

**SECTIONS 37, 46 AND 96-THE AIR POLLUTION  
CONTROL  
(LICENSING AND EMISSION STANDARDS)  
REGULATIONS  
*Regulations by the Minister***

***Statutory  
Instrument  
141 of  
1996  
24 of 1997***

**1.** These Regulations may be cited as the Air Pollution Control (Licensing and Emission Standards) Regulations, and shall come into effect on the expiration of a period of ninety days after publication in the *Gazette*.

Title and  
commencement

2. In these Regulations, unless the context otherwise requires-

Interpretation

"Council" means the Environmental Council established by section *three* of the Act;

"emission" means the discharge into the atmosphere of a pollutant from a specified source in solid, liquid or gaseous state;

"emission limit" means the limit, level, rate, amount or concentration of a given substance discharged in the air that must not be exceeded;

"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;

"Inspectorate" means the Environmental Inspectorate established under section *eighty-one* of the Act;

"intermediate emission limit" means an emission limit that is of higher levels than the long term emission limit, but is in the interim acceptable to the Inspectorate;

"long term emission limit" means an emission limit that is the ultimate acceptable limit;

"licence" means a licence to emit air pollutants into the ambient air issued under these Regulations;

"operator" in relation to works, industry, undertaking or business means the person having the control of the works, undertaking or business; and

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

3. 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 works, industrial or business activities undertaken by an operator.

Ambient air  
quality  
guidelines

**4.** (1) The long term emission limits shall be as set out in the Third Schedule. Long term emission limits

(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.

**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- Application for licence to emit air pollutants

(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 conforms 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-regulation (3) shall be submitted to the Inspectorate within twelve months after the commencement of these Regulations.

6. (1) The Inspectorate shall issue a licence to discharge air pollutants in Form AP2 set out in the Second Schedule- Licence to emit air pollutants

(a) after taking into account the 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, undertaking 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; and

(c) pay the appropriate fee set out in the Fourth Schedule.

(2) The application for a licence for 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 source 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.

**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.

Intermediate emission limits

(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.

**10.** An owner or operator of an industrial plant, undertaking or process who, before the commencement of these Regulations, is emitting air pollutants or who the Inspectorate so requires, shall within twelve

Application for permit to emit air pollutants

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 the Fourth Schedule.

**11.** (1) The Inspectorate shall issue a permit to discharge air pollutants in Form AP4 set out in the Second Schedule-

Permit to emit  
air pollutants

- (a) after taking into account the details set out in 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 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 facts as the inspectorate may consider necessary;

(3) The permit shall be valid for such period as may be determined by the Inspectorate.

**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.

Period for  
consideration of  
licence or  
permit

(2) If a licence or permit is not granted, the Inspectorate shall, in the

notice of refusal, state the reasons for the refusal.

**13.** An applicant aggrieved with the decision of the Inspectorate under regulation 12, may appeal to the Council, within fourteen days of the decision.

Appeals

**14.** (1) The holder of a licence or permit under these Regulations shall-

General conditions of licence or permit

(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 a declaration testifying that the entries are correct; and

(d) report immediately, to the Inspectorate any abnormal emissions.

(2) 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 may be directed by the Inspectorate.

**15.** A person shall not conduct any open air burning of any waste from industrial, commercial operations, domestic or community activities except with the written consent of the Inspectorate.

Restriction against open air burning

**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 or the provisions of these Regulations or a condition of a licence or permit, the Inspectorate shall serve an enforcement notice on that person.

Enforcement notice

(2) An enforcement notice served under sub-regulation (1) shall-

(a) state the provisions or condition of the licence or permit, as the case may be, which have been contravened or are likely to be contravened;

(b) specify the steps 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.

(3) Any person who contravenes any of the provisions of these Regulations or a condition of a licence or permit after an enforcement notice has been issued under this Regulation shall be guilty of an offence and shall-

(a) have the licence or permit revoked; and

(b) be liable upon conviction to the penalty specified under section *ninety-one* of the Act.

