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PUBLIC HEALTH BYE-LAWS

FOR

THE BHAVNAGAR MUNICIPAL CORPORATION

OF

GUJARAT STATE

SEPTEMBER 2018

EXECUTIVE SUMMARY

Public Health Bye-laws for The Bhavnagar Municipal Corporation of The State of Gujarat, India

The Government of Gujarat has launched "Mahatma Gandhi Swachata Mission (MGSM)" on 25th February, 2014 to achieve "Clean Gujarat" status by 2019. MGSM comprises various aspects and Public Health Bylaws is one of the key aspects of the Mission. The State Government Urban Development and Urban Housing Department (UD&UHD) has also prepared the Public Health Bylaws for four Small Municipal Corporations & 159 ULBs of the State of Gujarat. With a view to enhancing the support of the MGSM mission, The Bhavnagar Municipal Corporation, which is one of the big and key Municipal Corporations of the state has also taken a positive step in this context and has assigned the work of preparing "Public Health Bye Laws for The Bhavnagar Municipal Corporation" to M/s. All India Institute of Local Self Government (AIIISG) under letter no. _____ dated .

For Bhavnagar Municipal Corporation the public health bye-laws has been prepared under Section-458 (subsections 19, 20, 21, 22, 25, 26, 27, 28, 29, 31, 33, 36, 38, 39, 40, 42, 43, 48) of the **Gujarat Provincial Municipal Corporations Act , 1949**.

The Public Health Bye-Laws covers solid waste management, liquid waste management, air and noise pollution and other sanitation and public health aspects like food sanitation, community and public toilets, open defecation, manual scavenging, water and vector borne diseases etc.

SOLID WASTE MANAGEMENT (SWM)

- All aspects of SWM generation, collection, segregation, treatment and disposal have been covered under bye-laws.
- Municipal Solid wastes have been classified into 30 different categories, which include plastic waste, E - waste, bio-medical waste, c & d waste etc.

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- Generators of waste have been classified into 21 different categories, which include residential, commercial, government, heritage residential and commercial building & premises, market places, slaughter houses, dairy and cattle sheds etc.
- It has been made compulsory to segregate waste into dry and wet waste for all the generators of waste.
- It has been made compulsory for all generators of waste to store segregated waste in different colors bin and in such way that waste do not get mix or contaminate with each other.
- Generators of waste have to deliver the waste to the collection vehicle or bin within 24 hours of generation. For C&D waste the given time limit is of 4 days. It has been asked to plan the collection system in such time so that the maximum waste can be collected.
- It has been made compulsory to treat the waste before it goes to secured landfill for final disposal and only processed inert wastes shall be landfilled. For bio-medical waste it has been made compulsory to give all medical waste to treatment agency for disposal. For plastic and e waste producer has to ask for necessary authorization before processing and dumping of e waste and Plastic Waste.

LIQUID WASTE MANAGEMENT (LWM)

- Any generator of liquid waste shall have connection in public sewer.
- For new developments the provision of dual pumping system has been kept so that the domestic waste water can be treated on site and can be reused.
- For the areas where public sewer lines are not available it has been made compulsory to construct septic tanks and soak pits and other such methods of onsite sanitation for treatment and safe disposal of liquid waste. Wherever it is possible it has been made mandatory to treat the liquid waste on site for the generators.
- The provisions of sludge removing, cleaning of septic tank and manhole has been made along with emphasis on prevention of manual scavenging. It also emphasizes

on provision of adequate sanitation facilities like water and toilets for construction sites as well as community and public toilets.

PREVENTION OF WATER BORNE, VECTOR BORNE AND FOOD BORNE DISEASES

- Various aspects to be considered in the prevention of food borne diseases and maintaining food safety and sanitation shall be as per the specifications and penalties covered under the FSSAI Act 2006 and its amended rules published thereafter. These bye laws are in aid of the act and shall cover penalty charges for general issues relating to food, food premises and food handler’s sanitation and cleanliness.
- Methods for prevention of water and vector borne diseases are deeply covered for maintaining good public health.

EXTENDED PRODUCER RESPONSIBILITY

Under Extended producer responsibility it has been mandatory for producer of Plastic and Electronics products to provide production details of their products and they have been made responsible for safer disposal of their waste products. The Producers shall fulfill the collection and channelization of responsibilities entrusted upon them under the E-Waste/Plastic Waste (Management and Handling) Rules, 2016 or any amendments thereof through.

AIR POLLUTION

Under air pollution, smoking in public places is prohibited. The owner of premises will be held responsible for any type of nuisance in private premises. The emission of air pollutants in ambient air and maintaining of indoor air quality has been restricted under bye-laws. Various aspects under The Air (Prevention & Control of Pollution) Amended Act 1987 and amendments and rules have been covered.

NOISE POLLUTION

The corporation shall take measures for abatement of noise including noise generated from vehicles, bursting of fire crackers on roads and streets and other public and private places, use of loud speakers or public addressing systems, which generate high level of noise and

exceed the standards for noise as prescribed in the Noise Pollution (Regulation and Control) Amendment Rules 2010 and the amendments made therein.

OFFENSES UNDER THESE BYE-LAWS

Other general offenses under Public health bye-laws have been defined clearly. The administrative and compromise charges have been decided to collect from the people or organizations for breaching of the said bye-laws.

ENFORCEMENT OF THE PROVISIONS OF THESE BYE-LAWS AND SCHEDULE OF ADMINISTRATIVE CHARGES AND COMPROMISE FEES

The Bhavnagar Municipal Corporation will have to pass the resolution in general board after which it will have to invite objections / suggestions through notification in news papers under section 460 of GPMC Act. The objections / Suggestions received would be incorporated and /or rejected by the general board by a resolution and then submitted to State Government for approval.

Formation of Nuisance Detection Squad and its working methodology has been clearly mentioned to implement these bye laws and collect necessary charges from erring individuals and organizations on the spot and even the procedure if the charges are not paid by them has been highlighted.

Finally, a schedule of administrative charges and compromise fees for breaching of different bye laws by the people or organizations has been mentioned in the said Public Health Bye Laws.

CHAPTER – I

GENERAL

PREAMBLE, NEED AND PURPOSE OF PUBLIC HEALTH BYE LAWS:

In the modern era of urbanization the Municipal Corporations are vested with umpteen numbers of responsibilities including providing a wholesome environment to its citizens. The 42nd amendment to the Constitution was brought in the year 1974 makes it the responsibility of the State Government to protect and improve the environment and to safeguard the forests and wildlife of the country. The State's responsibility with regard to environmental protection has been laid down under Article 48-A of our Constitution. Article 51 A(g) of the Constitution, under Fundamental Duties, makes it the fundamental duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures. The State's responsibility with regard to raising the level of nutrition and the standard of living and to improve public health has been laid down under Article 47 of the Constitution which reads as follows: "The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties". Local self governments being constitutional bodies are required to perform these functions.

Pursuant to the Municipal Solid Wastes (Management and Handling) Rules, 2016, The Bio-Medical Waste (Management and Handling) Rules, 2016, The Hazardous Waste (Management and Handling) Rules, 2008 framed under the Environmental Protection Amendment Act, 1991, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Amended Act, 1987, the Municipal Corporations shall be primarily responsible for the Public Health Management in their respective jurisdictions. To provide legal base for the management and planning of collection; storage, transportation, processing and disposal of Municipal Solid Wastes; Biomedical Wastes, Liquid Wastes, Hazardous and Industrial Wastes; as well as resource recovery and recycling;

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imposing and collecting fees, providing remedies; prescribing penalties, making repeals etc., By introducing these Byelaws, The Bhavnagar Municipal Corporation intend to penalize erring citizens as well as the erring staff. The Bhavnagar Municipal Corporation intends to convey the importance of sanitation to all its citizens and it acknowledges the role of people and their participation in effective governance. Active Citizen Groups, NGOs & Resident’s Associations can make valuable contribution in effective implementation of the said Byelaws. Under the definition of Public Health bye laws, it is envisaged that:

- ‘Public Health is to ensure every individual in the community, a standard of living adequate for the maintenance of health’
- All our efforts for scientific management of all kinds of waste is ultimately meant for a healthy life

Purpose of Bye Laws:

- Purpose of the bye laws is to enable The Bhavnagar Municipal Corporation to protect and promote the long term health and well being of the residents by:-
 - Developing a tool, **an effective legal and administrative framework** for municipal authorities to regulate implementation of municipal waste management and sanitation facilities
 - Manage and regulate the activities that has potential impact on public health
 - Improve the services to protect public health, environment and natural resources
 - To define the rights and responsibilities of The Bhavnagar Municipal Corporation and the public in relation to public health, sanitation and waste management

Therefore, In exercise of the powers conferred under Section-458, Sub Sections **((19,20,21,22,25,26,27,28,29,31,33,36,38,39,40,42,43,48))** of the Gujarat Provincial Municipal Corporations Act, 1949 (Act No. 59 of 1949), Municipal Commissioner of The Bhavnagar Municipal Corporation makes the following Bye-laws -

1. SHORT TITLE AND COMMENCEMENT:

These Bye-laws may be called ***"Public-Health Bye-laws 2018 for The Bhavnagar Municipal Corporation of Gujarat State"***. They shall come into force on and from _____.

The Bhavnagar Municipal Corporation shall notify and publish on the Corporation's website and/or in all the leading newspapers from time to time the different stages of implementation of these Bye-laws taking into account the infrastructure availability and awareness among the citizens and the respective days on which the provisions of these Bye-laws shall apply and the extent of the same.

(Approved by The Bhavnagar Municipal Corporations under Resolution No. _____ dated _____ and confirmed by the Government of Gujarat under the Notification No. _____ of this _____ day of (Year)).

2. APPLICABILITY, SCOPE AND RIGHT TO INTERPRET:

Except where it is otherwise expressly or impliedly provided, these Bye-laws shall apply to all the generators of waste specified in the Bye law in the whole geographical area vested in the municipalities from time to time by the Government. If any question relating to the interpretation of these Bye-laws arises, it shall be referred to the Municipal Commissioner of The Bhavnagar Municipal Corporation whose decision thereon shall be final.

3. PROCEDURE FOR ADOPTING THE BYE LAWS:

The Bhavnagar Municipal Corporation will have to pass the resolution in general board after which it will have to invite objections / suggestions through notification in news papers under section 460 of GPMC Act. The objections / Suggestions received would be incorporated and /or rejected by the general board by a resolution and then submitted to State Government for approval.

CHAPTER - II

DEFINITIONS

4. Unless the context otherwise requires:-

- (1) **"Act"** means unless otherwise specifically mentioned, The **Gujarat Provincial Municipal Corporations Act , 1949**.
- (2) **"Administrative Charges"** means a charge collected from the offender of the provisions of this bye laws under section 479 of the Gujarat Provincial Municipal Corporations Act, 1949. The same charges shall be decided and notified from time to time by the Municipal Commissioner;
- (3) **"Agency/Agent/Contractor/ServiceProvider"** means any entity/person appointed or authorized by the Municipal Commissioner to act on behalf of The Bhavnagar Municipal Corporation, for discharge of duties or functions such as collection of waste, collection of charges/taxes/rates, segregation, treatment, disposal etc.;
- (4) **"Authorization"** means the consent given by the Board or Committee to the operator of a facility for the generation, collection, reception, storage, transportation, treatment, disposal and/or any other form of handling of municipal solid waste, liquid waste and/or for any other matters related to public health in accordance with these Bye-laws;
- (5) **"Authorized official"** means a person/employee authorized by The Bhavnagar Municipal Corporation in terms of these Bye-laws to execute work, conduct an inspection and monitor and enforce compliance with these bye-laws;

- (6) [**"Bio-Medical Waste"** means any waste generated during the diagnosis treatment or immunization of human beings or animals or in research activities pertaining thereto or in production or testing of biologicals;]¹
- (7) [**"Bio Solids"** means stabilised organic solids derived totally or in part from wastewater treatment processes that can be managed safely to utilise beneficially their nutrient, soil conditioning, energy, or other value. The term biosolids does not include untreated wastewater sludge, industrial sludge or the product produced from the high temperature incineration of sewage sludge. It should also be noted that many other solid waste materials are not classified as bio solid animal manures, food processing or abattoir wastes, solid inorganic wastes and untreated sewage or untreated wastes from septic systems/sludge wastes;]²
- (8) [**"BOD"** means biochemical oxygen demand (BOD) which is an empirical test, in which standardised laboratory procedures are used to estimate the relative oxygen requirements of wastewaters, effluents and polluted waters or the level of degradable organic material in a body of water. Micro- organisms use the atmospheric oxygen dissolved in the water for biochemical oxidation of organic matter, which is their source of carbon. The BOD is used as an approximate measure of the amount of biochemically degradable organic matter present in a sample. The 5-day incubation period has been accepted as the standard for this test (although other incubation periods are occasionally used);]³

¹Source: Environment and Pollution Laws, 2012, p 240

²Source:Global Atlas Of Excreta, Wastewater Sludge, And Bio solids Management by UN-Habitat

³ISO 1990 Water Quality - Determination of Biochemical Oxygen Demand after 5 Days (BOD₅), Dilution and Seeding Method International Standard ISO 5815, International Organization for Standardization, Geneva

- (9) "**Bulk Generator of solid waste**" means the owner, occupier or any other person representing owners and occupiers of housing society/housing complexes, restaurants, hotels, markets, industrial estates and shopping complexes/malls, government or public office buildings, clubs, gymkhanas, marriage halls, recreation/entertainment complexes, hospitals, educational institutions, commercial establishments and other establishments, sources/premises that are specifically identified and notified by the competent officer delegated with a power to do so by the Municipal Commissioner;
- (10) "**Bye-laws**" means the Public Health Bye-laws-2018 framed under Section 458 of the G.P.M.C Act, 1949;
- (11) "**Cogeneration**" means co-production of electrical and thermal energy also called combined heat and power (CHP);
- (12) "**Collection**" means lifting and removal of municipal solid waste from designated collection point or any other location;
- (13) "**Collection at source**" means the collection of municipal solid waste by The Bhavnagar Municipal Corporation directly from the premises of any building or common premises of a group of buildings. This is also referred to as door-to door collection or "Primary Collection";
- (14) "**Community**" means a group of interacting people, living in some proximity (i.e., in space, time or relationship)It refers to a social unit larger than a household that shares common values and has social cohesion;
- (15) "**Community Bin**" means an approved receptacle for the storage of waste which is placed on the sides of private roads, by-lanes etc or on the premises of societies, apartments, bungalows etc which is supplied by the owner/management of society in terms of these Bye-laws;
- (16) "**Competent Authority**" means any person/persons or authority/authorities; authorized by the prescribed authority as the case may be, to perform the functions as specified under these regulations;

- (17) [**"Composting"**is the biological decomposition of biodegradable solid waste under controlled predominantly aerobic conditions to a state that is sufficiently stable for nuisance-free storage and handling and is satisfactorily matured for safe use in agriculture;]⁴
- (18) **"Community Container"** means an approved receptacle which is placed on the sides of public roads or streets from for the temporary storage of waste provided by the Bhavnagar Municipal Corporation in terms of these Bye-laws;
- (19) **"Compromise Fee"** means and includes a fee tendered by the offender under Section 481(b) of the GPMC Act, 1949 against breach of any offense which are included in the Schedule I of these bye laws;
- (20) **"Corporation"** means the Bhavnagar Municipal Corporation established under the Gujarat Provincial Municipal Corporations Act, 1949;
- (21) **"Delivery"** means handing over any category of solid waste to The Bhavnagar Municipal Corporation worker or any other person appointed, authorized or licensed persons by The Bhavnagar Municipal Corporation for taking delivery of such waste or depositing it in any vehicle provided by The Bhavnagar Municipal Corporation or by any other licensed persons by The Bhavnagar Municipal Corporation to do so;
- (22) **"Digestion"** is the process by which organisms break down sludge, creating methane gas, carbon dioxide, solid organic material and water as by-products;
- (23) **"Door-to-Door collection system"** means the bell-ringing vehicle (includes a carriage, cart, van, dray, truck, hand-cart, bicycle, cycle-rickshaw, auto-rickshaw, motor vehicle and every wheeled conveyance which is used or is capable of being used on a street) provided by The Bhavnagar Municipal Corporation for primary collection of Municipal Solid Waste.

⁴United Nation's Indicators of sustainable development: Guidelines and Technologies, Methodology Sheets

- (24) [**"Disposal"** means final disposal of municipal solid wastes and liquid waste in terms of the specified measures to prevent contamination of ground-water, surface water and ambient air quality;]⁵
- (25) **"Disinfection"** means final step in the tertiary waste water treatment process, when chlorine or sodium hypo-chloride is added to the treated water to kill disease causing organisms. Ultraviolet light is another means of disinfection;
- (26) [**"Drain"** includes a sewer, tunnel, pipe, ditch, gutter or channel and any cistern, flush tank, septic tank or other device for carrying off or treating sewage, offensive matter, polluted water, sullage, waste water, rain water or sub-soil water and any culvert, ventilation shaft or pipe or other appliance or fitting connected therewith, and any ejectors, compressed air mains, sealed sewage mains and special machinery or apparatus for raising collecting expelling or removing sewage or offensive matter from any place;]⁶
- (27) **"Dump"** means placing waste anywhere other than approved receptacle, or a place designated as a waste handling facility or a waste disposal facility by The Bhavnagar Municipal Corporation;
- (28) [**"Effluent"** means the liquid that comes out of a treatment plant after completion of any treatment process;]⁷
- (29) **"Extended Producer Responsibility"** means responsibility conferred upon "manufacturers", or "producers", or "brand owners", or similar stakeholder for collection, segregation, recycling or any other assigned activity beyond manufacturing until environmentally sound management of their end-of-life

⁵Source: Environment and Pollution Laws, 2012, p 304

⁶Source: The Gujarat Provincial Municipal Corporation Act, 1949

⁷Source: Environment and Pollution Laws, 2012, p 452

products, as defined in regulations notified by the Government of India, including:

- a. Plastic Waste Management and Handling Rules, 2016, and any amendments thereof;
- b. E-Waste Management and Handling Rules, 2016, and any amendments thereof;
- c. Any other rules that may be notified and/or amended from time to time.

