

CITY OF CAPE TOWN**WASTEWATER AND INDUSTRIAL EFFLUENT BYLAW****CONTENTS**

1. DEFINITIONS	Page 2
CHAPTER 1 – DUTIES AND PROHIBITED ACTS	“ 4
2. Duties of owners of property	“ 4
3. Protection of municipal sewers	“
4	
4. Clearing of blocked private sewers	“
6	
CHAPTER 2 – INDUSTRIAL EFFLUENT	“ 6
5 Consent required to discharge industrial effluent	“ 6
6. Non-waterborne disposal of industrial effluent	“ 6
7. Charges in respect of industrial effluent	“ 7
CHAPTER 3 – REPEAL AND PENALTIES	“ 7
8. Repeal of by-laws	“ 7
9 Offences and penalties	“ 7
SCHEDULE 1- CHARGES AND QUANTITY OF INDUSTRIAL EFFLUENT	“ 7
1. Charges in respect of industrial effluent	“ 7
2. Calculation of quantity of industrial effluent discharged	“ 8
SCHEDULE 2 - PROHIBITED DISCHARGE INTO SEWERS	“ 10
SCHEDULE 3 – REPEAL OF BY-LAWS	“ 11

WASTEWATER AND INDUSTRIAL EFFLUENT BY-LAW

1. Definitions

In this by-law:-

“council” means the council of the municipality of Cape Town and includes any structure, councillor, or official of the council exercising powers or performing duties or functions under this by-law, which have been delegated to such structure, councillor or official by the council;

“industrial effluent” means any liquid whether or not containing matter in solution or suspension, which is given off in the course of or as a result of any industrial trade, manufacturing, mining or chemical process or any laboratory, research, service, or agricultural activity, and includes matter discharged from a waste grinder;

“municipal sewer” means any pipe or conduit under the control of the council which may be used for the conveyance of wastewater;

“occupier” means a person who occupies any premises or part thereof, without regard to the title under which he or she occupies;

“owner” means -

- (a) the person in whom from time to time is vested the legal title to premises;
- (b) in a case where the person in whom the legal title to premises is vested is insolvent or dead, or is under any form of legal disability whatsoever, the person in whom the administration and control of such premises is vested as curator, trustee, executor, administrator, judicial manager, liquidator or other legal representative;
- (c) in any case where the council is unable to determine the identity of such person, a person who is entitled to the benefit of the use of such premises or a building or buildings thereon;
- (d) in the case of premises for which a lease agreement of 30 years or longer has been entered into, the lessee thereof;
- (e) the person who has purchased immovable property from the municipality, in terms of a scheme that allows for the purchase price to be paid in installments and who has not received transfer from municipality;
- (f) in relation to -
 - (i) a piece of land delineated on a sectional plan registered in terms of the Sectional Titles Act, 1986 (Act 95 of 1986), the developer or the body corporate in respect of the common property, or
 - (ii) a section as defined in such Act, the person in whose name such section is registered under a sectional title deed; and includes the lawfully appointed agent of such a person;

“person” includes a juristic person;

“stormwater” means water resulting from natural precipitation and/or the accumulation thereof and includes groundwater and spring water ordinarily conveyed by the stormwater system, as well as sea water within estuaries, but excludes water in a drinking water or wastewater reticulation system;

“waste grinder” means any mechanically operated device which grinds and flushes matter into the wastewater system or removes from vegetables or other foodstuffs, peels, skins, scales or other matter for discharge directly or indirectly into the wastewater system, and includes effluent from a food waste grinder;

“wastewater” means any liquid waste, whether or not containing matter in solution or suspension, and includes domestic liquid waste and industrial effluent but excludes stormwater,

“wastewater system” means the structures, sewers, pipes, valves, pumps, meters or other appurtenances under the control of the council, which may be used for the conveyance or disposal of wastewater.

DUTIES AND PROHIBITED ACTS

2. Duties of owners of property

- (1) Every owner of property shall on receipt of written notice by the Council--
 - (a) construct a private sewer installation on the premises;
 - (b) connect a private sewer installation to the municipal sewer, whether directly or indirectly as required by the council;
 - (c) enlarge the capacity of a private sewer installation to accommodate a greater discharge, or
 - (d) reconstruct a private sewer installation to comply with the requirements of the council;
 - (e) submit and implement a waste management plan including inter alia a waste minimisation schedule;
 - (f) submit and implement a chemical management plan including inter alia an inventory.

- (2) No owner of property may allow -
 - (a) the ingress of groundwater or stormwater into a private sewer installation on his or her premises, or
 - (b) the seepage of wastewater from a private sewer installation on his or her premises, or
 - (c) the ingress of stormwater into a private sewer installation on his or her premises, except with the written consent of the Council and subject to such conditions as it may impose.

