GOVERNMENT NOTICE NO publish	ed on
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THE ENVIRONMENTAL MANAGEMENT ACT (CAP. 191)

REGULATIONS

(Made under Section 143, 144 and 230 (2) (s))

THE ENVIRONMENTAL MANAGEMENT (WATER QUALITY STANDARDS) REGULATIONS, 2007

ARRANGEMENT OF REGULATIONS

Regulation Title

PART I PRELIMINARY PROVISIONS

- 1. Citation.
- 2. Interpretation.
- 3. Object.

PART II THE NATIONAL ENVIRONMENTAL STANDARDS COMMITTEE

4. Setting minimum quality standards for water, sewerage etc.

PART III PROHIBITIONS AND PRESCRIBED MINIMUM WATER QUALITY STANDARDS

- 5. Protection of water sources and ground water.
- 6. Prohibition to discharge hazardous substances, chemicals and materials or oil etc.
- 7. Obligations of an applicant of water right or permit.
- 8. Minimum standards for holders of water right.
- 9. Pollution records from Basin Water Boards.
- 10. Special permissible limits for chrome tanning industries.
- 11. Special tolerance limits for vegetable industries.

- 12. Special tolerance limits for fertilizer industry.
- 13. Chemical and physical limits for quality of Drinking Water Supplies.
- 14. Chemical, physical and microbiological limits for quality of drinking water supplies.
- 15. Radioactive limits for drinking water.
- 16. Distances from sources of pollution.
- 17. Frequency of sampling for sanitary protection of water, land intake.
- 18. Duty to comply with standards, etc.

PART IV WATER POLLUTANT DISCHARGE PERMITS

- 19. Management of Water Pollutant Discharge Permits.
- 20. Review of compliance plan.
- 21. Transfer, change of ownership of main polluting activity.
- 22. Fees for discharge of water pollutants.
- 23. Other registration fees.

PART V WATER QUALITY COMPLIANCE AND ENFORCEMENT

- 24. Taking and analysis of samples.
- 25. Compliance orders.
- 26. Protection orders.
- 27. Stop orders.
- 28. Powers of environmental inspectors.
- 29. Emergency powers to prevent discharges.
- 30. Disobeying environmental inspectors.
- 31. Accidental or inadvertent discharges.
- 32. Reward for reporting emission or pollution.
- 33. Enforcement of environmental quality standards.
- 34. Disposal of sewage and sludge.

PART VI RECORDS AND REPORTING

35. Record and reporting.

PART VII OFFENCES AND PENALTIES

- 36. Offences relating to environmental standards.
- 37. Compounding of offences.

PART VIII MISCELLENEOUS PROVISIONS

- 38.
- Appeals to the Minister. Appeals to the Tribunal. Amendment of Schedules. 39.
- 40.

SCHEDULES

FIRST SCHEDULE PERMISSIBLE LIMITS FOR MUNICIPAL AND INDUSTRIAL EFFLUENTS ————
SECOND SCHEDULE SPECIFIC TOLERANCES FOR EFFLUENTS OF CHROME TANNING INDUSTRY ———
THIRD SCHEDULE SPECIFIC TOLERANCES FOR EFFLUENTS OF VEGETABLE TANNING INDUSTRY ————
FOURTH SCHEDULE SPECIFIC TOLERANCES FOR EFFLUENTS FROM A FERTILIZER INDUSTRY ————
FIFTH SCHEDULE MICROBIOLOGICAL REQUIREMENTS AND CLASSIFICATION OF NON-CHLORINATED PIPED WATER SUPPLIES —————
SIXTH SCHEDULE CHEMICAL AND PHYSICAL LIMITS FOR QUALITY OF DRINKING WATER SUPPLIES ————
SEVENTH SCHEDULE RADIOACTIVE MATERIALS LIMIT FOR QUALITY OF DRINKING WATER ————
EIGHTH SCHEDULE DISTANCE OF SOURCE OF CONTAMINATION ————
NINTH SCHEDULE FREQUENCY OF SAMPLING

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REGULATIONS

(Made under Section 143, 144 and 230 (2) (s))

THE ENVIRONMENTAL MANAGEMENT (WATER QUALITY STANDARDS) REGULATIONS, 2007

PART I PRELIMINARY PROVISIONS

Citation

1. These Regulations may be cited as Environmental Management (Water Quality Standards) Regulations, 2007.

Interpretation Cap. 191

- 2. In these Regulations, unless the context requires otherwise -
- "Act" means the Environmental Management Act;
- "Biochemical Oxygen Demand (BOD)" shall mean mass concentration of dissolved oxygen consumed under specified conditions by the biological oxidation of organic or inorganic matter in effluent;
- "Chemical Oxygen Demand (COD)" shall mean the mass concentration of oxygen equivalent to the amount of dichromate consumed by dissolved and suspended matter when a sample of effluent is treated with that oxidant under defined conditions;

"compliance plan" means an Environmental Compliance Order issued in terms of section 198 of the Act containing a set of conditions for observance or fulfilment by any person breaching these Regulations;

"Council" means the National Environment Management Council established under the Act;

"effluent" liquid waste, water or gaseous waste, or water or liquid or other fluid of domestic, agricultural, trade or industrial origin treated or untreated and discharged directly or indirectly into the environment; me;

"hazardous substance" means any chemical, waste, gas, medicine, drug,

plant, animal or micro organism which is likely to be injurious to human health, life or environment;

