

GOVERNMENT OF ZAMBIA

STATUTORY INSTRUMENT NO. 141 OF 1996

**The Environmental Protection and Pollution Control Act
(Act No. 12 of 1990)**

The Air Pollution Control (Licencing and Emissions Standards) Regulations, 1996.

IN EXERCISE of the powers contained in sections *thirty-six*, *forty-two*, *forty-six* and *ninety-six* of the Environmental Protection and Pollution Control Act, 1990, and in consultation with the Council, the following publication in the *Gazette*.

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|---|-------------------------------|
| <p>1. These Regulations may be cited as the Air Pollution Control (Licencing and Ermission Standards) Regulations, 1996, and shall come into effect on the expiration of a period of ninety days after publication in the <i>Gazette</i>.</p> | <p>Title and commencement</p> |
| <p>2. In these Regulations, unless the context otherwise requires -</p> <p style="padding-left: 20px;">"Council" means the Environmental Council established by section <i>three</i> of the Act;</p> <p style="padding-left: 20px;">"emission" means the discharge into the atmosphere of pollutant from a specified source in solid, liquid or gaseous state;</p> <p style="padding-left: 20px;">"emission limit" means the limit, level, rate, amount or concentration of a given substance discharged in the air that must not be exceeded;</p> <p style="padding-left: 20px;">"imission" means pollutants in solid, liquid or gaseous state that are present in the air outside a plant on the surface of the ground, approximately one and a half metres above ground level;</p> <p style="padding-left: 20px;">"Inspectorate" means the Environmental Inspectorate established under section <i>eighty-one</i> of the Act;</p> <p style="padding-left: 20px;">"intermediate emission limit" means an emission limit that is lower of higher levels than the long term emission limit, but is in the interim acceptable to the Inspectorate;</p> <p style="padding-left: 20px;">"long term emission limit" means an emission limit that is the ultimate acceptable limit;</p> <p style="padding-left: 20px;">"licence" means a licence to emit air pollutants into the ambient air issued under these Regulations;</p> <p style="padding-left: 20px;">"operator" in relation to works, industry, undertaking or business means the person having the control of the works, undertaking or business;</p> | <p>Interpretation</p> |

*Copies of this Statutory Instruments can be obtained from the Government Printer,
P.O. Box 30136, 10100, Lusaka. Price K5,500 each*

"permit" means a temporary or intermediate permit to discharge air pollutants issued under regulations 8 and 9;

- Ambient air quality guidelines
3. (1) The Council shall, in accordance with the guidelines set out in the First Schedule, assess the quality of ambient air in order to safeguard the general health, safety or welfare of persons, animal life, plant life or property affected by the workers, industrial or business activities undertaken by an operator.
- Long term emission limits
4. (1) The long term emission limits shall be as set out in the Third Schedule.
- (2) The long term emission limits shall:
- (a) apply to any new plant, undertaking or process that is emitting air pollutants; and
- (b) be complied with by an operator of any new plant, undertaking or process before a licence under regulation 6 is issued by the Inspectorate.
- (3) The Inspectorate may determine the period of time within which an operator of a plant, undertaking or process shall meet the long term emission limit.
- Application for licence to pollutants emit air
5. (1) Any person who intends to erect or install a new industrial plant, undertaking or process which is likely to cause air pollution shall:-
- (a) register with the Inspectorate during the planning stages;
- (b) apply for a licence in Form AP1 set out in the Second Schedule; and
- (c) pay the appropriate fee set out in the Fourth Schedule.
- (2) The application for a licence made under sub-regulation (1) shall be submitted to the Inspectorate at least six months prior to the commencement of new operations.
- (3) Any person operating an existing plant, undertaking or process that conform to the long term emission limits shall:-
- (a) apply for a licence in Form AP1 set out in the Second Schedule; and
- (b) pay the appropriate fee set out in the Fourth Schedule.
- (4) The application for a licence made under sub-section (3) shall be submitted to the Inspectorate within twelve months after the commencement of these regulations.
- Licence to emit air pollutants
6. (1) The Inspectorate shall issue licence to discharge air pollutants in Form AP2 set out in the Second Schedule -

- (a) after taking into account details specified in section *forty-five* of the Act; and
 - (b) if the Inspectorate has published its intention to issue the licence by notice in the Gazette, twenty-eight days before the issue of the licence.
- (2) The licence to discharge air pollutants shall:-
- (a) conform to the long-term emission limits set out in the Third Schedule; and
 - (b) be subject to such other conditions as the Inspectorate may determine.
- (3) The Licence issued under sub -regulation (1) shall be valid for thirty-six months and may be renewed for a further period:

Provided that the Inspectorate may limit the validity of the licence for any period less than thirty-six months but not less than six months when necessary.