- (3) Every owner of property shall take adequate measures to prevent ingress and seepage referred to in subsection (2).

3. Protection of municipal sewers

- (1) No person shall, except with the written consent of the council and subject to such conditions as it may impose -
 - (a) construct, erect or lay any building, structure or other thing over or in such a position or in such a manner as to interfere with or endanger any municipal sewer;
 - (b) excavate, open up or remove the ground above, next to, under or near any municipal sewer;
 - (c) damage, endanger or destroy or do any act likely to damage, endanger or destroy any municipal sewer;
 - (d) make any opening in any municipal sewer, or abstract, divert or cause to be abstracted or diverted any sewage therefrom;
 - (e) discharge, permit to enter or put into any municipal sewer--
 - (i) any stormwater;
 - (ii) any gas or steam;
 - (iii) any liquid (not being domestic wastewater) with a temperature higher than 40°C;
 - (iv) any petrol, oil, greases, waxes, fat or pesticides, insecticides or paints;
 - (v) any refuse or waste resulting from any industrial, trade, manufacturing or

- chemical process;
- (vi) any liquid which has a pH value of less than five comma five or greater than twelve;
 - (vii) any substance which gives off or is liable to give off explosive, poisonous or inflammable gases or vapours;
 - (viii) any substance which has an Abel's open cup flashpoint of less than 60°C;
 - (ix) any substance which contains volatile flammable solvents or solvents immiscible with water;
 - (x) any substance which may, in the opinion of the council, by itself or in combination with any other substances:-
 - (aa) cause a nuisance to any person;
 - (bb) endanger the health of or injure any person;
 - (cc) interfere with the free flow of sewage;
 - (dd) injuriously affect any sewer or wastewater works or land connected with any sewer or with the conveyance, treatment, purification, disposal or re-use of wastewater, or
 - (ee) in any way prejudice the disposal or re-use of wastewater effluent after treatment or purification or lead to an effluent which does not meet the requirements imposed in terms of any applicable legislation;
 - (f) discharge any substance other than industrial effluent into a separate private system of conveyance, and
 - (g) in cases where a separate private system of conveyance for industrial effluent is installed, discharge industrial effluent into any other sewer.
- (2) The council may order that the person or persons responsible--
- (a) demolish, alter or otherwise deal with any building, structure or other thing constructed, erected or laid in contravention of this section;
 - (b) fill in and make good any ground excavated or removed in contravention of this section;
 - (c) repair and make good any damage done in contravention of this section or resulting from a contravention of this section;
 - (d) remove anything discharged, permitted to enter or put into a sewer or public drain in contravention of this section, and
 - (e) remove anything damaging, obstructing or endangering or likely to damage, obstruct, endanger or destroy any municipal sewer.
- (3) If a person fails to comply with an order issued in terms of subsection (2), the Council may take such steps as it may deem necessary to rectify the matter at the cost of the person responsible.
- (4) The council shall, at the cost of the owner, disconnect from the municipal sewer system any private sewer installation which, in the opinion of the council, in any way endangers or injuriously affects or may endanger or injuriously affect any sewer or wastewater works or any works or land connected with any sewer or the conveyance, treatment, purification, disposal or re-use of wastewater, and require from such owner to--
- (a) make such arrangements as may be necessary for the safe disposal of wastewater on the premises of the owner, or the conveyance thereof to a treatment

- installation or other suitable place approved by the council, and
- (b) clean, repair, reconstruct, replace, reposition or otherwise comply to such requirements as the council may impose.

4. Clearing of blocked private sewers

- (1) The council shall arrange for the clearing of blocked private sewer installations at the cost of the owner.
- (2) Where it is established that a private sewer installation became blocked as a result of a defect or a blockage in the municipal sewer, no costs will be recovered from the owner.

CHAPTER 2

INDUSTRIAL EFFLUENT

5. Consent required to discharge of industrial effluent

No person may, except with the written consent of the Council, and subject to such conditions it may impose:-

- (a) discharge or permit the discharge of industrial effluent directly or indirectly into any wastewater system;
- (b) increase, or permit to be increased, the quantity or vary, or permit to be varied, the nature, content or composition of any industrial effluent in contravention of the conditions imposed by the council, or
- (c) contravene, or permit to be contravened, any other condition imposed by the council when consent was granted to discharge industrial effluent.

