

[NAME OF LOCAL GOVERNMENT] SEWERAGE AND DRAINAGE BYE-
LAWS, 2023

PREAMBLE

WHEREAS it is expedient and necessary to provide for the sewerage and drainage bye-laws for the local government;

AND WHEREAS under Section 203 read with sixth and seventh Schedule of the Punjab Local Government Act, 2022 read with all other enabling provisions, the [Name of Local Government] is empowered to make these bye-laws;

NOW, THEREFORE, in exercise of the aforesaid powers and all other enabling provisions in this behalf, [Name of Local Government] promulgates the following bye-laws which are hereby notified.

Mayor/Chairman/Administrator
[Name of Local Government]

Dated:

**[NAME OF THE LOCAL GOVERNMENT] SEWERAGE AND DRAINAGE
BYE-LAWS, 2023**

**PART-1
DEFINITIONS**

1. Short Title-

The Bye-laws shall be called the [Name of the Local Government] Sewerage and Drainage Bye-laws, 2023.

2. Commencement-

- (1) These Bye-laws shall come into force at once.
- (2) These shall come into force at once and shall be applicable to the whole local area of [Name of the Local Government].

3. Definition-

(1) In these Bye-laws, unless the context otherwise requires:

- a. **"Act"** means the Punjab Local Government Act, 2022 (Act XXXIII of 2022);
- b. **"Bye-laws"** means the [Name of Local Government] Sewerage and Drainage Bye-laws, 2023;
- c. **"Drains"** means any drain, channel, gutter or pipes intended to collect, convey or dispose of drain water, stormwater, seepage water or waste liquid (not being waste liquid, discharged into water-borne sanitary installation) and shall include fittings and apparatus such as lavatory basin, bath or sink, the water liquids of which are discharged into any such drains, channel or pipes together with the pipes, connection, traps, gullies all other parts thereof;
- d. **"Drain Installation"** means any drain, channel, gutter or pipes intended to collect, convey or dispose of rainwater, stormwater, seepage water or waste liquids;
- e. **"Effluent"** means waste water discharged from point sources which enters into a body of water or upon land, or waste water arising as a byproduct of any use.
- f. **"local government"** means a Metropolitan Corporation, a District Council, or a Union Council promulgating these Bye-laws;
- g. **"MO (I&S)"** means the Municipal Officer (Infrastructure and Services) of the local government;
- h. **"Person"** means any person or body of persons whether incorporated or not;
- i. **"Sewerage"** means any liquid discharges containing human excreta, animal or vegetable matters in suspension or solution derived from domestic activities and being generated from household, commercial, institutional and industrial premises including liquid discharges from water closets, basins, sinks, bathrooms and other sanitary appliances but excluding rain water and prohibited effluent.
- j. **"Sewerage" or "Sewerage System"** means a system of collection of waste water from an area including its houses, institutions, industry and public places; the pumping, treatment and disposal of such waste water, effluent, sludge, and other products;
- k. **"Sewer"** means any conduit or pipe provided for the conveyance of the solid or liquid waste of a community otherwise known as sewerage,

such as conduit or pipe being the property of or vested with the local government;

- l. “Sullage or Sullage Water”** is the same as sewerage for the purposes of these Bye-laws except that sewerage is called sullage when it flows open in the atmosphere;
- m. “User”** means any person, institution, organization or concerned who in arrangement with the local government shall be entitled to use the facilities of the sewerage and drainage system in accordance with the terms of such agreement;
- n. “Washing Trough”** means a wash basin, trough or sink measuring internally 4 feet or more over its longest or widest part. **“Unit”** in relation to such a trough means 2 feet of the length of the trough, or in the case of a circular or oval trough, 2 feet of the circumferences thereof.
- o. “Water Main”** means a water pipe or conduit carrying water for public use which is owned and operated by the local government;
- p. “Water-borne Sanitary Installation”** means-
 - (i) Any urinal, latrine, water closet, apparatus, slop, sink reinstallation or other similar fitting, the solid or liquid filth from which is intended to be discharged by a flush of water and shall include all manholes, traps, gullies, solid pipe, waste pipes, ventilation pipes and drainage water borne sanitary installation to a public sewer, or to septic tanks or other treatment or disposal works into such drains may lawfully empty.
 - (ii) Any septic tanks, absorption pit, or other treatment, disposal works, if provided in the premises or intended to deal with or dispose of the liquid and or solid filth from the said water borne sanitary installation.
 - (iii) Any apparatus such as a lavatory basin, bath or sink the waste liquid from which is discharged or intended to be discharged into the pipe or drains of any water-borne sanitary installation together with the pipes, connections, traps, gullies, drains and all other parts thereof.
 - (iv) Any and every addition to, partial construction, reconstruction or installation of a building or any other premises as defined above.