7. (1) Any person who intends to make a new extension to an existing plant, undertakings or process as described under section *forty-four* of the Act, which is likely to cause air pollution shall: -

Application for licence for new sources of emissions

- (a) notify the Inspectorate during the planning stages;
- (b) apply for a licence in Form AP5 as set out in the Second Schedule
- (c) pay the appropriate fee set out in the Fourth Schedule.

(2) The application for a licence for a new sources of emissions shall be submitted to the Inspectorate at least six months prior to the commencement of operations.

8. (1) The Inspectorate shall issue a licence for a new source of emission in Form AP6 set out in the Second Schedule if:-

Licence for new sources of emissions

- (a) it is satisfied that the details set out in section *forty-five* of the Act have been met by the applicant; and
- (b) the new sources of emission conforms to the long-term emission limits set out in the Third Schedule.

2. A licence issued under sub-regulation (1) shall be valid for thirty-six months and may be renewed for a further period:

Provided that the Inspectorate may limit the validity of the licence for any period less than thirty-six months but not less than six months when necessary.

- Intermediate emission limits 9. (1) The intermediate emission limits shall be determined by the Inspectorate on the basis of the details set out in sub-regulation (2) of regulation 11.
- (2) The intermediate emission limits specified under sub-regulation (1) shall apply to any existing plant, undertaking or process that commenced its activities before the commencement of these Regulations.
- Application for permit to emit air pollutants 10. An owner or operator of an industrial plant, undertaking or process who, before the commencement of these Regulations, is emitting air pollutants or whom the Inspectorate so requires, shall within twelve months from the commencement of these Regulations:-
- (a) apply for a permit in Form AP3 set out in the Second Schedule; and
- (b) pay the appropriate fee set out in Fourth Schedule.
- Permit to emit air pollutants 11. (1) The Inspectorate shall issue a permit to discharge air pollutants in Form AP4 of the Second Schedule:-
- (a) after taking into account details set out section *forty-five* of the Act;
- (b) if the applicant undertakes to comply with conditions specified under sub-regulation (2); and
- (c) if the Inspectorate has published its intention to issue the permit by notice in the *Gazette* twenty-eight days before the issue of the permit.
- (2) The permit to discharge air pollutants into the atmosphere shall be subject to intermediate emission limits and such conditions specified for a particular period of time, as may be determined by the Inspectorate on the basis of:-
- (a) the age and technology of the plant;
- (b) the ability of the operator to install cleaning equipment; and
- (c) such other factors as the Inspectorate may consider necessary.
- (4) The permit shall be valid for such period as may be determined by the Inspectorate.
- Period for consideration of licence or permit 12. (1) The Inspectorate shall consider an application for a licence or a permit within ninety days after the receipt of the application, and shall notify the applicant of its decision.
- (2) If a licence or permit is not granted, the Inspectorate shall, in the notice of refusal, state the reasons for the refusal.

