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**KIMBERLEY, 18 NOVEMBER 1996**

**No. 178**

**PREMIER'S NOTICE • PREMIERSKENNISGEWING**

**Premier's Notice 7**

**18 November 1996**

The Premier has approved the submentioned by-law framed by the Municipal Council of Kimberley.

**KIMBERLEY MUNICIPALITY**

**SEWERAGE BY-LAW REGARDING INDUSTRIAL EFFLUENT AND OTHER MATTERS**

The by-law promulgated under Provincial Notice No. 504/1983, dated 12 August 1983, is hereby replaced.

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**1. Definitions**

Unless inconsistent with the context—

**"adequate"** means adequate in the opinion of the council;

**"chief executive official"** means the chief executive official of the City of Kimberley, any other person lawfully acting in that capacity and any employee of the council duly authorised thereto by such chief executive official or person so acting, in which do have the town clerk the same meaning;

**"city electrical engineer"** means the city electrical engineer of the City of Kimberley, any other person lawfully acting in that capacity, and any employee of the council duly authorised thereto by such city electrical engineer or person so acting;

**"council"** means the council of the Municipality of the City of Kimberley, that council's Executive Committee or any of its Standing Committees acting under powers delegated to them, and any officer to whom the council is empowered and has in fact delegated any of the powers, functions and duties vested in the council in terms of any law;

**"device"** means any structure, chamber, tank, trap, meter or gauge erected or installed in terms of this by-law;

**"drain"** means that portion of a drainage installation system which conveys sewage from a building to a communal drain or any other sewage disposal system which is situated on the premises concerned or to a sewer;

**"drainage installation"** means a installation which is situated on the premises and which is intended for catchment, conveyance, storage or treatment of sewage, including sanitary appliances, drains, septic tanks, sewage treatment works or matching mechanical appliances;

**"employee"** means a person in the full-time and permanent employ of the council;

**"head of department"** means a person appointed by the Council as head of one of the department into which the administration of the Council is organized, and also a person legally acting in that capacity;

**"industrial effluent"** means any liquid, whether or not containing matter in suspension, which is given off in the course of or as a result of any trade, industrial, manufacturing, mining or chemical processes or any laboratory, research or agricultural activity;

**"occupier"**, in relation to any premises, means—

- (i) the person having the management or control of any business conducted on such premises, or the principal, superintendent or other person in charge of any institution, including a charitable, educational or similar institution, where any process, handicraft or occupation is conducted in or on such premises, or
- (ii) in any case not dealt with in paragraph (i) or in the event of the whereabouts of the person referred to therein not being known to the council, the owner of such premises;

**"owner"**, in relation to a building, construction work or land, means—

- (i) the person in whose name the right of ownership of the building, construction work or land is registered, or
- (ii) in the event of such person being deceased, declared insolvent, mentally deranged or defective, a minor or incapable of entering into a contract, the person to whom the administration and control of such person's estate has been given, either as executor, guardian or in any other capacity, or
- (iii) the representative of such person properly authorized thereto by means of power of attorney, or
- (iv) if the property is subject to a hire purchase agreement the registration of which is required by law, the tenant, or
- (v) any person who receives rent or is entitled to receive rent for and on behalf of the owner of such property;

**"soil-water"** means any liquid containing excreta;

**"parameters"** means the measured and criteria listed in article 11 of this by-law which are used to determine whether the discharge of sewage or industrial effluent into a sewer shall be permitted;

**"premises"** means any building, room, apartment, hut, shed, tent or any other structure above, on or below ground level, together with the land on which it is situated and the adjacent land used jointly therewith or any land without buildings;

**"sewage"** means wastewater, soilwater, industrial effluent and other liquid waste whether together or in combination, but does not include stormwater;

**"sewer"** means any pipe or conduit owned by the council and used or intended to be used for the conveyance of sewage;

**"tariff sample"** means a sample taken in accordance of section 11;

**"town clerk"** means the person that is the chief executive official;

"stormwater" means any water resulting from natural precipitation or accumulation and includes rainwater, surface water, groundwater and spring water;

"waste water" means used water which is not polluted by soilwater or industrial effluent and does not include stormwater.

## 2. Permission to discharge industrial effluent

(1) No person shall directly or indirectly discharge or allow to be discharged into any sewer or stormwater drain any industrial effluent without the written permission of the council in the form of a permit (section 14).

(2) Every person shall, before discharging any industrial effluent into a sewer, apply in writing to the council for a permit on the appropriate form (section 13) to be completed in duplicate, and shall furnish such additional information and submit such samples as the council may require.

(3) The council may at its discretion, having regard to the capacity of the sewerage system or any mechanical appliance used for sewage or the sewage treatment works, whether owned by the council or not, and subject to such conditions as it may deem fit to impose, grant written permission in the form of a permit for the discharge of industrial effluent into the sewer.

(4) The industrial effluent shall at all times comply with the requirements of the permit which has been issued in respect of the premises.

(5) Owing to any change arising from an amendment in the method of sewage treatment or the introduction of new or revised or stricter or other standards by the council or in terms of the Water Act, 1956 (Act No. 54 of 1956), as amended, or as a result of any amendment to these regulations or owing to any other adequate reason, the council may at any time review, amend, modify or revoke any permission given or any conditions imposed and/or impose new conditions for the discharge of any of all of such effluent into the sewer on giving four weeks written notice in advance of its intention to do so.

(6) Notwithstanding the provisions of subsection (1), but subject to the provisions of subsections (2), (3), (4) and (5), any discharge of industrial effluent existing immediately prior to the date of promulgation of this by-law may, if an application to continue such discharge has been submitted in accordance with subsection (2), continue as then in existence until such time as the council has notified the applicant in writing of the result of his application.

## 3. Control of industrial effluent

(1) The owner or occupier of any premises from which industrial effluent is discharged into a sewer, shall provide adequate facilities such as overflow level detection devices, standby equipment, overflow catch-pits, grease traps, oil traps or other appropriate means effectively to prevent the discharge into any sewer of any substance prohibited or restricted in terms of this by-law.

(2) The council may by notice served on the owner or occupier of any premises from which industrial effluent is discharged, require of him, without prejudice to any other provision of this by-law, to do all or any of the following:

- (a) to subject the effluent before it is discharged to the sewer, to such pretreatment as will ensure that it conforms in all respects to the provisions of section 5 (1), or to modify the effluent cycle of the industrial process to an extent and in such manner as in the opinion of the council is necessary to enable any sewage treatment works receiving the said effluent, whether under the control of the council or not, to produce treated effluent complying with any standards which may be laid down in respect of such works in terms of the Water Act, 1956 (Act No. 54 of 1956), as amended;
- (b) to restrict the discharge of effluent to certain specified hours and the rate of discharge to a specified maximum and to install at his own expense such tanks, appliances and other equipment as in the opinion of the council may be necessary or adequate for compliance with the said restrictions;
- (c) to install a separate drainage installation for the conveyance of industrial effluent and to discharge the same into the sewer through a separate connection as directed by the council, and to refrain from discharging the effluent through any drainage installation intended or used for the conveyance of domestic soilwater or waste water or from discharging any domestic soilwater or waste water through the said separate installation for industrial effluent;
- (d) to construct at his own expense in any drainage installation conveying industrial effluent to the sewer one or more inspection sampling or metering chambers of such dimension and materials and in such position as the council may prescribe;
- (e) to pay in respect of the industrial effluent discharge from the premises such charge as may be assessed in terms of section 12 of this by-law: Provided that where owing to the particular circumstances of any specific case, the chemical oxygen demand, the permanganate value (oxygen absorbed), the total suspended solids, the ammonia, the total ortho phosphate and the conductivity cannot be determined by the method of assessment prescribed in section 12, the council may adapt such alternative method of assessment as does reflect the said value and shall assess the charge accordingly;



- (f) to provide all such information as may be required by the council to assess the charges payable in terms of section 12; and
- (g) for the purpose of paragraph (f), to provide and maintain at his own expense a meter measuring the total quantity of water drawn from any borehole, spring or natural source of water and used on the property.

#### 4. Metering and assessment of industrial effluent

The council may, at the cost of the owner or occupier, install and maintain in such position as it shall determine in any drainage installation conveying industrial effluent to a sewer, any meter or gauge or other device for the purpose of ascertaining the volume or composition of the said effluent and it shall be an offence for any person to by-pass, open, break into or otherwise interfere with, or to damage any such meter, gauge or other device: Provided that the council may at its discretion enter into an agreement with any person discharging industrial effluent into the sewer, establishing an alternative method or assessing the volume or composition of effluent to be discharged.

