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COORDINATION (WATER QUALITY) REGULATIONS**

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Environmental Management and Co-ordination Act

The Environmental Management and Coordination (Water Quality) Regulations

Legal Notice 177 of 2024

Legislation as at 6 December 2024

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The Environmental Management and Coordination (Water Quality) Regulations (Legal Notice 177 of 2024)

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ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

THE ENVIRONMENTAL MANAGEMENT AND COORDINATION (WATER QUALITY) REGULATIONS LEGAL NOTICE 177 OF 2024

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Commenced on 4 November 2024

1. Citation

These Regulations may be cited as the Environmental Management and Co-ordination (Water Quality) Regulations, 2024.

2. Interpretation

In these Regulations, unless the context otherwise requires—

“**Buffer Zone**” means distinct or established areas that separate potentially competing users and that serve to lessen the danger of potential conflicts;

“**Designated Representative**” means any person authorized by the Authority to act on its behalf;

“**Ground water**” means the water of underground streams, channels, artesian basins, reservoirs, lakes and other bodies of water in the ground, and includes water in interstices below the water table;

“**Natural water body**” means any river, stream, spring, lake, swamp, pond, estuary, reservoirs, coastal or other water source in a natural water course;

“**pH**” means the negative base 10 logarithm of the hydrogen ion concentration;

“**Point Sources**” means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, conduit, tunnel, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged;

“**Resource Quality**” in relation to a water resource, means the quality of all the aspects of a water resource including—

- (a) the character and condition of the in-stream and riparian habitat;
- (b) the characteristics, condition and distribution of the aquatic biota;
- (c) the physical, chemical and biological characteristics of the water;
- (d) the quantity, pattern, timing, water level and assurance of in-stream flow; and
- (e) the water quality stipulated for the reserves.

3. Application

These Regulations shall apply to—

- (a) drinking water;
- (b) water used for industrial purposes;
- (c) water used for agricultural purposes;

- (d) water used for recreational purposes,
- (e) water used for fisheries and wildlife; and
- (f) water used for any other purposes.

Part II – PROTECTION OF SOURCES OF WATER

4. Prevention of water pollution

- (1) Every person shall refrain from any act which directly or indirectly causes, or may cause immediate or subsequent water pollution, and it shall be immaterial whether or not the water resource was polluted before the enactment of the Act.
- (2) No person shall throw or cause to flow into or near a water resource any liquid, solid or gaseous substance or deposit any such substance in or near the water course, as to cause pollution.

5. Standards for sources of domestic water

All sources of water for domestic uses shall comply with the standards set out in First Schedule of these Regulations.

6. Protection of lakes, rivers, streams, springs, wells and other water sources.

No person shall—

- (a) discharge any effluent from sewage treatment works, industry or other point source into the aquatic environment without a valid effluent discharge license issued in accordance with the Act;
- (b) abstract ground water or carry out any activity near any lakes, rivers, streams, springs or wells that is likely to have an adverse impact on the quantity and quality of the water without an Environmental Impact Assessment license issued in accordance with the Act; or
- (c) cultivate or undertake any development activity within a minimum of six metres and a maximum of thirty metres from the highest ever recorded flood level, on either side of a river or stream, and as may be determined by the Authority.

7. Restrictions and other measures on use of water sources

The Authority, in consultation with the relevant lead agency, may impose restrictions and other measures on the use of sources of water for domestic use in order to prevent and control the degradation of those sources.

8. Compliance with water quality standards

Each operator and supplier of treated water, containerised water and each water vendor shall comply with the relevant quality standards in force as promulgated by the relevant lead agencies.

9. Water quality monitoring

The Authority, in consultation with the relevant lead agency, shall collect and maintain water quality monitoring records for sources of domestic water at least twice every calendar year and such records shall be in the form set out in the Second Schedule.

Part III – WATER FOR INDUSTRIAL USE AND EFFLUENT DISCHARGE

10. Water for industrial use and compliance with industrial standards.

- (1) No person shall use water for trade or an industrial undertaking unless that person complies with the standards prescribed by the relevant lead agency in regard to that particular activity.
- (2) The Authority, in consultation with the relevant lead agencies, shall take measures to ensure compliance with the standards contemplated under subregulation (1) by the user of water for trade or an industrial undertaking.

11. Discharge into the environment

No person shall discharge or apply any poison, toxic, noxious or obstructing matter, radioactive waste or other pollutant or permit any person to dump or discharge such matter into the environment unless such discharge, poison, toxic, noxious or obstructing matter, radioactive waste or pollutant complies with the standards set out in the Third Schedule.