- Appeals 13. An applicant aggrieved with the decision of the Inspectorate under regulation 12, may appeal to the Council, within fourteen days of the decision.
- General conditions of licence or permit 14. (1) The holder of a licence or permit under these Regulations shall:-
- (a) Install, at the holder's expense, air measuring devices, collect such samples and conduct such analyses as the Inspectorate may direct;
- (b) operate an internal air emission monitoring system, approved by the Inspectorate of the licenced or permitted activities;
- (c) submit monthly emission returns, together with declaration testifying that entries are correct; and
- (d) report immediately, to the Inspectorate any abnormal emissions.
- (3) The returns referred to in paragraph (b) of sub-regulation (1) shall be submitted to the Inspectorate on or before the thirtieth day of the month following the month to which they relate, or as directed by the Inspectorate.
- Restriction against open air burning (15) A person shall not conduct open air burning of any waste from industrial, commercial operations, domestic or community activities except with written consent of the Inspectorate.
- Enforcement Notice 16. (1) Where the Inspectorate has reasonable cause to believe that a person has contravened any of the provisions of these Regulations, or any condition of a licence or permit, or is likely to contravene any of the provisions of these Regulations or a condition of the licence or permit, the Inspectorate shall serve an enforcement notice on that person.
- (2) An enforcement served under sub-regulation (1) shall:-
- (a) state the provisions or conditions of the licence or permit, as the case may be, which have been contravened or are likely to be contravened;
- (b) specify the steps that have to be taken to remedy the contravention or avoid the contravention, as the case may be; and
- (c) specify the time limit within which the steps described under paragraph (b) should be taken.

FIRST SCHEDULE

(Regulation 3)

TABLE OF GUIDELINE LIMITS FOR AMBIENT AIR POLLUTANTS

PARAMETER	REFERENCE TIME		GUIDELINE LIMIT
1. Sulphur dioxide (SO ₂)	10 minutes		500µg/m ³
	1 hour		350µg/m ³
2. Sulphur dioxide (SO ₂) in combination with Total Suspended Particles (TSP)*1) and PM ₁₀	SO ₂	24 hour	125µg/m ³
		6 months	50 µg/m ³
	TSP	24 hours	120 µg/m ³
		6 months	50 µg/m ³
PM ₁₀	24 hours	70µg/m ³	
3. Respirable particulate matter PM ₁₀ *2)	PM ₁₀	24 hours	70µg/m ³
4. Oxides of nitrogen (NO _X) as nitrogen dioxide (NO ₂)	1 hour		400 µg/m ³
	24 hours		150µg/m ³
5. Carbon monoxide (CO)	15 minutes		100 mg/m ³
	30 minutes		60 mg/m ³
	1 hour		30 mg/m ³
	8 hours		10 mg/m ³
6. Ambient Lead (Pb)	3 months		1.5 µg/m ³
	12 months		1.0 µg/m ³
7. Dust fall	30 days		7.5 tonnes/km ²

*1) Total suspended particles (TSP) are particles with diameter less than 45 micrometers (µm).

*2) Respirable particles (PM₁₀) are particles with diameter less than 10 micrometers (µm). These can penetrate to the anciliated regions of the deep lung.

NOTE: Reference times are the 98th percentile averaging times.

SECOND SCHEDULE
(Regulations 5 and 6)

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

**THE AIR POLLUTION CONTROL (LICENCING AND EMISSION STANDARDS)
REGULATIONS, 1996**

APPLICATION FOR LICENCE TO EMIT AIR POLLUTANTS

(To be completed in triplicate)

- CATEGORY:** (A) **New plant, undertaking or process**
 (B) **Existing plant, undertaking or process meeting long-term emission limits** (Delete inapplicable)

To: The Chief Inspector (Pollution Control)
 Environmental Council of Zambia
 P.O. BOX 35131
 Lusaka

1. Name and address of applicant

 Tel: Fax:

2. Location of Plant/activity

3. Type(s) of activity (eg copper mining, cement manufacture etc)

4. Name(s) of department(s)/ section(s)/ unit(s) where air emissions occur

5. Name(s) and type(s) of raw materials used in the process(es)

.....
.....

6. Amount of each raw material used yearly (kg)

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.....

7. Name(s) and types of products

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.....
.....

8. Sources of air emissions

.....
.....

9. Name(s) and type(s) of air pollutants

.....
.....

10. Rate of emission of each air pollutant discharged into the ambient air (kg/h, ton/yr)

.....
.....
.....

11. Concentration of each air pollutant discharged into the ambient air ($\mu\text{g}/\text{m}^3$, mg/m^3 , ppm, etc)

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.....
.....