#### 5. Prohibited discharges

(1) No persons shall discharge or cause or permit the discharge or entry into any sewer of any sewage and/or substance—

- (a) which does not comply with the specifications in section 11: Provided that the council may relax or grant exemption of some or all of such specifications for such a period as it may specify: Provided further that the council can, in spite of compliance with such specifications restrict the total mass of any substance or impurity which is discharged into a sewer during any fixed period from any premises; or
- (b) which complies with such specifications, but contains a substance of whatever nature which, in the opinion of the council—
  - (i) is not amenable to treatment at the sewage treatment works, or which causes or may cause a breakdown or inhibition of the normal sewage treatment processes; or
  - (ii) is of such nature as is or may be amenable to treatment only to such degree as to prevent the final treated effluent from the sewage treatment works from complying in all respects with the requirements imposed in terms of the Water Act, 1956 (Act No. 54 of 1956); or
  - (iii) whether alone or in combination with other matter may:
    - (aa) generate or constitute a toxic substance dangerous to the health of persons employed at the sewage treatment works or entering the council's sewers or manholes in the course of their duties; or
    - (bb) be harmful to sewers, treatment plant or land used for the disposal of treated sewage effluent; or
    - (cc) adversely affect any of the processes whereby sewage is treated or any re-use of purified sewage effluent;
- (c) which in the opinion of the council may be offensive or may cause a nuisance to the public;
- (d) which is in the form of steam or vapour;
- (e) which has a temperature exceeding 44 °C at the point where it enters the sewer;
- (f) which contains a substance of whatever nature which, in the opinion of the council, may produce or give off explosive, flammable, poisonous or offensive vapours in the sewer;
- (g) which contains a substance having an open flashpoint of less than 96 °C or which gives off a poisonous vapour at a temperature below 93 °C;
- (h) which contains a material of whatever nature, including oil, grease, fat or detergents capable of causing an obstruction to the flow in sewers or drains or interference with the proper operation of a sewage treatment works;
- (i) which shows any visible signs of tar or associated products or distillates, bitumens or asphalt;
- (j) which contains a substance of such concentration that it may in the opinion of the council cause the final treated effluent from any sewage treatment works to have an undesirable taste after chlorination or an undesirable odour or colour or which is likely to produce excessive foam.

(2) (a) If any person in contravention of any provision of this by-law discharges industrial effluent into a sewer, or causes or permits it to be so discharged or is about to do so, the council may forthwith, after notifying the owner or occupier of the premises concerned of his intention to do so, and in case of emergency, without notification, close and seal off the drain conveying such effluent to the sewer for such period as it may deem expedient so as to prevent such effluent from entering the sewer.

(b) The council shall not be liable for any damage occasioned by any action taken in terms of paragraph (a).

(c) No person shall without the written permission of the council open or break the seal of a drain closed and sealed off in terms of paragraph (a) or cause or permit this to be done.

#### **6. Delegation of powers to management committee, chief executive official or head of department**

(1) The council may, subject to the conditions that he may impose, delegate to a management committee, chief executive officer or head of department by resolution any power conferred on the council by this by-law, and may in like manner amend or withdraw such delegation.

(2) When any power has been delegated in terms of subsection (1) to a chief executive officer or a head of department he may act thereon through any employee under his control.

(3) In respect of powers that have been delegated in terms of subsection (1), the management committee, chief executive officer or head of department, as the case may be, shall have the powers of the council: Provided that such management committee, chief executive officer or head of department may, instead of exercising such powers, submit a report and recommendation to the council for its decision in the matter.

#### **7. Entering of premises**

An authorized official or employee of the council shall be entitled at all reasonable times and in case of emergency at any time, to enter premises or a building in order to determine whether the provisions of this by-law are complied with.

#### **8. Obstruction of officials and employees in the performance of their duties**

No person shall hinder or obstruct an official or employee of the council in the performance of his duties in consequence of this by-law.

#### **9. Service of notice, order or other document**

(1) Whenever any notice, order or other document is under this by-law required or authorised to be served—

- (a) on any person, it shall be deemed to be duly and sufficiently served if it is sent by registered or certified post to that person at his last-known address, or if it is left there at with him personally or with some adult inmate thereof;
- (b) on an owner or occupier of any land or premises and the address of such owner or occupier is unknown, it shall be deemed to be duly and sufficiently served if it is posted up in some conspicuous place on such land or premises.

(2) It shall not be necessary in any notice, order or other document given under these regulations to an owner or occupier of land or premises to name him, if the notice, order or document describes him as the owner or occupier of the land or premises in question.

#### **10. Penalty clause**

(1) Any person who contravenes in any of this by-law or fails to comply therewith, shall be guilty of an offence and shall be liable, on conviction, as contemplated by the Water Act, 1956 (Act No. 54 of 1956).

(2) Any person who has been convicted of an offence under this by-law and who, after such conviction, persists in the conduct or neglect which constituted such offence, shall be guilty of a continuing offence and liable to a fine contemplated by the Water Act, 1956 (Act No. 54 of 1956).

#### **11. Limits of Permanganate Value (PV), pH and electrical conductivity and maximum concentration of certain substances**

Subject to the provisions of section 5 (1) (a) of this by-law the following are—

- (a) the limits of the PV, pH and electrical conductivity; and
- (b) the substances and the maximum permissible concentrations thereof, expressed in milligrams per litre (mg/l):

##### **(i) GENERAL**

PV—not exceeding .....	1 000 mg/l.
pH within the range .....	6.0–10.0.
Electrical conductivity—not greater than.....	500 mS/m by 20 °C.
Caustic alkalinity (expressed as CaCO <sub>3</sub> ) .....	1 000 mg/l.
Vegetable oils, fats, grease or wax .....	400 mg/l.

Oil, grease or wax of mineral origin .....	50 mg/l.
Sulphides, hydrosulphides and polysulphides (expressed as S).....	5 mg/l.
Substances from which hydrogen cyanide can be liberated in the drainage installation sewer or sewage treatment plant (expressed as HCN).....	20 mg/l.
Formaldehyde (expressed as HCHO).....	50 mg/l.
Non-organic matter in suspension .....	100 mg/l.
Chemical oxygen demand (COD) .....	5 000 mg/l.
All sugars and/or starch (expressed as glucose).....	1 000 mg/l.
Available chlorine (expressed as Cl <sub>2</sub> ) .....	100 mg/l.
Sulphate (expressed as SO <sub>4</sub> ).....	1 500 mg/l.
Fluorine containing compounds (expressed as F) .....	5 mg/l.
Suspended solids (SS) .....	1 000 mg/l.
Phosphate and phosphate-containing compounds (expressed as P) .....	100 mg/l.

**(ii) METALS****Group 1:**

Iron (expressed as Fe)  
 Chromium (expressed as CrO<sub>3</sub>)  
 Copper (expressed as Cu)  
 Nickel (expressed as Ni)  
 Zinc (expressed as Zn)  
 Silver (expressed as Ag)  
 Cobalt (expressed as Co)  
 Tungsten (expressed as W)  
 Titanium (expressed as Ti)  
 Cadmium (expressed as Cd)

The total collective concentration of all metal in Group 1 (expressed as indicated above) in any sample of the effluent shall not exceed 20 mg/l, or shall the concentration of any individual metal in any sample exceed 5 mg/l.

**Group 2:**

Lead (expressed as Pb)  
 Selenium (expressed as Se)  
 Mercury (expressed as Hg)

The total collective concentration of all metal in Group 2 (expressed as indicated above) in any sample of the effluent shall not exceed 20 mg/l, or shall the concentration of any individual metal in any sample exceed 5 mg/l.

**(iii) OTHER ELEMENTS**

Arsenic (expressed as As)  
 Boron (expressed as B)

The total collective concentration of all elements (expressed as indicated above) in any sample of the effluent shall not exceed 5 mg/l.

**(iv) RADIOACTIVE WASTES**

Radio-active wastes or isotopes: Such concentration as may be laid down by the Atomic Energy Board or any State Department:

**Note:** The method of testing in order to ascertain the concentration of any substance mentioned here shall be the test normally used by the council for the purpose. Any person discharging any substance referred to in this by-law shall ascertain the details of the appropriate test from the council.

## 12. Industrial effluent charges

(1) The owner or occupier of any premises from where industrial effluent is discharged shall, irrespective of the council's permission for the discharge as mentioned in section 2 (3) additional to any other charges which are provided for in this by-law or any other by-law, pay an amount to the council which is subject to the following stipulations of this by-law.