12. Compliance

- (1) Each county government, or person operating a sewage system, or owner or operator of any trade or industrial undertaking issued with an effluent discharge licence under the Act shall comply with the standards set out in Third Schedule.
- (2) Each county government, or person operating a sewage system, or owner or operator of any trade or industrial undertaking shall be guided by the monitoring guide for discharge into the environment set out in the Fourth Schedule.

13. Discharge into public sewers

Each owner or operator of a trade or industrial undertaking issued with a licence by a county government or sewerage service provider to discharge effluent into any existing sewerage system shall comply with the standards set out in the Fifth Schedule.

14. Discharge monitoring

- (1) Each person who generates and discharges effluent into the environment under a licence issued under the Act shall—
 - (a) carry out effluent discharge quality and quantity monitoring in accordance with methods and procedures of sampling and analysis prescribed by the Authority; and
 - (b) submit records of effluent discharge quality and quantity monitoring to the Authority at least once in every six months or as the Authority may prescribe.
- (2) The effluent discharge quality and quantity monitoring record shall be in the form set out in Sixth Schedule.

15. Review of records

The Authority shall review the monitoring records in order—

- (a) to verify compliance with these Regulations; and
- (b) to determine the fees payable in the subsequent year where the scale set out in the Eleventh Schedule is applicable:

Provided that where (b) is applicable, the Authority may inspect the premises and carry out its own analysis in accordance with section 117(3) of the Act.

16. Application for effluent discharge licence

- (1) An application for an effluent discharge licence shall—
 - (a) be in Form A as set out in the Seventh Schedule; and
 - (b) accompanied by the fee set out in the Eleventh Schedule.
- (2) The decision of the Authority together with the reasons thereof shall be communicated to the applicant within thirty working days from the date of submission of the application under subregulation (1).
- (3) Where the Authority approves an application for the grant of an effluent discharge licence, it shall issue an effluent discharge licence within twenty-one days.

17. Effluent discharge licence

An effluent discharge licence shall be in Form B as set out in the Seventh Schedule.

18. Validity

An effluent discharge licence shall be valid for such period of time as the Authority may determine.

19. Register of licences

The Authority shall maintain a register of effluent discharge licences.

20. Licence not transferable

An effluent discharge licence issued under the Act shall not be transferable.

Part IV – WATER FOR AGRICULTURAL USE

21. Use of waste water for irrigation

No person shall use wastewater for irrigation purposes unless the water meets the quality guidelines set out in the Eighth Schedule.

22. Abstraction from a water body under environmental management plan

Where the Cabinet Secretary, in exercise of the powers conferred under section 42(3) of the Act has issued an order for the management of a natural water body, no person shall abstract water from such body for irrigation unless the water meets the standards set out in the Ninth Schedule.

23. Creation of buffer zone for irrigation scheme

An owner or operator of an irrigation scheme shall create a buffer zone of at least fifty meters in width between the irrigation scheme and the natural water body into which such irrigation scheme discharges its waters.

24. Transitional provision

Each owner or operator of an existing irrigation scheme shall, within ninety days upon the coming into force of these Regulations, take necessary steps to comply with these Regulations.

25. Compliance with irrigation water standards

The Authority, in consultation with the relevant lead agency, shall take measures to ensure compliance with these Regulations by the owner or operator of an existing irrigation scheme.

Part V – WATER FOR OTHER USES

26. Water pollution

No person shall discharge or apply any poison, toxic, noxious or obstructing matter, radioactive wastes, or other pollutants or permit any person to dump or discharge any such matter into water meant for fisheries, wildlife, recreational purposes or any other uses unless such discharge, poison, toxic, noxious or obstructing matter, radioactive waste or pollutant complies with the standards set out in the Third Schedule.

27. Recreational uses

No person shall use or allow to be used any natural water body for recreational purposes unless the water body meets the quality standards for recreational use set out in Tenth Schedule.

Part VI – MISCELLANEOUS PROVISIONS

28. Offences

Any person, who upon the coming into force of these Regulations, discharges or applies any poison, toxic, noxious or obstructing matter, radioactive waste or other pollutants or permits any person to dump or discharge such matter into the aquatic environment in contravention of water pollution control standards established under this Part commits an offence and shall be liable, on conviction, the penalty prescribed under section 144 of the Act.