(30) "**Filth**" includes sewage, night soil and all offensive matter;]⁸

(31) "**Food Borne diseases**" means an illness resulting from the consumption of contaminated food, pathogenic bacteria, viruses or parasites that contaminate food, as well as chemical or natural toxins such as poisonous mushrooms;

(32) "**Generator of waste**" means a generator listed in Bye-laws no 6 of Chapter 4;

(33) "**Grey Water/Sullage/Septage**" means the domestic waste water generated during personal washing, laundry, cooking and cleaning activities;

(34) "**Grit Chamber**" means tank in which flow of waste water is slowed, allowing heavy solid materials such as pebbles, sand, coffee grounds and eggshells to sink to the bottom;

(35) ["**Hazardous Substance**" means any substance or preparation which, by reason of its chemical or physic-chemical properties or handling, is liable to cause harm to human beings, other living creatures, plants, micro-organism, property or the environment;]⁹

(36) "**Head works**" means area of treatment plant where influent begins treatment

(37) "**Health**" means the complete physical, mental and social state of well-being and not merely the absence of a disease or infirmity;

⁸Source: The Gujarat Provincial Municipal Corporation Act, 1949

⁹Source: Environment and Pollution Laws, 2012, p 4

- (38) [**"House-gully trap"** means a passage or strip of land, constructed, set apart or utilized for the purpose of serving as a drain or of affording access to the latrine, urinal, cesspool or other receptacle for filthy or other polluted matter by persons employed in the removal of cleaning thereof or in the removal of such matters there from;]¹⁰
- (39) **"Household"** means a group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevent any of them from doing so. Persons in a household may be related or unrelated or a mix of both;
- (40) **"Infectious Diseases"** means communicable diseases comprising of clinically evident illness resulting from the infection, presence and growth of pathogenic biological agents in an individual host organism. In certain cases, infectious diseases may be asymptomatic for much or even all of their course in a given host;
- (41) **"Influent"** means untreated waste water when it flows into a treatment plant;
- (42) **"Influent screens"** means first step in the waste water treatment process, where wastewater is allowed to pass through the bars, but large objects are stopped"
- (43) **"Infrastructure"** means roads, streets, open spaces, parks, play grounds, recreational grounds, water and electric supply, street lighting, sewerage, drainage, storm water drainage, public works and other utility services and convenience;
- (44) [**"Landfill"** means disposal of residual solid wastes on land in a facility designed with protective measures against pollution of ground water, surface water and

¹⁰Source: The Gujarat Provincial Municipal Corporation Act, 1949

air fugitive dust, wind-blown litter, bad odour, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion;]¹¹

- (45) "**Littering**" means putting litter in such a location that it falls, or likely to falls descends, blows, is washed, percolates or otherwise escapes into or onto any public place; Or causing, permitting or allowing litter to fall, descend, blow be washed, percolate or otherwise escape into or onto any public place;
- (46) ["**Market**" means any place where persons assemble for the sale of, or for the purpose of exposing of sale, meat, fish, fruits, vegetables, animals intended for human food or any other articles of human food whatsoever, with or without the consent of the owner of such place notwithstanding that there may be no common regulation for the concourse of buyers and sellers and whether or not any control is exercised over the business of, or the person frequenting, the market by the owner of the place or by any other person;]¹²
- (47) "**Municipal Commissioner**" means the Municipal Commissioner of The Bhavnagar Municipal Corporation;
- (48) ["**Nuisance**" includes any act, omission, place or thing which causes or is likely to cause injury, danger, annoyance or offence to the sense of sight, smelling or hearing or which is or may be dangerous to life or injurious to health or property and environment;]¹³
- (49) "**Nuisance Detectors**" means the employees of The Bhavnagar Municipal Corporation who are appointed and empowered by the Municipal Commissioner to collect compromise fee/administrative charges from the offenders of the provisions of this bye-laws;

¹¹Source: Environment and Pollution Laws, 2012, p 304

¹²Source: The Gujarat Provincial Municipal Corporation Act, 1949

¹³Source: The Gujarat Provincial Municipal Corporation Act, 1949

- (50) "**Notified Area**" means areas notified by The Bhavnagar Municipal Corporation under G.P.M.C Act, 1949
- (51) ["**Occupier/Occupant**" includes:
- (a) any person who for the time being is paying or is liable to pay to the owner the rent or any portion of the rent of the land or building in respect of which such rent is paid or is payable,
 - (b) An owner living in or otherwise using his land or building,
 - (c) A rent free tenant,
 - (d) A licensee in occupation of any land or building, and
 - (e) Any person who is liable to pay to the owner damages for the use and occupation of any land or building;]¹⁴
- (52) "**Operator of a facility**" means a person who owns or operates a facility for collection, segregation, storage, transportation, processing and disposal of municipal solid wastes and liquid waste and also includes any other agency appointed as such by the municipal authority for the management and handling of municipal solid wastes and liquid waste in the respective areas;
- (53) "**Offensive matter**" means animal carcasses, kitchen or stable refuse dung, dirt and putrid or putrefying substances other than sewage;¹⁵
- (54) ["**Orphan Waste**" means any type of waste, the generator of which cannot be identified or is no longer in business and has no successor in interest e.g. electronic waste, plastic waste, dead animals, biodegradable waste, biomedical waste or hazardous waste, C&D waste etc;]¹⁶

¹⁴Source: The Gujarat Provincial Municipal Corporation Act, 1949

¹⁵ Source: The Gujarat Provincial Municipal Corporation Act, 1949

¹⁶Source: Environment and Pollution Laws, 2012, p 388T

- (55) ["**Owner**" means
- (a) when used with reference to any premises, the person who receives the rent of the said premises, or who would be entitled to receive the rent thereof if the premises were let and includes--
 - (i) an agent or trustee who receives such rent on account of the owner,
 - (ii) an agent or trustee who receives the rent of, or is entrusted with or concerned for, any premises devoted to religious or charitable purposes,
 - (iii) a receiver, sequestrate or manager appointed by any Court of competent jurisdiction to have the charge of, or to exercise the rights of an owner of, the said premises, and
 - (iv) a mortgagee-in-possession, and
 - (b) When used with reference to any animal, vehicle or boat, includes the person for the time being in charge of the animal, vehicle or boat;]¹⁷
- (56) ["**Person**" means any individual or individuals who is occupier/owner of the residential buildings and it includes agents, assignees, owner, tenant etc. of any shop or establishment or firm or company or association or body of individuals whether incorporated or not;]¹⁸
- (57) "**Point to Point Collection**" means the system of collection of municipal solid waste from specific pick-up points as designated by The Bhavnagar Municipal Corporation, up to which the generator must bring the collected and stored waste for delivery to a vehicle appointed by the Bhavnagar Municipal Corporation;
- (58) "**Pollution**" means any change in the environment caused by:
- a) substances;

¹⁷Source: The Gujarat Provincial Municipal Corporation Act, 1949

¹⁸Source: Environment and Pollution Laws, 2012, p 560c

- b) radioactive or other waves; or
 - c) noise, odors, dust or heat;
 - d) emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or wellbeing or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have that effect in the future;
- (59) **"Premises"** includes buildings, tenements in a building, house, outhouse, stable, shed, hut, and any other structure whether of masonry, brick, mud, wood, metal or any other material whatsoever and lands of any tenure whether open or enclosed whether built upon or not being used for the time being for purposes of residence, trade, industry, service, business, government or any other public or private purpose including weddings, banquets, meetings, exhibitions, organized events, etc. It also includes any portion of a public road that is permitted by the Municipal Commissioner to be used for the time being for parking of vehicles, street vending, storage of materials at a work site or for any public or private purpose whatsoever other than the movement of vehicles;
- (60) **"Primary waste treatment"** means mechanical separation of solids, grease and scum from waste water. With the aid of flocculating agents, primary treatment can eliminate 50-65% of the suspended solids. Solids removed by primary treatment may comprise as much as 30-40% of the original BOD of the water;
- (61) **"Private Street"** means any street which is not a public street and includes any passage securing access to two or more places belonging to the same or different owners.

- (62) **["Processing"** means any scientific process by which waste is treated for the purpose of recycling or making it suitable for land filling;]¹⁹
- (63) **"Public Health"** means the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals and it includes environmental health, community health, behavioral health, health economics, public policy and occupational health;
- (64) **"Public Nuisance"** means any act, omission, place or thing being which causes or is likely to cause nuisance in any public place;
- (65) **"Public place"** includes any road, arch road, viaduct, lane, footway, alley or passage, highway, causeway, bridge, square alley or passage whether a thoroughfare or not over which the public have a rite of passage, and such places to which the public has access such parks, garden, recreation grounds, playgrounds, beaches, water bodies, water courses, public plazas and promenades, government and municipal buildings, public hospitals, markets, slaughter houses, courts, etc;
- (66) **"Public road"** means any road, street or thoroughfare or any other place (whether a thoroughfare or not) which is commonly used by the public or any section thereof or to which the public has a right of access, and includes –
- a) the verge of any such road, street or thoroughfare
 - b) any bridge, ferry or drift traversed by any such road, street or thoroughfare and
 - c) Any other work or object forming part of or connected with or belonging to such road, street or thoroughfare.

¹⁹Source: Environment and Pollution Laws, 2012, p 305

- (67) "**Receptacle**" means container, including bins and bags, used for the storage of any category of municipal waste as prescribed by The Bhavnagar Municipal Corporation from time to time;
- (68) ["**Recycling**" means the process of transforming segregated non-biodegradable solid waste into raw material for producing new products, which may or may not be similar to the original products;]²⁰
- (69) "**Refuse**" means any waste matter generated out of different activities, processes, either degradable/non-degradable/Other in nature in either solid or semi-solid form which cannot be consumed, used or processed by the generator in its existing form;
- (70) "**Sanitary sewage**" means grey water and black water from domestic, commercial and other non-industrial sites
- (71) "**Schedule**" means a schedule appended to these Bye-laws;
- (72) "**Scum**" means a mass of light solids, such as hair, grease, oils and soaps floating on the surface of waste water in a septic tank;
- (73) "**Secondary waste treatment**" means processing of various types of systems that employ aeration and biological oxidation stages to decompose dissolved and colloidal organic contaminants;
- (74) "**Sedimentation Tanks**" means the tanks provided for a period of quiescence during which suspended waste material settles to the bottom of the tank and is scraped into a hopper and pumped out of disposal.
- (75) "**Segregation**" means to separate Municipal Solid Waste into the specified groups of bio-degradable, hazardous, bio-medical, construction and demolition, bulk garden and horticultural and all other waste;
- (76) "**Septic tank**" means a water tight receptacle that receives sewage from a building and provides primary treatment;

²⁰Source: Environment and Pollution Laws, 2012, p 114

- (77) **"Sewage Treatment Plant"** means authorized waste treatment plant of The Bhavnagar Municipal Corporation consisting of a series of tanks, screens, filters and other processes by which pollutants are removed from sewage
- (78) **["Sewers"** means a system of pipes used for collecting domestic and industrial waste, as well as storm water run-off;]²¹
- (79) **"Sewerage"** means a system of sewers, the removal of waste materials by means of a sewer system;
- (80) **"Sludge"** means the heavier solids that separate from wastewater inside the septic tank and sink to the bottom. These solids are subject to continual decomposition activity by bacteria in the tank; however, since breakdown is never complete solids accumulate and must be periodically removed by pumping;
- (81) **"Solid waste"** means any discarded solid or semi solid material generated or brought in The Bhavnagar Municipal Corporation limits.
- (82) **"Source"** means the premises in which waste is generated;
- (83) **["Storage"** means the temporary containment of municipal solid waste in, receptacles; prevent littering, attraction to vectors, stray animals and excessive foul odor;]²²
- (84) **"Storm Drain"** means a pipeline or channel system that carries surface water and/or runoff to public waters, but does not feed into sewer system;
- (85) **"Street"** includes any way, road, lane, square, court, alley, gully, passage, whether a thoroughfare or not and whether built upon or not, over which the public have a right of way and also the roadway or footway over any bridge or causeway;

²¹Source: Environment and Pollution Laws, 2012, p 452

²²Source: Environment and Pollution Laws, 2012, p 305

- (86) **"Street Sweeping"** means the wastes collected from streets, walkways, alleys, parks and vacant lots;
- (87) **"Surveillance"** means collection of the data of the area in grip of the communicable diseases or suspected to be affected with a view to carry pout field investigations of all cases already affected or those likely to be affected to find out the source of infection and take prompt control measures, simultaneously keeping a watchful eye over the situation;
- (88) **"Suspended solids"** means solids physically suspended in sewage that can be removed by proper laboratory filtering
- (89) **"Tertiary waste treatment"** means treatment following secondary treatment, the clarified effluent may require additional aeration and/or other chemical treatment to destroy bacteria remaining from secondary treatment stage, and to increase the content of dissolved oxygen needed for oxidation of the residual BOD;
- (90) [**"Transportation"** means conveyance of Municipal Solid Waste from place to place hygienically through specially designed transport system, so as to prevent foul odor, littering, spillage unsightly condition and accessibility to vectors;]²³
- (91) **"User Charges/ Safai Charges"** means fees/charges notified by The Bhavnagar Municipal Corporation from time-to time for collection, transport, processing and disposal of Municipal Solid Waste from different categories of waste generators and charged under Municipal Solid Waste (Management and Handling) Rules, 2016
- (92) **"Vaccine Preventable Diseases"** means infectious diseases for which effective preventive vaccine exists;
- (93) **"Vector"** means an anthropoid insect, a biological entity where the causative agent undergoes multiplication or some developmental charges within its body

²³Source: Environment and Pollution Laws, 2012, p 305

before it is passed on to another host(usually human beings) through its bite which transmits diseases;

- (94) **"Vector Borne diseases"** means disease in which the pathogenic microorganism is transmitted from an infected individual to another individual by an arthropod or other agent, sometimes with other animals serving as intermediary hosts;
- (95) **"Vehicle"** means a carriage, truck, hand-cart, bicycle, tricycle, auto-rickshaw, motor vehicle and every wheeled conveyance which is used or is capable of being used on a street.
- (96) **"Ward"** means an administrative ward of The Bhavnagar Municipal Corporation unless specified otherwise;
- (97) **"Waste"** includes:
- a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in a volume, constituency or manner so as to cause an alteration in the environment; or
 - b) any discarded, rejected, unwanted, surplus or abandoned substance; or
 - c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the substance, or
 - d) any substance prescribed as waste in schedule II of these Bye-laws or any other legislation;
- (98) **"Water Borne diseases"** means the diseases caused by pathogenic microorganisms that most commonly are transmitted in contaminated fresh water. Infection commonly results during bathing, washing, drinking, in the preparation of food, or the consumption of food thus infected;
- (99) **"Wrapper"** means a plastic or other suitable or approved material covering that totally encloses bales or slugs of compacted waste.

CHAPTER – III

CLASSIFICATION OF WASTE

5. Classification of waste: The waste shall be classified as follows:-

- (1) Ashes
- (2) Bio-degradable waste/Wet waste
- (3) Bio-medical waste
- (4) Bulk garden and horticulture waste
- (5) Bulky waste
- (6) Commercial waste
- (7) Commercial/Household Hazardous waste
- (8) Construction and Demolition waste (C & D waste)
- (9) Dead Animals
- (10) Domestic Sewage
- (11) Slaughter house/mutton/chicken waste
- (12) E-waste
- (13) Garbage/Hotel Kitchen and other kitchens food waste
- (14) Garden waste
- (15) Hazardous waste
- (16) Household/Residential waste
- (17) Industrial Solid and Liquid waste
- (18) Inert Solid waste
- (19) Institutional waste
- (20) Liquid waste
- (21) Municipal Solid waste
- (22) Municipal waste
- (23) Recyclable waste/Dry waste
- (24) Septage
- (25) Sewage Liquid waste
- (26) Sewage Solid waste
- (27) Street Sweepings

- (28) Utility Waste
- (29) Plastic Waste
- (30) Radio-Active Waste
- (31) Automobile Waste
- (32) Textile/Chindi Waste

1. **Ashes** shall consist of residues arising from the burning of wood, coal, charcoal, coke and other combustible materials used for cooking and heating in houses, institutions and small industrial establishments. This also includes fine powdery residue; cinders and clinker which are often mixed with small pieces of metal and glass.
2. **Bio-degradable waste/Wet Waste** shall consist of the following wastes generated within the limits of The Bhavnagar Municipal Corporations:(Green and Garden waste, Tea leaves, egg shells, fruit and vegetable peels, animal waste including tissues, blood, meat, fish and bones and other non vegetarian items waste, garden and leaf litter, including flowers, animal litter, soiled paper, coconut shells and any other waste which is bio-degradable in nature)
3. **Bio-medical waste** shall consist of any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biological materials from an institution which includes but not limiting to hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank etc. This waste shall be further categorized into the following:
 - (1) **Human anatomical waste** consisting of human tissues, organs, body parts
 - (2) **Animal waste**(animal tissues, organs, body parts carcasses, bleeding parts, fluid, blood and experimental animals used in research, waste generated by veterinary hospitals colleges, discharge from hospitals, animal houses)
 - (3) **Microbiology & biotechnology waste** (wastes from laboratory cultures, stocks or specimens of micro-organisms live or attenuated vaccines, human and animal cell culture used in research and infectious agents from

research and industrial laboratories, wastes from production of biological, toxins, dishes and devices used for transfer of cultures)

- (4) **Waste sharps:** (needles, syringes, scalpels, blades, glass, etc. that may cause puncture and cuts. This includes both used and unused sharps)
- (5) **Discarded Medicines and Cytotoxic drugs**(wastes comprising of outdated, contaminated and discarded medicines)
- (6) **Solid waste**(Items contaminated with blood, and body fluids including cotton, dressings, soiled plaster casts, lines, beddings, other material contaminated with blood)
- (7) **Solid waste** (wastes generated from disposable items other than the waste sharps such as tubes, catheters, intravenous sets etc.).
- (8) **Liquid waste**(waste generated from medical/pathological laboratory and washing, cleaning, house-keeping and disinfecting activities)
- (9) **Incineration ash** (ash from incineration of any bio-medical waste)
- (10) **Chemical waste**(chemicals used in production of biological, chemicals used in disinfection and as insecticides, etc.)

