	500 mg/m ³
2	Dust	
	- Containing silica (SiO ₂)	100 mg/m ³
	- Containing Asbestos	27 µg/m ³
	Chemical in organic substance	
3	Aluminum Al	(dust) 300mg/m ³ ; (Al) 50mg/m ³
4	Ammonia NH ₃	100 mg/m ³
5	Antimony Sb	25 mg/m ³
6	Arsenic As	20 mg/m ³
7	Beryllium Be	10 µg/m ³
8	Chloride Cl	20 mg/m ³
9	Hydrogen chloride HCl	200 mg/m ³
10	Hydrogen Fluoride HF	10 mg/m ³
11	Hydrogen Sulfide H ₂ S	2 mg/m ³
12	Cadmium Cd	1 mg/m ³
13	Copper Cu	(dust) 300 mg/m ³ (Cu) 20 mg/m ³
14	Lead Pb	(dust) 100 mg/m ³ , (Pb) 30 mg/m ³
15	Zinc Zn	30 mg/m ³
16	Mercury Hg	0,1 mg/m ³
17	Carbon Monoxide CO	1000 mg/m ³
18	Sulfur dioxide SO ₂	500 mg/m ³
19	Nitrogen Oxide (all kinds) NOx	1000 mg/m ³

20	Nitrogen oxide NOx (emitted HNO ₃ product)	2000 mg/m ³
21	Sulfuric Acid H ₂ SO ₄	35 mg/m ³
22	Nitric Acid HNO ₃	70 mg/m ³
23	Sulfur Trioxide SO ₃	35 mg/m ³
24	Phosphoric Acid H ₃ PO ₄	3 mg/m ³
	Chemical organic substance	
25	Acetylene tetra bromide CHBr ₂ CHBr ₂	14 mg/m ³
26	Acrolein CH ₂ =CHCHO	1,2 mg/m ³
27	Aniline C ₆ H ₅ NH ₂	19 mg/m ³
28	Benzidine NH ₂ C ₆ H ₄ C ₆ H ₄ NH ₂	None
29	Benzene C ₆ H ₆	80 mg/m ³
30	Chloro benzyl C ₆ H ₅ CH ₂ Cl	5 mg/m ³
31	Butyl Amine CH ₃ (CH ₂) ₂ CH ₂ NH ₂	15 mg/m ³
32	Cresol (O-,m-,p-) CH ₃ C ₆ H ₄ OH	22 mg/m ³
33	Chloro benzene C ₆ H ₅ CL	350 mg/m ³
34	Chloroform CHCl ₃	240 mg/m ³
35	Chloropicrin CCl ₃ NO ₂	0,7 mg/m ³
36	O-dichlorinbenzene C ₆ H ₄ Cl ₂	300 mg/m ³
37	1,1-dichloro ethane CHCl ₂ CH ₃	400 mg/m ³
38	Di methyl sulfate (CH ₃) ₂ SO ₄	0,5 mg/m ³
39	Di methyl hydrazine (NH ₃) ₂ NNH ₂	1 mg/m ³
40	Di nitro benzene (o-,m-,p-)C ₆ H ₄ (NO ₂) ₂	1 mg/m ³
41	Ethylene di amine NH ₂ CH ₂ -CH ₂ NH ₂	30 mg/m ³
42	Ethylene Chlorohydrine CH ₂ ClCH ₂ OH	16 mg/m ³
43	Ethylene oxide CH ₂ OCH ₂	20 mg/m ³
44	Formaldehyde HCHO	6 mg/m ³
45	Methyl Acrylate CH ₂ =CHCOOCH ₃	35 mg/m ³
46	Methanol CH ₃ OH	260 mg/m ³
47	Methyl bromide CH ₃ Br	80 mg/m ³
48	Monomethyl Aniline C ₆ H ₅ NHCH ₃	9 mg/m ³
49	Nitro Benzene C ₆ H ₅ NO ₂	5 mg/m ³
50	Nitroglycerine C ₃ H ₅ (NO ₂) ₃	5 mg/m ³
51	Nitrotoluene NO ₂ C ₆ H ₄ CH ₃	30 mg/m ³