FIRST SCHEDULE [r. 5]

QUALITY STANDARDS FOR SOURCES OF DOMESTIC WATER

| Parameter | Guide Value (max allowable) |
|--------------------------|-----------------------------|
| pH | 6.5 – 8.5 |
| Suspended solids | 30 (mg/L) |
| Nitrate-NO ₃ | 10 (mg/L) |
| Nitrite –NO ₂ | 3 (mg/L) |
| Total Dissolved Solids | 1200 (mg/L) |

| | |
|--------------------------|-------------|
| Total coliforms | Nil/100 ml |
| Fluoride | 1.5 (mg/L) |
| Phenols | Nil (mg/L) |
| Arsenic | 0.01 (mg/L) |
| Cadmium | 0.01 (mg/L) |
| Lead | 0.05 (mg/L) |
| Selenium | 0.01 (mg/L) |
| Copper | 0.05 (mg/L) |
| Zinc | 1.5 (mg/L) |
| Alkyl benzyl sulphonates | 0.5 (mg/L) |
| Permanganate value (PV) | 1.0 (mg/L) |

Nil means less than limit of detection using prescribed sampling and analytical methods and equipment as determined by the Authority.

SECOND SCHEDULE [r. 9]

WATER QUALITY MONITORING FOR SOURCES OF DOMESTIC WATER

Name of Water Source

Sample No

Description of sample (untreated)

Date and time sample received in lab

Date and time sample was examined

| Parameter | RESULTS |
|-----------|---------|
|-----------|---------|

| | Observed value | Guide value (max allowable) |
|--------------------------|----------------|-----------------------------|
| pH | | 6.5 -8.5 |
| Suspended solids | | 30 (mg/L) |
| Nitrate-NO ₃ | | 10 (mg/L) |
| Ammonia -NH ₃ | | 0.5 (mg/L) |
| Nitrite -NO ₂ | | 3 (mg/L) |
| Total Dissolved Solids | | 1200 (mg/L) |
| Total coliforms | | Nil/100 ml |
| Fluoride | | 1.5 (mg/L) |
| Phenols | | Nil (mg/L) |
| Arsenic | | 0.01 (mg/L) |
| Cadmium | | 0.01 (mg/L) |
| Lead | | 0.05 (mg/L) |
| Selenium | | 0.01 (mg/L) |
| Copper | | 0.05 (mg/L) |
| Zinc | | 1.5 (mg/L) |
| Alkyl benzyl sulphonates | | 0.5 (mg/L) |
| Permanganate value | | 1.0 (mg/L) |

And any other parameters as may be prescribed by the Authority.

Remarks

.....

.....

THIRD SCHEDULE [rr. 11, 12(1), 26]
STANDARDS FOR EFFLUENT DISCHARGE INTO THE ENVIRONMENT

| Parameter | Max Allowable Limits |
|--|----------------------|
| 1,1,1-trichloroethane (mg/l) | 3 |
| 1,1,2-trichloroethane (mg/l) | 0.06 |
| 1,1-dichloroethylene | 0.2 |
| 1,2-dichloroethane | 0.04 |
| 1,3-dichloropropene (mg/l) | 0.02 |
| Alkyl Mercury compounds | Nd |
| Ammonia, ammonium compounds, NO ₃ compounds and NO ₂ compounds | 100 |
| (Sum total of ammonia-N times 4 plus nitrate-N and Nitrite-N) (mg/l) | |
| Arsenic (mg/l) | 0.02 |
| Arsenic and its compounds (mg/l) | 0.1 |
| Benzene (mg/l) | 0.1 |
| Biochemical Oxygen Demand (BOD 5days at 20 °C) (mg/l) | 30 |
| Boron (mg/l) | 1.0 |
| Boron and its compounds – non marine (mg/l) | 10 |
| Boron and its compounds –marine (mg/l) | 30 |

| | |
|---|------|
| Cadmium (mg/l) | 0.01 |
| Cadmium and its compounds (mg/l) | 0.1 |
| Carbon tetrachloride | 0.02 |
| Chemical Oxygen Demand (COD (mg/l) | 50 |
| Chromium VI (mg/l) | 0.05 |
| Chloride (mg/l) | 250 |
| Chlorine free residue | 0.10 |
| Chromium total | 2 |
| cis -1,2- dichloro ethylene | 0.4 |
| Copper (mg/l) | 1.0 |
| Dichloromethane (mg/l) | 0.2 |
| Dissolved iron (mg/l) | 10 |
| Dissolved Manganese(mg/l) | 10 |
| E.coli (Counts / 100 ml) | Nil |
| Fluoride (mg/l) | 1.5 |
| Fluoride and its compounds (marine and non-marine) (mg/l) | 8 |
| Lead (mg/l) | 0.01 |
| Lead and its compounds (mg/l) | 0.1 |
| n-Hexane extracts (animal and vegetable fats) (mg/l) | 30 |
| n-Hexane extracts (mineral oil) (mg/l) | 5 |
| Oil and grease | Nil |