- "hazardous wastes" means any solid, liquid, gaseous or sludge waste which by reason of its chemical reactivity, environmental or human hazardousness, its infectiousness, toxicity, explosiveness and corrosiveness is harmful to human health, life or environment;
- "Kjeldahl Nitrogen" means the concentration of organic nitrogen and ammoniacal nitrogen in an effluent sample, determined after mineralization. It does not include nitrate and nitrite nitrogen, and does not necessarily include all organically bound nitrogen;

"main polluting activity" means an activity that does not comply with minimum quality standards prescribed under these Regulations for which prior grant of discharge permit by the Council is mandatory;

- "monitoring" shall mean the long term programmed process of sampling, measurement and subsequent recording, reporting or signaling, or both, of various effluent characteristic signaling, or both, of various effluent characteristic with the aim of assessing compliance with specified standards;
- "organic nitrogen" means the difference between the nitrogen contents of a sample derived from the determination of Kjeldahl Nitrogen and ammoniacal nitrogen;
- "receiving water" means a perennial body of water, stream or watercourse receiving the discharged effluent;
- "suspended solids" means solids that either float on the surface of, or in suspension in water, sewage or other liquids and which are removable by laboratory filtering or centrifuging under specified conditions;
- "Total Phosphorus" means the sum of all forms of phosphate normally present in effluent, including orthophosphates, polyphosphates, metaphosphates, pyrophosphates and organic phosphates, expressed on terms of concentration of P (Phosphorus);
- "treatment facilities" means an arrangement of devices and structures, excluding septic tanks, constructed for the purpose of treatment of effluents for domestic, commercial or industrial sources, or combination thereof. Privately owned effluent treatment facilities which treat predominantly industrial waste shall be excluded;
- "water" includes drinking water, river, stream, water-course, reservoir, well, dam, canal, channel, lake, swamp, open drain, or ground water.
 - **3.** The object of these Regulations is to-
 - (a) protect human health and conservation of the environment;
 - (b) enforce minimum water quality standards prescribed by the National Environmental Standards Committee;
 - (c) enable the National Environmental Standards Committee to determine water usages for purposes of establishing

Object

- environmental quality standards and values for each usage; and
- (d) ensure all discharges of pollutants take account the ability of the receiving waters to accommodate contaminants without detriment to the uses specified for the waters concerned.

PART II THE NATIONAL ENVIRONMENTAL STANDARDS COMMITTEE

Setting minimum quality standards for water, sewerage, etc.

- **4.-**(1) The National Environmental Standards Committee of Tanzania Bureau of Standards shall-
 - (a) prescribe classifications, criteria and procedure for measuring standards for water quality for approval by the Minister;
 - (b) establish the minimum quality standards for all waters of Tanzania for approval by the Minister;
 - (c) establish minimum standards for the treatment of effluent before their final discharge into public sewer systems for approval by the Minister;
 - (d) prescribe requirements for approval by the Minister for the operator of any effluent treatment plant or work or undertaking to undertake treatment of effluent before that effluent is discharged into any body of water; and
 - (e) establish minimum quality standards for different uses of water for approval by the Minister, provided that these uses shall include-
 - (i) drinking water;
 - (ii) water for agricultural purposes;
 - (iii) water for recreational purposes;
 - (iv) water for fisheries and wildlife purposes;
 - (v) water for industrial purposes;
 - (vi) water for environment; and
 - (vii) water for any other purposes;
 - (viii) effluent from domestic, agricultural, trade or industrial origin.
- (2) Before approving the water quality standards under this Regulation, the Minister may consult and accommodate the views and recommendations from any other sector Ministry.
- (3) The National Environmental Standards Committee of Tanzania Bureau of Standards may recommend to the Minister any variation or addition or change or generally amendment to any Schedule to these Regulations.

PART III

PROHIBITIONS AND PRESCRIBED MINIMUM WATER QUALITY STANDARDS

Protection of water sources and ground water

Prohibition

discharge hazardous

substances, chemicals

and materials or oil

5.-(1) Any person who -

- (a) knowingly puts or permits to be put or to fall to be carried into any stream, so as either singly or in combination with other similar acts of the same nature or interfere with its due flow or pollute its waters;
- (b) puts solid refuse of any manufactory or manufacturing process, or puts any rubbish or puts any other waste or puts any putrid solid matter into such stream:
- (c) causes to fall or flow or knowingly permits to fall or flow or to be carried into any stream any poisonous, noxious or polluting liquid discharged from any factory or manufacturing process;
- (d) pollutes water sources or interferes with soils and vegetation that protects water sources;
- (e) pollutes any ground water potential, commits an offence.

commits an offence. **6.-**(1) No person

- **6.-**(1) No person shall discharge any hazardous substance, chemical, oil or mixture containing oil in any waters except in accordance with what is prescribed under these Regulations or any other written law.
- (2) A person who discharges any hazardous substance, chemical, oil or mixture containing oil in any waters or any other segment of the environment commits an offence.
- (3) Apart from the general punishment provided under the Act, the person convicted of an offence under these Regulations may be ordered by the court to pay the cost of-
 - (a) the removal, including any costs which may be incurred by the Government or Government agency in the restoration of the environment damaged or destroyed as a result of the discharge; and
 - (b) third parties in the form of reparation, restoration, restitution or to compensation as may be determined by a court.

Obligations of an applicant of water right or permit.

- 7.-(1) Every applicant for water right or permit under relevant laws governing management of water resources, abstraction and use of water shall within twenty one day of lodging their application, file through Basin Water Officer a statement to the Council indicating the likely impact on the environment if the water right or permit is granted.
- (2) A statement made in pursuant to Sub-regulation (1) shall before being submitted to the Council be endorsed for the comments by respective City Environment Management Officer, Municipal Environment Management Officer, District Environment Management Officer and Town Environment Management Officer.
 - (3) Upon receipt of the statement in pursuant of Sub-regulation (1),

the Council may give the applicant directions of a general or specific character regarding the protection of the environment.