52	Phenol	C_6H_5OH	19 mg/m ³
53	Phenylhydrazine	$C_6H_5NHNH_2$	22 mg/m ³
54	Pyridine	C_5H_5N	30 mg/m ³
55	Pyrene	$C_{16}H_{10}$	15 mg/m ³
56	Quinone	$C_6H_4O_2$	0,4 mg/m ³
57	Styrene		420 mg/m ³
	C ₆ H ₅ CHCH ₂		
58	1,1;2,2-tetrachloroethane	$Cl_2HCCHCl_2$	35 mg/m ³
59	Tetrachloromethane	CCl_4	65 mg/m ³
60	Toluene	$C_6H_5CH_3$	750 mg/m ³
61	Tetranitromethane	$C(NO_2)_4$	8 mg/m ³
62	Toluidine		22 mg/m ³
	CH ₃ C ₆ H ₄ NH ₂		
63	Toluene-2,4-D-isocyanate		0,7 mg/m ³
	CH ₃ C ₆ H ₃ (NCO) ₂		
64	Trichloro ethylene	$ClCH=CCl_2$	110 mg/m ³
65	Xylidine	$(CH_3)_2$	50 mg/m ³
	C ₆ H ₃ NH ₂		
66	Vinylchloride	$CH_2=CHCl$	150 mg/m ³

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Remarks:

This standard is applied to control of pollution substance for immobile source to atmosphere.

Annex_4 to Anukret No. 42/ANK/BK of July 10, 2000

ANNEX 4

Gas Emission Standard of Mobile Source

No.	Kind of Vehicle	Kind of Fuel	Level of Emission				
			CO (%)		HC (ppm)		Dark Fume %
			A	B	A	B	
1	Motorcycle contain 2 stroke combustion	Petrol	4,5	4	10.000	3000	

2	Motorcycle contain 4 stroke combustion	Petrol	4,5	4	10.000	2400	
3	All kinds of vehicles	Petrol	4,5	4	1200	800	
4	All kinds of vehicles	Diesel					50

Remark:

This Standard applied to control of gases emission of mobile sources into atmosphere.

- a) Refer to all kinds of vehicles used over 5 years counting from year of production.
- b) Refer to all kinds of vehicles that are newly imported in the first 5 years counting from year of production.

Annex_5 to Anukret No. 42/ANK/BK of July 10, 2000

ANNEX 5

Maximum Standard of Noise Emission Level Allowable for Vehicles on Public Roads

No.	Category of Vehicles	Maximum Noise Level permitted (dB (A))
1	Motorcycles, cylinder capacity (cc) of engine <125cm ³	85
2	Motorcycles, cylinder capacity (cc) of engine ≥125cm ³	90
3	Motorize Tricycles	85
4	Cars, taxi, bus with capacity of < 12 passengers	85
5	Bus with capacity of ≥ 12 passengers;	88
6	Truck with loading capacity of <3,5 tons	89
7	Truck with loading capacity of ≥ 3,5 tons	91
8	Truck with engine capacity of ≥ 150 kw	
9	Other machinery (tractors/trucks) that are not listed above	

Remark: This standard is applied to control of noise emission standard for all kind of vehicle when operating on the public road.

Annex_6 to Anukret No. 42/ANK/BK of July 10, 2000

ANNEX 6

Maximum Standard of Noise Level Allowable
in the Public and Residential Areas (dB(A))

No.	Areas	Period of Times		
		From 6AM through 18PM	From 18PM through 22PM	Form 22PM through 6AM
1	Quiet Areas			

2	- Hospitals - Libraries - School - Kindergarten	45	40	35
	Residential Areas - Hotels - Administrative office - Villa, flat	60	50	45
3	Commercial and Service Areas and Area of multiple business	70	65	50
4	Small industrial factories mingling in residential area	75	70	50

Remark:

This standard is applied to control of noise level of any source or activity that emitted noise into the public and residential areas.

Annex_7 to Anukret No. 42/ANK/BK of July 10, 2000

ANNEX 7

Noise Control Standard at Workshop, Factory and Industry

Noise Level (dB (A))	Maximum Period of Time	Level
75	32	

80	16	Ear protection equipment shall be provided to worker who works at a location with noise level over 80dB(A)
85	8	
90	4	
95	2	
100	1	
105	0,5	
110	0,25	
115	0,125	

Remark:

This standard applied to control of noise level in location of workshop, industries and factories.

Annex_8 to Anukret No. 42/ANK/BK of July 10, 2000

ANNEX 8

Standard of Sulfur, Lead, Benzene, and Hydrocarbon Permitted in Fuel and Coal

No.	Combustible Substances	Sulfur (S)	Lead (Pb)	Benzene	Hydrocarbon
1	Dark Fuel	1,0%			50%
2	Diesel	0,2%			
3	Petrol	-	0,15g/l	3,5%	
4	Coal	1,5%			

Remark:

This standard applied to control of sulfur, lead, benzene and hydrocarbon permitted in fuel and coal