(2) Words and expressions used but not defined in these Rules shall have the same meanings as are respectively assigned to them in the Act.

PART-II APPLICATION AND GENERAL PROVISIONS

4. Existing Installations-

Any water borne sanitary or drainage installation transferred to the local government under the Act and lawfully existing on the date on which these Bye-laws come into force shall be deemed to be made under these Bye-laws and be subject to all provisions herein contained.

5. Application for Installation-

(a) Domestic Sewerage and Drainage Service-

- (1) No one shall carry out any water borne sanitary or drainage installation work or make, cause or permit any private connection pipe or sewer to connect directly or indirectly in any new or existing building or in any Local government sewer without first obtaining written permission of the local government.
- (2) Application (along with required documents) for a new connection shall be submitted on the form specially designed which can be obtained from any office of the local government on payment of the prescribed fee.
- (3) A sewer or drainage connection will only be allowed with the approval of the owner of the property. If ownership is with any trust, the connection will only be made with the permission of the trust. Provided that a tenant or other persons occupying the premises or part of the premises not owned by him apply for a sewer or drainage connection, may apply with the approval of the owner but such connection will always be sanctioned in the name of the owner.
- (4) Sewer or drainage connection will not be sanctioned if ownership of property is disputed or is in default.

(b) Non-Domestic Sewerage and Drainage Services-

- (1) A request for the grant of a sewerage and drainage service for non-domestic purposes shall be made in the same manner as for a domestic service.
- (2) A non-domestic sewerage and drainage service shall also include a service for but not limited to:
 - (i) Any trade, manufacture, rendering service or business;
 - (ii) Construction and building purpose;
 - (iii) Washing vehicles;
 - (iv) Swimming pools; and
 - (v) Any environmental and mechanical purpose.

6. Deposit of Plans-

- (1) The user shall deposit with the application two copies of plans and sections clearly and indelibly drawn on a durable material to a scale of not less than one inch to eight feet (which shall be clearly marked on each drawing) which shall show thereon every floor of the building in connection with which such water borne sanitary installation, or drainage installation is to be used. The position, form level and arrangements of the several parts of such buildings shall be shown including the roof and the size, position and type of every drain, manhole, gully, soil pipe, waste pipe, and ventilation pipe of every drain passing under such building.

- (2) The type and position of every bath, water closet, slop sink, latrine, urinal, lavatory basin and trap in connection therewith and the position, type and dimensions of every septic tank, absorption pit or other disposal or treatment work proposed to be installed in connection with the foregoing shall also be shown.
- (3) The plans shall show the positions, type of construction and size of all water tanks, reservoirs intended to be used in connection with the building. The position of all windows and other openings into the building shall be shown together with the position of all chimneys belonging to the building with a distance of 30 feet from the open end of a soil pipe or ventilating pipe.

7. Connection Requirements-

The connection may not be given unless: -

- (i) Adequate sewerage or drainage facilities are provided to the satisfaction of MO(I&S).
- (ii) A written consent of the owner giving his valid Computerized National Identity Card (CNIC) issued by the Government of Pakistan & other required documents is provided.
- (iii) The prescribed connection fee has been paid to the Local government.
- (iv) For house/property of 12 marlas or more construction of septic tank of approved design is mandatory. Each house/property having total plot area of 12 marlas or above should have a septic tank in its premises. The wastewater from the house/property will first enter into the septic tank and then from septic tank it will enter into the local government's sewer.
- (v) Wastewater treatment plant is mandatory for industries releasing toxic effluent in the sewers/drains.

8. Inspection of Premises-

Presentation of the new connection application shall be deemed to authorize the MO(I&S) to enter the premises after reasonable notice and to examine or test the applicants' pipes, fitting, gullies, manholes, septic tanks, absorption pit or other disposal or treatment work etc, with which connection is to be made and also for inspection and testing any apparatus belonging to the local government on the applicant's premises.

9. Approval of Application-

The MO(I&S) shall, within seven days of the deposit of the notice and such plans and sections as may be required, inform in writing the

person who gives such notice as to whether such plans and sections are approved or not.