(2) The council shall render an account to the owner or occupier, as the case may be, for the charges due, showing the date on which they are to be paid.

(3) Should the owner or occupier, as the case may be, fail to pay the above-mentioned charges on the due date as stated, interest at the standard rate shall be payable.

(4) The charges payable in terms of subsection (1) shall, subject to the following provisions of this section, be calculated by means of the formula:

$$C = B \times V \times T$$

Where—

C is the industrial effluent charges payable by the owner or occupier, as the case may be;

B equals the cost of treatment of one kilolitre sewage;

V represents the total number of kilolitre of industrial effluent discharged from the premises where the strength is determined for the specific period of industrial effluent discharge;

T represents the strength of the effluent where—

$$T = \frac{\left\{ 1 + \frac{\text{COD}_{(i,t)}}{\text{COD}_{(t)}} + \frac{\text{PV}_{(i,t)}}{\text{PV}_{(t)}} + \frac{\text{SS}_{(i,t)}}{\text{SS}_{(t)}} + \frac{\text{NH}_3_{(i,t)}}{\text{NH}_3_{(t)}} + \frac{\text{PO}_4_{(i,t)}}{\text{PO}_4_{(t)}} + \frac{\text{COND}_{(i,t)}}{\text{COND}_{(t)}} \right\}}{6}$$

COD, PV, SS, NH<sub>3</sub>, and PO<sub>4</sub> represent respectively the chemical oxygen demand, the permanganate value (oxygen absorbed), the suspended solids, the ammonia and phosphates, expressed in milligram per litre, and COND the electrical conductivity in mS/m at 20 °C of the samples taken by any duly authorized representative of the council, and as required by the council;

i the tariff sample of the owner or occupier from the premises; and

t the mean value of untreated sewage at the sewage treatment works for the same period of which industrial effluent charges are payable.

When the i-t value of a specific parameter is smaller than zero, that parameter falls away in the calculation of the strength of the effluent (T).

When the calculated value of T equals one, the owner or occupier, as the case may be, shall not pay industrial effluent charges according to the strength of the effluent. The strength of the effluent (T) is then equal to one and the owner or occupier, as the case may be, pay industrial effluent charges according to the volume of the effluent discharged, only if the volume is higher than 10kl per month.

(5) The parameters of the industrial effluent samples as determined by the council according to subsection (4) shall be final and binding.

(6) The costs of treating one kilolitre of sewage shall be based on the council's annual estimates of expenditure for the ensuing year as approved by the council.

(7) All costs involved in the sampling and testing of samples required by the council, will be borne by the council. The cost of any other sampling or testing of samples, is borne by the owner or occupier, as the case may be.

(8) The council determines the total amount of industrial effluent which is discharged from the premises during every period, and for the purpose of such determination of the council shall—

(a) in a case where industrial effluent and other sewage are measured together, consider the total discharge as industrial effluent;

(b) in a case where the amount of sewage or industrial effluent which is discharged from the premises, is not measured directly—

(i) base such determination on the amount of water which is consumed on the premises during the applicable period, after an amount of water, which the council considers reasonable, has been taken into account for irrigation purposes or evaporation or which is present in articles produced on the premises; and



(ii) if industrial effluent is discharged from more than one point on the premises, allocate such amount of water as accurately as possible to the different points of discharge;

(c) in any case where it is proved that a metering appliance is defective, take such defect properly into account.

(9) (a) The council shall levy on the industrial effluent accounts rendered in terms of subsection (2) the surcharge as calculated in terms of paragraph (b) in respect of each parameter where the limits therein specified are exceeded in each of the tariff samples referred to therein with effect from the cycle during which this by-law is promulgated.

(b) Any person who discharges industrial effluent into any sewer shall in addition to any penalty which may be imposed, pay to the council a surcharge of—

$$P = P_1 + P_2 + P_3 + \dots P_n$$

Where—

P = the industrial effluent surcharge payable when the maximum standard is exceeded of a parameter.

P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P . . . , P<sub>n</sub> = the parameters of which maximum standard is exceeded and calculated as follows:

$$P_n = B \times V \times \frac{\text{Maximum allowed—analytical value}}{\text{Maximum allowed}}; \text{ or}$$

$$P_n = B \times V \times \frac{\text{Analytical value—Maximum allowed}}{\text{Minimum allowed}}; \text{ or}$$

Where—

B equals the cost of treatment of one kilolitre sewage;

V represents the total number of kilolitre of industrial effluent discharged from the premises where the strength is determined for the specific period of industrial effluent discharge.

4. The council may determine that the formulae mentioned in this by-law, are not applicable in any case where the method of determining the strength of industrial effluent as specified in such formula does not reflect the true strength of the said effluent in the opinion of the council.

### 13. Application for a permit to discharge trade or industrial effluent into the sewerage system

#### CITY OF KIMBERLEY

#### Application for a permit to discharge trade or industrial effluent into the sewerage system

(To be completed in block letters)

#### 1. GENERAL INFORMATION

##### LOCATION OF BUSINESS

Street name .....

Street number .....

Erf number .....

Telephone number .....

##### POSTAL ADDRESS

.....

.....

.....

##### ADDRESS FOR ACCOUNTS

.....

.....

.....

##### OWNERSHIP OF THE PREMISES

Name of owner .....

Address of owner .....

.....

.....



**NATURE OF PROCESSES OR TRADE PERFORMED ON THE PREMISES**

.....

.....

.....

NAME OF SIGNATORY .....

POSITION HELD IN BUSINESS .....

REGISTERED NAME OF THE BUSINESS TO WHOM THE PERMIT WILL APPLY .....

.....

**2. QUANTITY OF EFFLUENT AND DISCHARGE CONDITIONS**

Connection position	Maximum discharge rate per—		
	Month in kilolitre	Day in kilolitre	Hour in kilolitre

**NORMAL PLANT OPERATING PERIODS**

Days in week	Time in day

**EFFLUENT DISCHARGE FACTOR**

Water entering premises	%	Water consumed on premises (not entering the sewerage system)	%
From municipal sources.....		In boiler use .....	
From other sources.....		In evaporation .....	
		Leaving in product .....	
		In other use .....	
Total entering premises.....	100	Total consumed on premises.....	
Effluent discharge factor—K			

**3. PRETREATMENT OF EFFLUENT BEFORE DISCHARGE**

(Insert sizes, capacities, etc., pretreatment is present. Cross where a particular unit does not exist.)

Type of treatment		Discharge points			
		1	2	3	4
Screens (hand raked) .....	Area (m <sup>2</sup> )				
Screens (mechanical) .....	Area (m <sup>2</sup> )				
Comminutors .....					
Grit tanks .....					
Grease traps .....					
Sedimentation tanks .....	Area (m <sup>2</sup> )				
Sedimentation tanks .....	Vol. (m <sup>3</sup> )				
Biological processes					
Type:					

**4. PHYSICAL AND CHEMICAL CHARACTERISTICS OF EFFLUENT**

(Insert maximum values or cross where absent)

	pH	Temperature °C	Conductivity mS/m at 20 °C	PV 4 hour KMnO mg/l
Maximum				
Minimum				

Settleable solids (ml/l)

Concentrations in mg/l of the following:

Suspended solids.....

Caustic Alkalinity as CaCO<sub>3</sub>.....

Acidity as CaCO<sub>3</sub>.....

Sulphides, etc. as S.....

Sulphates as SO<sub>4</sub>.....

Chlorides as Cl<sub>2</sub>.....

Fluorine compounds as F.....

Available chlorine Cl<sub>2</sub>.....

Sugars, Starch as Glucose.....

Tar products and Distillates.....

Substances not in solution.....

Fat, vegetable oil, etc.....

Hydrogen Cyanide as HCN.....

Mineral oils and grease.....

Dyes.....

Formaldehyde as HCHO.....

Concentration of mg/l of the following:

**GROUP 1 METALS**

Iron as Fe.....

Chromium as CrO<sub>3</sub>.....

Copper as Cu.....

Nickel as Ni.....

Zinc as Zn.....

Cadmium as Cd.....

Silver as Ag.....

Cobalt as Co.....

Tungsten as W.....

Titanium as Ti.....

**GROUP 2 METALS**

Lead as Pb.....

Selenium as Se.....

Mercury as Hg.....

**OTHER ELEMENTS**

Arsenic as As.....

Boron as B.....

**TOTAL CONCENTRATION**

GROUP 1 METALS.....

GROUP 2 METALS.....

OTHER ELEMENTS.....