- (4) An applicant of water right or permit who violates any direction issued under Sub-regulation (2) commits an offence.
- **8.**-(1) A holder of a water right or permit shall be required to comply with effluent or receiving water standards prescribed by any other written law provided that they are not below the standards prescribed under these Regulations.
- (2) Other discharges of effluents into bodies of waters not covered by Subregulation (1) shall comply with permissible limits and testing methods prescribed in the First Schedule to these Regulations.
- (3) The Minister may prescribe special or specific limits for any category, or type of pollution source as separate standards for the peculiar pollutants characteristics and loads.
- (4) Effluents shall be treated on-site prior to discharge so that the dilution shall not be regarded as treatment.
- (5) No effluent shall be discharged in close proximity to water supply sources or recreational areas, or such other areas as may be designated from time to time by the Minister.
- (6) A person who contravenes permissible limits and testing methods prescribed for municipal and industrial effluent commits an offence.
- 9.- The Basin Water Officer shall after every two years from the date of coming into force of these Regulations, submit to the Council records of the holders of water rights showing-
 - (a) consents issued by the relevant Basin Water Board to discharge effluent from any commercial, industrial or other trade wastes systems into receiving waters;
 - (b) consents issued by Water Officers to discharge into underground strata;
 - (c) objection lodged against any application for the grant of a consent to discharge;
 - (d) incidents of water pollution in the violation of any conditions implied in water right granted for mining, forestry or industrial purposes or for the generation of power;
 - (e) precautions that were taken by holders of water rights to the satisfaction of the Water Officer to prevent accumulations in any river, stream or water-course of silt, sand, gravel, stones, sawdust refuse, sewage, sisal waste or any other substance likely to affect injuriously the use of such water;
 - (f) periodical returns to the Water Officer setting out the nature of wastes or effluent produced by use of the water by holders of water

Minimum standards for holders of water right.

Pollution records from Basin Water Boards

rights;

- (g) installations made by owners of water right at the point of discharge necessary for the taking of samples and the collection and treatment of effluent; and
- (h) prosecution of cases relating to water pollution.

Special permissible limits for chrome tanning industries

- 10.-(1) Effluents from chrome tanning industries shall comply with the tolerance limits and relevant methods of tests prescribed under the Second Schedule to these Regulations.
- (2) A person who contravenes tolerance limits and relevant methods of tests prescribed under the Second Schedule to these Regulations commits an offence.

Special tolerance limits for vegetable industry

- 11.-(1) Effluents from industries tanning extracts of vegetable origin shall comply with the tolerance limits and relevant methods of tests prescribed under Third Schedule to these Regulations.
- (2) A person who contravenes tolerance limits and relevant methods of tests prescribed in these Regulations commits an offence.

Special tolerance limits for fertilizer industry

- **12.**-(1) Effluents from fertilizer industry shall comply with the tolerance limits and relevant methods of tests prescribed in the Fourth Schedule to these Regulations.
- (2) A person who contravenes tolerance limits and relevant methods of tests prescribed in the Fourth Schedule to these Regulations.

chemical and physical limits for drinking water supplies

- **13.**-(1) A person who is supplying water shall comply with the chemical and physical limits for quality of drinking water supplies prescribed in the Sixth Schedule to these Regulations.
- (2) A person who contravenes these Regulations commits an offence.

Chemical, physical and microbiological limits for quality of Drinking Water Supplies

- **14.**-(1) Non-chlorinated piped water supplies and the drinking water supplies shall comply with microbiological requirements, classification, chemical and physical limits prescribed in the Fifth and Sixth Schedules to these Regulations.
- (2) A person who contravenes tolerance limits and relevant methods of tests prescribed in these Regulations commits an offence.

Radioactive limits for Drinking Water

- **15.-**(1) Quality of drinking water supplies shall comply with Radioactive materials limits prescribed in Seventh Schedule to these Regulations.
- (2) A person who contravenes radioactive materials limits prescribed for the quality of drinking water supplies commits an offence.

Distances from sources of pollution

16.-(1) A person undertaking any activity shall take into account as

an integral part of every water supply system, distances from sources of pollution to every water supply system prescribed in the Eighth Schedule to these Regulations.

- (2) In addition to the minimum distances prescribed under Subregulation (1), the following precautions shall also be observed-
 - (a) domestic livestock and other animals shall be kept away from the intake by fencing the area of a minimum radius of 50 meters from the installation;
 - (b) defecation and urination around the intake shall be completely prohibited;
 - (c) drainage and run off waters shall be led away from intakes;
 - (d) water source shall be guarded against inundation by the flooding of nearby rivers;
 - (e) soil erosion shall be prevented by re-forestation and other methods; or
 - (f) algal growth shall be prevented by draining swamps and pools around the intake or reservoir.
- (3) A person who contravenes the provisions of these Regulations commits an offence.

Frequency of sampling for sanitary protection of water, land intake

- 17.-(1) A person undertaking sampling for the purposes of sanitary protection of water intake and surrounding land, shall comply with frequency prescribed in the Ninth Schedule to these Regulations.
- (2) A person who contravenes the provisions of these Regulations commits an offence.

Duty to comply with standards, etc

- **18.**-(1) A person undertaking any activity shall be required to comply with environmental quality standards and criteria specified in these Regulations.
- (2) A person who fails to comply with environmental quality standards and criteria commits an offence.