4. Bulk garden and horticulture waste shall consist of bulk waste from parks, gardens, traffic islands etc. and includes grass clippings, weeds, woody 'brown' carbon-rich material such as pruning, branches, twigs, wood chipping, straw or dead leaves and tree trimmings, which cannot be accommodated in the daily collection system for bio-degradable waste.

5. Bulky waste shall consist of commercial/residential waste which, by virtue of its mass, shape, size or quantity is, in the opinion of the Bhavnagar Municipal Corporation, inconvenient to remove in the routine door to door services provided by the Bhavnagar Municipal Corporation.

6. Commercial waste shall consist of wastes generated from offices, wholesale and retail stores, markets, warehouses and other commercial establishments engaged in any commercial activities. These wastes include garbage and rubbish.

7. Commercial/Household Hazardous waste shall consist of the following:

(1)

Household cleaners:

- Abrasive powders
- Aerosol Cans
- Ammonia and ammonia based cleaners
- Chlorine bleaches
- Drain Openers
- Furniture Polish
- Glass cleaners
- Oven cleaner
- Shoe polish
- Silver polish
- Spot removers
- Toilet bowl cleaners
- Upholstery and carpet cleaners

(2)

Personal care products:

- Medicated shampoos
- Nail Polish Remover
- All cosmetic Items

(3)

Automotive products:

- Brake and Transmission Fluids
- Car Batteries
- Fuels such as spent diesel, kerosene and gasoline
- Waste Engine and Lubricating Oils
- Oil Filters and Car Care Products and Consumables

(4) Paint products:

- Enamel
- Oil based, Latex or Water Based Paints
- Paint Solvents and Thinners
- Oils, Glues and their empty containers

(5) Miscellaneous products:

- Batteries from flash lights and button cells
- Photographic Chemicals
- Acid used for toilet cleaning
- Pesticides, Herbicides and Ant, Cockroach and Mosquito Killers and their empty cans
- Chemical Fertilizers
- Incandescent Light Bulbs, All types of Tube lights, Compact Fluorescent Lamps (CFLs), LED bulbs and tubes, Sodium and Mercury Vapor Lamps and any type of lighting devices not specified above
- Styrofoam and soft foam packaging from new equipment including thermocol material
- Injection Needles and Syringes; sharps etc. after mutilating them
- Discarded and Outdated Medicines including liquids and tablets
- Thermometers and mercury containing products
- Sanitary Napkins, Towels, Disposable Diapers and incontinence pads (duly packed in polythene bags before disposal)

8. Construction and Demolition waste (C & D waste) shall consist of waste materials generated by the construction, refurbishment, repairs and demolition of houses,

commercial buildings and other structures as listed in The Construction and Demolition Waste (Management and Handling) Rules 2016. It shall mainly consists of the following:

(1) Major components (cement concrete, bricks, cement plaster, plaster of paris, steel (from R.C.C, door/window frames, roofing support, railings of staircases etc), rubble, stone (marble, granite, sandstone etc), timber/wood (especially demolition of old buildings, roofing materials)

(2) Minor components (conduits(iron, plastic),pipes (GI, iron, plastic),electrical and plumbing fixtures, panels(wooden, laminated), other waste (glazed tiles, glass panes etc)

9. Dead animals shall consist of dead animals that die naturally or are accidentally killed. It shall not include carcass and animal parts from slaughter houses

10. Domestic Sewage shall consist of human excreta and waterborne waste from the preparation and consumption of food and drink, dishwashing, bathing, showering and general household cleaning and laundry, except waterborne waste from a self-service Laundromat;

11. Slaughter house/mutton/chicken waste shall consist of the waste generated at slaughter houses, meat and chicken stalls and outlets.

12. E-waste shall consist the following electrical and electronic equipment as listed in Schedule I of the E-Waste Management and Handling Rules, 2016 as may be amended from time to time, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded:

(1) Information Technology and Telecommunication Equipment

- Centralized Data Processing
- Mainframes, Mini computers
- Personal Computing
- Personal Computers (Central processing unit with input/output devices)
- Laptop Computers (Central processing unit with input/output devices)

- Notebook computers
- Notepad computers
- Printers including cartridges
- Copying Equipment
- Electrical and Electronic typewriters
- User terminals and systems
- Facsimile
- Telex
- Telephones
- Pay telephones
- Cordless telephones
- Cellular telephones
- Answering systems

(2) Consumer Electrical and Electronics

- Television sets (including sets based on Liquid Crystal Display and Light Emitting Diode Technology), refrigerators, washing machines, air conditioners(excluding centralized air condition plants)

(3) Miscellaneous Home Appliances

- Tube lights and accessories and supporting items
- Electrical Wires
- Switch boards and accessories
- MCBs, OCBs, Relays etc.
- All other types of electrical and electronic goods

13. Garbage/Hotel Kitchen and Other Kitchen Food Waste shall consist of non vegetarian food items and vegetable wastes resulting from the handling, storage, and sale, preparation, cooking and serving of such foods.

14. Garden waste shall consist of waste generated as a result of normal domestic gardening activities, including grass cuttings, leaves, plants, flowers and other similar small and

light organic matter, but does not include tree branches with a diameter thicker than 40 mm at any point of its length, bulky waste, building waste or any waste generated as a result of garden service activities;

- 15. Hazardous wastes** shall consist of any waste which by reason of any of its physical, chemical, reactive, toxic, flammable, explosive or corrosive characteristics causes danger or likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances. It shall also include the hazardous waste referred to in Rule 3 (I) of the Hazardous wastes (Management, Handling and Transboundary Movement) Rules, 2009 published by the Central Government under Environment (Protection) Act 1986, amended in 1991.
- 16. Household/Residential waste** shall consist of the wastes generated from single and multi-family household units as a consequence of household activities such as cooking, cleaning, repairs, hobbies, decoration, empty containers, packaging, clothing, books, writing papers, newspapers, furnishings etc.;
- 17. Industrial solid and liquid wastes** shall consist of discarded non hazardous solid materials of manufacturing processes and industrial operations covering a vast range of substances which are unique to each industry. It shall also include the solid wastes from small industrial plants and ash from power plants and carcasses and animal parts from slaughter houses which are frequently disposed off at municipal landfills. It also includes liquid effluents generated from any type of hazardous or non hazardous industry and gets mixed with the normal sewage or is disposed off in open lands or other water sources.
- 18. Inert solid waste** shall consist of any non hazardous solid waste or remnant of processing whose physical, chemical and biological properties make it suitable for sanitary land filling;
- 19. Institutional wastes** shall consist of wastes arising from institutions such as schools, colleges, public libraries, universities, research organizations etc.

- 20. Liquid waste** shall consist of sewage liquid waste (Black water generated from toilets) and septage waste from septic tanks as well as sullage or grey water generated from kitchen washings, cloths and utensil washings, bathing etc.
- 21. Municipal solid waste** shall consist of commercial, residential and other waste generated within the limits of The Bhavnagar Municipal Corporations either in solid or semi-solid form excluding industrial hazardous waste and it also includes treated bio-medical waste;
- 22. Municipal wastes** shall consists of waste resulting from municipal activities and services and also includes wastes thrown on public places such as street waste, dead animals, market waste etc.
- 23. Recyclable waste/Dry Waste** shall consist of following wastes generated within the limits of The Bhavnagar Municipal Corporations.
- (1) **Paper products**- Newspaper, computer printouts, writing paper, envelopes, car park coupons, brochures or pamphlets, magazines, books, cardboard and paper packaging (such as cereal boxes and drink cartons) paper food wrappers and other paper products
 - (2) **Metal products**- Cans or containers made of metal such as soft drink cans, milk powder tins and food cans.
 - (3) **Plastic & rubber products**- Bottles or containers made of plastic such as detergent containers, milk containers, mineral water bottles, soft drink bottles, juice bottles, plastic bags, plastic packaging and all other plastic products.
 - (4) **Glass products**- Jars, bottles, window glass, porcelain, ceramic and fish tanks but excluding light bulbs.
 - (5) Any other material which is recyclable in nature
 - (6) Construction and Demolition Waste (C&D Waste)
 - (7) All types of E – Wastes

- 24. Septage** waste shall consist of septic tank sludge that is a combination of raw primary sludge and an aerobically produced raw sludge and which has an offensive odour, appearance and contains significant levels of grease, grit, hair, debris and pathogenic microorganisms. This waste shall be further categorized into the following:
- (1) Domestic septage
 - (2) Industrial septage
 - (3) Grease septage
- 25. Sewage solid waste** shall consist of the solid by-products derived from the treatment of organic sludge from both raw and treated sewage
- 26. Sewage Liquid waste** shall consist of sewage generated from households, commercial establishments, institutions or public toilets and will include gaseous emissions and effluents.
- 27. Street sweeping** shall consist of wastes collected from streets, walkways, alleys, parks and vacant lots
- 28. Utility Waste** shall consist of the waste from public infrastructure projects like construction of roads, bridges, toll booths etc. carried out by central or state Government contractors/agencies/agents/individuals
- 29. Plastic Waste** shall consist of any plastic products such as carry bags, pouches or multilayered packaging, which have been discarded after use or after its indented life is over;
- 30. Radio-Active Material/Substance** shall consist of any waste material containing radio nuclides in quantities or concentrations as prescribed by the competent authority by notification in the official gazette;
- 31. Automobile Waste** shall consists of wastes generated from automobile workshops, garages, repairers on street, small mechanic shops, etc. and shall include all the types of wastes generated from above activities including tyres, tubes, batteries, 2/3/4 wheeler vehicle components, waste clothes, used oils, greases and any such wastes generated from above activities.

32. Textile/Chindi Waste shall consists of unusable cloth waste generated from the textile manufacturing, storage, whole sale and retail sale, trading, of all types of textiles, including their end products or intermediate products which are not useful and is generated as waste.

Reference:

- CPHEEO Manual on Municipal Solid Waste Management, 2016

CHAPTER –IV

GENERATORS OF WASTES

6. For the purpose of these Bye-laws any owner, president, secretary, trustee, manager, occupier, chief authority or any person representing or for the time being in charge, control or management etc. representing the subject group specified below shall be considered as generator.

Residential

- (1) Individuals/Individual households
- (2) Government and private colonies/societies
- (3) Bungalows, multi storied buildings, apartments, row houses, tenements, townships, hostels
- (4) Slums and Chawls

Commercial

- (5) Hotels, restaurants and other eateries
- (6) Shops, offices and other commercial establishments
- (7) Marriage halls, wadi, trade fairs, party plots, community halls, clubs, etc.
- (8) Shops/Hawkers of vegetable, fruits and flower markets
- (9) Shops/Hawkers of fish, meat markets / slaughter houses and meat stalls
- (10) Street vendors, gujaribazaar and patharanas
- (11) Construction sites
 - a. Bulk Generators of Construction and Demolition waste
 - b. Small generators of Construction and Demolition waste

Others

- (12) Educational Institutions
- (13) Hospitals and other health care institutions including dispensaries and dealers in drugs and chemical preparations
- (14) Public and private gardens

- (15) Heritage buildings
- (16) Religious places
- (17) Industries
- (18) Household industries
- (19) Dairy and cattle and animal sheds
- (20) Workshops and garages
- (21) Government Buildings and Offices

(1) **1. a "Individual"** means and includes any person travelling/ living/ moving in municipal area.

1. b "Individual Households" means and includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, a single room that is occupied (or if vacant intended for occupancy) as separate living quarters. For the purpose of this bye-laws owner or occupier of the house or the person representing them shall be considered as the generator.

(2) **"Government and Private colonies/societies"** means and includes a body of individuals living together as members of a community. For the purpose of this bye laws president, secretary of the society or person representing them shall be considered as generator. In case of the non-existence of a registered co-operative society, the above mentioned generators shall be requested to appoint a sanitation co-coordinator for the provision of these bye laws by The Bhavnagar Municipal Corporation.

(3) **"Bungalows, multi storied buildings, apartments, row houses, tenements, townships"** means and includes all the persons living in Bungalows, multistoried building, apartments, row houses, tenements or townships. For the purpose of this bye-laws the owner, occupier, president, secretary or person representing them shall be considered as generator. In case of the non-existence of a

registered co-operative society, the above mentioned generators shall be requested to appoint a sanitation co-coordinator for the purpose of provision of these bye laws by The Bhavnagar Municipal Corporation.

- (4) **"Slums"** means and includes all the slums and chawls within the limit of The Bhavnagar Municipal Corporations. For the purpose of this bye laws, owners of individual residences or person representing them shall be considered as the generator. In case of non-existence of any Community Based Organizations/groups representing the slum, the residents shall be requested to appoint a sanitation coordinator for the purpose of enforcement of provisions of these bye laws by The Bhavnagar Municipal Corporations.
- (5) **"Hotels, restaurants and other eateries"** means and includes all the 5/4/3/2/1 star hotels, hotels excluding star category, restaurants, snack centers, bakeries, canteens, food courts and all other eateries which need a license to operate from the concerned department of The Bhavnagar Municipal Corporation excluding vendors and hawkers. For the purpose of this bye laws owner/licensee will be considered as the generator.
- (6) **"Shops, offices and other commercial establishments"** means and include all the establishments which require shops and establishment registration from the concerned department in The Bhavnagar Municipal Corporation. For the purpose of this bye laws, the owner/occupier/manager or the person representing them shall be considered as the generator.
- (7) **"Marriage halls, wadi, trade fairs, party plots, community halls, clubs, etc"** This category of generators shall also include organizers of public gatherings and events organized in public places including processions, exhibitions, circuses, fairs, political rallies, commercial, religious, socio-cultural events, protests and demonstrations etc. For the purpose of this bye laws the owner/manager/organizer of the above facility will be considered as the generator

- (8) **"Shops/Hawkers of vegetable, fruits and flower markets"** include both the establishments and hawkers/road side vendors in municipal and private markets. For the purpose of this bye laws owner or occupier of the facility or the person representing them shall be considered as the generator
- (9) **"Shops / Hawkens of fish, meat markets / slaughter houses and meat stall"** include both the establishments and hawkers in municipal and private fish, meat markets / slaughter houses markets. It also includes mutton and chicken stalls and other meat product outlets. For the purpose of this bye laws owner or occupier of the facility or the person representing them shall be considered as the generator.
- (10) **"Street vendors, gujaribazaar and patharanas"** means and include all the individuals who require a street vendor registration from the concerned department of The Bhavnagar Municipal Corporation. For the purpose of this bye laws owner or occupier of the facility or the person representing them shall be considered as the generator.
- (11) **Construction sites** means and include:-
- a. **"Bulk Generator of Construction & Demolition Waste"** means and includes the following:
 - i. Builders and Developers from private sector/government owned or controlled sector, requiring permission from The Bhavnagar Municipal Corporation for construction, including major civil works undertaken by different state and central government departments
 - ii. Utilities or their contractors or government agencies undertaking C&D waste generation activity that requires "No-Objection Certificate" from a ward authority under The Bhavnagar Municipal Corporation
 - iii. De-silting and excavation contractors appointed by The Bhavnagar Municipal Corporation to undertake cleaning of storm water drains and other desilting activities

- b. **"Small generators of Construction and Demolition waste"** means and includes residential and commercial generators undertaking or implementing construction activities that create small quantity of construction waste, less than two tons;
- (12) **"Educational Institutions"** means and include entities that provide educational related services to individuals or instructional related to services to individuals and shall include early child hood, primary, secondary, higher secondary and higher educational institutions including special schools and universities. For the purpose of this bye laws the Chief Functionary of the Institution/Managing trustee of the trust or the person representing the Chief functionary shall be considered as the generator.
- (13) **"Hospitals and other health care institutions"** means and includes hospital, nursing home, clinic dispensary, veterinary institution, animal house, pathological laboratory, blood bank, dealers of drugs and chemical preparations or any other institution which generates bio-medical waste. For the purpose of this bye laws the Chief Functionary of the Institution or the person representing the Chief functionary shall be considered as the generator.
- (14) **"Public and Private Gardens"** means and includes a plot of land owned by Government or Private individual used for the cultivation of flowers, herbs, vegetables or fruit and/or used for recreation and display. For the purpose of this bye laws the owner, person-in charge or the person representing them shall be considered as the generator.
- (15) **"Heritage Building"** means and includes all the properties listed as "protected monuments" by ASI and/or all the properties included in the inventory prepared by the Heritage Conservation Committee of The Bhavnagar Municipal Corporation, and/or any other property notified by The Bhavnagar Municipal Corporation as a

heritage property. For the purpose of these bye laws, the owner, person in-charge, trustee, manager or the person representing them shall be considered as the generator.