**ARE RADIO-ACTIVE WASTES OR ISOTOPES PRESENT IN THE EFFLUENT?**

YES      NO

5. FOR OFFICIAL USE:

Permit number	Issued by	Date
Water allocation factor	Treasury Notified	Date

CITY OF KIMBERLEY

Special conditions:

Conditions of acceptance of a discharge of a trade or industrial effluent into the sewerage plan:

1. A valid permit for the discharge is held and the conditions stated in the permit are observed.
2. Any special conditions requiring the pretreatment of the effluent before discharge are observed and the work is carried out to the satisfaction of the council.
3. The conditions of the drainage by-laws are observed.
4. The applicant shall notify the council immediately in writing of any change in nature, quantity or rate of discharge of effluent which occurs or is proposed and which would exceed any of the limits in the permit.
5. The applicant shall within 30 days of signature of this application, procure an accurately representative sample of not less than five litres of the effluent to be discharged. One half of this sample shall be submitted to the City's Laboratory Services for analyses and a report submitted to the Laboratory Services of an analyses of the other half by an analyst appointed by the applicant at his expense.
6. I (full name) ....., the undersigned, duly authorised to act on behalf of .....to be known as the Applicant, declare that the information given on this form is to the best of my knowledge accurate and accept that the said information may be used for the basis of the issue of a permit to discharge a trade or industrial effluent into the sewerage system.

.....  
Date

.....  
Signature

Authority or capacity of signatory .....

14. Permit to discharge trade or industrial effluent into the sewerage system

CITY OF KIMBERLEY

CITY ELECTRICAL DEPARTMENT

PERMIT TO DISCHARGE TRADE OR INDUSTRIAL EFFLUENT INTO THE SEWERAGE SYSTEM

1.

Registered name of the business to which the permit applies			
Street name	Street No.	Erf No.	Tel. No.
Authorised processes for the premises		Effluent discharge factor	

2.

EFFLUENT DISCHARGE CONDITIONS			
Connection position	Maximum discharge in kℓ		
	Per month	per day	per hour
	Monday to Friday	Saturday	Sunday
Authorized discharge period			

3.

PRETREATMENT REQUIRED BEFORE ACCEPTANCE
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4.

PHYSICAL AND CHEMICAL CONDITIONS REQUIRED BEFORE EFFLUENT ACCEPTANCE	
Substances acceptable in limited concentrations only	Substances to be totally excluded from an effluent

SPECIAL CONDITIONS
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This permit is issued in terms of the drainage regulations and is subject to the conditions stated herein.

.....  
 Date

.....  
 City Electrical Engineer



Account No.	Address for accounts	Previous Permit No.

## Premierskennisgewing 7

18 November 1996

Die Premier het sy goedkeuring gegee aan die volgende verordening opgestel deur die Munisipale Raad, Kimberley.

### MUNISIPALITEIT KIMBERLEY

#### RIOLERINGSVERORDENING INSAKE NYWERHEIDSUITVLOEISEL EN ANDER STOWWE

Die verordening afgekondig by Provinsiale Kennisgewing No. 504/1983 van 12 Augustus 1983, word hierby herroep.

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14. Permit om bedryfs- of nywerheidsuitvloeisel in die rioolstelsel af te voer

#### 1. Woordomskrywing

Tensy uit die samehang anders blyk, beteken—

“departementshoof” die persoon wat deur die raad as hoof van een van die departemente waarin die raad se administrasie verdeel is, aangestel is, en ook iemand wat wettiglik in daardie hoedanigheid waarneem;

“drekwater” vloeistof wat ekskreta bevat;

“eienaar”, met betrekking tot 'n gebou, bouwerk of grond—

- (i) die persoon in wie se naam die eiendomsreg van die gebou, bouwerk of grond geregistreer is, of
- (ii) indien sodanige persoon oorlede, insolvent, geestelik versteurd of gebrekkig, minderjarig of handelingsonbevoegd is, die persoon aan wie die administrasie en beheer van sodanige persoon se boedel toevertrou is, hetsy as eksekuteur, voog of in enige ander hoedanigheid, of
- (iii) die verteenwoordiger van sodanige persoon behoorlik daartoe gemagtig by wyse van 'n volmag, of
- (iv) indien die eiendom onderhewig is aan 'n huurkontrak waarvan registrasie vir die regsgeldigheid daarvan vereis word, die huurder, of
- (v) enige persoon wat huur ontvang of geregtig is om huur te ontvang ten behoeve van die eienaar van sodanige eiendom;

**"elektrotegniese stadsingenieur"** die elektrotegniese stadsingenieur van die Stad Kimberley, enige ander persoon wat wettig in die hoedanigheid optree, en enige werknemer van die raad wat deur sodanige elektrotegniese stadsingenieur of persoon wat sodanig optree, behoorlik daartoe gemagtig is;

**"hoof uitvoerende beampte"** die hoof uitvoerende beampte van die Stad Kimberley, enige ander persoon wat wettig in die hoedanigheid optree, en enige werknemer van die raad wat deur sodanige hoof uitvoerende beampte of persoon wat sodanig optree, behoorlik daartoe gemagtig is, en het stadsclerk 'n ooreenstemmende betekenis;

**"nywerheidsuitvloeisel"** enige vloeistof met of sonder stowwe of materie in suspensie, wat afgeskei word in die loop van of ten gevolge van enige bedryfs-, nywerheids-, vervaardigings-, myn- of chemiese proses of enige laboratorium-, navorsings- of landbouaktiwiteit;

**"okkupeerder"** ten opsigte van enige perseel—

- (i) die persoon wat enige besigheid, wat op sodanige perseel bedryf word, bestuur of beheer, of die hoof, superintendent of ander persoon in beheer van enige inrigting, met inbegrip van 'n liefdadigheids-, opvoedkundige of dergelike inrigting, waar enige proses, handwerk of besigheid op sodanige perseel gedryf word, of
- (ii) in enige geval nie in paragraaf (i) behandel nie of indien die verblyfplek van die persoon waarna daarin verwys word, nie aan die raad bekend is nie, die eienaar van sodanige perseel;

**"parameters"** die toetse en maatstawwe wat in artikel 11 van hierdie verordening gelys is en wat gebruik word om te bepaal of die afvoer van rioolwater of nywerheidsuitvloeisel in 'n riool toegelaat word;

**"perseel"** enige gebou, kamer, kamerwoning, hut, skuur, tent of enige ander bouwerk, bo, op of onder die grondvlak, tesame met die grond wat in verband daarmee gebruik word of enige grond sonder geboue;

**"perseelriool"** die deel van 'n perseelrioolstelsel wat rioolvuil van 'n gebou na 'n gemeenskaplike perseelriool of enige ander rioolvuilwegdoeningsmiddel wat op die betrokke terrein geleë is of na 'n riool vervoer;

**"perseelrioolstelsel"** 'n installasie wat op die terrein geleë is en wat vir die opvang, vervoer, opgaring of behandeling van rioolvuil bedoel is, insluitende sanitêre toestelle, perseelriole, septiese tenks, rioolvuilbehandelingswerke of bybehorende meganiese toestelle;

**"raad"** die Munisipale Raad van die stad Kimberley, die raad se uitvoerende komitee of enige van sy vaste komitees en enige beampte aan wie die raad magtiging verleen het om enige van die bevoegdhede, funksies en pligte ingevolge enige wet aan die raad opgedra, te delegeer en wel gedelegeer het;

**"riool"** 'n pyp of leipyp wat die eiendom is van die plaaslike owerheid en wat gebruik word of bedoel is om gebruik te word vir die vervoer van rioolvuil;

**"rioolvuil"** vuilwater, drekwat, nywerheidsuitvloeisel en ander vloeibare afval, hetsy gesamentlike of in kombinasie, maar sluit nie stormwater in nie;

**"stadsklerk"** die persoon wat die hoof uitvoerende beampte is;

**"tariefmonster"** 'n monster ooreenkomstig artikel 11 geneem;

**"stormwater"** water wat die gevolg van natuurlike neerslag of versameling is, insluitende reënwater, oppervlakwater, ondergrondwater of fonteinwater;

**"toestel"** enige struktuur, kamer, tenk, sperder, meter of meettoestel wat ingevolge hierdie verordening opgerig of geïnstalleer is;

**"voldoende"** na die raad se mening voldoende;

**"vuilwater"** gebruikte water wat nie deur drekwat of nywerheidsuitvloeisel besoedel is nie en sluit nie stormwater in nie;

**"werknemer"** 'n persoon in die heeltidse en permanente diens van die raad.

## 2. Vergunning om nywerheidsuitvloeisel te stort

(1) Niemand mag sonder die raad se skriftelike toestemming, in die vorm van 'n permit (artikel 14), nywerheidsuitvloeisel in enige riool of stormwatersloot regstreeks of onregstreeks stort of toelaat dat dit gestort word nie.