PART IV WATER POLLUTANT DISCHARGE PERMITS

Management of Water Pollutant Discharge Permits

- **19.-**(1) The Council shall designate certain categories of human activities to be main water polluting activities for which prior grant of discharge permit by the Council shall be mandatory:
- (2) Without prejudice to Sub-regulation (1) water polluting activities other than main polluting activities governed by other written laws shall not require prior grant of permit by the Council.
- (3) A City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may recommend to the Council categories of human activities which are main polluting activities.
 - (4) A person whose activities do not comply with minimum quality

standards prescribed under these Regulations shall apply to register any of the said activity as a main polluting activity.

- (5) The owner or operator of a main polluting activity shall apply to be registered by the Council.
- (6) The Council may register a main polluting activity with the following conditions-
 - (a) periodic or continuous monitoring for performance or compliance testing, ambient and any monitoring and other measures to maintain and if necessary improve ambient water quality and such other terms and conditions as determined by the Council to be reasonable and necessary and consistent with the Act and these Regulations;
 - (b) at all times, including periods of startup, shutdown, and malfunction, to maintain and operate water pollution control equipment in a manner consistent with good water pollution control practice for minimizing discharges;
 - (c) draw up and present to the Council proposed compliance status of the facility with respect to all applicable requirements including all sources that exceed discharge standards or targets or are predicted to exceed ambient water quality standards or guideline concentration, monitoring locations at which ambient water quality standards or guideline concentrations are exceeded, and other administrative or other requirements that have not been satisfied;
 - (d) a proposed compliance schedule setting forth remedial measures to be taken, including a sequence of actions with milestones leading to total compliance; and
 - (e) such terms and conditions as the Council deems fit.
- (7) In determining whether or not to issue a permit or other authorization to discharge contaminant, and the terms and conditions of the permit or authorization, the Council or any other person empowered to make the decision shall-
 - (a) refer to any guide from conduct of Environmental Impact Assessment and Environmental Audit.
 - (b) consider the cummulative effect on the environment likely to result from any such grant; and
 - (c) seek to ensure that the prescribed best practicable option is adopted.
- (8) For purposes of these Regulations, "best practicable option" means the best method for preventing or minimizing adverse effects on human health, life or the environment.
 - (9) A person who-
 - (a) fails to register his main polluting activities;
 - (b) being a registered owner or operator of a main polluting activity contravenes conditions or compliance schedule or any terms attached to his permit,

commits an offence.

Review of compliance plan.

- **20.-**(1) Where a compliance plan prepared by the owner or operator of a main polluting activity is not approved, the Council shall in writing, provide the reason for refusal and allow sixty days following the notification of refusal to revise and resubmit the compliance plan.
- (2) Where after the review of the revised compliance plan there remain aspects that are inadequate, the Council shall impose conditions to be adhered to together with written reasons for imposing such conditions.

Transfer, change of ownership of main polluting activity

- **21.-**(1) Where a registered owner of any main polluting activity transfers ownership or sells or leases out the activity or operation of the activity, obligations and conditions attendant to initial registration shall be deemed to form part of the sale, transfer of ownership or lease.
- (2) A registered owner of main polluting activity which is the subject of transfer shall ensure that environmental obligations under the ownership are made known to the new owner.
- (3) The owner or operator holding an water discharge permit shall notify the Council in writing at least ninety days prior to the occurrence of any of the following:
 - (a) change the owner or operator or both to whom the water discharge permit was issued and the name and address of the new owner or operator;
 - (b) change the name of a corporation or the operator or partnership; or
 - (c) change the mailing address of the owner or operator
 - (4) A copy of a notification shall be sent to respective City Environment Management Officer, Municipal Environment Management Officer, District Environment Management Officer, and Town Environment Management Officer.
- (5) Where notification has been given in accordance with these Regulations, the owner or operator shall request a transfer of the permit on payment of the prescribed fee.
- (6) A person who fails to comply with obligations and conditions under Sub-regulation (1) commits an offence and shall be liable on conviction to a fine of not exceeding ten million shillings or to imprisonment for a term of not exceeding five years or to both.

Fees for discharge of water pollutants

22. A person who is permitted to discharge water pollutants pursuant to the provisions of these Regulations shall be required to pay fees as may be prescribed by the Minister.

Other registration fees

23. A person who is applying for registration in accordance with the provisions of these Regulations shall be required to pay such fees as may be prescribed by the Minister.

PART V

WATER QUALITY COMPLIANCE AND ENFORCEMENT

Taking and analysis of samples.

24.-The taking of samples and analysis shall be carried out by the Council and laboratories accredited or designated in accordance with the Act.

Compliance orders

- **25.**-(1) Where the Council has reason to believe that-
- (a) any condition of any license or permit has been breached or about to be breached;
- (b) any person is in breach of any provisions of these Regulations or any terms and conditions made thereunder,

it may issue an compliance order.

- (2) The compliance order shall specify in such terms as would enable the person on whom it is served to understand and shall contain the following-
 - (a) the name of the person to whom it is addressed;
 - (b) the action or non-action or other matter which it is alleged to constitute the breach of the terms of the permit or of any condition attached to the permit;
 - (c) steps that must be taken to rectify the breach, time, being not earlier than twenty one days from the date of service of the notice of compliance, and the reasons why those steps are being required;
 - (d) fee or compensation if any which must be paid by the permit holder to make good the losses or damage caused by such breach;
 - (e) the date by which the person shall comply with the order; and
 - (f) revocation of the permit and penalty for non-compliance.
- (3) A City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may issue compliance order.
- (4) Where any person fails to comply with compliance order, the Council, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may-
- (a) take the necessary steps to remedy the breach and recover the cost from the offender;
- (b) ask the relevant authority which licensed the offender to alter the conditions of the licence or revoke the licence.
- (5) Any person who breaches compliance order, commits an offence and shall on conviction, be liable to a fine of not more than ten million shillings or to imprisonment for a term not exceeding five years or to both.
- (6) Where a person fails to comply with the requirement specified in the prevention order, that person shall be liable to a further fine not exceeding one hundred thousand shillings for every day or part of a day during which the offence continued.