10. Alteration of Applications-

The MO(I&S) may direct such Person to make any alterations or improvements which appear to be necessary or desirable and the person shall alter the plans and sections accordingly.

11. Approval to be Cancelled-

If the work described in the application is not commenced within one year from the date of notice of approval of such plans, the approval shall be deemed to be cancelled.

12. Unlawful Commencement of Work-

- (1) No one without obtaining the consent of the MO(I&S) in writing shall commence any such work before the plans and sections have been approved. Violation of this provision shall be liable to a penalty under these Bye-laws.
- (2) The MO(I&S) on behalf of the local government may discontinue the use of or demolish or otherwise remove any obstruction, private connection, pipe, drain or sewer.
- (3) No one shall connect any private sewer with the local government 's sewer in the absence of local government staff. Any such work carried out in the absence of local government's staff will be dealt under Bye-law 12(1).

13. Plans on Site-

When the plans and sections have been approved, one copy thereof shall be returned to the applicant and one copy shall be retained by the MO(I&S). The applicant's copy of the plans shall be kept at the site of the work at all times when the work is in progress and shall be available for the inspection by MO(I&S).

14. Emergency Alteration-

Any person who is about to carry out a minor alteration to a water borne sanitary installation which must be carried out at once, shall, in lieu of depositing the plans and sections and particulars referred to in the foregoing Bye-laws, forthwith send to the MO(I&S) a notice in writing of any such proposed alteration. He shall within fourteen days of the commencement of such alteration, make the deposit required by the Bye-laws.

PART-III
INSTALLATION AND MAINTENANCE OF WATER BORNE SANITARY SERVICES

15. Maintenance of Sanitary installation and Drainage Installations-

The owner or the occupier of any premises connected to a local government sewer or drain shall at all times keep and maintain the whole of the water borne sanitary installation and drainage installation relating to the said premises in a clean and sanitary condition and in a proper state of repair and in good working order and condition. Failure to do so shall be an offence under these Bye-laws.

16. Altered or Defective Installation-

If any such water borne sanitary or drainage installation in the opinion of the MO(I&S) :-

- (i) is constructed, altered, added to or used otherwise than in accordance with these Bye-laws;
- (ii) is or becomes of bad or defective quality of construction or is choked or obstructed or is placed or situated in a position contrary to these Bye-laws;
- (iii) is required to be removed, altered, extended, cleaned, repaired or disconnected from the sewer or drains of the Local government;
- (iv) is causing damage to the property of the owner or of a neighbor or subjecting property of any kind to deterioration from the said installation;

the owner or occupier of the premises to which the installation belongs, shall upon service on him of notice in writing signed by the MO(I&S), reconstruct, renew, remove, alter, extend, clear, repair, clear the obstruction or disconnect same from the sewer or drain of the Local government within the time specified in such notice.

17. Notice to Connect the Sewer or Drain-

The owner of property may be required to execute any work with such material within such time and in such manner as may be directed by the MO(I&S) to connect the water borne sanitary or drainage installation of the said premises to sewer or drain of the local government. Failure to comply with these requirements shall be an offence under these Bye-laws.

18. Level of Lowest Storey-

Every owner who erects a new building shall construct the lowest story of such building at such level as will allow the construction of a drain sufficient for the effectual drainage of the building and the provision of the requisite connection with any sewer to which such drain may

lawfully empty at a point in the upper half of such sewer, or with any other means of drainage with which such drain may lawfully connect.

19. Connection to Sewer-

Every owner/occupier/user who carries out a water borne sanitary installation work for any new or existing building or in any other premises shall connect by means of a drain or drains with a local government sewer of adequate size for the full discharge of the said water borne sanitary installation taking in view/fulfilling clause 7(iv) of these Bye-laws.

20. Connecting to Septic Tanks-

Where local government sewers do not exist, the water borne sanitary installation may be connected to a septic tank or other means of disposal of solid and liquid waste after first obtaining the approval of the MO(I&S). The internal main sewer shall be connected to the approved disposal facilities to be provided on the said premises and the owner shall be responsible for the disposal of the solid and liquid waste on the premises of the said building without nuisance or danger of health/environment.

The effluent from the septic tank may be disposed of by sub-soil irrigation through open pipes laid under land belonging to the said premises or into suitably lined absorption pits providing that no domestic water supply is taken from the sub-soil water.

21. Disposal of Discharge-

The owner or occupier of premises shall not cause the discharge from any water borne sanitary installation, absorption pit or septic tank to pass into any surface drain, storm water channel, storm water drain, irrigation water channel, cesspool, unlined absorption pit or over the surface of any land or otherwise in any manner not in accordance with these Bye-laws.