(2) Iemand wat begerig is om nywerheidsuitvloeisel in 'n riool te stort, moet skriftelik eers in duplikaat op die toepaslike vorm (artikel 13), by die raad om 'n permit aansoek doen en moet sodanige bykomende inligting verstrek en sodanige monsters indien as wat die raad vereis.

(3) Die raad kan na goeddunke en met inagneming van die vermoë van die rioolstelsel of enige toestel wat vir rioolvuil gebruik word of die rioolsuiweringswerke, of dit aan die raad behoort of nie, en op sodanige voorwaardes as wat hy dienstig ag, skriftelik vergunning in die vorm van 'n permit verleen dat nywerheidsuitvloeisel in 'n riool gestort word.

(4) Die nywerheidsuitvloeisel moet ten alle tye voldoen aan die vereistes van die permit wat ten opsigte van die perseel uitgereik is.

(5) Die raad kan te eniger tyd vanweë 'n verandering wat voortspruit uit 'n wysiging in die rioolsuiweringsmetode, of die instel van nuwe, hersien, of strenger, of ander standarde deur die raad, of ingevolge die Waterwet, 1956 (Wet No. 54 van 1956), soos gewysig of as gevolg van 'n wysiging van hierdie verordening, of vanweë enige ander voldoende rede, 'n vergunning wat verleen is, of 'n voorwaarde wat opgelê is, hersien, wysig, verander of herroep en/of nuwe voorwaardes opelê vir die storting van nywerheidsuitvloeisel in die riool, of die storting van enige of al sodanige uitvloeisel in die riool, beperk of verbied deur vooraf 4 (vier) weke skriftelik kennis te gee van sy voorneme om dit te doen.

(6) Ondanks die bepalings van subartikel (1), maar onderworpe aan die bepalings van subartikels (2), (3), (4) en (5), kan enige afvoer van nywerheidsuitvloeisel wat onmiddellik voor die datum van afkondiging van hierdie verordening bestaan, indien 'n aansoek om sodanige afvoer voort te sit ingevolge subartikel (2) voorgelê is, voortgaan soos dit op die tydstip bestaan tot tyd en wyl die raad die aansoeker skriftelik van die uitslag van sy aansoek kennis gee het.

### 3. Beheer van nywerheidsuitvloeisel

(1) Die eienaar of okkupeerder van 'n perseel waarvandaan nywerheidsuitvloeisel in 'n riool gestort word, moet toereikende geriewe soos oorloopvlakverklidders, gereedheidstoerusting, oorloopopvangputte, ghriesopvangputte, olie opvangputte verskaf of moet ander toepaslike maatreëls tref om op voldoende en doeltreffende wyse te voorkom dat 'n stof wat verbied of beperk word ingevolge hierdie verordeninge in die riool gestort word.

(2) Die raad kan, deur 'n kennisgewing te beteken op die eienaar of okkupeerder van enige perseel waarvandaan nywerheidsuitvloeisel gestort word, sodanige eienaar of okkupeerder beveel om, behoudens ander bepalings van hierdie regulasies:

- (a) Nywerheidsuitvloeisel, voordat dit in die riool gestort word, op so 'n wyse vooraf te behandel dat dit in alle opsigte aan die bepalings in 5 (1) voldoen, of die uitvloeiselsiklus van die nywerheidsproses in so 'n mate en op so 'n manier te wysig wat na die raad se mening nodig is om te verseker dat die rioolsuiweringswerke wat die genoemde uitvloeisel ontvang, of sodanige werke onder die beheer van die raad is al dan nie, gesuiwerde uitvloeisel voortbring wat voldoen aan standarde wat ingevolge die bepalings van die Waterwet, 1956 (Wet No. 54 van 1956), soos gewysig, vir sodanige werke voorgeskryf word;
- (b) die storting van nywerheidsuitvloeisel tot seker vasgestelde tye en die stortingstempo tot sekere vasgestelde maksimum te beperk en op sy koste sodanige tenks, toestelle en ander toerusting wat na die raad se mening nodig of toereikend is om aan die genoemde beperkings te voldoen, aan te bring;
- (c) 'n afsonderlike perseelrioolstelsel vir die wegvoer van nywerheidsuitvloeisel aan te bring en die uitvloeisel deur middel van 'n afsonderlike aansluiting, soos deur die raad bepaal in die riool te stort, en hom daarvan te weerhou om sodanige uitvloeisel deur middel van enige perseelrioolstelsel wat vir die wegvoer van huishoudelike vuilwater of drekwatêr bedoel is of gebruik word, te stort, of enige huishoudelike vuilwater of drekwatêr deur middel van genoemde afsonderlike stelsel vir nywerheidsuitvloeisel te stort;
- (d) op sy koste in enige perseelrioolstelsel wat nywerheidsuitvloeisel na die riool wegvoer, een of meer inspeksie-, monsterneming- of meterkamers van sodanige afmetings en materiaal en op sodanige plekke as wat die raad kan voorskryf, aan te bring;
- (e) ten opsigte van nywerheidsuitvloeisel wat van die perseel af gestort word, gelde wat bereken word ooreenkomstig die bepalings van artikel 12 van hierdie verordening te betaal: Met dien verstande dat as die presiese chemiese suurstofbehoefte, die permanganaatwaarde (suurstof geabsorbeer), die swewende vaste stowwe, die ammoniak, die fosfate en die geleidingsvermoë van die nywerheidsuitvloeisel vanweë die besondere omstandighede van enige bepaalde geval nie met behulp van die berekeningsmetode wat in artikel 12 voorgeskryf word, bepaal kan word nie, die raad van sodanige ander berekeningsmetode waarvolgens die genoemde sterkte wel bepaal kan word, gebruik kan maak, en die bedrag wat gevorder moet word, daarvolgens kan vasstel;
- (f) alle inligting te verstrek wat die raad mag vereis om die gelde wat ingevolge die bepalings van artikel 12 betaalbaar is, te bereken; en
- (g) vir die toepassing van paragraaf (f) op sy koste 'n meter wat die totale hoeveelheid water afmeet wat uit 'n boorgat, fontein of ander natuurlike bron verkry en op die perseel gebruik word, te verskaf en te onderhou.

### 4. Afmeet en vasstel van die hoeveelheid nywerheidsuitvloeisel

Die raad kan op 'n plek wat hy aanwys in enige perseelrioolstelsel wat nywerheidsuitvloeisel na 'n riool wegvoer, en op koste van die eienaar of okkupeerder, 'n meter of ander toestel aanbring en onderhou met die doel om die volume of samestelling van die genoemde uitvloeisel te bepaal, en iemand wat so 'n meter of ander toestel uitskakel, oopmaak, oopbreek of op 'n ander manier daarmee peuter of dit beskadig, begaan 'n misdryf: Met dien verstande dat die raad na goeddunke met iemand wat nywerheidsuitvloeisel in die riool stort, 'n ooreenkoms kan aangaan waarby 'n ander metode vir die vasstel van die volume uitvloeisel aldus gestort, of die samestelling daarvan, bepaal kan word en opgesom in die permit wat in artikel 14 uitgereik word.



**5. Verbode storting**

(1) Niemand mag rioolvuil en/of enige stof in 'n riool stort of veroorsaak of toelaat dat dit daarin gestort word of daarin beland nie, indien—