Protection orders.

26.-(1) The Council, a Basin Water Officer, a City Environment

Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may serve Protection Order against activities likely to result in adverse effect on water or body of water or to the environment or public health.

(2) A person who breaches an order made under Sub-regulation (1) commits an offence and shall be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding seven years or to both.

Stop orders

- 27.-(1) Notwithstanding the provisions governing notice of Compliance Orders, the Council, a Basin Water Officers, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer and a Town Environment Management Officer may issue a stop order to any person if he is satisfied that further delays will occasion more serious harm to human health or living environment.
- (2) A copy of a stop order shall contain such information and be made known in such a manner as will enable the person or group of persons on whom it is served to understand and comply with such order.
- (3) A person on whom a stop order is served shall stop performing any of the activities referred to in the stop order.
- (4) A person defying any stop order commits an offence and shall be liable on conviction, to a fine not exceeding five million shillings or to imprisonment for a term not exceeding seven years or to both.

Powers of environmental inspectors.

28. An environmental inspector appointed or designated shall have and exercise powers as conferred upon him by the Act.

Emergency powers to prevent discharges

- **29.** (1) A Basin Water Officer or an Environmental Inspector who observes or receives information on discharge of a contaminant into the environment in an amount, concentration or manner that constitutes a risk to human health or environment, may serve an emergency prevention order.
- (2) A prevention order shall require a person against whom it is made to-
- (a) create and forward to the Council a written emergency response plan that is adequate to reduce or eliminate the risk;
- (b) have any necessary equipment, facilities and trained personnel available to deal with the risk; and
- (c) take whatever other measures which may be necessary to ensure that any emergency can be effectively responded to.
- (3)-A person on whom a prevention order is served shall comply with the requirements of the order by the date or dates specified in the order and where no date is specified, that person shall comply with the order immediately.
- (4) A person who contravenes Sub-regulation (3), commits and offence and shall on conviction be liable to a fine of not more than one million shillings or to imprisonment for a term not exceeding six months.
- (5) A person who fails to comply with the requirement specified in the prevention order within the specified time, that person shall be liable to a

further fine not exceeding one hundred thousand shillings for every day or part of a day during which the offence continued.

Disobeying environmental inspectors

- 30. A person who-
- (a) hinders or obstructs an environmental inspector in the execution of his duties under these Regulations;
- (b) fails to comply with a lawful order or requirements made by any environmental inspector in accordance with these Regulations;
- (c) refuses an environmental inspector entry upon any land or into any premises which he is empowered to enter by these Regulations;
- (d) impersonates an environmental inspector;
- (e) refuses an environmental inspector access to records kept in accordance with the Act touching upon any aspect of these Regulations;
- (f) gives environmental inspector false name or false address or misleading information,

commits an offence and shall be liable on conviction, to a fine not exceeding ten million shillings or to imprisonment for a term of not more than three years or to both.

Accidental or inadvertent discharges

- **31.-**(1) A holder of water right or permit, owner or occupier of premises shall be required to ensure that all incidents of inadvertent or accidental emissions or pollution of bodies of water in violation of standards prescribed under these Regulations or any other written laws shall within thirty days of the occurrence report to the respective Basin Water Officer, City Environment Management Officer, Municipal Environment Management Officer, District Environment Management Officer or Town Environment Management Officer for transmission to the Council.
- (2) A person who fails to report accidental or inadvertent discharge commits an offence and shall be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding seven years or to both.

Reward for reporting emission or pollution.

32. The Minister may provide a reward to any person reporting an incident of accidental, concealment or inadvertent emission or pollution of any body of water.

Enforcement of environmental quality standards

- **33.-**(1) For purposes of enforcing environmental water quality standards and criteria, the Council or an environmental inspector may-
 - (a) order or carry out investigations of actual or suspected environmental pollution including the collection of samples, records and data;
 - (b) enter, inspect and examine any place, area, premise or any vehicle, vessel, boat, aircraft or any carriage of any description on which it has reasonable grounds to believe that the activity is or is

- likely to lead to violation of environmental water quality standards;
- (c) take necessary measures to ensure that industry and other facilities adopt cleaner technology to meet the requirements of water quality standards prescribed under these Regulations;
- (d) monitor emission concentration and nature of pollutants emitted;
- (e) make guidelines to minimize emissions and identify suitable technologies for minimization of water pollution; or
- (f) do or perform anything or act that is necessary for the monitoring and control of environmental pollution.
- (2) The Council shall establish and maintain close collaboration with sector Ministries, local government authorities, the Tanzania Bureau of Standards, the Tanzania Atomic Agency, the Government Chemist Laboratory Agency, the Tanzania Food and Drugs Authority, Government water quality laboratories and the Energy and Water Utilities Regulatory Authority and such other institutions for the purposes of enforcement of water quality standards.

Disposal of sewage and sludge.

34. A person who violates guidelines or standards made by a local government authority on collection, transportation and disposal of sewage and sludge commits an offence and shall be liable on conviction to a fine not exceeding five million shillings or to imprisonment for a term not exceeding two years or to both.

PART VI RECORDS AND REPORTING

Records and reporting.