| | |
|--|---------|
| Organo-Phosphorus compounds (parathion, methyl parathion, methyl demeton and Ethyl parantrophanyl phenylphosphorothroate, EPN only) (mg/l) | 1.0 |
| Polychlorinated biphenyls, PCBs (mg/l) | 0.003 |
| pH (Hydrogen ion activity----marine) | 5.0-9.0 |
| pH (Hydrogen ion activity--non marine) | 6.5-8.5 |
| Phenols (mg/l) | 0.001 |
| Selenium (mg/l) | 0.01 |
| Selenium and its compounds (mg/l) | 0.1 |
| Hexavalent Chromium VI compounds (mg/l) | 0.5 |
| Sulphide (mg/l) | 0.1 |
| Simazine (mg/l) | 0.03 |
| Total Suspended Solids, (mg/l) | 30 |
| Tetrachloroethylene (mg/l) | 0.1 |
| Thiobencarb (mg/l) | 0.1 |
| Temperature (in degrees celious) based on ambient temperature | ± 3 |
| Thiram (mg/l) | 0.06 |
| Total coliforms (counts/100 ml) | 30 |
| Total Cyanide (mg/l) | Nd |
| Total Nickel (mg/l) | 0.3 |
| Total Dissolved solids (mg/l) | 1200 |
| Colour in Hazen Units (H.U) | 15 |

| | |
|--------------------------|-------|
| Detergents (mg/l) | Nil |
| Total mercury (mg/l) | 0.005 |
| Trichloroethylene (mg/l) | 0.3 |
| Zinc (mg/l) | 0.5 |
| Total Phosphorus (mg/l) | 2 |
| Total Nitrogen (mg/l) | 2 |

And any other parameters as may be prescribed by the Authority from time-to-time Remarks

Standard values are daily/weekly/monthly average discharge values. Not detectable (nd) means that the pollution status is below the detectable level by the measurement methods established by the Authority.

FOURTH SCHEDULE [r. 12(2)]

MONITORING GUIDE FOR DISCHARGE INTO THE ENVIRONMENT

| DISCHARGING FACILITY | Oil and Gas | Fuel dispensing stations | Dairy Products | Grain Mills | Canned Fruits and Vegetables | Canned and Preserved Sea Foods | Sugar Processing | Textiles | Cement | Feedlots | Electroplating | Organic Chemicals | Inorganic Chemicals | Plastics and Synthetics | Soap and Detergents | Fertilizer Manufacturing | Petroleum Refining | Iron and Steel Manufacturing | Non Ferrous | Phosphate Manufacturing | Steam Electric Power Generating | |
|--------------------------------|-------------|--------------------------|----------------|-------------|------------------------------|--------------------------------|------------------|----------|--------|----------|----------------|-------------------|---------------------|-------------------------|---------------------|--------------------------|--------------------|------------------------------|-------------|-------------------------|---------------------------------|---|
| Water quality parameters | | | | | | | | | | | | | | | | | | | | | | |
| Biochemical Oxygen Demand, BOD | x | x | x | x | x | x | x | x | X | x | x | X | x | x | x | x | x | X | X | x | x | |
| Total Suspended Solids | x | X | x | | x | x | x | x | x | x | x | X | x | x | x | x | x | X | X | x | x | |
| pH | x | X | x | x | x | x | x | x | x | x | x | X | x | x | x | x | x | X | X | x | x | |
| Faecal Coliforms | x | | x | x | x | x | x | x | x | x | x | X | x | x | x | x | x | X | X | x | x | |
| Oil and Grease | x | X | x | x | x | x | x | x | x | x | x | X | x | x | x | x | x | X | x | x | x | |
| Temperature | x | X | x | x | x | x | x | x | x | x | X | X | x | x | | | x | X | x | x | x | |
| Chemical Oxygen Demand, COD | x | | | | | | x | x | x | x | | | | | | | | | | | | |
| Colour/Dye/Pigment | x | | x | x | x | x | x | x | x | x | X | x | x | x | x | x | x | X | x | x | x | |
| Elemental Phosphorus | | | | | | | | | | | | | | | | | | | | | | x |
| Total Phosphorus | | | | | | | x | | | | x | | | | | | x | | | | | x |
| Ammonia (as N) | | | | | | | | | | | | | x | | | | x | x | X | X | | |
| Organic Nitrogen as N | | | | | | | x | | | | | | | | | | x | | | | | |
| Nitrate | | | | | | | x | | | | | | | | | | x | | | | | |
| Flow | x | | x | x | x | x | x | x | x | x | X | x | x | x | x | x | x | x | X | x | x | |
| Phenols | | | | | | | x | | | | X | | | x | | | x | x | | | | |
| Sulphide | x | x | | | | | x | | | | | | | | | | x | x | | | | |
| Total Chromium | | | | | | | | x | | x | | x | | | | | x | | | | | |
| Chromium VI | | | | | | | | | | x | | x | | | | | x | | | | | x |