- (a) dit nie voldoen aan die spesifikasies vervat in artikel 11 nie: Met dien verstande dat die raad vir sodanige tydperk en/of sodanige voorwaardes as wat hy mag bepaal sommige of al sodanige spesifikasies kan verslag of vrystelling daarvan verleen: Met dien verstande verder dat ondanks voldoening aan sodanige spesifikasies, die raad die totale massa van enige stof of onsuiverheid wat gedurende enige vasgestelde tydperk in 'n riool vanaf enige perseel gestort word, mag beperk; of
- (b) dit wel aan sodanige spesifikasies voldoen maar 'n stof van watter aard ook al bevat wat na mening van die raad—
  - (i) nie vir behandeling deur die rioolsuiweringswerke vatbaar is nie, of wat die gewone rioolsuiweringsproses ontwig of kan ontwig of dit strem of kan strem; of
  - (ii) van so 'n aard is of slegs sodanig gesuiwer kan word dat dit verhoed dat die finale gesuiwerde uitvloeisel van die rioolsuiweringswerke in alle opsigte voldoen aan 'n vereiste wat ingevolge die bepalings van die Waterwet, 1956 (Wet No. 54 van 1956), soos gewysig, gestel word; of
  - (iii) hetsy dit alleen, hetsy met ander stowwe:
    - (aa) 'n gifstof afgee of bevat wat skadelik kan wees vir die gesondheid van diegene wat by die rioolsuiweringswerke werksaam is, of wat die raad se riele of mangate in die uitvoering van hul pligte moet binnegaan;
    - (bb) skadelik kan wees vir riele, suiweringswerke of vir die grond wat vir die wegdoening van gesuiwerde riooluitvloeisel gebruik word;
    - (cc) 'n nadelige uitwerking het op die prosesse waarvolgens rioolvuil gesuiwer word of op die hergebruik van gesuiwerde riooluitvloeisel;
- (c) dit na die mening van die raad aanstootlik is of 'n oorlas vir die publiek kan veroorsaak;
- (d) dit in die vorm van stoom of dampe is;
- (e) die temperatuur daarvan waar dit die riool binnegaan 44 °C oorskry;
- (f) dit 'n stof van water aard ook al bevat wat na die mening van die raad ontplofbare, vlambare, giftige of aanstootlike gasse of dampe in die riool kan laat ontstaan;
- (g) dit 'n stof wat 'n flitspunt laer as 93 °C het of wat 'n giftige damp by 'n temperatuur laer as 93 °C afgee;
- (h) dit 'n stof van watter aard ook al, met inbegrip van olie, ghries, vet of reinigingsmiddels wat riele of perseelriole kan verstop, of die behoorlike funksionering van rioolsuiweringswerke kan belemmer, bevat;
- (i) daar sigbare tekens van teer of aanverwante produkte of distillate, bitumen of asfalt aanwesig is;
- (j) dit 'n stof bevat wat so gekonsentreerd is dat dit aan die finale behandelde uitvloeisel van die rioolsuiweringswerke na chlorering na die mening van die raad 'n ongewenste smaak of 'n ongewenste reuk of kleur gee of dat dit oormatige skuim kan veroorsaak;

(2) (a) Indien iemand strydig met 'n bepaling van hierdie verordening, nywerheidsuitvloeisel in 'n riool stort, of veroorsaak of toelaat dat dit gestort word, of op die punt staan om dit te doen, kan die raad nadat hy die eienaar of okkupeerder van die betrokke perseel in kennis gestel het van sy voorneme om dit te doen, en in geval van nood, sonder kennisgewing, onverwyld die perseelriool wat sodanige uitvloeisel na die riool wegvoer, vir sodanige tydperk as wat hy dienstig ag, sluit en afdig ten einde te voorkom dat sodanige uitvloeisel die riool bereik.

(b) Die raad is nie aanspreeklik vir enige skade wat deur enige stap wat ingevolge paragraaf (a) gedoen word, veroorsaak word nie.

(c) Niemand mag sonder die skriftelike toestemming van die raad die seël van 'n riool wat ingevolge paragraaf (a) gesluit en afdig is, oopmaak of breek of veroorsaak of toelaat dat dit gedoen word nie.

**6. Delegasie van bevoegdhede aan bestuurskomitee, hoof uitvoerende beampte of departementshoof**

(1) Die raad kan, onderworpe aan die voorwaardes wat hy stel, aan 'n bestuurskomitee, hoof uitvoerende beampte of departementshoof by wyse van besluit enige bevoegdheid deleger wat kragtens hierdie regulasies aan die raad verleen is, en kan sodanige delegasie op dieselfde wyse intrek of wysig.

(2) Wanneer 'n bevoegdheid ingevolge subartikel 1 aan 'n hoof uitvoerende beampte of 'n departementshoof gedelegeer is, kan hy daarkragtens optree deur middel van 'n werknemer onder sy beheer.



(3) Ten opsigte van die bevoegdhede wat deur die raad ingevolge subartikel 1 gedelegeer is, het die bestuurskomitee, hoof uitvoerende beampte of departementshoof, na gelang van die geval, die bevoegdhede van die raad: Met dien verstande dat sodanige bestuurskomitee, hoof uitvoerende beampte of departementshoof, in plaas daarvan om sodanige bevoegdhede uit te oefen, 'n verslag en aanbeveling aan die raad vir sy beslissing voor die aangeleentheid kan voorlê.

#### 7. Betreding van persele

'n Gemagtigde amptenaar of werknemer van die raad kan te alle redelike tye, en in die geval van nood, te eniger tyd, 'n perseel of gebou betree ten einde vas te stel of daar aan die bepalings van hierdie verordening voldoen word.

#### 8. Dwarsboming van amptenare of werknemers in die uitvoering van pligte

Niemand mag 'n amptenaar of werknemer van die raad hinder of dwarsboom in die uitvoering van sy pligte kragtens hierdie verordening nie.

#### 9. Bestelling van kennisgewing, bevel of ander dokument

(1) Wanneer daar ingevolge hierdie verordening vereis of gemagtig word dat enige kennisgewing, bevel of ander dokument bestel word—

- (a) aan iemand, word dit geag behoorlik en voldoende bestel te wees indien dit per aangetekende of gesertifiseerde pos aan sodanige persoon gestuur word by sy laasbekende adres, of indien dit daar by hom persoonlik of by 'n volwasse inwoner daarvan gelaat word;
- (b) aan die eienaar of okkupeerder van enige grond of perseel en die adres van so 'n eienaar of okkupeerder nie bekend is nie, word dit geag behoorlik en voldoende bestel te wees indien dit by 'n opvallende plek op sodanige grond of perseel aangebring word.

(2) Dit is nie nodig om 'n eienaar of okkupeerder van grond of 'n perseel in 'n kennisgewingbevel of ander dokument ingevolge hierdie regulasies uitgereik by naam te noem nie, indien die kennisgewing, bevel of dokument hom as die eienaar of okkupeerder van die betrokke grond of perseel beskryf.

#### 10. Strafbepalings

(1) Enige persoon wat enige van die bepalings van hierdie verordening oortree, of versuim om daaraan te voldoen, is skuldig aan 'n misdryf en by skuldigbevinding strafbaar volgens die Waterwet, 1956 (Wet No. 54 van 1956).

(2) Iemand wat ingevolge hierdie verordening aan 'n misdryf skuldig bevind is en wat na so 'n skuldigbevinding volhard met die gedrag of versuim wat sodanige misdryf uitgemaak het, is aan 'n voortdurende misdryf skuldig en strafbaar volgens die Waterwet, 1956 (Wet No. 54 van 1956).

#### 11. Perke vir Permanganaatwaarde (PV), pH en elektriese geleidingsvermoë en maksimum konsentrasie van sekere stowwe

Behoudens die bepalings van artikel 5 (1) (a) van hierdie verordening is die volgende:

- (a) Die perke vir die PV, pH en elektriese geleidingsvermoë, en
- (b) die stowwe en die maksimum toelaatbare konsentrasies daarvan, uitgedruk in milligram per liter (mg/l):

##### (i) ALGEMEEN

PV—hoogstens .....	1 000 mg/l.
pH binne die bestek .....	6.0–10.0.
Elektriese geleidingsvermoë—hoogstens .....	500 mS/m by 20 °C.
Bytende alkaliniteit (uitgedruk as CaCO <sub>3</sub> ) .....	1 000 mg/l.
Plantolies, vette, ghries of was .....	400 mg/l.
Olie, ghries of was van minerale oorsprong .....	50 mg/l.
Sulfides, hidrosulfiedes en polisulfiedes (uitgedruk as S) .....	5 mg/l.
Stowwe wat blousuurgas in die perseelrioolstelsel, straatriool of riool-suiweringswerke kan vrystel (uitgedruk as HCN) .....	20 mg/l.
Formaldehiede (uitgedruk as HCHO) .....	50 mg/l.
Nie-organiese vaste stowwe in suspensie .....	100 mg/l.
Chemiese suurstofbehoefte (COD) .....	5 000 mg/l.
Alle suikers en/of stysels (uitgedruk as glukose) .....	1 000 mg/l.

Beskikbare chloor (uitgedruk as $\text{Cl}_2$ ).....	100 mg/l.
Sulfate (uitgedruk as $\text{SO}_4$ ) .....	1 500 mg/l.
Fluoorhoudende verbindings (uitgedruk as F) .....	5 mg/l.
Swewende vaste stowwe (SS).....	1 000 mg/l.
Fosfaat en fosfaat-bevattende verbindings (uitgedruk as P) .....	100 mg/l.