- (16) **"Religious Places"** means and include an establishment or location where a group of people come to perform acts of religious study, honor or devotion. For the purpose of these bye laws the owner, person in-charge, trustee, manager or the person representing them shall be considered as the generator
- (17) **"Industries"** means and includes all the establishments included in the Schedule I – IV of the Environmental Protection Amendment Act, 1991 and/or has to be registered under the Indian Factories Act.
- (18) **"Household Industry"** means and includes an industry conducted by one or more members of the household within the precincts of the house or an industry conducted by the members of the house at a different location (excluding industrial estates) which are not registered under the Indian Factories Act.
- (19) **"Dairy and Cattle sheds"** means and include all the households within The Bhavnagar Municipal Corporation limit whose major earning is from livestock farming and other works directly or indirectly related to livestock farming. For the purpose of this bye-laws owner or occupier of the facility or the person representing them shall be considered as the generator.
- (20) **"Workshops and Garages"** means and includes any commercial establishment where automobiles are repaired, serviced or parked. For the purpose of this bye-laws owner, occupier or chief functionary of the facility or the person representing them shall be considered as the generator.
- (21) **"Government Buildings and Offices"** means and includes all types of Government Buildings and Offices – comprising of all the departments/sections or subsections working in these buildings and offices, whether belonging to State or Central

Government. For the purpose of this bye laws, head/person in charge of these departments/sections/subsections of such offices/buildings representing them shall be considered as generator. If a registered co-operative society or any other form of organization is operating in such premises, then the head/person in charge of such societies/organizations shall be considered as generator. The above mentioned generators shall be required to appoint a sanitation coordinator/in charge for the provision of these bye laws, who shall aid in implementing the said byelaws in the above mentioned organizations.

Reference:

- CPHEEO Manual on Municipal Solid Waste Management, 2016

CHAPTER –V

MUNICIPAL SOLID WASTE (MSW) MANAGEMENT –

SEGREGATION OF MSW

- 7. SEGREGATION OF MSW BY GENERATORS AT SERIAL NO. 1,2,3,5,6,7&12- INDIVIDUALS/INDIVIDUAL HOUSEHOLDS; GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS;, RESTAURANTS AND OTHER EATERIES; SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; AND ALL EDUCATIONAL INSTITUTIONS:**

The above generators shall segregate the solid waste at its source into the following categories

- (1) Bio-degradable Waste/Wet Waste
- (2) Recyclable Waste/Dry Waste
- (3) Domestic/Commercial Hazardous Waste

- 8. SEGREGATION OF MSW BY GENERATORS AT SERIAL NO. 4,8,10,15,16& 21 - SLUMS AND CHAWLS; SHOPS/HAWKERS OF VEGETABLE, FRUITS AND FLOWER MARKETS; STREET VENDORS, GUJARI BAZAAR AND PATHARANAS; HERITAGE BUILDINGS; RELIGIOUS PLACES AND GOVERNMENT BUILDINGS AND OFFICES:**

The above generators shall segregate the solid waste at its source into the following categories:

- (1) Bio-degradable waste/wet waste
- (2) Recyclable waste/dry waste
- (3) Domestic/Commercial Hazardous Waste

- 9. SEGREGATION OF MSW BY GENERATORS AT SERIAL NO. 11 -BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION (C&D) WASTES**

The above generators shall segregate the solid waste at its source into the following categories:

- (1) Reusable in the same site/Reusable in other construction sites/Recyclable Waste
- (2) Inert waste for land filling purpose/borrow site
- (3) Large generators shall segregate this waste into four streams– i) concrete, ii) soil, iii) steel, wood and plastics and iv) other construction and demolition waste such as bricks and mortar;

10. SEGREGATION OF MSW BY GENERATOR AT SERIAL NO. 13 – HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS AND ALL OTHER GENERATORS OF BIOMEDICAL WASTES:

Bio-medical waste shall not be mixed with other wastes. Bio-medical waste shall be segregated into containers/bags at the point of generation in accordance with Schedule II of Biomedical Waste (Management & Handling) Rules 2016 prior to its storage, transportation, treatment and disposal. The containers shall be labeled according to Schedule III of the BMW Rules. The above generators shall segregate the waste at its source into following categories

- (1) Bio-Medical Waste
- (2) Bio-degradable Waste/Wet Waste
- (3) Recyclable Waste/Dry Waste

11. SEGREGATION OF MSW BY GENERATOR AT SERIAL NO. 14- PUBLIC AND PRIVATE

GARDENS: Public and private gardens shall segregate solid waste at its source into the following categories

- (1) Garden waste
- (2) Wet waste (excluding garden waste)
- (3) Recyclable Waste/Dry waste

12. SEGREGATION OF MSW BY GENERATORS AT SERIAL NO. 17 &18 HOUSEHOLD/COTTAGE AND SMALL AND MEDIUM SCALE AS WELL AS LARGE SCALE

INDUSTRIES:The House hold/Cottage as well as Small and Medium Scale and Large Industries shall segregate the solid waste at its source into following categories

- 1) Hazardous or Non Hazardous Waste
- 2) Bio-degradable Waste/Wet Waste
- 3) Recyclable Waste/Dry Waste

13. SEGREGATION OF MSW BY GENERATOR AT SERIAL NO. 19 – DAIRY, CATTLE AND

ANIMAL SHEDS:Dairy,Cattle and Animal sheds shall segregate the waste into the following categories:

- (1) Effluents (dung, urine and other bio-mass)
- (2) Recyclable/Dry waste
- (3) Commercial/Household Hazardous, Bio-medical & Sanitary waste
(unspent/used sanitizers, insecticides, disinfectants)

14. SEGREGATION OF MSW BY GENERATOR AT SERIAL NO. 20 – GARAGES AND WORKSHOPS: The Garages and Workshops shall segregate solid waste at its source into following categories

- (1) Hazardous Waste including Batteries, Oils and Greases
- (2) Wet Waste
- (3) Recyclable Waste/Dry waste

15. SEGREGATION OF MSW BY GENERATOR AT SERIAL NO. 9 – SHOPS/HAWKERS OF FISH, MEAT MARKETS/SLAUGHTER HOUSES AND MEAT STALLS: The Shops/Hawkers of Fish, Meat Markets/Slaughter Houses and Meat Stalls shall segregate waste into following categories

- (1) Liquid slaughter waste (blood, spent wash etc)
- (2) Solid slaughter waste (waste meat, mutton waste etc) and Biodegradable Waste/Wet Waste
- (3) Recyclable Waste/Dry waste

CHAPTER –VI
MUNICIPAL SOLID WASTE (MSW) MANAGEMENT –
STORAGE OF MSW

16. STORAGE OF MSW BY GENERATORS AT SERIAL NO. 1, 4&6 - INDIVIDUALS, INDIVIDUAL HOUSE HOLDS; SLUMS/CHAWLS AND SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS:

Above mentioned generators shall store the segregated wet waste and dry waste within their premises in their own separate bins/bags/sacks or any other convenient containers.

17. STORAGE OF MSW BY GENERATORS AT SERIAL NO 2, 3, 12& 21 – GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; EDUCATIONAL INSTITUTIONS AND GOVERNMENT BUILDINGS AND OFFICES:

- (1) Above mentioned generators shall store the segregated wet waste and dry waste within their premises in their own separate community bins of sufficient size.
- (2) Bins shall be painted Green when used for storage of bio-degradable waste, Blue when used for the storage of recyclable waste/dry waste and Black when used for the storage of other waste/street sweeping/silt etc.

18. STORAGE OF MSW BY GENERATORS AT SERIAL NO. 5 &7- HOTELS, RESTAURANTS AND OTHER EATERIES; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.

- (1) The segregated waste shall be stored within the premises in their own separate bins/bags/sacks or any other convenient containers.

(2) Bin shall be painted Green when used for storage of bio-degradable waste, Blue when used for the storage of recyclable waste and Black when used for the storage of other waste

19. STORAGE OF MSW BY GENERATORS AT SERIAL NO. 8&10 - SHOPS/HAWKERS OF VEGETABLE, FRUITS AND FLOWER MARKETS; AND STREET VENDORS, GUJARI BAZAAR AND PATHARANAS:

The waste generated in the course of business by these generators shall be stored in their own bins/bags/sacks/containers

20. STORAGE OF MSW BY GENERATOR AT SERIAL NO. 9 - SHOPS/HAWKERS OF FISH, MEAT MARKETS / SLAUGHTER HOUSES AND MEAT STALLS:

The waste generated by the said generators shall be stored within their premises in their own sturdy containers of required size, not exceeding 100 liters and having lid on them

21. STORAGE OF MSW BY GENERATORS AT SERIAL NO. 15 &16 – HERITAGE BUILDINGS AND RELIGIOUS PLACES:

The segregated waste shall be stored in community containers provided within the premises provided by the trustee/management or owner of the said generators or at nearby community containers provided by The Bhavnagar Municipal Corporation. Religious places and buildings shall store waste worship materials like pujapo, chundadi, sindoor etc. and bio-degradable "puja" articles (flowers, leaves, fruits, coconut kernels, food items etc.) and any such other waste materials generated from any religious places in notified receptacles like Kalash type containers or in any such other containers specifically identified for this purpose and shall not litter here and there in the whole building premises.

22. STORAGE OF MSW BY GENERATOR AT SERIAL NO.11 – BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION WASTE BY CONSTRUCTION SITES:

The following provisions shall be applicable for the storage of construction and demolition waste:

- (1) Every waste generator shall keep the construction and demolition waste within the premise or get the waste deposited at collection centre or handover it to the authorized processing facilities of construction and demolition waste. The same shall be stored within the premises with adequate protection from erosion and scattering.
- (2) Those materials which can be reused in the site for construction, land-filling, road paving etc shall be kept separately from other construction and demolition waste(C&D waste)
- (3) All the other municipal solid waste from the construction sites shall be stored and delivered separately
- (4) The waste generated by the small generators of C & D waste shall store the same waste separately and seek the assistance of The Bhavnagar Municipal Corporation in disposing the waste or can directly dispose the waste at the designated community containers located at different areas of the city notified by The Bhavnagar Municipal Corporation or at designated disposal sites notified by The Bhavnagar Municipal Corporation.

23. STORAGE OF MSW BY GENERATOR AT SERIAL NO.11 (A) – LARGE CONSTRUCTION SITES GENERATING C & D WASTE IN BULK:

- (1) The large waste generator shall submit waste management plan and get appropriate approvals from The Bhavnagar Municipal Corporation before starting construction or demolition or remodeling work and keep the concerned authorities informed regarding the relevant activities from the planning stage to the implementation stage and this should be on project to project basis. This is

applicable to large infrastructure projects including construction of flyovers, bridges, residential and commercial schemes etc.

- (2) Construction and Demolition waste generated from utility services like road construction, water pipes, underground cables and pipelines, - the concerned department and/or contractor shall store the waste without causing inconvenience to the public passerby or nearby occupants of premises and shall be delivered to The Bhavnagar Municipal Corporation.

24. STORAGE OF MSW BY GENERATOR AT SERIAL NO.13 - HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS:

The following provisions shall apply to the storage of the waste generated by the above mentioned generators:

- (1) The Bio-medical waste shall be stored as per the Bio-Medical Waste (Management And Handling) Rules, 2016. No untreated bio-medical waste shall be kept stored beyond a period of 48 hours. Provided that if for any reason it becomes necessary to store the waste beyond such period, the authorized person must take permission of the prescribed authority and take measures to ensure that the waste does not adversely affect human health and the environment.
- (2) Wet waste and Dry waste shall be stored in their own separate bins within the premises
- (3) All the other categories of waste shall be stored separately within the premises in their own separate bins/bags/sacks/heaps or any other convenient containers as prescribed in Schedule III of the BMW Rules 2016.

25. STORAGE OF MSW BY GENERATOR AT SERIAL NO.14 – PUBLIC AND PRIVATE GARDENS:

- (1) The private garden waste shall be stored in large bags or bins on site and transferred into a municipal system on a weekly basis on payment.

(2) The other wet waste (excluding garden waste) and dry waste shall be stored by the generator in the separate containers owned by them or in nearby community containers provided by The Bhavnagar Municipal Corporation.

26. STORAGE OF MSW BY GENERATORS AT SERIAL NO. 17, 18, 19 & 20 – INDUSTRIES, HOUSEHOLD INDUSTRIES; DAIRY, CATTLE AND ANIMAL SHEDS; AND WORKSHOPS AND GARAGES:

The segregated waste shall be stored in suitable bins/bags/sacks/heaps or any other convenient containers placed by the generators within their premises.

Note:-

- i. No generator of E-waste/Plastic waste, or any other intermediary in possession and/or in control of the E-waste/Plastic waste, shall store these wastes without the necessary authorizations and approval from The Bhavnagar Municipal Corporation and/or Gujarat Pollution Control Board or other such authority as required under the E-Waste/Plastic Waste Management and Handling Rules, 2016 and any amendments thereof.

CHAPTER – VII

MUNICIPAL SOLID WASTE (MSW) MANAGEMENT – PRIMARY COLLECTION, SECONDARY STORAGE & TRANSPORTATION OF MSW

27. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATORS AT SERIAL NO. 1,4 &6 -INDIVIDUALS, INDIVIDUAL HOUSE HOLDS; SLUMS/CHAWLS AND SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS:

The following provisions shall regulate the delivery and collection of various categories of the waste generated by the above mentioned generators:

- (1) The segregated wet waste shall be delivered to the Door-to-Door/Primary waste collectors authorized by The Bhavnagar Municipal Corporation at the time specified by The Bhavnagar Municipal Corporation or it shall be dumped in the nearby separate containers for wet waste collection provided by The Bhavnagar Municipal Corporation.
- (2) The dry waste/recyclable waste shall be delivered to the agents/agency/individual authorized by The Bhavnagar Municipal Corporation at the time specified by The Bhavnagar Municipal Corporation or shall be dumped in the nearby separate containers for dry waste/recyclable waste collection provided by The Bhavnagar Municipal Corporation.
- (3) For the construction and demolition waste above two tons, the generators shall seek instructions from The Bhavnagar Municipal Corporation on its local help line number and deliver the waste accordingly. The generator will have an option to directly deposit the waste in the sites notified by The Bhavnagar Municipal Corporation or would pay the required charges to The Bhavnagar

Municipal Corporation for disposal of the same from the point of generation of such wastes.

- (4) The Commercial/Household hazardous and bio-medical waste shall be delivered by every generator to the collection vehicle which shall be provided periodically by The Bhavnagar Municipal Corporation or any other agent/agency/individual authorized by The Bhavnagar Municipal Corporation for the purpose.

28. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATORS AT SERIAL NO. 2, 3, 12& 21 - GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; EDUCATIONAL INSTITUTIONS AND GOVERNMENT BUILDINGS AND OFFICES:

The following provisions shall regulate the delivery and collection of various categories of the waste generated by above mentioned generators.

- (1) The segregated wet waste shall be collected by the generator through private safai workers/agents/agencies engaged by them for the purpose and deposit the same in the separate community bins for wet waste collection provided within the premises at designated spots from where The Bhavnagar Municipal Corporation shall collect.
- (2) The segregated dry waste/recyclable waste shall be collected by the generator through private safaiworkers/agents/agencies engaged by them for the purpose and deposit the same in the separate community bins provided for dry waste/recyclable waste collection provided within the premises at designated spots from where the same shall be collected by authorized agents/agency/individual. The generators can deliver the same directly to agents/agencies/individuals authorized by The Bhavnagar Municipal Corporation for the collection of same through private safai workers.

- (3) For the construction and demolition waste above two tons, the generators shall seek instructions from The Bhavnagar Municipal Corporation on its local help line number and deliver the waste accordingly. The generator will have an option to directly deposit the waste in the sites notified by The Bhavnagar Municipal Corporation.
- (4) The Commercial/Household hazardous and bio-medical waste shall be delivered by every generator to the collection vehicle which shall be provided periodically by The Bhavnagar Municipal Corporation or any other agent/agency/individuals authorized by The Bhavnagar Municipal Corporation for the purpose.

29. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATORS AT SERIAL 8, 10, 15 & 16 - SHOPS/HAWKERS OF VEGETABLE, FRUITS AND FLOWER MARKETS; AND STREET VENDORS, GUJARI BAZAAR AND PATHARANAS; HERITAGE BUILDINGS AND RELIGIOUS PLACES:

The segregated wet waste and dry waste/recyclable waste generated by the above mentioned generators shall be collected and deposited by themselves in nearby separate containers provided by The Bhavnagar Municipal Corporation and the other waste shall be delivered to the agents/agencies/individuals authorized by The Bhavnagar Municipal Corporation for the purpose.

30. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATORS AT SERIAL NO 5, 7 & 13 - HOTELS, RESTAURANTS AND OTHER EATERIES; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS:

Above mentioned generators shall not deposit any category of waste in the community containers provided by The Bhavnagar Municipal Corporation. They shall deliver their segregated waste on paid basis to authorized agents/agencies or individuals provided by

The Bhavnagar Municipal Corporation or make arrangements to collect waste through private agents/agencies or individuals authorized by Gujarat Pollution Control Board.

31. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATOR AT SERIAL NO. 9 - SHOPS/HAWKERS OF FISH, MEAT MARKETS / SLAUGHTER HOUSES AND MEAT STALLS:

Above mentioned generators shall not deposit any category of waste in the community containers provided by The Bhavnagar Municipal Corporation. They shall deliver their waste to the closed body collection vehicles or containers specifically provided by The Bhavnagar Municipal Corporation for such type of waste.

32. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATOR AT SERIAL NO. 11 - BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION WASTES:

The following provisions shall regulate the delivery and collection of various categories of the waste generated by above mentioned generators:

- (1) The generator shall inform The Bhavnagar Municipal Corporation about of construction and demolition waste in prescribed form within the specified period as notified by the Municipal Commissioner of The Bhavnagar Municipal Corporation.
- (2) The Bhavnagar Municipal Corporation shall provide necessary infrastructure and labor on paid basis for collection of C&D waste.
- (3) They can also deposit the C&D waste at designated sites notified by the Municipal Commissioner of The Bhavnagar Municipal Corporation, in case the generator does not want to avail the services of The Bhavnagar Municipal Corporation.
- (4) All other municipal solid waste viz. wet waste and dry and recyclable waste shall be deposited in community bins provided by the owner or nearby community containers provided by The Bhavnagar Municipal Corporation.

33. PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATORS AT SERIAL NO. 17, 18, 19 & 20 – INDUSTRIES; HOUSEHOLD INDUSTRIES; DAIRY AND CATTLE AND ANIMAL SHEDS; WORKSHOPS AND GARAGES:

Above mentioned generators shall not deposit effluents, hazardous waste, oil waste, batteries or any other waste particular to their category in community containers/door to door collection agencies or mix with municipal waste stream. This waste shall be processed and disposed off as per provisions contained in the chapter of Processing and Disposal of Municipal Solid Wastes. However, other segregated wet waste and dry waste shall be deposited in separate community containers provided by The Bhavnagar Municipal Corporation.

34.PRIMARY COLLECTION, SECONDARY STORAGE AND TRANSPORTATION OF MSW BY GENERATOR AT SERIAL NO. 14 - PUBLIC AND PRIVATE GARDENS: The segregated garden waste shall be delivered to the designated collection vehicle arranged by The Bhavnagar Municipal Corporation on a periodic basis and other segregated wet waste and dry waste shall be deposited in the community containers provided by The Bhavnagar Municipal Corporation.

Note:-

- 1) The transportation of MSW lying in the closed containers generated from all the above generators to the processing site shall be done using container lifting or container carrier system (dumper placer units) if the site is within 10 km distance of the containers. If the distance is more than 10 km the waste from the containers shall be transferred to a MSW transfer station where the waste in small quantities shall be transferred into bigger capacity vehicle having compactor within. This shall optimize the transportation operation. Necessary transfer stations may be built by The Bhavnagar Municipal Corporation for this purpose.⁽⁸⁾
- 2) All the generators of E-Waste/Plastic Waste and/or any intermediary in possession and/or control of E-Waste/Plastic Waste shall deliver the same, as per the instructions notified by

'Public-Health Bye-laws 2018' for The Bhavnagar Municipal Corporation of Gujarat State

The Bhavnagar Municipal Corporation from time to time, preferably to authorized collection centers notified by The Bhavnagar Municipal Corporation.

CHAPTER –VIII

MUNICIPAL SOLID WASTE (MSW) MANAGEMENT – PROCESSING AND DISPOSAL OF MSW

- 35. PROCESSING AND DISPOSAL OF MSW BY GENERATORS AT SERIAL NO. 1-4, 6, 12& 21 - INDIVIDUALS/INDIVIDUAL HOUSEHOLDS; GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; SLUMS AND CHAWLS; SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS; EDUCATIONAL INSTITUTIONS AND GOVERNMENT BUILDINGS AND OFFICES:**

Depending on the availability of space and infrastructure, the wet waste shall be processed by composting, bio-gas generation or by any other method as listed and approved by MSW Rules 2016 or its amended version or as mentioned in the Manual for Solid Waste Management, 2016, CPHEEO, New Delhi etc by the above mentioned generators. Similarly the dry and recyclable wastes shall be reduced, recycled, reused so as to reduce the load on municipal landfills. For Townships, processing and scientific disposal of MSW shall be done mandatorily by them or if they do not want to process the wastes, they shall pay the required charges for doing so to The Bhavnagar Municipal Corporation.

- 36. PROCESSING AND DISPOSAL OF MSW BY GENERATORS AT SERIAL NO.5,7,9, & 14 - HOTELS, RESTAURANTS AND OTHER EATERIES; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; SHOPS/HAWKERS OF FISH, MEAT MARKETS / SLAUGHTER HOUSES AND MEAT STALLS; AND PUBLIC AND PRIVATE GARDENS:**

The above generators shall set up and maintain their own facilities by obtaining a license from The Bhavnagar Municipal Corporation/other concerned authorities laying down the conditions thereof. If the generators are not in a position to set up such

facility due to land or any other constraint, they shall deliver bio-degradable waste to the agent/agency/individual authorized for the purpose by The Bhavnagar Municipal Corporation. The generators shall be required to pay for such service provided to them as per rates fixed by The Bhavnagar Municipal Corporation.

37. PROCESSING AND DISPOSAL OF MSW BY GENERATOR AT SERIAL NO.13 – HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS:

The above generators shall set up and maintain their own facilities by obtaining a license from The Bhavnagar Municipal Corporation/other concerned authorities laying down the conditions thereof. Alternatively The Bhavnagar Municipal Corporation shall arrange to process BMW obtained from all the types of BMW generators existing in The Bhavnagar Municipal Corporation only through authorized agencies of The Bhavnagar Municipal Corporation. The work may be given to private operators for collection and processing of BMW either on individual basis or on a Common basis. The Bhavnagar Municipal Corporation shall appoint and authorize such agencies for processing and disposal of BMW. If the generators are not in a position to set up such facility due to land or any other constraint, they shall deliver bio-degradable waste to the agent/agency/individual authorized for the purpose by The Bhavnagar Municipal Corporation. The generators shall be required to pay for such service provided to them as per rates fixed by The Bhavnagar Municipal Corporation.

38. PROCESSING AND DISPOSAL OF MSW BY GENERATORS AT SERIAL NO. 11, 17, 18, 19 &20 – BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION WASTES, INDUSTRIES, HOUSE HOLD INDUSTRIES, DAIRY, CATTLE AND ANIMAL SHEDS AND WORKSHOP AND GARAGES:

The above mentioned generators shall set up and maintain their own facilities by obtaining a license from The Bhavnagar Municipal Corporation/other concerned authorities laying down the conditions thereof.

Note:-

- i. Any generator who is served with a written notice from The Bhavnagar Municipal Corporation/or any other authorized statutory body of the state or central government regarding processing of waste shall comply the same by processing specified category of waste in specified manner within prescribed time period at a location specified by The Bhavnagar Municipal Corporation.
- ii. No generator of E-waste/Plastic waste, or any other intermediary in possession and/or in control of the E-waste/Plastic waste, shall dismantle, refurbish, recycle, or dispose these wastes without written approval from The Bhavnagar Municipal Corporation or without necessary authorization as required under the E-Waste/Plastic Waste Management and Handling Rules, 2016 and any amendments thereof.

CHAPTER – IX

LIQUID WASTE MANAGEMENT

CONNECTION TO PUBLIC SEWERS

39. CONNECTION TO THE PUBLIC SEWER BY THE GENERATORS AT SR. NO 1-8, 10-16 & 21 - INDIVIDUALS/INDIVIDUAL HOUSEHOLDS; GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; SLUMS AND CHAWLS; HOTELS, RESTAURANTS AND OTHER EATERIES; SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; SHOPS/HAWKERS OF VEGETABLE, FRUITS AND FLOWER MARKETS; STREET VENDORS, GUJARI BAZAAR AND PATHARANAS; CONSTRUCTION SITES – BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION WASTE; EDUCATIONAL INSTITUTIONS; HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS; PUBLIC AND PRIVATE GARDENS; HERITAGE BUILDINGS; RELIGIOUS PLACES AND GOVERNMENT BUILDINGS AND OFFICES:

- 1) All the above mentioned generators shall be entitled to connect domestic sewer to a public sewer provided specifically for the discharge of sewerage, unless;
 - a. A public sewer line does not exist within 100 ft. /30 m. from any part of the property/building, and/or
 - b. A waste water treatment facility like on site sanitation facility as approved by The Bhavnagar Municipal Corporation exists within the boundaries of the property
- 2) The owners/occupiers of property shall provide connections from nearest T.P.Road to the premises of the building at his own expense.

- 3) All the above mentioned generators shall obtain necessary approval from concerned department of The Bhavnagar Municipal Corporation before making connections to the public sewer-line. For this purpose, the owner/occupier of the property shall submit the sewer plans and specifications with sign and seal of professional engineers registered with The Bhavnagar Municipal Corporation along with building use permission documents.
- 4) All the connections shall comply to the specifications prescribed by the The Bhavnagar Municipal Corporation regarding diameter, material, depth, fall and direction of outfall
- 5) All the connections to public sewer line shall be made only by certified/approved masons by The Bhavnagar Municipal Corporation.
- 6) Materials like brick bats, concrete blocks etc which may create blockage to sewer shall not be allowed to fall and lie inside the manhole.
- 7) House connections shall be properly trapped to prevent the escape of gases.
- 8) The above mentioned generators shall provide grit chambers with screens for connection to public sewers.

40. CONNECTION TO PUBLIC SEWER BY GENERATORS AT SR.NO. 9- SHOPS/HAWKERS OF FISH, MEAT MARKETS / SLAUGHTER HOUSES AND MEAT STALLS:

- 1) The liquid waste from above mentioned generators shall not be mixed with municipal sewage before adequate treatment. Grit chambers and screens shall be provided before connection to public sewer.
- 2) The above mentioned generators shall follow standards prescribed in the Environment Protection Act, 1986 amended in 1991, (Annexure 5.1) for the treatment of liquid waste/effluents
- 3) The liquid waste shall be flushed away from the premises of the above mentioned generators by safe, potable, constant and adequately pressurized supply of water and discharged to the common treatment facility

41. CONNECTION TO PUBLIC SEWER BY GENERATORS AT SR. NO 17, 18, 19 & 20 - INDUSTRIES; HOUSEHOLD INDUSTRIES; DAIRY, CATTLE AND ANIMAL SHEDS; AND WORKSHOPS AND GARAGES:

- 1) The above mentioned generators shall connect the domestic sewage to the public sewer after obtaining necessary approvals from The Bhavnagar Municipal Corporation.
- 2) They shall not dispose-off the industrial effluents or any other effluents particular to the activity to the public sewer before necessary treatment as prescribed by The Bhavnagar Municipal Corporation.

CHAPTER - X

LIQUID WASTE MANAGEMENT

ON SITE SANITATION FACILITIES

SEPTIC TANKS & SOAK PITS/CESSPOOL AND TOILETS

42. SEPTIC TANKS, SOAK PITS/CESSPOOLS OR ANY OTHER METHODS SPECIFIED FOR ON SITE SANITATION IN CPHEEO MANUAL ON SEWAGE AND SEWERAGE TREATMENT BY GENERATORS AT SERIAL NO. 1-8, 10-16& 21: INDIVIDUALS/INDIVIDUAL HOUSEHOLDS; GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; SLUMS AND CHAWLS; HOTELS, RESTAURANTS AND OTHER EATERIES; SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; SHOPS/HAWKERS OF VEGETABLE, FRUITS AND FLOWER MARKETS; STREET VENDORS, GUJARI BAZAAR AND PATHARANAS; CONSTRUCTION SITES – BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION WASTE; EDUCATIONAL INSTITUTIONS; HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS; PUBLIC AND PRIVATE GARDENS; HERITAGE BUILDINGS; RELIGIOUS PLACES AND GOVERNMENT OFFICES AND BUILDINGS:

- 1) All the above mentioned generators shall construct septic tank, soak pit/seepage pit/cesspool or soak well or any other method as specified in CPHEEO Manual for Sewage and Sewerage Treatment 2016, for onsite sanitation and treatment of liquid waste after obtaining necessary approvals from The Bhavnagar Municipal Corporation, provided,-
 - a. No public sewer line exist within 100Ft./30meters from any part of the property/building, and
 - b. The contributory population does not exceed 300 persons in case of generators at sr.no. 2,3 & 4

- 2) The septic tanks thus constructed shall be properly abandoned within specified period of time at one's own expense upon receiving a written notice from The Bhavnagar Municipal Corporation in case of extension of public sewer lines to the said location, and private sewers shall be connected to the public sewer line.
- 3) A sub-soil dispersion system shall not be closer than 20mts to any source of drinking water and shall not be closer than 2mts to the nearest building depending on the sub soil conditions.
- 4) The septic tanks shall be designed for minimum 2 days of waste water retention; with minimum normal diameter of the pipe shall be 100mm. Further at junction of pipes in manholes, the direction of flow from a branch connection should not be made at an angle exceeding 45 degrees with the direction of flow in main pipe.
- 5) The gradients of land drains, under drainage as well as the bottom of dispersion trenches and soak wells should be between 1:300 and 1:1400.
- 6) The inlet and outlet of the septic tanks shall not be at such levels where sludge and scum is formed.
- 7) The inlet and outlet should be as far away as possible from each other and at different levels.
- 8) The baffles should be provided at both inlet and outlets and dip 25-30 cm into and project 15 cm above the liquid, and should be placed at a distance of one fifth of the tank length from the mouth of the straight inlet pipe.
- 9) The invert of the outlet pipe should be placed at a level 5-7 cm below the invert level of the inlet pipe.
- 10) For population above 100, parallel compartments shall be constructed with partition walls in between. For more no. of people, suitable size of septic tank shall be constructed the details of which may be obtained from CPHEEO manual on sewage and sewerage systems.
- 11) All the septic tanks shall be provided with ventilation pipes of at least 50mm diameter, the top being covered with a mosquito proof wire mesh. The height of the pipe should extend at least 2m above the top of the highest building within a radius of 15mts.

- 12) Septic tanks may be constructed of brick work, stone masonry, concrete or other suitable material as approved by The Bhavnagar Municipal Corporation.
- 13) All the septic tanks shall be provided with watertight covers of adequate strength.
- 14) Access manholes of adequate size as prescribed by The Bhavnagar Municipal Corporation shall be provided with the septic tanks.
- 15) Under no circumstances should effluent from a septic tank shall be allowed into an open channel drain or water body without adequate treatment.
- 16) When the disposal of a septic tank effluent is to a seepage pit, the seepage pit may be of sectional dimension of 90cms and not less than 100cms in depth below the inner level of the inlet pipe. The pit may be lined with stone, brick or concrete blocks with dry open joint which should be backed with at least 7.5 cm of clean coarse aggregate. The lining above the inlet level should be narrowed to reduce the size of R.C.C cover slabs. Where no lining is used, especially near trees, entitle pit shall be filled with lose stones. A masonry ring should be constructed at the top of the pit to prevent damage by flooding of the pit by surface run-off. The inlet pipe should be taken 90° down to a depth of 90cms as an anti-mosquito measure.
- 17) When the disposal of septic tank effluents is to a dispersion trench, the dispersion trench shall be 50-100 cms wide, excavated to a slight gradient and shall be provided with a layer if shed gravel or crushed stones 15-25cms deep. Open, joined pipes placed inside the trench shall be made of unglazed earthenware clay or concrete and shall have minimum internal diameter of 70 to 100 mm. Each dispersion trench should not be longer than 30 mts and trenches should not be placed closer than 1.8mts to each other.
- 18) The sub-soil dispersion system shall be at least 20 m away from any source of drinking water and not closer than 7m to the nearest dwellings.
- 19) Various other options like settled sewer or separate closed lined drain along with appropriate treatment options, anaerobic digesters or mini package plants are available and shall be used if soak pits construction connected to the septic tank is not feasible technically.

- 20) All generators shall install dual plumbing system for grey (sullage) and black (sewage containing night soil) water. Particularly townships shall segregate their grey and black water and possibly reuse the grey water for various options like flushing of toilets, use in gardens etc. for saving fresh water and they shall also monitor such use by installing suitable water meters. Black water which is more polluted may be treated in a separate sewage treatment plant based on latest technologies and possibly recover energy from such sewage.
- 21) Record keeping and MIS system shall be set up to create data base for property/ Household level sanitation systems.
- 22) **Requirements in respect of toilet facilities:** Every owner of premises must ensure that the number of toilets provided in such premises comply with the provisions of the GDCR/ IS codes.
- 23) **Toilets for workers in Construction Sites:** Every contractor must provide his or her workers with toilet facilities as prescribed by the “Building and Other Construction workers Act 1996”. The Government “ Building and Other Construction workers Act 1996” gives focus on the working conditions of the laborers and their basic requirements. The term “building and construction Work” , includes, construction, alteration, repairs, maintenance or demolition, of or, in relation to, buildings, streets, roads, railways, tramways, airfields, irrigation, drainage, embankment and navigation works, flood control works (including storm water drainage works), generation, transmission and distribution of power, water works (including channels for distribution of water), oil and gas installations, electric lines, wireless, radio, television, telephone, telegraph and overseas communications, dams, canals, reservoirs, watercourses, tunnels, bridges, viaducts, aqueducts, pipelines, towers, cooling towers, transmission towers and such other work.
- 24) The Bhavnagar Municipal Corporation should ensure that there is adequate number of temporary toilets constructed at all construction sites where The Bhavnagar Municipal Corporation is undertaking any construction or is being undertaken by other

government organization, private or non-government organization. The Bhavnagar Municipal Corporation should monitor provision of such toilets as part of the building plan permission process.