| DISCHARGING FACILITY | Fero Alloy manufacturing | Leather tanning and finishing | Glass | Extractives | Asbestos manufacturing | Rubber processing | Timber products | Pulp, Paper and paperboard | Builders paper and paper board mills | Meat products | Paving and roofing materials | Intensive chemical agriculture farm | Edbile vegetable oils and fats | Hotels, Restaurants and Game Lodges |
|--------------------------|--------------------------|-------------------------------|-------|-------------|------------------------|-------------------|-----------------|----------------------------|--------------------------------------|---------------|------------------------------|-------------------------------------|--------------------------------|-------------------------------------|
| Water quality parameters | | | | | | | | | | | | | | |
| BOD | | x | x | X | | x | x | x | x | X | x | X | x | x |
| TSS | x | x | x | X | x | x | x | x | x | X | x | X | | x |
| pH | x | x | x | X | x | x | x | x | x | X | x | X | x | x |
| Faecal Coliforms | x | x | x | X | x | x | x | x | x | X | x | x | x | x |
| Oil and Grease | x | x | x | X | x | x | x | x | x | X | x | X | x | x |
| Temperature | x | x | x | | x | x | x | x | x | X | x | | x | x |
| COD | | X | x | X | x | x | | | | | x | X | x | |
| Colour/Dye/Pigment | x | x | x | X | x | x | x | x | x | X | x | x | x | x |
| Elemental Phosphorus | | | | | | | | x | | | | x | | |
| Total Phosphorus | | | x | X | | | | | | | | x | | x |
| Ammonia (as N) | x | | x | X | | | | | | x | | x | | x |
| Organic Nitrogen as N | | | | | | | | | | | | x | | x |
| Nitrate | | | | X | | | | | | | | | | |
| Flow | x | x | x | | x | x | x | x | x | x | x | x | x | x |
| Phenols | x | | x | | | | x | | | | | | | |
| Sulphide | | x | | X | | | | | | | | | | |
| Total Chromium | x | x | | | | x | | | | | X | | | |
| Chromium VI | x | | | | | | | | | | X | | | |
| Copper | | | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | | | |
| Zinc | | | | | | x | | | | | X | | | |
| Total Cyanide | x | | | X | | | | | | | | | | |
| Fluorine | | | x | | | x | | | | | | | | |
| Free Available Chlorine | | | | | | | | x | x | | | | | |
| Residual Chlorine | | | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | | | |
| Lead | | | | | | | | | | | X | | | |
| Iron | | | x | | | | | | | | | | | |
| Tin | | | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | | | |
| Gold | | | | | | | | | | | | | | |

| | |
|--|---|
| Total dissolved solids (mg/L) | 2000 |
| Temperature °C | 20-35 |
| pH | 6-9 |
| Oil and Grease (mg/L)- | 5 |
| Ammonia Nitrogen (mg/L) | 20 |
| Substances with an obnoxious smell | Shall not be discharged into the Sewers |
| Biological Oxygen Demand BOD5 days at 20 °C (mg/L) | 500 |
| Chemical Oxygen Demand COD (mg/L) | 1000 |
| Arsenic (mg/L) | 0.02 |
| Mercury (mg/L) | 0.05 |
| Lead (mg/L) | 1.0 |
| Cadmium (mg/L) | 0.5 |
| Chromium VI (mg/L) | 0.05 |
| Chromium (Total) (mg/L) | 2.0 |
| Copper (mg/L) | 1.0 |
| Zinc (mg/L) | 5.0 |
| Selenium (mg/L) | 0.2 |
| Nickel (mg/L) | 3.0 |
| Nitrates (mg/L) | 20 |
| Phosphates (mg/L) | 30 |