*(As amended by S.I. No. 24 of 1997)*

## FIRST SCHEDULE

*(Regulation 3)*

### TABLE OF GUIDELINE LIMITS FOR AMBIENT AIR POLLUTANTS

PARAMETER	REFERENCE TIME		GUIDELINE LIMIT
1. Sulphur dioxide (SO <sub>2</sub> )	10 minutes		500 µg/m <sup>3</sup>
	1 hour		350 µg/m <sup>3</sup>
2. Sulphur dioxide (SO <sub>2</sub> ) in combination with total suspended particles (TSP) <sup>*1</sup> and (PM <sub>10</sub> )	SO <sub>2</sub>	24 hours	125 µg/m <sup>3</sup>
		6 months	50 µg/m <sup>3</sup>
	TSP	24 hours	120 µg/m <sup>3</sup>
		6 months	50 µg/m <sup>3</sup>
	PM <sub>10</sub>	24 hours	70 µg/m <sup>3</sup>
3. Respirable particulate matter (PM <sub>10</sub> <sup>*2</sup> )	PM <sub>10</sub>	24 hours	70 µg/m <sup>3</sup>
4. Oxides of nitrogen (NO <sub>x</sub> )	1 hour		400 µg/m <sup>3</sup>
	24 hours		150 µg/m <sup>3</sup>

5. Carbon monoxide (CO)	15 minutes	100 $\mu\text{g}/\text{m}^3$
	30 minutes	60 $\mu\text{g}/\text{m}^3$
	1 hour	30 $\mu\text{g}/\text{m}^3$
	8 hours	10 $\mu\text{g}/\text{m}^3$
6. Ambient Lead (Pb)	3 months	1.5 $\mu\text{g}/\text{m}^3$
	12 months	1.0 $\mu\text{g}/\text{m}^3$
7. Dust fall	30 days	7.5 tonnes/ $\text{km}^2$

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

\*2. Respirable particles ( $\text{PM}_{10}$ ) are particles with diameter less than 10 micrometers (mm). These can penetrate to the ancilliated regions of the deep lung.

Note: Reference time are the 98th percentile averaging times.

**FORM AP1**

SECOND SCHEDULE

*(Regulations 5 and 6)*

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

THE AIR POLLUTION CONTROL (LICENSING 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 (e.g. copper mining, cement manufacture etc.)

4. Name(s) of department(s) section(s) unit(s) where air emission 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 ( $\text{mg}/\text{m}^3$ ,  $\text{mg}/\text{m}^3$ , ppm etc.)
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 ( $\text{m}^3/\text{s}$ ,  $\text{m}^3/\text{h}$ )
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)

	<i>Industry/process</i>	<i>Parameter</i>	<i>Emission level</i>
<b>COPPER PRODUCTION</b>			
29. Smelters and converters	sulphur dioxide ( $\text{SO}_2$ )	..... $\text{mg}/\text{Nm}^3$	
	dust	..... $\text{mg}/\text{Nm}^3$	
30. Coal preparation	dust	..... $\text{mg}/\text{Nm}^3$	
31. Ore concentrator dryer	dust	..... $\text{mg}/\text{Nm}^3$	
	( $\text{SO}_2$ )	..... $\text{mg}/\text{Nm}^3$	
<b>CEMENT AND LIME PRODUCTION</b>			
32. Cement production	dust	..... $\text{mg}/\text{Nm}^3$	
33. Lime production	dust	..... $\text{mg}/\text{Nm}^3$	
<b>NITRIC ACID AND SULPHURIC ACID PRODUCTION</b>			
34. Nitric acid production	( $\text{NO}_x$ ) as ( $\text{NO}_2$ )	..... $\text{kg}/\text{day}$	
35. Sulphuric acid production	( $\text{SO}_2$ )	..... $\text{kg}/\text{day}$	
<b>FERTILIZER PRODUCTION</b>			
36. Ammonium nitrate production		dust	..... $\text{kg}/\text{day}$

- 37. Coal treatment dust .....kg/day
- 38. NPK production dust .....kg/day

COMBUSTION UNITS

- 39. Oil fired, <math>\leq 50</math> (MW (1)) dust .....mg/Nm<sup>3</sup>  
 (SO<sub>2</sub>) .....mg/Nm<sup>3</sup>  
 CO .....mg/Nm<sup>3</sup>
- 40. Coal fired, <math>\leq 10</math> (MW (2)) dust .....mg/Nm<sup>3</sup>  
 (SO<sub>2</sub>) .....mg/Nm<sup>3</sup>  
 CO .....mg/Nm<sup>3</sup>
- 41. Coal fired, 10-50 (MW (2)) dust .....mg/Nm<sup>3</sup>  
 (SO<sub>2</sub>) .....mg/Nm<sup>3</sup>  
 CO .....mg/Nm<sup>3</sup>

OTHER PROCESSES/UNITS

.....  
 Name Signature  
 Designation/title..... Date:

- (1) The limits shall be normalised to 273K at 101.3Pa and 3 vol,% (O<sub>2</sub>)
- (2) The limits shall be normalised to 273K at 101.3Pa and 7 vol,% (O<sub>2</sub>)

FOR OFFICIAL USE ONLY

Application received..... Fee paid

Chief Inspector (Pollution Control)  
 Environmental Council of Zambia Inspector

**FORM AP2**  
***(Regulation 6)***

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

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

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 the  
Regulations.