- 25) All temporary accommodations (such as night shelters) for migrants and the homeless should have adequate provision for toilets either on the premises or have access to a public toilet nearby.
- 26) Adequate community toilets shall be provided in slum localities and other such areas that do not have individual toilets. Pay and Use toilets may be constructed **at other places in the city area preferably at every 500 meters distance** with the participation of Community Based Organizations or private contractors or NGO's to prevent nuisance such as defecating/urinating, washing and bathing on public places.
- 27) MGSM guidelines says that The Bhavnagar Municipal Corporation should ensure adequate public toilets in all public places that attract floating population including but not limited to gardens, play grounds, exhibition grounds, *chowks*, markets, transit nodes, streets, highways with appropriate gender considerations (number of seats, design and operations). Based on guidelines of the Swachh Bharat Mission, floating population is assumed at 5 percent of the total urban population.

CHAPTER - XI

LIQUID WASTE MANAGEMENT

ON-SITE/CENTRALIZED TREATMENT, DISPOSAL AND

RECYCLE/REUSE OF LIQUID WASTE

43. ON-SITE/CENTRALIZED TREATMENT, DISPOSAL AND RECYCLE/REUSE OF LIQUID WASTE BY GENERATORS 2-3, 5- 7, 12-13 AND 21 - GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; HOTELS, RESTAURANTS AND OTHER EATERIES; SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; EDUCATIONAL INSTITUTIONS; HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS AND GOVERNMENT BUILDINGS AND OFFICES:

- 1) All the above mentioned generators constructing multistoried buildings above specified number of floors and after such a date as notified by The Bhavnagar Municipal Corporation shall mandatorily construct on-site packaged treatment units to treat liquid waste with necessary approvals from The Bhavnagar Municipal Corporation/concerned authorities.
- 2) All the generators under commercial category shall mandatorily construct on-site packaged treatment unit to get sewerage connection for public sewer after getting necessary approvals.
- 3) The Bhavnagar Municipal Corporation shall decide from time to time and provide concessions in usage charges of public sewer for on-site packaged units.
- 4) The owner/occupier of the property shall follow the criteria for construction of treatment plants as decided by The Bhavnagar Municipal Corporation from time to time.

- 5) All the owners/occupiers of multistoried buildings, commercial establishments and slaughter houses shall construct grease, oil and grit interceptor chamber before connecting to the public sewer.
- 6) All the interceptor chambers thus constructed shall be of type and capacity approved by the authorized engineer and shall be located so as to be readily and easily accessible for cleaning and inspection.
- 7) Grease and oil interceptor chambers shall be constructed of impervious material capable of withstanding abrupt and extreme changes in temperature and of substantial construction; water tight and equipped with easily removable covers which when bolted in place shall be gas tight and water tight.
- 8) The Bhavnagar Municipal Corporation shall provide adequate facilities for Tertiary Treatment of the Treated Sewage for possible recycle/reuse of the sewage in Industries or elsewhere.
- 9) The Bhavnagar Municipal Corporation shall also upgrade the existing Sewage Treatment Facilities by employing advanced technologies for sewage treatment as well as install advanced automation system (SCADA) – Supervisory Control and Data Acquisition System for all the Sewage Pumping Stations (SPS) and Sewage Treatment Plants (STP) with a view to enhancing the productivity, efficiency and efficacy of the SPS and STP's. It shall optimize the overall system and reduce energy consumption at the above entities with improved control of the quality of the treated sewage either being discharged or being further processed in Tertiary Treatment for possible recycle/reuse of the sewage in the industries.
- 10) The Bhavnagar Municipal Corporation shall also possibly recover energy from sewage by recovering biogas from it and further use it to produce electricity thereby going towards green initiatives in protecting environment.

CHAPTER - XII

LIQUID WASTE MANAGEMENT

DE – SLUDGING AND SLUDGE DISPOSAL FROM SEPTIC TANKS, SOAK PITS AND MANHOLE CLEANING

44. **SLUDGE WITHDRAWAL/DE-SLUDGING AND DISPOSAL FROM SEPTIC TANKS BY GENERATORS AT SERIAL NO. 1 - 8, 10 - 16 & 21 - INDIVIDUALS/INDIVIDUAL HOUSEHOLDS; GOVERNMENT AND PRIVATE COLONIES/SOCIETIES; BUNGALOWS, MULTI STORIED BUILDINGS, APARTMENTS, ROW HOUSES, TENEMENTS, TOWNSHIPS, HOSTELS; SLUMS AND CHAWLS; HOTELS, RESTAURANTS AND OTHER EATERIES; SHOPS, OFFICES AND OTHER COMMERCIAL ESTABLISHMENTS; MARRIAGE HALLS, WADI, TRADE FAIRS, PARTY PLOTS, COMMUNITY HALLS, CLUBS, ETC.; SHOPS/HAWKERS OF VEGETABLE, FRUITS AND FLOWER MARKETS; STREET VENDORS, GUJARI BAZAAR AND PATHARANAS; CONSTRUCTION SITES – BULK AND SMALL GENERATORS OF CONSTRUCTION AND DEMOLITION WASTE; EDUCATIONAL INSTITUTIONS; HOSPITALS AND OTHER HEALTH CARE INSTITUTIONS INCLUDING DISPENSARIES AND DEALERS IN DRUGS AND CHEMICAL PREPARATIONS; PUBLIC AND PRIVATE GARDENS; HERITAGE BUILDINGS; RELIGIOUS PLACES AND GOVERNMENT OFFICES AND BUILDINGS:**

- 1) Desludging of septic tank should be carried out by mechanical equipment, including vacuum tankers, sludge pipes with delivery valve to draw the sludge etc. Manual handling of sludge is prohibited (read together with Section 48. 1(16) of this bye-laws). The septic tank shall be emptied only through registered or empanelled contractors of The Bhavnagar Municipal Corporation. This is applicable to even private sector buildings and they shall also adhere to the norms as prescribed by the Manual Scavenging Act.

- 2) The sludge should not be disposed off in open grounds, water ways, agricultural lands or any other non-designated locations, but shall be delivered and deposited only in authorized sewage treatment facilities of The Bhavnagar Municipal Corporation.
- 3) Desludging shall be carried out only by the authorized contractors/agencies approved by The Bhavnagar Municipal Corporation.
- 4) Septic tanks shall be de-sludge or cleaned periodically depending upon the capacity of tanks in an interval of 2 – 3 years.
- 5) Instead of periodic cleaning, The Bhavnagar Municipal Corporation can also go for scheduled cleaning to ensure a 3 year cleaning cycle where all the septic tanks are cleaned on a scheduled basis every 3 years. When using such a system, The Bhavnagar Municipal Corporation can levy an annual sanitation tax instead of user charges for providing septic tank cleaning services.

45. Provisions regarding Manhole cleaning:-

- 1) Mechanized cleaning should be adopted for cleaning of manholes unless human intervention is absolutely necessary;
- 2) All the manhole workers shall be provided with all the necessary equipments including safety equipments for cleaning operations.
- 3) Inspection against poisonous gases should be carried out mandatorily before entering the manhole.
- 4) All the manhole workers shall attend the training on safety and health imparted to workers by The Bhavnagar Municipal Corporation/Agency/Contractor/Service Provider.
- 5) All the manhole workers shall attend periodical medical checkups conducted by The Bhavnagar Municipal Corporation/Agency/Contractor/Service Provider.

Eradicating manual scavenging practices:

As per ‘The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013’, of the Parliament referred to The Act hereon, received assent from the

President of India. The act was prepared to provide for prohibition of employment as manual scavengers, rehabilitation of manual scavengers and their families and for matters connected there with of incidental thereto.

The act recognizes that: "... The dehumanizing practice of manual scavenging arising from the continuing existence of insanitary latrines and a highly iniquitous caste system still persists in various parts of the country, and the existing laws have not proved adequate in eliminating the twin evils of insanitary latrines and manual scavenging."

In the corporation, incidences of the manual scavenging may occur in any of the following instances:

- manual clearing of waste from insanitary latrines,
- manual cleaning of open defecation spots,
- manual cleaning of sewer lines,
- manual cleaning of septic tanks, and
- manual cleaning of railway tracks.

While cleaning of railway tracks is done by the Indian Railway, all other locations of manual scavenging come under the municipal purview.

CHAPTER - XIII

PREVENTION OF WATER BORNE AND VECTOR BORNE DISEASES

46. PREVENTION OF VECTOR BREEDING BY OWNERS/OCCUPIERS OF ALL THE PROPERTIES WITHIN THE BHAVNAGAR MUNICIPAL CORPORATIONS LIMIT:-

(1) General

- (1) All generators shall adhere to the instruction of The Bhavnagar Municipal Corporation issued from time to time by the concerned department to prevent water borne, vector borne and food borne diseases.
- (2) All generators shall prevent vector breeding within their premises by preventing water logging, cracking, waste dumping etc within premises.

(2) Provisions regarding water storage tanks/Cisterns

- (1) Water storage tanks shall be maintained to be perfectly mosquito proof condition, by providing a properly fitting hinged cover and every tank more than 1.50 mts in height shall be provided with a permanently fixed non-ferrous metal ladder to enable inspection by concerned officials of The Bhavnagar Municipal Corporation.

The body of the Tank

- (2) The water tank should be made of wrought iron, mild steel, R.C.C or any other material sufficiently thick and strong to withstand the weight of an average man when he stands over the top of the tank.

- (3) The side sheet, the bottom sheet and the top sheet should be properly bolted or welded to leave no gaps or crevices at any point.
- (4) The top sheet of the tank should be propped by permanent fixtures from the inside to prevent sagging. There should be no depression on the top sheet which is likely to hold or retain water.
- (5) The cylindrical tank should not be more than 2.25 m in height including the height of the foundation on which it may rest.

The manhole and the cover assembly

- (6) The cylindrical tank more than that height should be installed horizontally on proper foundation.
- (7) There should be a circular manhole on the top sheet and a cast iron rim with collar should be firmly fixed on to it.
- (8) The rim with collar should be cast in one piece.
- (9) There should be no gap between the top sheet and the collar. If it exists, it should be closed with lead wool or molten lead or any other material approved by the concerned authority.
- (10) The manhole should have a properly fitting cover of cast iron cast in one piece.
- (11) The vertical edge of the cap cover should rest on the collar around the manhole with the rim of the latter touching the inside of cap cover to afford a double resting arrangement. At no point, there should be a gap which would allow a wire, 1.5 mm to pass through when the cap cover is in closed position.
- (12) In the case of masonry cisterns, the manhole collar ring should be visibly above the top level of the cistern.

- (13) The cross bar of the cap cover should be short so that the hinge and the hasp is as close to the lid as possible to ensure possible closing of the lid. The hinge should be reverted.
- (14) The lid of the cistern should always be closed with the help of a lock or nut and bolt arrangement.
- (15) If the cistern is more than 3m long, an additional manhole cover should be provided to facilitate sampling at all corners with a sampling device of 1.5 m length.
- (16) The feeding over flow (warning) and the down take pipes should be provided with check nuts from inside and outside to prevent formation of gaps and to avoid leakage.
- (17) The overflow pipe should be protected at its free end by a perforated copper or brass plate, and the perforations should not exceed 1.5 mm in diameter. The perforated plate should be within the hand reach to facilitate inspection.

The access:

- (18) All the water tanks with height more than 1.2 m should be provided with a fixed sturdy iron ladder.
- (19) The upper ends of the ladder should be firmly fixed to the top sheet. They should be curved to serve as hand grips. The lower ends should be fixed in cement concrete block.
- (20) The iron ladder exceeding 8 m in height shall be provided with hand rails on both sides.
- (21) If access to the terrace is by means of a wooden staircase, it should not remain open and exposed to sun and rain.

- (22) If the water tank is under some cover or shelter, there should be sufficient space between the cistern and the roof to enable easy inspection and sampling.
- (23) In the case of overhead water storage tank, sturdy and safe iron or R.C.C platform should be provided at suitable intervals instead of a straight ladder from bottom to the top.

The suction tank:

- (24) The top of the tank should be raised above the surrounding ground level by a minimum of 45 cm.
- (25) The pump room should invariably be connected to the house drain by means of a gully trap. The pump foundation hollows should be filled to avoid water accumulation

Special Requirements

- (26) Horizontally installed cylindrical tanks should have a rectangular platform serving as the resting surface for cover assembly. The platform should be spacious to accommodate fixing of a ladder
- (27) Vertically installed cylindrical tanks with convex top should have an appropriate railing along the top circumference.
- (28) The manhole size and the cover assembly components should be of standard dimensions and easily available in the local market.
- (29) HDPE tanks should be so fabricated as to avoid any degree of sagging of the top after fixing of the cover assembly or on climbing cover it during inspection.

(3) Provisions regarding Drains and drainage:-

- (1) All the septic tanks shall be provided with ventilation pipes of at least 50 mm diameter, the top being covered with a mosquito proof wire mesh. The height

of the pipe should extend at least 2 m above the top of the highest building within a radius of 15 m.

- (2) The drainage line have proper slope to drain off the waste water and provide sufficient numbers of the manhole for maintenance of the drainage line.
- (3) No sewer shall be disposed off in storm water drainage line of The Bhavnagar Municipal Corporation.

(4) Artificial Ponds and Fountain

- (1) It shall be the responsibility of owner/occupier of the property to prevent mosquito breeding in artificial ponds and fountains.
- (2) Regular cleaning, maintenance and anti-larvae measures shall be undertaken to prevent mosquito breeding in artificial ponds and fountains.

47. PREVENTION OF VECTOR BREEDING BY OWNERS/OCCUPIERS/MANAGERS OF DAIRY AND CATTLE SHED:-

The owner/occupier/manager of dairy and cattle shed shall ensure:

- (1) regular cleaning of the area of cattle sheds and around with regular spraying of suitable insecticide and keeping the area free from filth and vecterogenic situation.
- (2) Ensure that drinking water facility of the cattle is not kept open and stagnant.

CHAPTER – XIV
FOOD BORNE DISEASES, FOOD SAFETY AND
SANITATION

48. Various aspects to be considered in the prevention of food borne diseases and maintaining food safety and sanitation for different types of food eateries, stalls, houses, dining halls, restaurants and hotels etc. are as follow. The criteria, specifications and penalty charges shall be as per the Food Safety and Standards Act, 2006 and amendments thereon including Food Safety and Standards (Amendment) Rules 2017 and amendments thereof. This act covers the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption and for matters connected therewith or incidental thereto.

However, issues related to sanitation and cleanliness of premises and general health related points are covered in these bye laws. Some of them are as follow:

48.1) Food Sanitation:

General Hygienic and Sanitary practices to be followed by Food Business operators:

It is hereby recognized and declared as a matter of legislative determination that in the field of human nutrition, safe, clean, wholesome food - is indispensable to the health and welfare of the consumer of the country; that - food is a perishable commodity susceptible to contamination and adulteration; - and that - basic sanitary and hygienic conditions are deemed to be necessary for the production and distribution of milk - Meat products, service establishments etc.

The establishment in which food is being handled, processed, manufactured, stored, distributed by the food business operator whether holder of registration certificate or a

license as per the norms laid down in these regulations and the persons handling them should conform to the sanitary and hygienic requirement, food safety measures and other standards as specified below. It shall also be deemed to be the responsibility of the food business operator to ensure adherence to necessary requirements.

These are the basic - compulsory requirements for ensuring safety of the food manufactured in any premise and FBOs shall continuously try to improve the sanitary and hygienic conditions at the premises with a goal of attaining India HACCP standards within a - previously determined period.

48.1.1) Sanitary And Hygienic Requirements For Food Manufacturer/ Processor/Handler

The place where food is manufactured, processed or handled shall comply with the following requirements:

1. The premises shall be located in a sanitary place and free from filthy surroundings and shall maintain overall hygienic environment. All new units shall set up away from environmentally polluted areas.
2. The premises to conduct food business for manufacturing should have adequate space for manufacturing and storage to maintain overall hygienic environment.
3. The premises shall be clean, adequately lighted and ventilated and sufficient free space for movement.
4. Floors, Ceilings and walls must be maintained in a sound condition. They should be smooth and easy to clean with no flaking paint or plaster.
5. The floor and skirted walls shall be washed as per requirement with an effective disinfectant the premises shall be kept free from all insects. No spraying shall be done during the conduct of business, but instead fly swats/flaps should be used to kill spray flies getting into the premises. Windows, doors and other openings shall be fitted with net or screen, as appropriate to make the premise insect free The water used in the manufacturing shall be potable and if required chemical and bacteriological examination of the water shall be done at regular intervals at any recognized laboratory.

6. Continuous supply of potable water shall be ensured in the premises. In case of intermittent water supply, adequate storage arrangement for water used in food or washing shall be made.
7. Equipment and machinery when employed shall be of such design which will permit easy cleaning. Arrangements for cleaning of containers, tables, working parts of machinery, etc. shall be provided.
8. No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the preparation, packing or storage of food. (Copper or brass vessels shall have proper lining).
9. All equipments shall be kept clean, washed, dried and stacked at the close of business to ensure freedom from growth of mould/ fungi and infestation.
10. All equipments shall be placed well away from the walls to allow proper inspection.
11. There should be efficient drainage system and there shall be adequate provisions for disposal of refuse.
12. The workers working in processing and preparation shall use clean aprons, hand gloves, and head wears.
13. Persons suffering from infectious diseases shall not be permitted to work. Any cuts or wounds shall remain covered at all time and the person should not be allowed to come in direct contact with food.
14. All food handlers shall keep their finger nails trimmed, clean and wash their hands with soap, or detergent and water before commencing work and every time after using toilet. Scratching of body parts, hair shall be avoided during food handling processes.
15. All food handlers should avoid wearing, false nails or other items or loose jewellery that might fall into food and also avoid touching their face or hair.
16. Eating, chewing, smoking, spitting and nose blowing shall be prohibited within the premises especially while handling food.
17. All articles that are stored or are intended for sale shall be fit for consumption and have proper cover to avoid contamination.