22. Inlet and Outlet of Baths and Through-

(1) Every inlet to a bath, wash-basin, sink or similar application shall be separated from and unconnected with any outlet therefrom.

(2) Every outlet from emptying a bath (other than a shower bath), wash-basin, sink or similar appliances shall be provided with a readily accessible watertight plug or with some other no less effective device for closing the outlet. Provided that this paragraph shall not apply to:

- (i) Any appliance required by law to be fitted with an unplugged outlet; or
- (ii) Any appliance to which water is delivered exclusively by a fitting or fittings so designed and arranged as to be incapable of delivering water to that appliance or in the

case of washing through any unit thereof at a rate exceeding 5 pints per minute.

- (3) Every fitting for delivering water to a washing trough shall be so designed and arranged as to be capable of discharging water to one unit of the through without simultaneously discharging it to other units.

23. Discharge Level-

- (1) Every tap or fitting (other than the flushing pipes of a flushing cistern) which discharge water into a bath, wash basin, sink or similar appliance shall be so fitted that it cannot discharge less than $\frac{1}{2}$ inch above the lowest part of the top edge of an appliance. Except that a fitting to which a loose pipe is or may be attached may discharge at a lower level providing that there are effective means of preventing syphonage of water back through every pipe conveying water to the fitting.
- (2) Any fitting may be so installed that it can discharge lower than the above level, if every pipe conveying water to that fitting:-
 - (i) draws water only from a storage cisterns, cylinder or tank having a vent open to the atmosphere and;
 - (ii) is connected to the cistern, cylinder or tank not less than 1 inch above the lowest part of the top edge of the appliance; and
 - (iii) does not convey water to any draw off tap or fitting (other than a draining tap) which discharges water lower than the last-mentioned level.

24. Flushing Cisterns to Closets and Urinals-

Every water closet pan and every urinal shall be provided with a flushing cistern or some other efficient flushing apparatus. The cistern or apparatus shall be separate and distinct from any cistern or apparatus used for drinking purpose. It shall be constructed, fitted and placed to admit the supply of water so that there is no direct connection between any water service pipe upon the premises other than that connecting with flushing cistern or apparatus. Except with the approval of the MO(I&S), the cistern shall be placed as to provide a head of at least five feet measure from the bottom of the cistern to the point where the flush pipe enters the water closet.

Every flushing cistern shall be provided with a suitable ball cock fixed on the supply pipe and on overflow warning pipe which will discharge into the open air in a conspicuous position where the discharge of water may be readily seen.

25. Pipes to Water Closet Pans-

- (1) No pipe other than a flushing pipe leading only from flushing apparatus, shall be connected in such a way that it can deliver water to any water closet pan or urinal.

- (2) An overflow warning pipe may be arranged if necessary to discharge into the pan of a water closet or into a urinal but only if the water is discharged into the air not less than 6 inches above the top edge of the pan or urinal.

26. Capacity of Flushing Cisterns-

- (1) No flushing cistern or other flushing apparatus having a urinal shall be of such a design or be so arranged as to give a flush of more than 1 gallon per litre per 2 feet 3 inches width of slab (except with the upward variation permitted by one or other of the British Standards specified in these Bye-laws).
- (2) Every such flushing cistern shall comply with British Standard 1876-1976 "Automatic Flushing Cisterns for Urinal" or with British Standard 1123-1973 w.e. Flushing Cisterns (including flush pipes).

27. Automatic Flushing Apparatus-

Except with the written permission of the MO(I&S), user shall not construct or fix any self-acting or automatic flushing apparatus. In those cases where sanction is accorded for automatic flushing, he shall submit for the approval of the MO(I&S) detailed specification and drawings to show the size of the apparatus, the material of which it is to be made and method and frequency of its operation, and shall modify the apparatus as may be required by the MO(I&S).

28. Size of Flushing Pipe-

The pipe and union connecting the flushing cistern of a water closet or latrine with the basin, trough or other receptacle shall have an internal diameter of not less than 1 $\frac{3}{4}$ inches and shall be fixed as near vertical as possible.