| | |
|---|--------------------------|
| Cyanide Total (mg/L) | 2 |
| Sulphide (mg/L) | 2 |
| Phenols (mg/L) | 10 |
| Detergents (mg/L) | 15 |
| Colour | Less than 40 Hazen units |
| Alkyl Mercury | Not Detectable (nd) |
| Free and saline Ammonia as N (mg/L) | 4.0 |
| Calcium Carbide | Nil |
| Chloroform | Nil |
| Inflammable solvents | Nil |
| Radioactive residues | Nil |
| Degreasing solvents of mono-di-trichloroethylene type | Nil |

And any other parameter as the Authority and the sewerage service provider may prescribe.

SIXTH SCHEDULE [r. 14(2)]

MONITORING FOR DISCHARGE OF TREATED EFFLUENT INTO THE ENVIRONMENT

Name of organization

Name of facility

Nature of activities

Sample No

Description of sample

Date and time sample received in lab

Date and time sample was examined

| Parameter | RESULTS | | Guide value | Remark |
|---|-----------------|---------------------------|-----------------|--------|
| | Sample upstream | Sample at discharge point | | |
| pH | | | 6.5-8.5 | |
| Biological Oxygen Demand (5 days at 20 °C) | | | 30 (mg/L) max | |
| Chemical Oxygen Demand | | | 50 (mg/L) max | |
| Suspended solids | | | 30 (mg/L) max | |
| Ammonia –NH ₄ + Nitrate-NO ₃ + Nitrite –NO ₂ | | | 100 (mg/L) max | |
| Total Dissolved Solids | | | 1200 (mg/L) max | |
| E.Coli | | | Nil/100 ml | |

*Based on sampling analysis monitoring frequency. (daily/weekly/monthly/quarterly)

Others

1

2

3

4

As guided by the Fourth Schedule or as may be directed by the Authority

SEVENTH SCHEDULE [r. 16(1), 17, 19]

FORMS

FORM A:

APPLICATION FOR EFFLUENT DISCHARGE INTO THE ENVIRONMENT

Part A – DETAILS OF APPLICANT

- A 1. Name of applicant:
- A 2. Personal Identification Number
- A 3. Postal Address:
.....
- A 4. Name of contact person:
.....
.....
- A 5. Telephone No.
- A 6. E-mail
- A 7. Previous Licence Number

PART B - DETAILS OF DISCHARGING FACILITY

- B 1. EIA License Number/ Environmental Audit reference number
- B 2. Location of discharging facility (County, subcounty, location, sub-location, GPS coordinates):.....
- B 3. Activity of discharging facility (e.g. coffee factory, sewage plant, tea factory)
.....
- B 4. Nature and composition of effluent:.....
- B 5. Does the facility have effluent treatment plant (Yes or No)?
.....

B 6. Maximum quantity of effluent which is proposed to be discharged on any one day (in M³ /day)

B 7. The highest rate at which it proposes to discharge the effluent (in M³/hr.)

.....

B 8. Source of processing water to the facility

B 9. Does the facility have access to a Laboratory for monitoring the quality of discharged effluent?

(Yes or No)

B 10. Description of the activities of the facility

.....

.....

B 11. Point of discharge (description including GPS coordinates):

.....

1.1.1 PART C: DECLARATION BY APPLICANT

I hereby certify that the information given above is correct and true to the best of my knowledge:

.....

Signature of the Applicant.....

Full Names in Block letters.....

Position

On behalf of:

(Firm name and seal)

Date:

PART D: FOR OFFICIAL USE

Approved/Not Approved.....

COMMENTS

.....

.....

Official Signature.....

Date

Important Notes: Please submit the following: (a) Online application form (b) relevant attachments and (c) Prescribed fee.

FORM B:

THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

EFFLUENT DISCHARGE LICENCE

Application Reference No.

Licence No.

FOR OFFICIAL USE

This is to certify that the application for discharge to the Environment received from (name of applicant) of(address) to the National Environment Management Authority in accordance with Water Quality Regulations for..... (facility) located at (locality and County) to discharge effluent to has been evaluated and a licence is hereby issued for discharge, subject to the attached conditions.

Dated this day of 20.....