6. Non-waterborne disposal of industrial effluent

- (1) Where no municipal sewer is available for the discharge of wastewater, no person may dispose of wastewater:-
- (a) unless the council has approved the method of transportation and imposed such conditions as it may deem fit, and
- (b) by any method of transportation unless written proof of acceptance is provided in every instance by the person in charge of a facility approved by the council where such wastewater is disposed of; such proof to be retained and made available for inspection by the person who generated the wastewater or its by-products for at least one year after the date of such disposal.
- (2) No person who transports wastewater by any means other than waterborne transportation may:-
- (a) dispose of such wastewater at or in any place other than at a facility approved by the council, or

- (b) allow such wastewater to spill, leak or seep from any container.

7. Charges in respect of industrial effluent

The person who has been granted consent to discharge, or permits the discharge of industrial effluent into a municipal sewer, shall pay to the council a charge calculated in accordance with Schedules 1 and 2.

CHAPTER 3

8. Repeal of by-laws

The by-laws listed in Schedule 3, are hereby repealed.

9. Offences and penalties

Any person who -

- (a) contravenes any provision in this by-law or fails to comply with any condition imposed in terms thereof;
- (b) threatens, resists, interferes with or obstructs any councillor, officer or official of the council in the exercise or performance of his or her duties or functions in terms of this by-law, or
- (c) deliberately furnishes false or misleading information to a councillor, officer or official of the council,

shall be guilty of an offence and liable on conviction to a fine.

SCHEDULE 1

1. Charges in respect of industrial effluent

The charges referred to in Section 7 of the by-law, are calculated as set out hereunder:

- (1) The charge is, subject to the succeeding provisions of this Schedule, the amount obtained by applying the formula calculated in terms of item (2) below.

- (2) **$V_w (\text{SVC}) + V_{ieT} (\text{COD-1000})/1500 + V_{ieT} (\text{SF})$**

Where

"V_w" is the total volume, expressed in kilolitres, of wastewater discharged from the premises during the period concerned.

"SVC" is the sewerage volumetric charge in terms of the sanitation tariff.

"Vie" is the total volume, expressed in kilolitres, of industrial effluent discharged from the premises during the period concerned.

"T" is the cost, as determined by the council, of treating 1 kilolitre of wastewater.

"COD" is the chemical oxygen demand of the effluent in milligrams per litre . In the event of the COD being less than 1 000, the COD factor falls away.

"SF" is the surcharge factor of the effluent calculated according to the formula:

$$SF = (X-L)/L$$

where

"X" is the concentration of one or more of the parameters listed in Schedule 2.

"L" is the limit applicable to that particular parameter.

- (i) No factor calculated by this formula may have a value less than zero;
 - (ii) In the case of the pH parameter X represents the pH value and, if (X-L) results in a negative value, a positive value of the same magnitude must be substituted.
- (3) The COD of industrial effluent is the rolling arithmetic average of four samples taken at any time during a six to twelve month period.
 - (4) The SF of industrial effluent is the latest value determined.
 - (5) The SF is cumulative for all parameters which are outside the limits set in Schedule 2.
 - (6) If, for any reason, the requisite number of samples referred to in the items (3) or (4) above are not taken, or more than four samples are taken, council may determine an equitable COD and/or SF.
 - (7) The owner/occupier of any premises is entitled to receive, on request, part of any sample taken from the premises before that sample is removed by council.

2. Calculation of quantity of industrial effluent discharged

- (1) The council determines the total quantity of industrial effluent discharged from a premises.
- (2) If industrial effluent and other wastewater are measured together council will make such allowance as it considers fair for that other wastewater.

- (3) If the amount of industrial effluent discharged from a premises is not directly measured:
- (a) The council will base the determination on the amount of water used at the premises, after making whatever allowance it considers fair for water used for domestic purposes or irrigation, loss to the atmosphere, or present in the products produced at the premises, and
 - (b) if industrial effluent is discharged from the premises at more than one point, the council will allocate the said amount of water to the points of discharge as accurately as possible.
- (4) If a measuring device is proved to be defective, the council will, subject to item (5) below, make due allowance for the defect in its calculation of the quantity of discharge.
- (5) The council may, by notice in writing, require the occupier, owner or person in control of, or using, any premises to provide such information, access or facilities council considers necessary either for the accurate calculation of the charge payable, or to establish whether a charge is in fact payable in respect of the premises.
- (6) If the council is of the opinion that the sampling does not represent the actual average quality of industrial effluent, then it may use an alternative acceptable method in order to determine an equitable industrial effluent charge.
- (7) If the council is unable to assess the quantity or charge due because:-
- (a) the formula referred to in item 1(2) above, is dispensed with, and/or
 - (b) a notice referred to in item 2(5) above is not complied with and/or;
 - (c) any contravention of this by-law has taken place and as a result the charges due in respect of the premises concerned cannot be calculated accurately,

then the council will assess the charge due as being such amount as it considers fair.