29. Traps and Gullies-

Every person who constructs a water borne sanitary installation or any part thereof, in any existing or new building, or any other premises shall cause all gullies, traps, gratings, covers and other appliances to be of a pattern, size and quality approved by the MO(I&S). He shall cause every stoneware gully to be placed on a bed of cement concrete at least 4 inches thick and act so that the water level therein is at least 12 inches below and the grating at least one inch below the surrounding pavement. The pavement shall be sloped towards the gully for a pace equal to half of the width of the grating. Every gully trap shall be covered with a suitable iron grating provided with a hinged cover of approved design.

30. Drains to be Trapped-

Every person who constructed water borne sanitary installation or any part thereof for any existing or new building or in any other premises, shall provide in main drain or other drain of such building or premises which may immediately connect with sewer, septic tanks, or other disposal or treatment works, a suitable and efficient intercepting trap at such distance as may be practicable from the point at which the drain may be connected with the sewer, septic tank or other disposal works.

31. Drain Screen-

An open surface drain shall not be connected to the local government sewer without a bar screen of approved design being provided at a suitable point. This may be carried out only up to the period when the storm water drainage is made completely separated from sewerage system and storm water drains use is limited to rain water only.

32. Access Manholes-

Every person who constructs water borne sanitary installation or a part thereof for any existing or new building or in any other premises shall provide access manhole at a suitable point on the premises as directed by the MO(I&S). The manhole shall be right up to the level of the adjoining ground surface or roadway and shall be fitted with a suitable iron or reinforced concrete cover and frame. If placed within a building it shall be fitted with in airtight cover and frame.

33. Size of Pipe-

All pipes used in water born sanitary or drainage installation shall be capable of passing the maximum estimated flow and shall have internal diameter of not less than 4 inches. Provided that the internal diameter of the pipe connecting the access manhole with the local government sewer shall have an internal diameter of not less than 6 inches.

Explanation- "**Internal Diameter**" means internal diameter of the pipe exclusive of any lining.

34. Ventilation Pipe-

(1) Every water closet shall have its soil pipe which connects to sewer, tanker, other disposal or treatment works properly and adequately ventilated. Multiple water closets connected with a common soil pipe may use a non-vent pipe.

(2) The ventilation pipe of every such water closet shall be vented into the open air at a point above the highest water closet connected with such pipe.

- (3) The ventilating pipe shall have an internal diameter of not less than 2 inches and shall be connected with the arm of the soil pipe or trap at a point not less than 3 and not more than 12 inches from the highest part of the trap and on the side of the water seal, which is nearest to the soil pipe, the joint between the ventilating pipe and the arm of the soil pipe or trap shall be made in the direction of the flow.
- (4) Slop sinks, urinal and other sanitary fittings shall be vented in a manner approved by the MO(I&S).
- (5) Under the high stack system, water seals shall be provided of adequate depth so that they cannot be broken under the maximum expected vacuum in the system.

35. Ventilation of Closet Area-

Every water closet room or area shall be provided with adequate means of constant ventilation by means of an air brick built into an external wall of such water closet, or by an air shaft or some other effective method of ventilation. The area of the means of constant ventilation shall be not less than 38 square inches.

36. Pump Directly Connected-

No user shall be permitted to install a pump either mechanically or manually operated on a water borne sanitary installation which discharges into a sewer connection or direct to a sewer of the local government.

37. Air Gaps-

All water borne sanitary installation shall be provided with sufficient air gaps above the level of their over flows so that any back flow into the drinking water supply system is avoided.

PART-IV SPECIFICATION FOR THE CONSTRUCTION OF WATER BORNE SANITARY INSTALLATIONS

38. Excavation, Laying and Fixing-

- (1) The material from the excavation shall be so placed as to cause the least possible obstruction and inconvenience to the public.
- (2) Proper barriers and lights shall be maintained where necessary to guard against accidents during the progress of the work. On completion of refilling, the surface shall be restored as nearly as possible to the same condition as it was before the commencement of excavation unless the MO(I&S) in writing otherwise requires.

- (3) Unless otherwise approved, any pipeline connecting water borne sanitary installation with a local government sewer shall be laid in a straight line between the premises and the sewer. Any changes in direction shall only occur within the access manhole constructed to accommodate the change.

39. Connection to Sewer-

Each property shall have a separate and distinct connection to the local government sewer provided that where the MO(I&S) approves, more than one property may be connected through a common outlet pipe in such manner as the MO(I&S) may determine.