- **35.-**(1) The Central Environmental Information System kept and maintained by the Council under the Act shall include-
 - (a) annual reports on implementation and enforcement of these Regulations sent by a Basin Water Officer, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer or a Town Environment Management Officer;
 - (b) environmental obligations under water laws specified by the Act;
 - (c) directives issued by the Minister on discharge of sewerage;
 - (d) periodic returns lodged with the Council; and
 - (e) permits issued under these Regulations.
- (2) The Director of Environment and the Director General of the National Environmental Management Council shall have access to any information relating to the implementation of these Regulations, including any reports on discharges to water, necessary to enable them to carry out their respective duties under these Regulations.
- (3) Records kept and maintained under Sub-regulation (1) shall be public records and subject to the needs of confidentiality as circumstances may require and any fees which may be prescribed, may be accessed in accordance with the Act.

PART VII OFFENCES AND PENALTIES

Offences relating to environmental standards

- **36.** A person who-
- (a) contravenes any water quality standards for which no other penalty is specifically provided for;
- (b) contravenes a measure prescribed under these Regulations for which no other penalty is specifically provided,

shall be liable on conviction to a fine of not less than five hundred thousand shillings and not exceeding ten million shillings or to imprisonment to a term of not less than six months and not exceeding five years.

Compounding of offences.

- **37.**-(1) The Director General or an environmental inspector may, subject to and in accordance with the provisions of the Act compound any offence under these Regulations from any person who shows willingness to pay the sum of money as penalty for contravening the provisions of these Regulations.
- (2) Subject to the provisions of these Regulations authorizing any measure that may be taken in addition to a fine that may otherwise be taken pursuant to an order of the Tribunal or court, no further criminal or civil proceedings shall be taken against a person in respect of whom powers to compound offence has been exercised.

PART VIII MISCELLANEOUS PROVISIONS

Appeal to the Minister

38. A person who is aggrieved by the decision of the Council, a Basin Water Officer, an Environmental Inspector, a City Environment Management Officer, a Municipal Environment Management Officer, a District Environment Management Officer or a Town Environment Management Officer made under these Regulations may within thirty days of the decision appeal to the Minister.

Appeal to the Tribunal.

39. A person who is aggrieved by the decision of the Minister may within thirty days following that decision appeal to the Environmental Appeals Tribunal in such manner as may be prescribed by the Tribunal.

Amendment of Schedules.

40. The Minister may amend Schedules to these Regulations.

FIRST SCHEDULE

(Made under Regulation 8)

PERMISSIBLE LIMITS FOR MUNICIPAL AND INDUSTRIAL EFFLUENTS

Table A: Physical Components		
Parameter	Limit	Test Method
BOD ₅ at 20 °C	30 mg/l	TZS 861(Part 3):2006 – Five-day BOD
		Method
COD	60 mg/l	TZS 861(Part 4):2006 – Dichromate
		Digestion Method
Colour	300 TCU	ISO 7887: 1994, Water quality –
		Examination and determination of colour
		– Section 3: Determination of true colour
		using optical instruments
pH range	6.5-8.5	TZS 861(Part 2):2006 – Electrometric
		Method
Temperature range	20-35°C	See Annex A
Total Suspended Solids	100 mg/l	TZS 861(Part 1):2006 – Gravimetric
(TSS)		Method
Turbidity	300 NTU	APHA Standard Methods:2130 B.
		Nephelometric Method

Table B: Inorganic Components			
Parameter	Limit (mg/l)	Test Method	
Aluminium (as Al)	2.0	TZS 861(Part 7):2006 – Direct Nitrous	
		Oxide-Acetylene Flame Atomic Absorption	
		Spectrometry	
Arsenic (As)	0.2	TZS 861(Part 8):2006 – Manual hydride	
		Generation- Atomic Absorption	
		Spectrometry	
Barium (Ba)	1.5	TZS 861(Part 7):2006 – Direct Nitrous	
		Oxide-Acetylene Flame Atomic Absorption	
		Spectrometry	
Cadmium (Cd)	0.1	TZS 861(Part 7):2006 – Flame Atomic	
		Absorption Spectrometry	

Chromium (total)	1.0	TZS 861(Part 7):2006 – Flame Atomic
Chromium VI	0.1	Absorption Spectrometry
Chromium VI	0.1	TZS 861(Part 9):2006 – Colorimetric Method
Chlorides (Cl ⁻)	200	APHA Standard Methods: 4110 B. Ion
		Chromatography with Chemical Suppression
		of Eluant Conductivity
Cobalt (Co)	1.0	TZS 861(Part 7):2006 – Flame Atomic
		Absorption Spectrometry
Copper (Cu)	2.0	TZS 861(Part 7):2006 - Flame Atomic
		Absorption Spectrometry
Fluorides (F ⁻)	8	APHA Standard Methods: 4110 B. Ion
		Chromatography with Chemical Suppression
		of Eluant Conductivity
Iron	5.0	TZS 861(Part 7):2006 – Flame Atomic
		Absorption Spectrometry
Lead (Pb)	0.1	TZS 861(Part 7):2006 – Flame Atomic
		Absorption Spectrometry
Manganese	5.0	TZS 861(Part 7):2006 – Flame Atomic
		Absorption Spectrometry
Mercury (Hg)	0.005	TZS 861(Part 10):2006 – Cold-Vapor
(11g)	0.005	Atomic Absorption Spectrometry
Nickel (Ni)	0.5	TZS 861(Part 7):2006 – Flame Atomic
Tricker (171)	0.5	Absorption Spectrometry
Nitrates (NO ₃ ⁻)	20	APHA Standard Methods: 4110 B. Ion
Tititutes (1103)	20	Chromatography with Chemical Suppression
		of Eluant Conductivity
Phosphorus Total (as	6	TZS 861(Part 6):2006 – Colorimetric-
P)	O	Ascorbic Acid Method
Selenium (Se)	1.0	TZS 861(Part 8):2006 – Manual hydride
Scienium (Sc)	1.0	Generation- Atomic Absorption
		Spectrometry
Silver (Ag)	0.1	ISO 15586: 2003, Water quality –
	0.1	Determination of trace elements using atomic
		absorption spectrometer with graphite
		furnace
Sulphate (SO ₄ ² -)	500	APHA Standard Methods: 4110 B. Ion
	500	Chromatography with Chemical Suppression
		of Eluant Conductivity
Sulphides (S ⁻)	1	APHA Standard Methods: 4110 B. Ion
	1	Chromatography with Chemical Suppression
		of Eluant Conductivity
Tin (Sn)	2.0	TZS 861(Part 7):2006 – Flame Atomic
1111 (511)	2.0	Absorption Spectrometry
Total Kjeldahl	15	TZS 861(Part 5):2006 – Kjeldahl Method
Nitrogen (as N)	1.0	12.5 cor(rait 5).2000 injedami Memod
111105011 (41) 11)		