18. The vehicles used to transport foods must be maintained in good repair and kept clean.

19. Foods while in transport in packaged form or in containers shall maintain the required temperature.

20. Insecticides / disinfectants shall be kept and stored separately and away from food manufacturing / storing/ handling areas.

48.1.2) Sanitary And Hygienic Requirements For Street Food Vendors And Units Other Than Manufacturing/Processing

1. Potential sources of contamination like rubbish, waste water, toilet facilities, open drains and stray animals shall be avoided.

2. The surfaces of the Vending carts which come in contact with food or food storage utensils shall be built of solid, rust/ corrosion resistant materials and kept in clean and good condition They shall be protected from sun, wind and dust. When not in use, food vending vans shall be kept in clean place and properly protected.

3. Rubbish bin with cover shall be provided by food stall or vending cart owners for any waste generated in the process of serving and eating by consumers.

4. Working surfaces of vending carts shall be clean, hygienic, impermeable and easy to clean (like stainless steel), and placed at least 60 to 70 cm. from above ground.

5. Sale points, tables, awnings, benches and boxes, cupboards, glass cases, etc. shall be clean and tidy.

6. Cooking utensils and crockery shall be clean and in good condition. It should not be broken/ chipped.

7. All containers shall be kept clean, washed and dried at the close of business to ensure that there is no growth of mould/ fungi and infestation.

8. Water used for cleaning, washing and preparing food shall be potable in nature.

9. Transporting of drinking water (treated water like bottled water, boiled/ filtered water through water purifier etc.) shall be in properly covered and protected containers and it shall be stored in clean and covered containers in a protected area away from dust and filth.

10. Cooking, storage and serving shall not be done in utensils of, cadmium, lead, non food grade plastic and other toxic materials.
11. Utensils shall be cleaned of debris, rinsed, scrubbed with detergent and washed under running tap water after every operation. Wiping of utensils shall be done with clean cloth. Separate cloths shall be used for wiping hands and for clearing surfaces, cloth used for floor cleaning will not be used for cleaning surfaces of tables and working areas and for wiping utensils Person cooking, handling or serving food should use hand gloves and aprons, where necessary. He shall wear head gear and cover his mouth always while at work.
12. Removing dust or crumb from plates or utensils shall be done by using cloth or wiper into dustbin.
13. The person suffering from infectious disease shall not be permitted to work.
14. All food handlers shall remain clean, wear washed clothes and keep their finger nails trimmed, clean and wash their hands with soap/ detergent and water before commencing work and every time after touching food or using toilet.
15. All food handlers should avoid wearing loose items that might fall into food and also avoid touching or scratching their face, head or hair.
16. All articles that are stored or intended for sale shall have proper cover to avoid contamination. Food should be stored only in food grade plastic containers as steel containers to prevent leaking.
17. Eating, chewing, smoking, , spitting and nose blowing shall be prohibited within the premises.
18. Foods shall be prepared or cooked as per the day's requirement to avoid left over which might be used in the next day without ascertaining its safety for consumption or use in food. Consumables left over shall be kept in the refrigerator immediately after their intended use.
19. Adequate number of racks shall be provided for storage of articles of food, with clear identity of each commodity. Proper compartment for each class shall also be provided wherever possible so that there is no cross contamination.

20. Rubbish or garbage bin shall be with a tight cover and shall be cleaned everyday by transferring contents into designated locations.
21. Vegetarian and non-vegetarian items should be segregated.
22. Fridge should be cleaned at least once a week to remove stains, ice particles and food particles. The temperature in the fridge should be in the range of 4°C - 6°C.
23. The location of the vending unit should be in a place approved by the local authorities and not blocking traffic or pedestrians or near unhygienic locations.

CHAPTER - XV

E – WASTE AND PLASTIC WASTE MANAGEMENT

EXTENDED PRODUCER RESPONSIBILITY

49. EXTENDED PRODUCER RESPONSIBILITY FOR E-WASTE

These rules shall apply to every producer(s), dealer(s), collection centre(s), refurbisher(s), dismantler(s), recycler(s), auctioneer(s) consumer(s) or bulk consumer(s) involved in the manufacture, processing, sale, purchase of electrical and electronic equipment or components as specified in schedule-I of the E – waste (Management & Handling) Rules 2016.

(1) Producer of E-Waste shall include any person who, irrespective of the selling technique;

- Manufactures and offers to sell electrical and electronic equipment under his own brand; or
- Offers to sell under his own brand, assembled electrical and electronic equipment produced by other manufacturers or suppliers; or
- Offers to sell imported electrical and electronic equipment

(2) Responsibilities of the producer shall include:-

1. Collection of E-waste generated from the ‘end-of-life’ of their products and to ensure that such e-wastes are channelized to registered dismantler or recycler. Producer shall, as necessary, ensure collection and channelization by authorizing collection agencies;
2. Setting up collection centers or take back systems either individually or collectively;
3. Financing and organizing a system to meet the costs involved in the environmentally sound management of e-waste generated from the ‘end-of-life’

of its own products. The financing arrangement of such a system shall be transparent. The producer may choose to establish such a system either individually or by joining a collective scheme;

4. Any other responsibility entrusted upon producers under the E-Waste Management & Handling Rules, 2016 or any amendments thereof.

- (3) Producers shall fulfill the collection and channelization of responsibilities entrusted upon them under the E-Waste (Management and Handling) Rules, 2016 or any amendments thereof through:-

Collection and channelization mechanism through any authorized collection centers appointed by The Bhavnagar Municipal Corporation. If E-waste generated from producer's brands is being collected by any authorized collection centers appointed by The Bhavnagar Municipal Corporation, The Bhavnagar Municipal Corporation may seek reimbursements from the producers of the costs incurred towards collection and channelization of such wastes for environmentally sound recycling by The Bhavnagar Municipal Corporation authorized collection centers.

49 A) EXTENDED PRODUCER RESPONSIBILITY FOR PLASTIC WASTE

1. Manufacturers of plastic carry bags, and/or multilayered pouches, and/or sachets, and/or brand-owners using such items shall be required to assist The Bhavnagar Municipal Corporation towards ensuring safe collection, storage, segregation, transportation and channelization of waste for proper recycling under "Extended Producer Responsibility" as defined in the Plastic Waste Management & Handling Rules, 2016 or any amendments thereof, as per the instructions notified by The Bhavnagar Municipal Corporation from time to time.
2. If such manufacturers and or brand-owners shall establish their own collection centers, individually or collectively, for fulfillment of "Extended Producer Responsibility" as defined in the Plastic Waste Management &

Handling Rules, 2016 or any amendments thereof, they shall do so after getting necessary permissions from The Bhavnagar Municipal Corporation.

3. Producers shall fulfill the collection and channelization of responsibilities entrusted upon them under the Plastic Waste (Management and Handling) Rules, 2016 or any amendments thereof through:-

Collection and channelization mechanism through any authorized collection centers appointed by The Bhavnagar Municipal Corporation. If Plastic waste generated from producer's brands is being collected by any authorized collection centers appointed by The Bhavnagar Municipal Corporation, The Bhavnagar Municipal Corporation may seek reimbursements from the producers of the costs incurred towards collection and channelization of such wastes for environmentally sound recycling by The Bhavnagar Municipal Corporation authorized collection centers.

4. Joint Efforts of corporation and Manufacturers of E waste and Plastic waste in collection and processing of the same on PPP basis shall also be implemented by the corporation.

CHAPTER – XVI

PREVENTION AND CONTROL OF AIR POLLUTION

50. Creating Public Health Nuisance due to Air Pollution:

An owner or occupier of premises or any person in an open area creates a public health nuisance if–

- (a) any waste on the premises is burned outside except in an approved appliance.
- (b) ash, grit, soot or smoke is emitted from any chimney or appliance or from any other means on the premises in a manner or quantity that is sufficient to have an adverse impact on public health.
- (c) the erection or destruction of a building or structure causes dust to be discharged into the surrounding atmosphere in a manner or quantity that is sufficient to have an adverse impact on public health.
- (d) Any dust is generated on, and emitted from the premises due to any activity or process and discharged into the surrounding atmosphere in a manner or quantity that is sufficient to have an adverse impact on public health.

51. Indoor Air Pollution:

Numerous studies have found that tobacco smoke may be a major contributor to indoor air pollution and that breathing secondhand smoke may be a cause of disease, including lung cancer, in nonsmokers. At special risk are children, elderly people, individuals with cardiovascular disease, and individuals with impaired respiratory function, including asthmatics and those with obstructive airway disease.

Prohibition against smoking in public places; exceptions.

- (a) No person shall smoke in a public place or at a public meeting. This prohibition does not apply in any of the following places:
 - (1) Bars and lounges.
 - (2) Retail tobacco stores and tobacco businesses.

- (3) Privately hired Car by an individual or corporation.
- (4) Hotel and motel rooms rented to guests, except for those rooms designated by the hotels and motels as "no smoking" rooms.
- b) No person may smoke in any of the following areas:
 - (1) Child care facilities.
 - (2) Hospitals, health care clinics, doctors' offices, physical therapy facilities, and dentists' offices.
 - (3) Elevators.
 - (4) Buses, taxicabs, and other means of public conveyance.
 - (5) Government buildings, except private offices.
 - (6) Rest rooms.
 - (7) Service lines.
 - (8) Public areas of aquariums, galleries, libraries, and museums.
 - (9) Lobbies, hallways, and other common areas in apartment buildings, senior citizen residences, nursing homes, and other multiple-unit residential facilities.
 - (10) Polling places.
 - (11) Schools or other school facilities or enclosed school sponsored events.
 - (12) Retail establishments, restaurants, except areas in retail establishments not open to the public.
 - (13) Lobbies, hallways, and other common areas in multiple-unit commercial facilities.

Posting of "No Smoking" and "Smoking Area" signs; violations of chapter.

A "No Smoking" sign or signs, or the international "No Smoking" symbol, which consists of a pictorial representation of a burning cigarette enclosed in a circle with a bar across, shall be prominently posted and properly maintained where smoking is prohibited by this chapter, by the owner, operator, manager, or other person in charge of the facility.

52. Air Pollution due to emission of pollutants in the ambient air and in stacks:

Following things shall attract penalties for causing air pollution in the ambient air:

- 1) Vehicular pollution caused due to emissions of smoke and pollutant gases from the exhaust of any vehicle. A valid “Pollution Under Control” (PUC) certificate is a must for every vehicle and the issuing authority shall ensure that the emissions from the vehicle being checked for PUC are below the permissible standards as prescribed. If necessary, the vehicle may be serviced for bringing it below the emission standards.
- 2) Local shops selling items like peanuts, grams or any other such items from where emission of smoke and gases occur shall either keep minimum height of their stack of 10 meters so that the air pollutants does not settle on the ground or employ air pollution control measure to control emission of each kind. This is applicable to even road paver machines which are causing air pollution.
- 3) Any machine which is used for fine grinding of items and which create fine dust should also have an appropriate air pollution control systems. This includes even quarries where such emissions are encountered.
- 4) Industrial emissions are as such governed by The Air Pollution (Prevention and Control) Act 1981 and its amendments thereof and shall emit their gases so as to keep their concentration of pollutants below the prescribed ambient air quality standards and run their air pollution control units for controlling emissions of particulates and gases below the standards specified by the state pollution control board. This covers all the types of industries including cottage, small scale, medium scale and large scale industries.

CHAPTER – XVII

PREVENTION AND CONTROL OF NOISE POLLUTION

53. Offenses under Noise Pollution: Following items are covered under the purview of Noise pollution and its negative effects on the public health:

- 1) The Bhavnagar Municipal Corporation shall take measures for abatement of noise including noise generated from vehicles, bursting of fire crackers on roads and streets and other public and private places, use of loud speakers or public addressing systems, which generate high level of noise and exceed the standards for noise as prescribed in the Noise Pollution (Regulation and Control) Rules 2010 and the amendments made therein.
- 2) An area of not less than 100 m around educational institutions, hospitals, courts etc. shall be notified as Silence Zones and honking of vehicles or any other methods through which noise is generated shall be prohibited. Any person, group or mob violating such rules shall be penalized in this purview.
- 3) Use of loud speakers or any other noise generating devices shall be permitted only after obtaining permits from the concerned authorities.
- 4) Any noise generating device shall not be used at night time (Between 10 pm to 6 am) except in closed premises like auditorium, conference rooms, community halls, banquet halls which have sound proof construction systems.
- 5) Sound emitting construction equipment shall not be used at night time (Between 10 pm to 6 am) in residential areas or silence zones.
- 6) The criteria mentioned in the Noise Pollution (Regulation and Control) Rules 2010 and the amendments made therein shall be applicable and any person violating them shall be penalized for doing so.

CHAPTER - XVIII

REQUIREMENTS FOR CREMATORIA, SLAUGHTER

HOUSES AND OTHER TRADES IN MAINTAINING

PUBLIC HEALTH

54) Requirements for Crematoria:

54.1) Cremation or Burning:

Cremation may be said to have been the general practice of the ancient world, with the exception of Egypt, where the bodies were embalmed; Judaea, where they were buried in sepulchers; and China, where they were buried in the earth. Cremation is the most satisfactory method of disposal of the dead, and is the old established custom with the majority of the Hindus, who burn the body on a pyre in the open air. By this method the body is reduced to small quantity of odorless ash within about three hours. The bodies are cremated on the bank or rivers, and in the absence of a river, on the bank of some tank. The quantity of fuel required to completely consume the corpse of an adult is about 180 kg. The bodies, are, as a rule, so covered with wood that very little can be seen. The smell is hardly perceptible at a short distance, and if the place is enclosed by a wall the nuisance to the neighborhood is reduced to a minimum. Those who can afford to use sandal wood and ghee in addition to the usual fuel to disguise the smell and also to feed the fire. Unfortunately however burning as practiced in this country especially by the poorer classes leaves much room for improvement both on sanitary and aesthetic consideration. Fuel being expensive, the bodies are not often properly burnt and the half charred bodies are thrown into the river or stream.

In large cities cremation acquires an increased importance on account of the cultural attitude with which dead bodies may be disposed of during epidemics, as fire removes all traces of contagion that might remain in a graveyard. A burning ground also occupies less space. The smoke and smell coming from burning grounds, especially when it is in full action, indicate that the temperature of the fire is insufficient and heat is being wasted. An open fire cannot concentrate its heat on a body, and the smoke proves that the air supply is defective. To consume a body rapidly, completely and without offence, the fire should reach its highest temperature before the body is placed in it, and this is only possible when it is enclosed in a properly constructed furnace.

All burning ghats should be properly lighted at night and screened by high walls. They should be provided with rest rooms both for men and women. A death register should be kept under the charge of a responsible person who will record the name, age, sex, cause of death and the name of the attending physician. There should be arrangement for the supply of fuel and "Domes" (undertakers) would always be available who should have quarters in the vicinity.

A perfect cremation furnace should consist of a bed of finely broken quartz, seven feet long and twenty-eight inches wide, supplied from beneath with a mixture of gas and air, which when properly adjusted burns without visible flame, rendering the quartz bed nearly white hot,

A temperature of 1650°C will decompose water to its elements and consume all organic matter. The furnace should be enclosed with an opening above to let out the invisible and odorless products and the residue left will be a small quantity of white lime from the bones.

It is argued that if these bodies were cremated the criminals would have escaped. The compulsory use of death certificates will to a great extent to minimize this. But the time for detecting crime is not after but before the body is disposed of. Poisons like copper, arsenic, etc., can be detected from the ashes or unburnt pieces of wood. In modern world,

environmental friendly electric crematorium has been largely used instead of traditional burning ghats.

54.2) Earth Burial:

The object of burial being speedy resolution and complete oxidation, the soil best suited for the purpose is a sandy or calcareous. This should be reasonably porous and light, and either naturally or artificially drained to a depth of 8 ft. Clay soil is bad as it cannot be drained properly, and allows the products of putrefaction to escape through cracks in dry weather. The same objection applies to a chalky soil. Burial is a very expensive method of disposing of the dead; besides the initial outlay of purchasing the land there is a recurring expenditure for establishment, structural repairs, etc.

In the selection of a burial ground the following' points should be attended to:

1. Lands liable to flooding are unsuitable.
2. The ground should not be high, as the natural drainage may pollute the water-supply at a lower level:
3. The area should be marked into plots, and provided with pathways at convenient intervals.
4. The area should be outside the limits of future buildings. The ground should not adjoin dwellings, and trees and shrubs should be planted to absorb the carbonic acid given off during the disintegration of the bodies.

Overcrowded cemeteries influence the health of the people of the locality prejudicially by (a) contamination of the air; (b) contamination of the water by products of decomposition; and (c) contamination of water-supply by specific organisms.

The number of full sized non-masonry graves to a cottah (720 sq.ft.) of land allowing 6ft. by 2 2/1 ft. for each, and a space of 4 feet between, would be only twelve, or two hundred and forty to the bigha. If the intermediate spaces could be utilized in future without disturbing the graves, one bigha will altogether accommodate 480 corpses, In most cities, ordinarily, 7

feet by 4 feet is allotted for full size non-masonry graves for those above ten years; 5 feet by 3 feet for those of children under ten; and 3 feet by 2 % feet for those of infants under one year.