40. Pipe Laying-

- (1) Every pipeline constructed in connection with water borne sanitary installation shall be laid to correct line and level and the barrel of each pipe shall be fully supported on a compacted granular material or compacted brick ballast or undisturbed ground (As per local government Design Criteria). Where pipeline is to be laid on disturbed or backfilled ground, the ground shall be properly compacted to the satisfaction of the MO(I&S) and then granular material or brick ballast shall be compacted before pipeline laying is undertaken. All pipeline sockets shall be laid against the direction of flow.
- (2) Every pipeline joint shall be made in accordance with accepted practice and to the approval of MO(I&S). Every joint shall be water tight and on completion of the pipeline it shall be tested in accordance with the Bye-laws and to the satisfaction of the MO(I&S).
- (3) Where a pipeline has less than 2 feet of cover between the top of the pipe and the ground surface, it shall be surrounded with 6 inches of concrete and to such further extent as the MO(I&S) may require.

41. Pipeline Test-

When each length of pipeline between access points has been laid, the pipeline shall be tested to the satisfaction of the MO(I&S) before the excavation is backfilled. Tests shall be carried out by subjecting the pipeline to a smoke test or a hydrostatic pressure test in accordance with the MO(I&S)'s requirements. Any faulty joints revealed by the test shall be made good and the pipeline retested to the satisfaction of the MO(I&S).

42. Back Filling of Excavation-

Backfilling of pipeline excavation shall be carried out by placing the excavated material around the pipe and carefully compacting so that the pipes are adequately supported and protected. Stones or other hard

material shall be excluded from the backfill and only soft material shall be placed in contact with the pipes.

The excavation shall than by completely backfilled in layers of 6 inches, each layer being thoroughly compacted before the succeeding layer of backfill is applied. Backfill shall be carried out manually.

43. Notice of Completion-

Every person who carries out any water borne sanitary installation or drainage installation or any work in connection therewith for any existing or new building or in any other premises shall give the MO(I&S) notice in writing stating the date and time at which such work will be ready for final inspection and where necessary, for final inspection with any existing sewer, or storm water or surface drain vested in the Local government. The notice shall be delivered to the relevant office of the local government at least two days before the date stated therein.

44. Inspection-

Every person who carries out any water borne sanitary installation or sewerage installation or any works in connection therewith for any existing or new buildings, or in other premises shall afford the MO(I&S) free access to such installation of work in progress for the purpose of inspection. The MO(I&S) shall see that the requirements of the Bye-laws are applied but such inspection shall not relieve the person of his obligation to comply with the Bye-laws. The MO(I&S) shall point out of the user any faults in construction or quality of material and the user shall rectify such faults to the satisfaction of the MO(I&S).

PART-V SPECIFICATION OF MATERIAL

45. Pipe Materials-

All pipes in water borne sanitary or drainage installation shall be of RCC, PVC, GRP/FRP, HDPE or such other material as the Local government may from time to time approve.

46. Quality of Material-

- (i) All material, pipes, bends, junctions and fittings shall be of the quality of their respective kinds, free from defects and of the kind of standard approved from time to time by the MO(I&S).
- (ii) Second hand material may be used only with the prior approval of the MO(I&S) and on written request of the owner of the property, provided that such materials comply with the requirement of the Bye-laws with regard to construction type, quality soundness and efficiency.

47. Approved Material-

No person shall use any material in or for any work of a water borne sanitary drainage installation which have not been approved, or which do not comply with the requirements of these Bye-laws.

48. Pipe and Fittings-

Pipes and fittings used in water borne sanitary installation or drainage installation shall be regular in section, smooth, clean and free from obstruction to the flow of water and shall comply with the requirements of the relevant British Standard specification relevant for such pipes and fittings.

49. Jointing Material-

Jointing material used in connection with joints on cast iron with cement and PVC pipes shall comply with the pipe manufacturer's requirements.

50. Cement Mortar-

Cement mortar unless otherwise ordered by the MO(I&S) shall be, by volume or by weight, of one part of Portland cement and two parts of clean sharp sand and thoroughly mixed with an approved portion of clean water.

51. Cement-

Cement used in any water borne sanitary installation or drainage installation shall be Portland cement of approved brand and shall be submitted for test if so required by the MO(I&S). No cement or concrete shall be used which has been mixed longer than one hour.

52. Concrete-

Concrete unless otherwise ordered by the MO(I&S) shall consist by volume, by weight of one part Portland cement, two parts clean sharp sand and four parts approved hard gravel not exceeding 1 ½ inch nominal gauge and shall be thoroughly and homogeneously mixed with clean water to such an extent as may be ordered or approved by the MO(I&S).