12. Energy source used (e.g. coal, diesel, etc)
-
-
13. Amount of each energy source used yearly (kg)
-
-
-
14. Amount of each energy source used per day (kg)
-
-
-
15. Type of production operation (continuous or intermittent)
-
-
16. Total number of hours of operation (per day, per week, per month, per year)
17. Number of stacks in operation
18. Physical stack height for each (m)
19. Stack gas volume for each (m^3/s , m^3/h)
20. Internal stack diameter at gas exit level for each (m)
21. Stack gas exit temperature for each ($^{\circ}\text{C}$)
22. Exit gas velocity at each stack (m/s)

- 23. Pollution control technology in operation /to be employed
.....
.....

- 24. Reliability of the pollution control technology
.....
.....

- 25. How often do you conduct maintenance of the installation?
.....
.....

- 26. When was/ were the Plant(s)/ process(es) installed?

- 27. Expected life time of the Plant(s)/ installation(s)

- 28. How is the potential to produce other air pollutants? Name the pollutants
.....
.....
.....

LEVELS OF EMISSIONS (complete parts only relevant to your organisation)

<u>Industry/process</u>	<u>Parameter</u>	<u>Emission level</u>
COPPER PRODUCTION		
29. Smelters and converters	Sulphur dioxide (SO ₂)	..... mg/Nm ³
	Dust	..... mg/Nm ³
30. Coal preparation	Dust	..... mg/Nm ³
31. Ore concentrator dryer	Dust	..... mg/Nm ³
	SO ₂	..... mg/Nm ³
CEMENT AND LIME PRODUCTION		
32. Cement production	Dust	..... mg/Nm ³
33. Lime production	Dust	..... mg/Nm ³
NITRIC ACID AND SULPHURIC ACID PRODUCTION		
34. Nitric acid production	NO _x as NO ₂	..... kg/day
35. Sulphuric acid production	SO ₂	..... kg/day
FERTILIZER PRODUCTION		
36. Ammonium nitrate production	Dust	..... kg/day
37. Coal treatment	Dust	..... kg/day
38. NPK production	Dust kg/day
COMBUSTION UNITS		
39. Oil fired, < 50MW ⁽¹⁾	Dust mg/Nm ³
	SO ₂ mg/Nm ³
	CO mg/Nm ³

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40. Coal fired, <10MW ⁽²⁾	Dust mg/Nm ³
	SO ₂ mg/Nm ³
	CO mg/Nm ³
41. Coal fired, 10-50 MW ⁽²⁾	Dust mg/Nm ³
	SO ₂	..... mg/Nm ³
	CO	..... mg/Nm ³

OTHER PROCESSES/UNITS (SPECIFY)

.....
Name.....
Signature

Designation/title

Date:

(1). The limits shall be normalised to 273K at 101.3Pa and 3 vol, % O₂(2). The limits shall be normalised to 273K at 101.3Pa and 7 vol, % O₂

FOR OFFICIAL USE ONLY

Application received

Fee paid

.....
Chief Inspector (Pollution Control)
Environmental Council of Zambia
Inspectorate

REPUBLIC OF ZAMBIA
(Regulation 6)

ENVIRONMENTAL COUNCIL

**THE AIR POLLUTION CONTROL (LICENCING AND EMISSION STANDARDS)
REGULATIONS, 1996**

APPLICATION FOR LICENCE TO EMIT AIR POLLUTANTS

(To be completed in triplicate)

- CATEGORY:** (A) **New plant, undertaking or process**
 (B) **Existing plant, undertaking or process meeting long-term emission limits** (Delete inapplicable)

Licence No.....

Name.....

Address.....

You are hereby licenced to discharge emissions into the ambient air at (location)

The licence is valid from to

The licence is subject to the attached conditions and long-term emission limits set out in this Regulations.

Date:

.....
 Chief Inspector (Pollution Control)
 Environmental Council of Zambia
 Inspectorate

SECOND SCHEDULE
(Regulations 10)

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

**THE AIR POLLUTION CONTROL (LICENCING AND EMISSION STANDARDS)
REGULATIONS, 1996**

APPLICATION FOR LICENCE TO EMIT AIR POLLUTANTS

(To be completed in triplicate)

To: The Chief Inspector (Pollution Control)
Environmental Council of Zambia
P.O. BOX 35131
Lusaka

1. Name and address of applicant

Tel: Fax:

2. Location of Plant/ activity

3. Type(s) of activity (eg copper mining, cement manufacture etc)

4. Name(s) of department(s)/ section(s)/ unit(s) where air emissions occur

5. Name(s) and type(s) of raw materials used in the process(es)

6. Amount of each raw material used yearly (kg)
.....
.....

7. Name(s) and types of products
.....
.....

8. Sources of air emissions
.....
.....

9. Name(s) and type(s) of air pollutants
.....
.....

10. Rate of emission of each air pollutant discharged into the ambient air (kg/h, ton/yr)
.....
.....

11. Concentration of each air pollutant discharged into the ambient air ($\mu\text{g}/\text{m}^3$, mg/m^3 , ppm, etc)
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.....
.....