Vanadium	1.0	ISO 15586: 2003, Water quality –	
		Determination of trace elements using atomic	
		absorption spectrometer with graphite	
		furnace	
Zinc (Zn)	5.0	TZS 861(Part 7):2006 – Flame Atomic	
		Absorption Spectrometry	

Table C: Organic Components		
Parameter	Limit (mg/l)	Test Method
1, 1, 2 -Trichloroethane	0.06	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
1,1,1 - Trichloroethane	3.0	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
1,2 - Dichloroethylene	0 . 2	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
1,2 - Dichloroethane	0.04	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
1,3 - Dichloropropene	0.2	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
Alkyl benzene sulfonate (ABS)	0.5	ISO 7875 – 1: 1996, Determination of surfactants – Pat 1: Determination of anionic surfactants by measurement of the methylene blue index (MBAS)
Aromatic nitrogen containing compounds (e.g., aromatic amines)	0.001	APHA Standard Methods 6410: Liquid-liquid extraction GC/MS method
cis-1, 2 - Dichloroethylene	0.4	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)

Dichloromethane	0.2	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
Oil and Grease (fatty maters and hydrocarbons)	10	APHA Standard methods 5520
Organochlorine pesticides (Cl)	0.0005	GC ECD (ISO 6468: 1996, Water quality – Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes – Gas Chromatographic method after Liquid-Liquid extraction)
Other aromatic and/or aliphatic hydrocarbons not used as pesticides	0.05	GC ECD (ISO 6468: 1996, Water quality – Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes – Gas Chromatographic method after Liquid-Liquid extraction)
Pesticides other than organochlorines	0.01	GC ECD (ISO 6468: 1996, Water quality – Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes – Gas Chromatographic method after Liquid-Liquid extraction)
Phenols	0.002	GC ECD (ISO 6468: 1996, Water quality – Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes – Gas Chromatographic method after Liquid-Liquid extraction
Tetrachloroethylene	0.1	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
Tetrachloromethane	0.02	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)
Trichloroethylene	0.3	GC ECD (ISO 10301: 1997, Water quality – Determination of highly volatile halogenated hydrocarbons – Gas chromatographic methods.)

Table D: Microbiological Components		
Parameter	Limit	Test Method
Total Coliform Organisms	10,000counts /100mL	ISO 6222:1999, Microbiological methods

SECOND SCHEDULE

(Made under Regulation 10)

SPECIFIC TOLERANCES FOR EFFLUENTS OF CHROME TANNING INDUSTRY

Characteristics	Tolerance Limit	Method of test
Chlorides as Cl, mg/l, max.	1000	TZS 94: 1989 (Part 3)
Biochemical oxygen demand for 5 days at 20°C, mg/l <i>max</i> .		TZS 94: 1980 (Part 1) Clause 11
Hexavalent chromium as (Cr), mg/l, <i>max</i> .	0.1	TZS 94: 1989 (Part 2)
рН	5.5 - 9.0	TZS 94: 1980 (part 1) Clause 8

THIRD SCHEDULE

(Made under Regulation 11)

SPECIFIC TOLERANCES FOR EFFLUENTS OF VEGETABLE TANNING INDUSTRY

Characteristics	Tolerance Limit	Method of test
Biochemical oxygen demand for 5 days at 20°C, mg/l	30 - 100	TZS 94:1980 (Part 1) Clause 11
Chlorides (as CI), mg/I, max,	1000	TZS 94:1989 (Part 3)
рН	5.5 – 9.0,	TZS 94'1980 (Part1) Clause 8
Suspended solids, mg/I, max.	100	TZS 94:1980 (part 11 Clause 7
Colour and odour	Absent	TZS 94:1980 (Part 1) Clauses 5 & 6.

FOURTH SCHEDULE

(Made under Regulation 12)

SPECIFIC TOLERANCE FOR EFFLUENTS FROM A FERTILIZER INDUSTRY

SIN	Characteristics	Tolerance limits	Methods of test
1.	Dissolved phosphate (as P), mg/l, max	5	TZS 343:1989 (Annex)
2.	Dissolved fluorides (as F), mg/I, <i>max</i> .	15	TZS 94:1989 (Part 3) (see clause 2)
3.	рН	5.5 - 9.0	TZS 94:1989 (Part 1) clause No.8 (see clause 2)

FIFTH SCHEDULE

(Made under Regulation 14)

MICROBIOLOGICAL REQUIREMENTS AND CLASSIFICATION OF NON-CHLORINATED PIPED WATER SUPPLIES

Class of piped Water/Type of test count	Coliform count per 100 ml at 37°C	E. Coli (faecal coliform) count per 100 ml at 44°C
Excellent	0	0
Satisfactory	1 - 3	0
Suspicious	4 - 10	0
Unsatisfactory	More than 1 0	1 or more

Note: For each individual sample coliform should be estimated in terms of the "Most Probable Number" in 100 ml of drinking water, which is often designated as MPN index or Coli index. Occurrence of E. coli (faecal coli) in consecutive samples, in less than 100 ml of drinking water is an indication of faecal pollution and hence a dangerous situation needing urgent, rectification.