Signature:

(Official Stamp)

Director General

National Environment Management Authority

Conditions of Licence

1. This Licence is valid for a period of from the date hereof
2. Frequency of Monitoring (Daily/Weekly/Monthly/Quarterly/Biannually)
3.
4.

EIGHTH SCHEDULE [r. 21]

Microbiological quality guidelines for waste water use in irrigation

| Reuse conditions | Exposed group | Intestinal | Coliforms (MPN/100 ml) |
|------------------|---------------|------------|------------------------|
| | | nematodes | |
| | | (MPN/L)* | |

| | | | |
|--|----------------------------|----|-------------------------|
| Unrestricted irrigation (crops likely to be eaten uncooked, sports fields, public parks) | Workers, consumers, Public | <1 | <1000** |
| Restricted irrigation (cereal crops, industrial crops, fodder) | Workers | <1 | No recommended standard |
| crops, pasture and trees*** | | | |

* Ascaris lumbricoides, Trichuris trichiura and human hookworms.

** A more stringent guideline (<200 coliform group of bacteria per 100 ml) is appropriate for public lawns, such as hotel lawns, with which the public may come into direct contact.

*** In the case of fruit trees, irrigation should cease two weeks before fruit is picked and fruit should be picked off the ground. overhead irrigation should not be used.

**NINTH SCHEDULE [r. 22]
STANDARDS FOR IRRIGATION WATER**

| Parameter | Permissible Level | |
|-----------|-------------------|---------|
| pH | | 6.5-8.5 |
| Aluminium | 5 | (mg/L) |
| Arsenic | 0.1 | (mg/L) |
| Boron | 0.1 | (mg/L) |
| Cadmium | 0.5 | (mg/L) |

| | | |
|-------------------------------|------------|--------|
| Chloride | 0.01 | (mg/L) |
| Chromium | 1.5 | (mg/L) |
| Cobalt | 0.1 | (mg/L) |
| Copper | 0.05 | (mg/L) |
| <i>E.coli</i> | Nil/100 ml | |
| Fluoride | 1.0 | (mg/L) |
| Iron | 1 | (mg/L) |
| Lead | 5 | (mg/L) |
| Selenium | 0.19 | (mg/L) |
| Sodium Absorption Ratio (SAR) | 6 | (mg/L) |
| Total Dissolved Solids | 1200 | (mg/L) |
| Zinc | 2 | (mg/L) |

And any other parameters as may be prescribed by the Authority from time to time

TENTH SCHEDULE [r. 27]

QUALITY STANDARDS FOR WATER FOR RECREATIONAL USE

| PARAMETER | MAXIMUM PERMISSIBLE LEVEL |
|--------------------------------|---------------------------|
| Arsenic (mg/l) | 0.05 |
| Fecal coliform (Counts/100 ml) | Nil |
| Total coliform (Counts/100 ml) | 500 |
| Cadmium | 0.01 |
| Chromium | 0.1 |

| | |
|-------------------------------------|-------|
| Colour (True Colour Units) | 100 |
| Light Penetration (meters) | 1.2 |
| Mercury (mg/L) | 0.001 |
| Odour (Threshold Odour Number, TON) | 16 |
| Oil and Grease (mg/L) | 5 |
| pH | 6 – 9 |
| Radiation, Total (Bq/L) | 0.37 |
| Surfactant, MBAs (mg/L) | 2 |
| Temperature (°C) | 30 |
| Turbidity (NTU) | 50 |

And any other parameters as may be prescribed by the Authority from time to time

ELEVENTH SCHEDULE [rr. 15(b), 16(1)(b)]

FEES

| | | Fee (Ksh) |
|--|---|-----------|
| The fees chargeable under these Regulations shall be as specified hereafter: | | |
| 1. Application for discharge of effluent into the environment | | |
| a) | Sewerage service providers | 10,000 |
| b) | Discharging facility in Schedule 4 other than (a) above | 10,000 |
| c) | Any other institution | 10,000 |
| 2. Annual License fee for discharge of effluent into the environment | | |
| a) | Sewerage service providers sector— | |