PART-VI

STORM WATER DRAINAGE AND SULLAGE WATER

53. Sullage Water-

No person shall connect his sullage water with any storm drain or discharge it on open land. Failure to comply with this requirement shall be an offence under Bye-laws.

54. Encroachments-

No person shall cover or encroach upon any storm drain or sewer or on the land adjoining them belonging to the local government. If any encroachment obstructs clearing operations it shall be removed and the encroacher shall not have any claim for compensation in respect thereof.

With the permission of the local government, a person may cover a storm drain at his own cost, but a request shall be submitted to the local government in advance of the work being carried out and the work shall be subject to such conditions and requirements as the local government may impose.

55. Theft of Sullage Water-

Use of Sullage water for irrigation without paying revenue to the Local government, shall be theft of public property and shall be punishable accordingly. Moreover, sewage cannot be used for growing vegetables.

56. Blockage of Storm Water Drains-

Dumping of rubbish, waste material or any other items into storm drains is strictly prohibited.

57. Interference with Treatment Plants-

Person who have entered into agreement with the local government to obtain effluent from a sewerage treatment plant of the local government shall not interfere with the running of the plant in any manner.

PART-VII PROTECTIVE MEASURES

58. Inspection of Material and Works-

- (1) All materials, pipes, fittings and apparatus shall be approved by the MO(I&S) and where required by him shall be submitted to the local government for verification and test.
- (2) No person shall cover up or conceal from view or put into use any water and sanitary installation work or drainage work until it has been inspected and approved by the MO(I&S).
- (3) Every person and his employees carrying out or engaged on or in connection with water borne sanitary or drainage work shall afford every reasonable facility and information to enable the MO(I&S) to make his inspection.

59. Unauthorized Connection-

If any unauthorized connection is discovered, the owner shall on being served with a notice in writing by the MO(I&S), have the connection

regularized by paying the prescribed fee and penalty subject to the connection complying with the requirements of these Bye-laws. Otherwise the connection shall be removed by the local government at the cost and risk of the owner.

60. Damage to Sewer or Drain-

- (1) Any person who damages a sewer or storm water drain of the local government shall be guilty of an offence under these Bye-laws and besides criminal liability, shall be liable to pay the cost of repair to the local government.
- (2) No one shall damage any sewer pipe, drain, channel, conduit or structure, manhole, chamber, fixture and equipment or any part of sewerage / drainage system.
- (3) Nobody will throw or dispose wastes / solid wastes / garbage in local government's sewers / drains.

61. Interference with Duties-

Any person who obstructs or hinders an official of the local government in performance of his duties shall be guilty of an offence under these Bye-laws and under the Act.

PART-VIII INDUSTRIAL WASTES

62. Discharge of Industrial Wastes-

Industrial wastes that are likely to affect the normal quality of sewage or adversely affect the sewers shall not be discharged into the local government's sewers without the permission of the local government in writing. All the industrial effluent shall be treated by the consumer by making his own arrangements or paying thereof to the local government for said treatment.

63. Quality of Sewage-

The normal quality of sewage shall be considered to have been affected if any of the following qualities exceed the capacity notified by the National Environment Quality Standard (NEQS).

- (i) PH (Hydrogen Ion Concentration).
- (ii) Total Dissolved Solids.
- (iii) Total Suspended Solids.
- (iv) Biochemical Oxygen Demand.
- (v) Temperature.
- (vi) Color.
- (vii) Coliform Organisms and other bacteria.
- (viii) Toxic Contents.

64. Hazardous Waste-

- i. Industrial wastes containing chemical substance that are hazardous to human or animal life shall not be discharged into an local government sewer.
- ii. No one is allowed to discharge into local government sewer any prohibited effluent containing:
 - a) any noxious, violating or inflammable substance or any other matter likely to damage or impair the functioning of any local government's sewer or local government's sewage treatment plant or to interfere with the free flow of its contents or to affect prejudicially the treatment or disposal of its contents.
 - b) Any effluent, matter or substance from a garbage grinder.
- iii. Every company / firm is bound to treat the waste water to bring its standard according to NEQS before disposing it into local government System.

65. Pretreatment of Industrial Waste-

Local government may order a manufacturer to treat his/its industrial waste at his/its premises to the extent considered necessary by the local government before he is allowed to discharge it into the local government sewer. The decision of the local government in this respect shall be final and binding on the manufacturer.