12. Energy source used (e.g. coal, diesel, etc)
-
-
-
-
13. Amount of each energy source used yearly (kg)
-
-
14. Amount of each energy source used per day (kg)
-
-
-
15. Type of production operation (continuous or intermittent)
-
-
16. Total number of hours of operation (per day, per week, per month, per year)
17. Number of stacks in operation
18. Physical stack height for each (m)
19. Stack gas volume for each (m^3/s , m^3/h)
20. Internal stack diameter at gas exit level for each (m)
21. Stack gas exit temperature for each ($^{\circ}\text{C}$)
22. Exit gas velocity at each stack (m/s)

- 23. Pollution control technology in operation /to be employed
.....
.....

- 24. Reliability of the pollution control technology
.....
.....

- 25. How often do you conduct maintenance of the installation?
.....

- 26. When was/ were the Plant(s)/ process(es) installed?

- 27. Expected life time of the Plant(s)/ installation(s)

- 28. How is the potential to produce other air pollutants? Name the pollutants
.....
.....

LEVELS OF EMISSIONS (complete parts only relevant to your organisation)

<u>Industry/process</u>	<u>Parameter</u>	<u>Emission level</u>
COPPER PRODUCTION		
29. Smelters and converters	Sulphur dioxide (SO ₂)	..... mg/Nm ³
	Dust	..... mg/Nm ³
30. Coal preparation	Dust	..... mg/Nm ³
31. Ore concentrator dryer	Dust	..... mg/Nm ³
	SO ₂	..... mg/Nm ³
CEMENT AND LIME PRODUCTION		
32. Cement production	Dust	..... mg/Nm ³
33. Lime production	Dust	..... mg/Nm ³
NITRIC ACID AND SULPHURIC ACID PRODUCTION		
34. Nitric acid production	NO _x as NO ₂	..... kg/day
35. Sulphuric acid production	SO ₂	..... kg/day
FERTILIZER PRODUCTION		
36. Ammonium nitrate production	Dust	..... kg/day
37. Coal treatment	Dust	..... kg/day
38. NPK production	Dust kg/day
COMBUSTION UNITS		
39. Oil fired, < 50MW ⁽¹⁾	Dust mg/Nm ³
	SO ₂ mg/Nm ³
	CO mg/Nm ³

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40. Coal fired, <10MW ⁽²⁾	Dust mg/Nm ³
	SO ₂ mg/Nm ³
	CO mg/Nm ³
41. Coal fired, 10-50 MW ⁽²⁾	Dust mg/Nm ³
	SO ₂	..... mg/Nm ³
	CO	..... mg/Nm ³

OTHER PROCESSES/UNITS (SPECIFY)

.....
Name.....
Signature

Designation/title

Date:

(1). The limits shall be normalised to 273K at 101.3Pa and 3 vol, % O₂(2). The limits shall be normalised to 273K at 101.3Pa and 7 vol, % O₂

FOR OFFICIAL USE ONLY

Application received

Fee paid

.....
Chief Inspector (Pollution Control)
Environmental Council of Zambia
Inspectorate

SECOND SCHEDULE
(Regulation 11)

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

**THE AIR POLLUTION CONTROL (LICENCING AND EMISSION STANDARDS)
REGULATIONS, 1996**

PERMIT TO EMIT AIR POLLUTANTS

(To be completed in triplicate)

Licence No.....

Name.....

Address.....

You are hereby licenced to discharge emissions into the ambient air at (location)
.....
.....

The licence is valid from to

The licence is subject to the attached conditions and long-term emission limits set out in this Regulations.