Date:

Chief Inspector (Pollution Control)  
Environmental Council of Zambia  
Inspectorate

## FORM AP3

PRESCRIBED FORMS

REPUBLIC OF ZAMBIA

ENVIRONMENTAL COUNCIL

THE AIR CONTROL (LICENSING AND EMISSION STANDARDS)  
REGULATIONS, 1996

APPLICATION FOR LICENCE TO EMIT AIR POLLUTANTS

*(Regulation 10)*

(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 (e.g. copper mining, cement manufacture etc.)

4. Name(s) of department(s) section(s) unit(s) where air emission 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 ( $\text{mg}/\text{m}^3$ ,  $\text{mg}/\text{m}^3$ , ppm etc.)
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 ( $\text{m}^3/\text{s}$ .  $\text{m}^3/\text{h}$ )
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)

<i>Industry/process</i>	<i>Parameter</i>	<i>Emission level</i>
<b>COPPER PRODUCTION</b>		
29. Smelters and converters	sulphur dioxide (SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	dust	.....mg/Nm <sup>3</sup>
30. Coal preparation	dust	.....mg/Nm <sup>3</sup>
31. Ore concentrator dryer	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
<b>CEMENT AND LIME PRODUCTION</b>		
32. Cement production	dust	.....mg/Nm <sup>3</sup>
33. Lime production	dust	.....mg/Nm <sup>3</sup>
<b>NITRIC ACID AND SULPHURIC ACID PRODUCTION</b>		
34. Nitric acid production	(NO <sub>x</sub> ) as (NO <sub>2</sub> )	.....kg/day
35. Sulphuric acid production	(SO <sub>2</sub> )	.....kg/day
<b>FERTILIZER PRODUCTION</b>		
36. Ammonium nitrate production		dust .....kg/day
37. Coal treatment	dust	.....kg/day
38. NPK production	dust	.....kg/day
<b>COMBUSTION UNITS</b>		
39. Oil fired, 50 MW (1)	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	CO	.....mg/Nm <sup>3</sup>
40. Coal fired, 10 MW (2)	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>

	CO	.....mg/Nm <sup>3</sup>
41. Coal fired, 10-50 MW (2)	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	CO	.....mg/Nm <sup>3</sup>

OTHER PROCESSES/UNITS (SPECIFY)

.....

Name	Signature
Designation/title .....	Date:

(1) The limits shall be normalised to 273K at 101.3Pa and 3 vol,% (O<sub>2</sub>)

(2) The limits shall be normalised to 273K at 101.3Pa and 7 vol,% (O<sub>2</sub>)

FOR OFFICIAL USE ONLY

Application received..... Fee paid

Chief Inspector (Pollution Control)  
 Environmental Council of Zambia  
 Inspector

**FORM AP4**  
**REPUBLIC OF ZAMBIA**

ENVIRONMENTAL COUNCIL

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

PERMIT TO EMIT AIR POLLUTANTS

*(Regulation 11)*

(To be completed in triplicate)

Permit No.

Name:

Address:

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

The permit is valid from.....to

The permit is subject to the attached conditions and intermediate emission limits.

Date:

Chief Inspector (Pollution Control)  
Environmental Council of Zambia  
Inspectorate

# FORM AP5

REPUBLIC OF ZAMBIA

PRESCRIBED FORMS

ENVIRONMENTAL COUNCIL

THE AIR CONTROL (LICENSING AND EMISSION STANDARDS)  
REGULATIONS, 1996

APPLICATION FOR LICENCE FOR NEW SOURCES OF AIR EMISSIONS

*(Regulation 7)*

(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 (e.g. copper mining, cement manufacture etc.)

4. Name(s) of department(s) section(s) unit(s) where air emission 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 ( $\text{mg}/\text{m}^3$ ,  $\text{mg}/\text{m}^3$ , ppm etc.)
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 ( $\text{m}^3/\text{s}$ .  $\text{m}^3/\text{h}$ )
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)

<i>Industry/process</i>	<i>Parameter</i>	<i>Emission level</i>
<b>COPPER PRODUCTION</b>		
29. Smelters and converters	sulphur dioxide (SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	dust	.....mg/Nm <sup>3</sup>
30. Coal preparation	dust	.....mg/Nm <sup>3</sup>
31. Ore concentrator dryer	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
<b>CEMENT AND LIME PRODUCTION</b>		
32. Cement production	dust	.....mg/Nm <sup>3</sup>
33. Lime production	dust	.....mg/Nm <sup>3</sup>
<b>NITRIC ACID AND SULPHURIC ACID PRODUCTION</b>		
34. Nitric acid production	(NO <sub>x</sub> ) as (NO <sub>2</sub> )	.....kg/day
35. Sulphuric acid production	(SO <sub>2</sub> )	.....kg/day
<b>FERTILIZER PRODUCTION</b>		
36. Ammonium nitrate production		dust .....kg/day
37. Coal treatment	dust	.....kg/day
38. NPK production	dust	.....kg/day
<b>COMBUSTION UNITS</b>		
39. Oil fired, 50 MW (1)	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	CO	.....mg/Nm <sup>3</sup>
40. Coal fired, 10 MW (2)	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	CO	.....mg/Nm <sup>3</sup>