66. Discharge to River-

No manufacturer shall discharge his waste into a river if the same is likely to adversely affect the normal quality of river water and its self-purification capacity to the extent that aquatic life is endangered and the recreation or any other use of river water is adversely affected.

67. Discharge into Sub-Soil-

No manufacturer shall be authorized to dispose of any waste into the sub-soil without the prior permission of the local government if the waste on reaching the ground water renders it unsuitable for human consumption.

67-A Sewage Quality Rate-

The local government may charge the sewage quality rate to wastewater with the quality exceeding that of general domestic wastewater besides from the ordinary wastewater rate.

68. Details of Waste-

- (1)** Every manufacturer shall submit to the local government, the analysis of any industrial waste that is likely to be discharged into the local government sewer. The local government may also require the manufacturer to submit details of any proposed discharge of waste into the local government's sewer before an industry is set up.
- (2)** The details supplied by the manufacturer shall indicate the quality, volume and maximum rate of flow of industrial waste proposed to be discharged into the local government's sewer and shall also indicate the date by which the industrial waste is likely to commence discharging.

68-A Power to Take Samples-

- (1)** The local government shall be entitled to enter into the customer's premises to take a sample of industrial waste for examination purpose and if its results are different from those registered by him or exceed the NEQS for Municipal and Liquid Industrial Effluent, the MO(I&S) may require its improvement to his satisfaction, or otherwise disconnect the line.
- (2)** If the consumer willfully, by neglect or intentionally refuses from, causing hindrance or from obtaining samples, shall be punishable as provided under the Act.

69. Industrial Waste Agreement-

The manufacturer may enter into an agreement with the local government for the conveyance, treatment and disposal of industrial waste at local government's plant provided that:-

- (a)** The local government's order regarding treatment of waste at the consumer's premises have been fully complied with;
- (b)** The manufacturer agrees to pay any expenses arising from the conveyance of his industrial waste through the local government's sewer and treatment and disposal of such wastes at the local government plant; and
- (c)** The industrial waste does not contain any toxic or radio-active substance that are really to be hazardous to workmen in charge of the maintenance of sewer and the sewage treatment plant of the local government.

PART-IX ADDITIONAL INSTRUCTIONS

70. Defective work-

All pipes and fitting which on inspection or test are found to be defective shall be removed and replaced by sound, approved pipes and fittings and all leaking or defective joints shall be made watertight and good by the user.

70-A. Method for Calculation of Sewer Dues-

(i) Sewerage charges against the local government Water Connection;

(a) The sewerage charges for all Domestic connections shall be calculated as 70% of water charges, or the prevailing tariff whichever is higher will be charged.

(b) The sewerage charges for all Non-Domestic / Commercial / Industrial connections shall be calculated as 80% of water charges or the prevailing tariff whichever is higher will be charged.

(ii) Sewerage charges where local government water connection does not exist-

The sewer charges against the consumer's own source of water will be calculated in the same manner as mentioned in point (i) above, however the quantity of water will be assumed as per area of property in case of domestic connection and the type of activity in case of commercial connection.

71. Disused Services-

Where any water borne sanitary or drainage installations connected with the local government's sewer is abandoned or fall into disuse, the owner shall remove or disconnect it and shall seal it at the point of disconnection with the sewer to the satisfaction of the MO(I&S).

71-A. Discontinuity of Sewerage and Drainage Services-

The MO(I&S) reserves the right to discontinue sewerage and drainage service due to the following reasons including but not limited to;

- (i) any ongoing emergency or planned repair / improvement works;
- (ii) increase in discharge in excess of the rated discharge of industry;
- (iii) rain emergency;
- (iv) environmental and health hazard; and
- (v) financial default.

72. Penalties-

(A) Whoever contravenes any of these Bye-laws shall be punishable as provided under the Act.

(B) Damaging sewerage / drainage system or part of the system:

(1) No one shall damage any sewer pipe, drain, channel, conduit or structure, manhole, chamber, fixture and equipment or any part of sewerage / drainage system.

(2) Nobody will throw or dispose wastes / solid wastes / garbage in Local government 's sewers / drains.

(C) Illegal Sewer Connection-

a. No one shall make any sewer connection to Local government 's sewer / drain without the permission of MO(I&S).

b. An illegal connection will be regularized according to the prevailing policy / practice of local government. However the illegal users are bound to provide all the necessary documents as required for new connection.

73. Appeals.- Any person aggrieved by an order passed under these Bye-laws may file appeal under section 192 of the Act to the Appellate Authority as prescribed under the relevant rules made under the Act.