- (8) Notwithstanding item (7) above, the council may, in order to assess any charge provided for in this by-law or to ensure compliance with any provision of this by-law, by notice in writing, require the owner of any premises, within a specified period and at the expense of the owner to provide and maintain such gauges or other measuring devices as the council considers necessary to:-
- (a) measure the volume of water used at the premises and the volume of water obtained from any source other than council;
 - (b) measure separately the volume of water used for any specified purpose or in any specified portion of the premises, and
 - (c) provide proof to the satisfaction of the council that any gauge or device referred to in items 8(a) and 8(b) is functioning correctly and accurately.

SCHEDULE 2

Prohibited Discharge into sewers

Section A: General		Not less than	Not to exceed
1.	Temperature at point of entry	0 °C	40 °C
2.	Electrical Conductivity at 25 °C		500 mS/m
3.	pH Value at 25 °C	5.5	12.0
4.	Chemical Oxygen Demand		5 000 mg/l

Section B: Chemical substances other than Heavy Metals – maximum concentrations		
1.	Settleable Solids (60 minutes)	50 ml/l
2.	Suspended Solids	1 000 mg/l
3.	Total dissolved solids at 105 °C	4 000 mg/l
4.	Chloride as Cl ⁻	1 500 mg/l
5.	Total sulphates as SO ₄	1 500 mg/l
6.	Total phosphates as P	25 mg/l
7.	Total cyanides as CN	20 mg/l
8.	Total sulphides as S	50 mg/l
9.	Total phenols as C ₆ H ₅ OH	50 mg/l
10.	Total sugars and starches as glucose	1 500 mg/l
11.	Oils, greases, waxes and fat	400 mg/l
12.	Sodium as Na	1 000 mg/l

Section C: Metals and inorganic content – maximum concentrations		
Group 1		
1.	Iron as Fe	50 mg/l
2.	Chromium as Cr	10 mg/l
3.	Copper as Cu	20 mg/l
4.	Zinc as Zn	30 mg/l
Total collective concentration of all metals in Group 1 shall not exceed 50 mg/l		

Section C: Metals and inorganic content – maximum concentrations		
Group 2		
5.	Arsenic as As	5 mg/l
6.	Boron as B	5 mg/l
7.	Lead as Pb	5 mg/l
8.	Selenium as Se	5 mg/l
9.	Mercury as Hg	5 mg/l
10.	Titanium as Ti	5 mg/l
11.	Cadmium as Cd	5 mg/l
12.	Nickel as Ni	5 mg/l
Total collective concentration of all metals and inorganic constituents in Group 2 shall not exceed 20 mg/l		

Section D: Prohibited radioactive materials

Any radioactive wastes or isotopes of such nature or in such concentration as do not meet the requirements laid down by the Council for Nuclear Safety referred to in Section 24 of the Nuclear Energy Act (Act 92 of 1982) as amended.

SCHEDULE 3

Cape Metropolitan Council:

Provincial Gazette no 5582 dated 15/9/2000: By-law relating to wastewater and industrial effluent

Cape Town Municipality:

P.N.397/1987: Drainage and sewerage by-law, as amended

Durbanville Municipality:

P.N. 393/1995: Additional sewerage by-law

Fish Hoek Municipality:

P.N. 867/1979: Drainage and sewerage by-law, as amended

Goodwood Municipality:

P.N. 706/1991: Sewerage by-law

P.N. 1048/1971: By-law relating to industrial effluent, as amended

Gordon's Bay Municipality:

P.N. 570/1963: By-law relating to industrial effluent

Kraaifontein Municipality:

P.N. 253/1990: By-law relating to industrial effluent

Milnerton Municipality:

P.N. 814/1971: Additional sewerage by-law, as amended

Pinelands Municipality:

P.N. 486/1939: Sewerage by-law, as amended

Simon's Town Municipality:

P.N. 771/1985: By-law relating to industrial effluent

Somerset West Municipality:

P.N. 946/1978: Drainage and sewerage by-law, as amended

P.N. 654/1983: By-law relating to industrial effluent

Strand Municipality:

P.N. 533/1983: By-law relating to industrial effluent

West Coast Peninsula Municipality:

P.N. 501 1996: Sewerage by-law

Brackenfell Village Management Board:

PAN 575/1950, OG 2497, 29 September 1950: Standard Drainage Regulations

Brackenfell Village Management Board:

PN 75, OG 3494, 24 January 1969: Regulations relating to conservancy tanks

Brackenfell Municipality:

PN 522/1971, OG 3618, 28 May 1971: Additional Drainage regulations

Western Cape Regional Services Council:

PN 776/1993: Industrial effluent by-law