41. Coal fired, 10-50 MW (2)	dust	.....mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	.....mg/Nm <sup>3</sup>
	CO	.....mg/Nm <sup>3</sup>

OTHER PROCESSES/UNITS (SPECIFY)

.....

Name	Signature
Designation/title.....	Date:
(1) The limits shall be normalised to 273K at 101.3Pa and 3 vol,% (O <sub>2</sub> )	
(2) The limits shall be normalised to 273K at 101.3Pa and 7 vol,% (O <sub>2</sub> )	

FOR OFFICIAL USE ONLY

Application received	Fee paid.....
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Chief Inspector (Pollution Control)  
 Environmental Council of Zambia  
 Inspector

**FORM AP6**  
**REPUBLIC OF ZAMBIA**

ENVIRONMENTAL COUNCIL

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

LICENCE FOR NEW SOURCES OF AIR EMISSION

*(Regulation 8)*

(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 conditions and long-term emission limits set out in these  
Regulations and such other conditions the inspectorate may determine.

Condition

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

<i>Industry/Process</i>	<i>Parameter</i>	<i>Long-Term Emission Limit</i>
<b>A. COPPER PRODUCTION</b>		
1. Smelters and Converters	Sulphur dioxide (SO <sub>2</sub> )	1000 mg/Nm <sup>3</sup>
	dust	50 mg/Nm <sup>3</sup>
2. Coal preparation	dust	50 mg/Nm <sup>3</sup>
3. Concrete dryer	dust	50 mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	500 mg/Nm <sup>3</sup>
4. Heavy metal content in dust	arsenic (As)	0.5 mg/Nm <sup>3</sup>
	cadmium (Cd)	0.05 mg/Nm <sup>3</sup>
	copper (Cu)	1.0 mg/Nm <sup>3</sup>
	lead (Pb)	0.2 mg/Nm <sup>3</sup>
	mercury (Hg)	0.05 mg/Nm <sup>3</sup>
<b>B. CEMENT AND LIME PRODUCTION</b>		
1. Cement production	dust	50 mg/Nm <sup>3</sup>
2. Lime production	dust	50 mg/Nm <sup>3</sup>
<b>C. NITRIC ACID AND SULPHURIC ACID PRODUCTION</b>		
1. Nitric acid production	NO <sub>x</sub> as (NO <sub>2</sub> )	100-1,400 kg/day
2. Sulphuric acid production	(SO <sub>2</sub> )	700-4,300 kg/day
<b>D. FERTILISER PRODUCTION</b>		
1. Ammonium nitrate production		dust 500 kg/day
2. Coal treatment	dust	150 kg/day
3. NPK production	dust	100 kg/day
<b>E. COMBUSTION UNITS</b>		

1. Oil fire, <50 [MW (2)]	dust	50-150 mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	850 mg/Nm <sup>3</sup>
	(CO <sub>2</sub> )	100 mg/Nm <sup>3</sup>
2. Coal fired, <10 [MW (2)]	dust	150 mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	2000 mg/Nm <sup>3</sup>
3. Oil fired, <10-50 [MW (2)]	dust	50 mg/Nm <sup>3</sup>
	(SO <sub>2</sub> )	1000 mg/Nm <sup>3</sup>
	CO	175 mg/Nm <sup>3</sup>

#### F. OTHER PROCESS

#### NOTES

1. The limits are normalised to 273K, 101.3 Pa and 3 Vol,-% (O<sub>2</sub>)
2. The limits are normalised to 273K, 101.3 Pa and 7 Vol,-% (O<sub>2</sub>)
3. More strict limits for light oil, less strict for heavy oil. Smaller combustion units need limits less strict than larger units. For this reason 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 <5 MV and coal combustion units <1 MW.

## FOURTH SCHEDULE

(Regulations 5, 8 and 10)

### FEES

	<i>Fee units</i>
Application for permit or licence to emit air pollutants for activities:	
CLASS III (High Polluters)	25,000
CLASS III (Moderate Polluters)	16,667
CLASS III (Relatively Low Polluters)	8,333
CLASS IV (Low Polluters)	556