Date:

.....
Chief Inspector (Pollution Control)
Environmental Council of Zambia
Inspectorate

SECOND SCHEDULE
(Regulation 7)

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

**THE AIR POLLUTION CONTROL (LICENCING AND EMISSION STANDARDS)
REGULATIONS, 1996**

APPLICATION FOR LICENCE TO EMIT AIR POLLUTANTS

(To be completed in triplicate)

To: The Chief Inspector (Pollution Control)
Environmental Council of Zambia
P.O. BOX 35131
Lusaka

1. Name and address of applicant

Tel: Fax:

2. Location of Plant/ activity

3. Type(s) of activity (eg copper mining, cement manufacture etc)

4. Name(s) of department(s)/ section(s)/ unit(s) where air emissions occur

5. Name(s) and type(s) of raw materials used in the process(es)

- 6. Amount of each raw material used yearly (kg)
.....
.....

- 7. Name(s) and types of products
.....
.....

- 8. Sources of air emissions
.....
.....

- 9. Name(s) and type(s) of air pollutants
.....
.....

- 10. Rate of emission of each air pollutant discharged into the ambient air (kg/h, ton/yr)
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- 11. Concentration of each air pollutant discharged into the ambient air ($\mu\text{g}/\text{m}^3$, mg/m^3 , ppm, etc)
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- 12. Energy source used (e.g. coal, diesel, etc)
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.....
.....

- 13. Amount of each energy source used yearly (kg)
.....
.....
.....

- 14. Amount of each energy source used per day (kg)
.....
.....
.....

- 15. Type of production operation (continuous or intermittent)
.....
.....

- 16. Total number of hours of operation (per day, per week, per month, per year)

- 17. Number of stacks in operation

- 18. Physical stack height for each (m)

- 19. Stack gas volume for each (m^3/s , m^3/h)

- 20. Internal stack diameter at gas exit level for each (m)

- 21. Stack gas exit temperature for each ($^{\circ}C$)

- 22. Exit gas velocity at each stack (m/s)

- 23. Pollution control technology in operation /to be employed
.....
.....

24. Reliability of the pollution control technology
-
-
25. How often do you conduct maintenance of the installation?
-
-
26. When was/ were the Plant(s)/ process(es) installed?
27. Expected life time of the Plant(s)/ installation(s)
28. How is the potential to produce other air pollutants? Name the pollutants
-
-
-

LEVELS OF EMISSIONS (complete parts only relevant to your organisation)

<u>Industry/ process</u>	<u>Parameter</u>	<u>Emission level</u>
COPPER PRODUCTION		
29. Smelters and converters	Sulphur dioxide (SO ₂)	..... mg/Nm ³
	Dust	..... mg/Nm ³
30. Coal preparation	Dust	..... mg/Nm ³
31. Ore concentrator dryer	Dust	..... mg/Nm ³
	SO ₂	..... mg/Nm ³
CEMENT AND LIME PRODUCTION		
32. Cement production	Dust	..... mg/Nm ³
33. Lime production	Dust	..... mg/Nm ³

NITRIC ACID AND SULPHURIC ACID PRODUCTION

34.	Nitric acid production	NO _x as NO ₂	..... kg/day
35.	Sulphuric acid production	SO ₂	..... kg/day

FERTILIZER PRODUCTION

36.	Ammonium nitrate production	Dust	..... kg/day
37.	Coal treatment	Dust	..... kg/day
38.	NPK production	Dust	..... kg/day

COMBUSTION UNITS

39.	Oil fired, < 50MW ⁽¹⁾	Dust	..... mg/Nm ³
		SO ₂	..... mg/Nm ³
		CO	..... mg/Nm ³
40.	Coal fired, <10MW ⁽²⁾	Dust	..... mg/Nm ³
		SO ₂	..... mg/Nm ³
		CO	..... mg/Nm ³
41.	Coal fired, 10-50 MW ⁽²⁾	Dust	..... mg/Nm ³
		SO ₂	..... mg/Nm ³
		CO	..... mg/Nm ³

OTHER PROCESSES/UNITS (SPECIFY)

.....
Name

.....
Signature

Designation/title

Date:

(1). The limits shall be normalised to 273K at 101.3Pa and 3 vol, % O₂

(2). The limits shall be normalised to 273K at 101.3Pa and 7 vol, % O₂

23rd August, 1997

Statutory Instruments

FOR OFFICIAL USE ONLY

Application received

Fee paid

.....
Chief Inspector (Pollution Control)
Environmental Council of Zambia
Inspectorate

SECOND SCHEDULE
(Regulation 8)

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

**THE AIR POLLUTION CONTROL (LICENCING AND EMISSION STANDARDS)
REGULATIONS, 1996**

PERMIT TO EMIT AIR POLLUTANTS

(To be completed in triplicate)

Licence No.....

Name.....

Address.....

You are hereby licenced to discharge emissions from your new sources of emissions into the ambient air at
(location)

The licence is valid from to

The licence is subject to the attached conditions and long-term emission limits set out in these Regulations
and such other conditions the Inspectorate may determine.

Conditions

Date:

.....
Chief Inspector (Pollution Control)
Environmental Council of Zambia
Inspectorate

THIRD SCHEDULE*(Regulation 4)***TABLE OF LONG-TERM EMISSION LIMITS FOR AIR POLLUTIONS BY
TYPE OF INDUSTRY/ PROCESS**

	Industry/ Process	Parameter	Long-Term Emission Limit
A.	COPPER PRODUCTION		
1.	Smelters and Converters	Sulphur dioxide (SO ₂)	1000 mg/Nm ³
		Dust	50 mg/Nm ³
2.	Coal preparation	Dust	50 mg/Nm ³
3.	Concentrate dryer	Dust	50 mg/Nm ³
		SO ₂	500 mg/Nm ³
4.	Heavy Metal Content in Dust	Arsenic (As)	0.5 mg/Nm ³
		Cadmium (Cd)	0.05 mg/Nm ³
		Copper (Cu)	1.0 mg/Nm ³
		Lead (Pb)	0.2 mg/Nm ³
		Mercury (Hg)	0.05 mg/Nm ³
B.	CEMENT AND LIME PRODUCTION		
1.	Cement production	Dust	50 mg/Nm ³
2.	Lime production	Dust	50 mg/Nm ³
C.	NITRIC ACID AND SULPHURIC ACID PRODUCTION		
1.	Nitric acid production	NO _x as NO ₂	100 - 1,400 kg/day
2.	Sulphuric acid production	SO ₂	700 - 4,300 kg/day
D.	FERTILISER PRODUCTION		
1.	Ammonium nitrate production	Dust	500 kg/day
2.	Coal treatment	Dust	150 kg/day
3.	NPK production	Dust	100 kg/day
E.	COMBUSTION UNITS		
1.	Oil fired < 50 MW ⁽²⁾	Dust	50 - 150 mg/Nm ³ (3)
		SO ₂	850 mg/Nm ³
		CO	100 mg/Nm ³
2.	Coal fired, <10 MW ⁽²⁾	Dust	150 mg/Nm ³
		SO ₂	2000 mg/Nm ³
3.	Coal Fired, 10 50 MW ⁽²⁾	Dust	50 mg/Nm ³
		SO ₂	1000 mg/Nm ³
		CO	175 mg/Nm ³
F.	OTHER PROCESSES		

NOTES

1. The limits are normalised to 273K, 101.3 Pa and 3 Vol.-% O₂
2. The limits are normalised to 273K, 101.3 Pa and 7 Vol.-% O₂
3. More strict limits for light oil, less strict limits for heavy oil. Smaller combustion units need limits less strict than larger units. For this reasons the Inspectorate will prescribe limits based on this range on a case to case basis.
4. CO limits are not necessary for oil combustion units <5MW and coal combustion units < 1 MW.

FOURTH SCHEDULE*(Regulation 5,8 and 10)***FEEES***Fee Unit*

Application for permit or licence to emit air pollutants for activities:

CLASS I (High Polluters)	25,000
CLASS II (Moderate Polluters)	16,667
CLASS III (Relatively Low Polluters)	8,333
CLASS IV (Low Polluters)	556

LUSAKA**15th August, 1996****[MENR. 64/9/5]****W. J. HARRINGTON**
*Minister of Environment and
Natural Resources*