## (ii) METALE

## Groep 1:

Yster (uitgedruk as Fe)  
Chroom (uitgedruk as  $\text{CrO}_3$ )  
Koper (uitgedruk as Cu)  
Nikkel (uitgedruk as Ni)  
Sink (uitgedruk as Zn)  
Silwer (uitgedruk as Ag)  
Kobalt (uitgedruk as Co)  
Wolfram (uitgedruk as W)  
Titaan (uitgedruk as Ti)  
Kadmium (uitgedruk as Cd)

Die totale konsentrasie van al die metale in Groep 1 (uitgedruk soos hierbo) in enige monster van die uitvloei, mag nie 20 mg/l, en die konsentrasie van enige besondere metaal in enige monster nie 5 mg/l oorskry nie.

## Groep 2:

Lood (uitgedruk Pb)  
Selenium (uitgedruk as Se)  
Kwik (uitgedruk as Hg)

Die totale konsentrasie van al die metale in Groep 2 (uitgedruk soos hierbo) in enige monster van die uitvloei, mag nie 20 mg/l, en die konsentrasie van enige besondere metaal in enige monster nie 5 mg/l oorskry nie.

## (iii) ANDER ELEMENTE

Arseen (uitgedruk as As)  
Boor (uitgedruk as B)

Die totale konsentrasie van alle elemente (uitgedruk soos hierbo) in enige monster van die uitvloei, mag nie 5 mg/l oorskry nie.

## (iv) RADIOAKTIEWE AFVALSTOWWE

Radioaktiewe afvalstowwe of isotope: 'n Konsentrasie van die Raad op Atoomkrag of enige Staats-president bepaal.

**Let wel:** Die raad pas die toets toe wat hy gewoonlik gebruik om die konsentrasie van enige stof wat hierbo genoem word, te bepaal. Iemand wat 'n stof wat in hierdie Verordening genoem word, in die straatruimte stort, moet die besonderhede van die toepaslike toets by die raad verkry.

## 12. Nywerheidsuitvloei, gelde

(1) Die eienaar of okkupeerder van enige perseel waarvandaan nywerheidsuitvloei afgevoer word, moet, ongeag of die raad sy toestemming tot die afvoer soos vermeld in artikel 2 (3) gegee het al dan nie, bykomstig tot enige ander gelde waarvoor daar in hierdie Verordening of enige ander Verordening voorsiening gemaak word, aan die raad 'n bedrag betaal wat onderworpe is aan die bepalings van hierdie artikel.

(2) Die raad stuur 'n rekening vir die verskuldigde gelde, wat die datum waarop dit betaal moet word toon, aan die okkupeerder of eienaar, na gelang van die geval.

(3) Indien die okkupeerder of eienaar, na gelang van die geval, versuim om bogenoemde gelde op die vervaldatum soos aangegee te betaal, is rente teen die standaardrentekoers betaalbaar.

(4) Behoudens die onderstaande bepalings van hierdie artikel, word die gelde betaalbaar kragtens subartikel (1) bereken deur middel van die formule:

$$C = B \times V \times T$$

Waar—

- C die nywerheidsuitvloeiselgelde wat betaalbaar is deur die eienaar of okkupeerder;
- B die koste van die behandeling van een kiloliter water;
- V die totale getal kiloliter nywerheidsuitvloeisel wat gedurende die betrokke periode van nywerheidsuitvloeisel-vrystelling afgevoer is waar die sterkte bepaal word.
- T die sterkte van die uitvloeisel waar—

$$T = \frac{\left\{ 1 + \frac{\text{COD}_{(i-t)}}{\text{COD}_{(t)}} + \frac{\text{PV}_{(i-t)}}{\text{PV}_{(t)}} + \frac{\text{SS}_{(i-t)}}{\text{SS}_{(t)}} + \frac{\text{NH}_3_{(i-t)}}{\text{NH}_3_{(t)}} + \frac{\text{PO}_4_{(i-t)}}{\text{PO}_4_{(t)}} + \frac{\text{COND}_{(i-t)}}{\text{COND}_{(t)}} \right\}}{6}$$

waar—

COD, PV, SS, NH<sub>3</sub>, en PO<sub>4</sub> en COND onderskeidelik die chemiese suurstofbehoefte, die permanganaatwaarde (suurstof geabsorbeer), die swewende vaste stowwe, die ammoniak en fosfate is, uitgedruk in milligram per liter, en COND die konduktiwiteit in mS/m by 20 °C is ten opsigte van monsters wat deur enige behoorlik aangestelde verteenwoordiger van die raad versamel word, en soos deur die raad vereis word;

- i die tariefmonster van die eienaar of okkupeerder is; en
- t die gemiddelde waarde van rou rioolwater by die rioolsuiweringswerke vir die betrokke tydperk waarvoor nywerheidsuitvloeiselgeld betaalbaar.

Indien (i-t) van 'n betrokke parameter kleiner as nul is, val die betrokke parameter weg in die berekening van die sterkte van die uitvloeisel (T).

Wanneer die berekende waarde van T gelyk aan een is, sal die eienaar of okkupeerder nie nywerheidsuitvloeiselgelde betaal op grond van die sterkte van die uitvloeisel nie. T word dan gelyk aan 1 gestel en die eienaar of okkupeerder betaal nywerheidsgelde op grond van die volume van nywerheidsuitvloeisel geproduseer, mits die volume minder as 10kℓ per maand is, waarby geen gelde betaalbaar is nie.

(5) Die parameters van die nywerheidsuitvloeiselmonsters soos deur die raad bepaal ingevolge subartikel (4) is finaal en bindend.

(6) Die koste van behandeling van een kiloliter water word gebaseer op die raad se jaarlikse begroting van uitgawes vir die daaropvolgende jaar soos goedgekeur deur die raad.

(7) Die raad dra die koste wat verbonde is aan die monsterneming en die toetsing van die monsters wat deur die raad vereis is. Die koste wat verbonde is aan enige ander monsterneming en toetsing van monsters word deur die eienaar of okkupeerder gedra.

(8) Die raad bepaal die totale hoeveelheid nywerheidsuitvloeisel wat gedurende elke tydperk vanaf die persele afgevoer word, en vir die doeleindes van sodanige vasstelling sal die raad—

- (a) in geval waar nywerheidsuitvloeisel en ander rioolvuil saam gemeet word die hele afvoer as nywerheidsuitvloeisel beskou;
- (b) in 'n geval waar die hoeveelheid rioolvuil of nywerheidsuitvloeisel wat vanaf die perseel afgevoer word, nie regstreeks gemeet word nie—
  - (i) sodanige vasstelling baseer op die hoeveelheid water wat op die perseel gebruik word gedurende die betrokke tydperk, nadat daar sodanige rekening gehou is wat die raad billik ag ten opsigte van water wat vir besproeiing gebruik is, of verdamp het of wat in artikels wat op die perseel geproduseer word aanwesig is; en
  - (ii) indien nywerheidsuitvloeisel vanaf meer as een punt op die perseel afgevoer word, genoemde hoeveelheid water aan die verskillende afvoerpunt so akkuraat as moontlik toewys;
- (c) in enige geval waar 'n meettoestel as foutief bewys word, sodanige fout behoorlik in aanmerking neem.

(9) (a) Die raad het die toeslag bereken kragtens paragraaf (b) ten opsigte van elke parameter waar die perke wat daarin gespesifiseer is, oorskry word in elkeen van die tariefmonsters daarin vermeld, op die nywerheidsuitvloeiselrekening gelewer.

(b) Enigiemand wat nywerheidsuitvloeisel in enige riool afvoer, moet, benewens enige boete wat aan hom opgelê kan word, aan die raad 'n toeslag betaal wat volgens die volgende formule bereken word—

$$P = P_1 + P_2 + P_3 + \dots + P_n$$

Waar—

P = die nywerheidsuitvloeiselgeld betaalbaar indien die maksimum standaard oorskry word van 'n parameter

P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P . . . , P<sub>n</sub> = die parameters wat die maksimum standaard oorskry en as volg bereken word:

$$P_n = B \times V \times \frac{\text{Maksimum toelaatbaar—Analities bepaalde waarde}}{\text{Maksimum toelaatbaar}}; \text{ of}$$

$$P_n = B \times V \times \frac{\text{Analities bepaalde waarde—Minimum toelaatbaar}}{\text{Minimum toelaatbaar}}; \text{ of}$$

Waar—

B die koste van die behandeling van een kiloliter water;

V Die totale getal kiloliter nywerheidsuitvloeisel wat gedurende die betrokke periode van nywerheidsuitvloeisel-vrystelling afgevoer is waar die sterkte bepaal word.