| | | |
|-------|---|---------|
| | Category (I) \geq - 80,000 M DWF Design Capacity | 550,000 |
| | Category (II) \geq 60,000<80,000m ³ DWF Design Capacity | 440,000 |
| | Category (III) \geq 40,000<60,000m ³ DWF Design Capacity | 330,000 |
| | Category (IV) \geq 20,000<40,000m ³ DWF Design Capacity | 220,000 |
| | Category (V) 20,000m ³ DWF Design capacity | 110,000 |
| | Discharging facility in Schedule 4 other than (a) above - and for- | 110,000 |
| (i) | <i>Petroleum sector</i> | |
| | Category (I) Depots, pump stations and refineries | 110,000 |
| | Category (II) Service station (Filling station + Vehicle service + carwash) | 82,500 |
| | Category (III) Service station (Filling station +Vehicle service) | 55,000 |
| | Category (IV) Filling station \geq 50M ³ (Tank Storage) | 33,000 |
| | Category (V) Filling Station <50M ³ (Tank storage) | 27,500 |
| | <i>Hotels, Camps and lodges sector</i> | 27,500 |
| (ii) | Category (I) \leq 25 persons bed capacity | |
| | Category (II) >25 \leq 50 persons bed capacity | 33,000 |
| | Category (III)>50 \leq 75 persons bed capacity | 55,000 |
| | Category (IV) >75 \leq 100 Persons bed capacity | 82,500 |
| | Category (V) >100 Persons bed capacity | 110,000 |
| (iii) | <i>Agro-based Processing Industries</i> | |
| | Category (i) \geq 2,000 M ³ DWF Design capacity | 110,000 |

| | | |
|-------|---|---------|
| | Category (i) $\geq 1500 < 2,000 \text{ M}^3$ DWF Design capacity | 82,500 |
| | Category (i) $\geq 1000 < 1500 \text{ M}^3$ DWF Design capacity | 55,000 |
| | Category (i) $\geq 1,000 \text{ M}^3$ DWF Design capacity | 33,000 |
| (iv) | <i>Abattoirs/slaughterhouses</i> | |
| | Category (i) ≥ 40 animals per day | 110,000 |
| | Category (ii) $\geq 20 < 40$ animals per day* | 82,500 |
| | Category (iii) $\geq 6 < 20$ animals per day | 55,000 |
| | Category (iv) < 6 animals per day | 22,000 |
| (v) | <i>Chemical-based Processing Industries</i> | |
| | Category (i) $\geq 2,000 \text{ m}^3$ DWF Design Capacity | 110,000 |
| | Category (ii) $\geq 1500 < 2,000 \text{ m}^3$ DWF Design Capacity | 82,500 |
| | Category (iii) $\geq 1000 < 1500 \text{ m}^3$ DWF Design Capacity | 55,000 |
| | Category (iv) $< 1,000 \text{ m}^3$ DWF Design Capacity | 33,000 |
| (vi) | <i>Intensive Chemical Agriculture</i> | |
| | Category (i) ≥ 40 HA Acreage | 110,000 |
| | Category (ii) $\geq 30 < 40$ HA Acreage | 82,500 |
| | Category (iii) $\geq 20 < 30$ HA Acreage | 55,000 |
| | Category (iv) $\geq 10 < 20$ HA Acreage | 33,000 |
| | Category (v) < 10 HA Acreage | 22,000 |
| (vii) | <i>Institutions</i> | |

| | | |
|--|---|---------|
| | with populations ≥ 1000 persons | 110,000 |
| | with populations $\geq 500 < 999$ | 55,000 |
| | with populations $\geq 100 < 499$ | 33,000 |
| | with populations $\geq 50 < 99$ | 22,000 |
| (viii) | <i>Medical facilities</i> | |
| | with bed capacity ≥ 1000 | 110,000 |
| | with bed capacity $\geq 500 < 999$ | 55,000 |
| | with bed capacity $\geq 100 < 499$ | 33,000 |
| | with bed capacity $\geq 50 < 99$ | 22,000 |
| (ix) | <i>Commercial premises</i> | |
| | Category (i) $\geq 2,000 \text{ m}^3$ DWF Design Capacity | 110,000 |
| | Category (ii) $\geq 1500 < 2,000 \text{ m}^3$ DWF Design Capacity | 82,500 |
| | Category (iii) $\geq 1000 < 1500 \text{ m}^3$ DWF Design Capacity | 55,000 |
| | Category (iv) $< 1,000 \text{ m}^3$ DWF Design Capacity | 33,000 |
| (x) | <i>residential premises</i> | |
| | with > 100 housing units | 22,000 |
| | with $\geq 50 \leq 100$ housing units | 11,000 |
| xi) | Car wash facilities | 25,000 |
| xii) | Other facilities/institutions | 25,000 |
| 3. Inspection of records/effluent register | | 500 |