SIXTH SCHEDULE

(Made under Regulation 13)

SIX CHEMICAL AND PHYSICAL LIMITS FOR QUALITY OF DRINKING WATER SUPPLIES

Group	No. Substance	Unit	Lower limit	Upper Limit
	Lead (Pb)	mg/L	-	0.1
	Arsenic (As)	mg/L	-	0.05
	Selenium (Se)	mg/L	-	0.05
	Chromium (6+) (Cr)	mg/L	-	0.05
Toxic	Cyanide (CN)	mg/L	-	0.20
	Cadnium (Cd)	mg/L	-	0.05
	Barium (Ba)	mg/L	-	1.0
	Mercury (Hg)	mg/L	-	0.001
	Silver (Ag)	mg/L	-	n.m
Affecting	Fluoride (F)	mg/L	1.5	4.0

Group	No. Substance	Unit	Lower limit	Upper Limit
Human Health	Nitrate (N0 ₃₎	mg/L	10.0	75.0
Organoleptic	 Colour Turbidity Taste 	TCU NTU -	1.5 5 n.o	50 25 -
	4. Odour	-	n.o	-
	1. pH		6.5	9.2
	2. Total Filterable Residue	mg/L	500	2000
	3. Total Hardness	mg/L	500	600
	(CaC0 ₃)	mg/L	75	300
Salinity and	4. Calcium Ca	mg/L	50	100
Hardness	5. Magnesium Mg	mg/L	500	1000
	6. Magnesium + Sodium	mg/L	200	600
	S0 ₄	mg/L	200	800
	7. Sulphate S0 ₄			
	8. Chloride CI			
Less Toxic	1. Iron Fe	mg/L	0.3	1.0
Metals	2. Manganese Mn	mg/L	0.1	0.5
	3. Copper Cu	mg/L	1.0	3.0
	4. Zinc Zn	mg/L	5.0	15.0
	BOD (5 days at 30°C)	mg/L	6.0	6.0
Organic Pollution of	PV (Oxygen abs KMN0 ₄)	mg/L	10	20
Natural Origin	Ammonium, (NH ₃ + NH ₄ ⁺)	mg/L	2.0	2.0
	Total Nitrogen (Excluding N0 ₃)	mg/L	1.0	1.0
Organic Pollution	Surfactants (Alkyl Benzyl Sulphonates)	mg/L	1.0	2.0

Group	No. Substance	Unit	Lower limit	Upper Limit
Introduced Artificially	Organic Matter (as carbon in Chloroform	mg/L	0.5	0.5
Artificially	extract)	IIIg/L	0.3	0.3
	Phenolic Substances (As Phenol)	mg/L	0.002	0.002
3.7				

Note:

n.o - not objectionable n.m - not mentioned

SEVENTH SCHEDULE

(Made under Regulation 15)

RADIOACTIVE MATERIALS LIMITS FOR QUALITY OF DRINKING WATER SUPPLIES

Material	Limit
Gross alpha activity	0.1 Bq/l
Gross beta activity	0.1 Bq/l

EIGHTH SCHEDULE

(Made under Regulation 16)

DISTANCE TO SOURCE OF CONTAMINATION

Source of contamination	Minimum distance from source
Pit preview, septic tanks and sewers.	50 metres
Borehole latrines, seeping pits, trenches and sub surface sewage disposal fields.	100 metres
Cesspools, sanitary landfill areas and graves.	150 metres

NINTH SCHEDULE

(Made under Regulation 17)

FREQUENCY OF SAMPLING

Type of Source/Population served	Up to 1,000	Up to 2,000	Up to 5,000
Borehole deeper than 8m	6 months	4 months	3 months
Well less than 8m.	2 months	1 month	1 month
Surface water, lakes, rivers, springs, dams	1 month	2 weeks	2 weeks

NB:

- (i) The minimum number of samples to be taken from a distribution system is calculated at the rate of one sample per 500 population in addition to the intake or source;
- (ii) The above-prescribed frequency of sampling refers to those water supplies, which on previous examination showed total absence of faecal coli, if the result of bacteriological examination indicates faecal pollution, the water supply in question should be re-examined within a fortnight, at the latest, irrespective of the type of source or population served.
- (iii) Supplier/Authority should determine key points on the distribution system from which samples should be collected. On each occasion samples should be taken from different points.
- (iv) The minimum number of samples to be taken from a distribution system is calculated at the rate of one sample per 500 population in addition to the intake or source.
- (v) The above-prescribed frequency of sampling refers to those water supplies, which on previous examination showed total absence of faecal coli, if the result of bacteriological examination indicates faecal pollution, the water supply in question should be re-examined within a fortnight, at the latest, irrespective of the type of source or population served.
- (vi) Supplier/Authority should determine key points on the distribution system from which samples should be collected. On each occasion samples should be taken from different points.

Dar es Salaam,	MARK J. MWANDOSYA	
, 2007	Minister of State, Vice President	
	Office -Environment	