4. Die raad kan bepaal dat die formules wat in hierdie Bylae vermeld word, nie van toepassing is nie in enige geval waar die metode vir die bepaling van die sterkte van nywerheidsuitvloeisel soos in sodanige formule gespesifiseer na die mening van die raad nie die ware sterkte van die betrokke uitvloeisel weergee nie.

### 13. Aansoek om 'n permit om bedryfs- of nywerheidsuitvloeisel in die rioolstelsel af te voer

#### DIE STAD KIMBERLEY

#### Aansoek om 'n permit om bedryfs- of nywerheidsuitvloeisel in die rioolstelsel af te voer

(Moet in blokletters ingevul word)

#### 1. ALGEMENE INLIGTING

##### LIGGING VAN BESIGHEID

Straatnaam .....

Straatnommer .....

Erfnommer .....

Telefoonnommer .....

##### POSADRES

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

##### ADRES VIR REKENINGE

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

##### EIENAARSREG OP DIE PERSEEL

Naam van eienaar .....

Adres van eienaar .....

.....  
 .....



AARD VAN DIE PROSESSE OF BEDRYF WAT OP DIE PERSEEL UITGEVOER WORD

NAAM VAN DIE ONDERTEKENAAR.....

BETREKKING IN DIE BESIGHEID .....

GEREGISTREERDE NAAM VAN DIE BESIGHEID WAAROP DIE PERMIT BETREKKING SAL HÊ .....

## 2. HOEVEELHEID UITVLOEISEL EN AFVOERWAARDES

Verbindingpunt	Maksimum afvoertempo per—		
	Maand in kiloliter	Dag in kiloliter	Uur in kiloliter

NORMALE WERKVERRIGTINGSTYDPERK VAN INSTALLASIE

Dae in die week	Tyd in dag

UITVLOEISELAFVOERFAKTOR

Water wat perseel binnegaan	%	Water op perseel verbruik (wat nie in rioolstelsel inloop nie)	%
Uit munisipale bronne .....		Vir ketel gebruik .....	
Uit ander bronne .....		Met verdamping .....	
		In produk agtergelaat .....	
		Vir ander gebruike aangewend .....	
Totaal in perseel in .....	100	Totaal op perseel verbruik .....	
Uitvloeiselafoerfaktor			

## 3. VOORAFBEHANDELING VAN UITVLOEISEL VOOR AFVOER

(Vul in die groottes, inhoudsmate, ens., waar voorafbehandeling aangetref word. Maak 'n kruisie waar 'n besondere eenheid nie bestaan nie.)

Tipe voorafbehandeling		Vrystellingspunte			
		1	2	3	4
Siwwe (met die hand gehark) .....	Oppervl. (m²)				
Siwwe (meganies) .....	Oppervl. (m²)				
Draaikerwers .....					
Grinttenks .....					
Vetput .....					
Besinktenks .....	Oppervl. (m²)				
Besinktenks .....	Vol. (m³)				
Biologiese prosesse					
Tipe:					

## 4. FISIESE EN CHEMIESE EIENSKAPPE VAN UITVLOEISEL

(Vul die maksimum waardes in of maak 'n kruisie waar dit afwesig is)

	pH	Temperatuur °C	Geleidingsvermoë mS/m by 20 °C	PV 4 uur KMnO mg/l
Maksimum				
Minimum				

Besinkbare vaste stowwe (ml/l)

Konsentrasies in mg/l van die volgende:

Swewende vaste stowwe.....  
 Bytende alkaliniteit as  $\text{CaCO}_3$ .....  
 Suurgehalte as  $\text{CaCO}_3$ .....  
 Sulfiede, ens. as S.....  
 Sulfate as  $\text{SO}_4$ .....  
 Chloriede as  $\text{Cl}_2$ .....  
 Fluoorverbindings as F.....  
 Beskikbare chloor as  $\text{Cl}_2$ .....  
 Suiker/Stysel as glukose.....  
 Teer produkte en distillate.....  
 Stowwe nie in oplossing nie.....  
 Vet, plantolie, ens. ....  
 Waterstofsianied as HCN.....  
 Minerale olie en ghries.....  
 Kleurstowwe.....  
 Formaldehyd as HCHO.....

Konsentrasie in mg/l van die volgende:

## GROEP 1-METALE

Yster as Fe.....  
 Chroom as  $\text{CrO}_3$ .....  
 Koper as Cu.....  
 Nikkel as Ni.....  
 Sink as Zn.....  
 Kadmium as Cd.....  
 Silwer as Ag.....  
 Kobalt as Co.....  
 Wolfram as W.....  
 Titaan as Ti.....

## GROEP 2-METALE

Lood as Pb.....  
 Selenium as Se.....  
 Kwik as Hg.....

## ANDER ELEMENTE

Arseen as As.....  
 Boor as B.....

## TOTALE KONSENTRASIE

GROEP 1-METALE.....  
 GROEP 2-METALE.....  
 ANDER ELEMENTE.....

IS RADIO-AKTIEWE AFVALSTOWWE OF ISOTOPE IN DIE UITVLOEISEL TEENWOORDIG?

JA      NEE

5. VIR AMPTELIKE GEBRUIK:

Permitnommer	Uitgereik deur	Datum
Watertoewysingsfaktor	Tesourie verwittig	Datum

DIE STAD KIMBERLEY

Spesiale voorwaardes:

Voorwaardes van aanvaarding van die afvoer van nywerheidsuitvloeisels in die rioolstelsel:

1. 'n Geldige permit moet ten opsigte van die afvoer gehou word en die voorwaardes in die permit uiteengesit nagekom.
2. Enige spesiale voorwaardes wat die voorafbehandeling van die uitvloeisel vereis alvorens dit afgevoer word, moet nagekom word en die werk tot bevrediging van die raad gedoen.
3. Die bepalinge van die rioleringsregulasies moet nagekom word.
4. Die aansoeker moet die raad onverwyld skriftelik in kennis stel van enige verandering wat plaasvind of sal plaasvind in die aard, hoeveelheid of tempo ten opsigte van die afvoer van uitvloeisel en wat enigeen van die beperkings in die permit vervat, sal oorskry.
5. Die aansoeker moet binne 30 dae na die datum van ondertekening van hierdie aansoek 'n akkurate verteenwoordigende monster van minstens vyf liter van die uitvloeisel wat afgevoer sal word, verkry. Die een helfte van hierdie monster moet by die Stad se Laboratoriumdienste vir ontleding ingedien word en 'n verslag aan die Laboratoriumdienste van ontleding van die ander helfte deur 'n analitikus wat die aansoeker op sy koste aangestel het.
6. Ek (volle naam), ....., die ondertekende, wat behoorlik gemagtig is om op te tree namens .....wat as die Aansoeker bekend sal staan, verklaar dat die inligting op hierdie vorm verstrek na my wete akkuraat is, en aanvaar dat gemelde inligting gebruik kan word as grondslag vir die uitreiking van 'n permit om nywerheidsuitvloeisel in die rioolstelsel af te voer.

.....  
Datum

.....  
Handtekening

Outoriteit of hoedanigheid van ondertekenaar .....

14. Permit om bedryfs- of nywerheidsuitvloeisel in die rioolstelsel af te voer

DIE STAD KIMBERLEY

DEPARTEMENT VAN DIE ELEKTROTEGNIIESE STADSINGENIEUR

PERMIT OM NYWERHEIDSUITVLOEISEL IN DIE RIOOLSTELSEL AF TE VOER

1.

Geregistreerde naam van die besigheid waarop die permit betrekking het			
Straatnaam	Straat No.	Erf No.	Tel. No.
Gemagtigde prosesse vir perseel		Uitvloeiselfaktor	

2.

VOORWAARDES VAN UITVLOEISELAFVOER			
Verbindingspunt	Maksimum afvoertempo in kℓ		
	Per maand	per dag	per uur
	Maandag tot Vrydag		Saterdag
			Sondag
Gemagtigde afvoertye			

3.

VOORAFBEHANDELING VEREIS VOOR AANVAARDING
---

4.

FISIESE EN CHEMIESE TOESTANDE VEREIS VOOR AANVAARDING VAN UITVLOEISEL	
Stowwe alleenlik in beperkte konsentrasies aanvaarbaar	Stowwe wat geheel en al uit uitvloeisel weggelaat moet word

SPESIALE VOORWAARDES
----------------------

Hierdie permit word ingevolge die rioolverordeninge uitgereik en is onderworpe aan die voorwaardes daarin vervat.

.....  
 Datum

.....  
 Elektrotegniese Stadsingenieur



Rekening No.	Adres vir rekeninge	Vorige Permit No.

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