The area should be marked out in plots and interments made in regular lines with pathways at convenient intervals. Deep burial should be avoided, and a space of at least 2 feet should be left between the level of the subsoil water and the dead bodies. In fact for every foot of depth below the soil it takes one year for necessary resolution. The use of metallic or strong wooden coffins, brick graves or vaults helps to preserve the bodies for a long time and thus .interferes with their proper resolution and oxidation. Bodies should be interred in easily destructible coffins, 3 to 5 feet below the surface of the earth, where the micro -organisms exist in abundance. The Mahomedans do not use any coffin; therefore the bodies disintegrate more rapidly than when coffins are used. Too shallow a burial should be avoided, as there is a risk of the graves being dug up by jackals or other animals, and in all cases they should be protected by strong fencing. It takes about a year for the soft parts to disappear.

55) Requirements for Slaughter Houses:

Slaughter houses are places where animals whose flesh is intended for human consumption are killed. The hygiene of slaughter houses is therefore of paramount importance to ensure meat hygiene.

55.1) Inspection of meat:

Inspection of meat is most important activity in the interest of the health of consumers of the meat; as some of the animal infections are transmitted to human being through meat. For this purpose there is a need to have detailed inspection of slaughter houses by competent person for early diagnosis of diseases in animals to be slaughtered, which will enable the authority to take immediate necessary action.

For inspection of meat, trained meat inspectors need to be appointed for having efficient meat inspection system. A meat inspector should preferably be a qualified veterinarian having special training and experience, as he has to be well acquainted with infectious diseases in animals. Since the meat inspection has to be carried out in the interest of the prevention of disease in meat consumers there is a need to have close co-operation between meat inspectors/ slaughter house in charge, with the officers of Public health department, who are responsible for health of the consumers.

In order to achieve the objective of supply of healthy meat to the consumers, there is need to have slaughter houses run by Municipal or Government organizations, so that good meat inspection services can be established as well as there can be proper sanitary control. The person who wishes to slaughter the animal can be given permit/license and allowed to slaughter the animal on payment of fees. Thus slaughter house should be well maintained with modern equipment required for effective, hygienic methods of slaughtering and proper arrangements.

The major activity of meat control are ante and postmortem examination of animals to be slaughtered. So .if animal about to be slaughtered is found affected or suspected to be suffering are separated from the .rest. Those which show symptoms of particularly virulent diseases and those in moribund conditions are condemned outright and the remainders are slaughtered separately, on which separate postmortem inspection is carried -put.

The disease for which animals are condemned are Tuberculosis, Anthrax, Actinomycetes, Tapeworm cysts, Septic infection etc.

In order to achieve proper hygiene in slaughter houses following conditions are required to be observed.

- 1) slaughter house should be preferably away from the residential area. The floor and the walls of the slaughter house upto 6 feet should be made impervious, so that it is easy to clean.

- 2) The blood, offal etc. which is collected during the slaughtering process should not be discharged into public sewers but should be collected separately in proper containers and disposed off, as per directions of the conservancy department
- 3) The slaughter house should have an independent, adequate and continuous supply of water.
- 4) The meat should be stored in fly proof and rat proof rooms.
- 5) If the overnight storage is required the temperature of the room is required to be maintained below 50C
- 6) After the slaughtering of animals premises are thoroughly washed and disinfected.

55.2) Inspection of a slaughter house:

The slaughter house should-not be in a low-lying area. The building shall have proper plinth. It should be outside the town or near running water or sea. It should be within short distance from the town or near running water or sea. It should be within short distance if a Railway line, to which it should be connected, if possible. Prevailing wind is to' be considered while selecting the site. Locality should be such that the slaughter of animals is visible to very few. It should be away from the place of sewage disposal and away from any foul smell producing premises. It should be at least 3 kms. away from airport, as slaughter houses attract birds and there are possibilities of accidents to the air planes while taking flight or landing. The building should be made rat-proof and dogs should be prevented from entering the compound. There should be no direct communication with a privy or water closet and the slaughter house.

While planning construction, maximum daily kill of each class of animals and proposed disposal and treatment of the edible and non-edible by-products should be ascertained. By-products include hides, glands, blood and condemned meat etc. Ample supply of water, a adequate facilities of sewage disposal, an electric supply and if possible, a gas supply and

good road facilities are essential requirements needed. Public slaughter house is called an abattoir. The following components are inspected:

- 1) Lairage or pens where animals are kept before slaughter.
- 2) Isolation block (for diseased animals or suspects)
- 3) Slaughter Hall
- 4) Cooking Hall
- 5) Hide and Skin store
- 6) Cutlery
- 7) Office and condemned meat room
- 8) Slaughter yard

In connection with the slaughter yard, provision of manure house, offal house, water closets, disinfecting accommodation, boiler house, lavatories for butchers and, if possible, an incinerator and refrigerator and sterilizer should be made. Besides this, there should be dwellings for officials and inspecting staff. There should be spacious cattle yard for purchase of animals by butchers from cattle owners. The yard should be covered with turf and provision for conservancy and for daily removal of refuse and dung should be made. Animals brought for slaughter should be regularly inspected and those suffering from infectious diseases should be killed and their bodies destroyed by incineration. This will prevent spread of the disease among other animals. The condemned meat also should be destroyed. As far as possible, animals with suspected infectious diseases should not be allowed in the cattle yard. A sufficiently large and convenient inspection area should be provided. They may be open ramps on all sides, but should be properly paved and drained. In connection with the inspection sheds, a properly equipped laboratory is necessary.

Lairage accommodation should be in properly constructed sheds where animals will have sufficient rest. After rest, they furnish good and normal meat. Fatigue reduces nutritive value of the meat. Lairage stalls or pens should not be too large, so that in case of infectious diseases, the infection may be controlled and disinfection is made more easy. It is, therefore, necessary that floors of lairage stalls should be properly paved and made water-tight and drained. Walls too, should be rendered, smooth and non-absorbent, impervious up to a height of 6 ft. The comers of the walls should be rounded off. Lairage accommodation for cattle, sheep and pigs should be separate, Cattle and sheep or sheep and pigs may be housed together but not cattle and pig together. Cattle do not rest well in company of pigs.

Rails of the railing should not be more than 6 inches apart from one another, to avoid putting of leads by animals on them and getting their heads fixed in railings. There should be sufficient supply of food and water to the animals in lairage sheds. They should be fed well until they are taken for slaughter. There should be sufficient space of storage. Keeping 3 days' supply of hay and straw for cattle and 2 days supply of food for pigs and sheep is considered as sufficient. Arrangements for speedy removal of dead animals should be made.

According to slaughter of Animals Regulations (Prevention of Cruelty) and from humanity point of view - animals should be fed twice daily, except on the morning of the day of intended slaughter or the afternoon preceding the morning of intended slaughter. Young animals, unable to take solid food, must be slaughtered as soon as practicable.

The cattle yard, inspection sheds, lairage shed and waiting pen should be entirely divided off by a high masonry wall from the slaughter house proper. Animals awaiting slaughter should be spared as far as possible, any contact with sight or smells of the slaughter house itself.

The Abattoir or Slaughter House killing room should be of solid and substantial material, walls and floor durable, impervious and non-absorbent, internal surface of the walls should

be smooth and waterproof up to an height of 10 ft., with corners rounded up. The walls should be washed daily with a hose pipe. If inner surface is painted with white oil paint, it will show off dirt and dust and will also reflect good light. If white tiles or marble slabs are fixed to the walls, it is best. Floor must be hard, tough and water-tight having slope all around and having a drain at the lowest point. A gully trap should be provided in the drain to avoid foul gases coming from drain into slaughter house.

The floor should be such as to resist being broken or cracked by the falling of heavy objects or with the stamping of animals, but the floors should not be smooth and slippery. Rounded comers of walls will prevent collection of dirt and dust. Water supply should be good and plenty. Drainage should be on the most modern lines and sewage treated biologically before it is discharged into sewer, river or on the land. Water supply of abattoir is estimated on the basis of 150 gallons (710 Liters) per beast - slaughter. Provision for sterilization of clothes, knives and other equipments should be made.

The slaughter house should be properly lighted and ventilated by doors, windows and skylights. The doors and windows should be provided with automatically closing - 'fly-proof shutters. Windows should be above 6 ft. from floor.

Carcass means skeleton, muscle and fat. Offal means head and internal organs of the animals.

Animals are kept under observation for a day or so and then only healthy animals are slaughtered. After slaughter of an animal, inspectors inspect carcass and offal and slaughter- house mark is stamped on carcass fit for human consumption.

Persons suffering from communicable diseases should not be allowed as workers in the slaughter house. The skin, fat, horns, intestines, etc. should be removed on the same day.

55.3) Methods of Slaughtering Animals

It may be done by 'Jhatka Method or by 'Halal Method.

In 'Jhatka Method' the head and the body is severed by one stroke, Heart stops beating and hence blood remains in offal and carcass. It is stated that this mutton is tasty but it decomposes very rapidly.

In 'Halal Method, the throat is cut without cutting the spinal column. The heart continues to beat, and most of the blood is pumped out through the cut arteries of the throat. This type of meat can remain for a long time without undergoing decomposition, and can be preserved.

Private slaughter house should be discouraged, unless the owners give requisite guarantee for the judicious management of the same and are answerable to Local Authorities.

Public Slaughter Houses (Abattoirs) should be under Municipal control. The advantages of this are as follows:-

- 7) All facilities and conveniences are extended to butchers and cattle owners and dealers.
- 8) Meat injurious to health is prevented from being offered for sale. Meat unfit is destroyed, and meat of doubtful quality, but not unfit, can be offered for sale after declaration of the quality.
- 9) Slaughtering is done with cleanliness and expedition, with the newest machinery and appliances, in properly constructed slaughterhouses:

55.4) General norms for meat, beef and Pork shops:

- 5) Floor and walls should be of impervious material and in good repair.
- 6) Waste water to be connected to the drainage properly.
- 7) Municipal water connection to be taken for the shop.
- 8) Lime-washing of walls and painting of wooden work.
- 9) Shops to be kept clean by washing them every day. Furniture also to be washed daily,
- 10) Shop should be well-lighted and ventilated with windows, etc,

- 11) Shop to be disinfected once in a month through Municipal Agency.
- 12) Meat beef or pork which is without Municipal mark stamped on it, shall not be kept for sale in the shop and should be brought covered
- 13) There should be sufficient hooks for keeping the carcasses.
- 14) Persons suffering from infectious diseases should be prohibited from entering the shop.
- 15) Unfit meat, beef or pork in the shop will be seized and destroyed by the Municipal staff empowered to do so, and the seized goods will be destroyed.

56) Requirements for the trade of Beauty Parlor/Hair Cutting Salon:

1. All such Beauty Parlors/Hair Cutting Salons shall be of sufficient size with a floor space of not less than 10' X10' and not less than 9 ft. in height. They shall be properly lighted and ventilated and approved by the Health officer.
2. The whole of the floor of the Beauty Parlor/Hair Cutting Salon shall be paved or covered with material, the upper surface of which shall be smooth, even and impervious to dust, and the premises shall be lime washed twice a year.'
3. The floor shall be swept at least three times a day, (a) before commencement of the work, (b) at noon and (c) at the close of each day' work.
4. All tables shall have smooth and even surface and shall be washed and cleaned daily and kept free from accumulations of hair.
5. The brushes shall be made of good material and shall be thoroughly washed, cleaned and sterilized every day before use. Blades or any other sharps used by the shop shall be disposable and shall not be reused any time.
6. For the collection of hair and sweepings, a moveable sanitary bin made of galvanized iron or other equally suitable and imperious material shall be provided and kept covered with a close fittings lid.

7. All hair and sweepings shall be collected at frequent intervals and deposited in the sanitary bin, the contents of which shall be emptied twice a day into a Municipal dustbin cart.
8. Within or adjoining the Beauty Parlor/Hair Cutting Salon a washing place with water laid on from the Municipal water supply shall be provided.
9. All basins for washing, and all sinks and washing place on the premises shall be efficiently drained by pipes which shall if necessary be trapped and which shall be disconnected from any pipe or gully which communicates directly with a fecal drain.
10. The Beauty Parlor/Hair Cutting Salon shall be provided with means for securing a supply of boiling water adequate for the purpose of sterilizing implements and washing the appliances in daily use.
11. No person suffering from any infectious, contagious or loathsome disease shall be employed in any capacity on the trade premises and necessary medical fitness certificate from approved Hospital shall be obtained every year for all workers working in the premises.
12. Approved and standard cosmetics and other chemicals for facials, skin and hair treatments and other beauty care shall be used.
13. In case milk shop or flour mill is adjacent, beauty parlor shall be air-conditioned along with automatic door closer.
14. The parlor should ensure proper disposal of waste generated without causing nuisance to surrounding trades.

57) Requirement for keeping Laundry Shop or Laundry Business including Dhobi ghats:

1. There shall be two rooms. The front room shall be used for keeping washed and ironed clothes and for clothes received for washing or ironing. The rear room shall be used for ironing of clothes.
2. Separate arrangement shall be made for keeping washed and ironed clothes, for clothes received for ironing and for clothes received for washing.

3. The rooms shall be well-lighted and well ventilated naturally or artificially.
4. The flooring of all rooms shall be paved have smooth and even surface.
5. The rooms shall be lime-washed and the wood work oil-painted.
6. The Premises shall be kept in a clean and sanitary condition at all times.
7. No person suffering from any infectious, contagious or loathsome disease shall be employed in any capacity on the trade premises and necessary medical fitness certificate from approved Hospital shall be obtained every year for all workers working in the premises.
8. A board in vernacular and English shall be exhibited at a conspicuous place at the entrance of the premises mentioning thereon that clothes of a person suffering from any infectious or contagious disease shall be properly disinfected before giving in the shop for washing.
9. No part of the trade premises shall be used for stocking or storing any unserviceable articles.
10. There shall be provided a coal box with a fitting lid thereon if charcoal is used for ironing.
11. No process whatsoever of washing clothes shall be carried on, on the trade premises without a separate license for "Washerman's Trade" which will be issued free of charge.
12. Persons employed on the trade premises shall always wear clean clothes.

58) Cosmetics and Toilet Goods Shop:

1. There shall be two rooms, one for manufacturing or packing and the other for storage and sale of articles of Cosmetics or Toilet Goods. Each of the rooms shall not be less than 9.2903 sq.mt. (100 sq. ft.) and shall not be less than 2.440 m (8 ft.) on any side. The height of the rooms shall not be less than 3.050 m (10 ft.).
2. The walls of the rooms of the trade premises shall be either oil-painted or otherwise rendered impervious to moisture and dirt up to a height of at least 1.83 m (6 ft.)

- from the floor and the remaining upper portion above 1.83 m (6 feet) if not oil-painted or made impervious to moisture and dirt, shall be lime-washed. All the wood work in all the rooms shall be oil-painted.
3. The flooring of all the rooms shall be paved and shall have smooth surface.
 4. The place of manufacture or preparation by any process or operation or packing shall be adequately separated from the place for storage of cosmetics.
 5. The rooms shall be well-ventilated and well-lighted either naturally or artificially.
 6. The premises and all appliances connected with the trade shall be kept in a clean and sanitary condition at all times.
 7. No utensil, vessel or any container, which is composed in whole or in part, of any poisonous or deleterious substance or is in such a state, as to render the contents injurious to health shall be used.
 8. The following articles of cosmetics or toilet goods shall not be manufactured, packed or , stored on the trade premises :-
 - (i) An article containing any poisonous or deleterious substance which may render it injurious to users under such conditions of use as are customary or usual.
 - (ii) An article containing in whole or part any filthy, putrid or decomposed substance,
 - (iii) An article bearing label which is false or misleading in any particulars.
 - (iv) An article which does not bear a label containing the name and place or business of the manufacture, packer or distributor and an accurate statement of the quantity of the contents in terms of weight, measure or numerical count,
 - (v) An article the container of which is so made, formed, or filled as to be misleading.
 9. No doors or windows of the trade premises shall abut on any house gully.

10. No container used for manufacture or storage shall be kept in any place in which such container is likely by reason of impure air or dust or any offensive or noxious or deleterious gas or substance or any noxious or injurious emanation or exhalation, to be contaminated and thereby render the article noxious or deleterious.
11. A proper washing place shall be provided in the room for manufacturing with a tap from Municipal mains on meter measurement. Such washing place shall be properly drained and - shall discharge over a half channel gully, at a point at least 0.457 m (18 inches) away from any drain-inlet and in the case of the trade located in Metro cities where a drainage system does not exist, the arrangement for disposal of waste water shall be such as to meet with the approval of the Municipal Health Authorities. In the absence of Municipal water mains in any area, arrangement shall be made to store such quantity of water and in such manner as will be directed by the Municipal Health Authorities.
12. No person suffering from any infectious, contagious or loathsome disease shall be engaged on the trade premises in any capacity.
13. No unserviceable articles shall be kept or stored on the trade premises.
14. Sufficient sanitary conveniences for use of the workers shall be provided in the trade premises and shall be maintained in a clean and working condition at all times.
15. No fuel other than gas, electricity or kerosene oil shall be used on the trade premises.
16. The place will be licensed only if there is no objection from fire risk point of view or the requirements prescribed so as to render the place safe from fire risk are carried out.
17. A metallic sanitary dust bin or bins of approved pattern with a close fitting lid on each shall be provided and maintained in good repairs for depositing therein waste and sweepings from the trade premises. Arrangements shall be made to remove and dispose this trade refuse, viz. the contents of the sanitary bin or bins at least once a day at the location which is specified by the Authorized officer of the municipal

corporation for the purpose of deposit of trade refuse. The transport facilities provided by the Municipal Corporation for this purpose shall be availed of on payment of fixed charges.

**59) Requirement for manufacturing, preparing, packing etc. by any process or operation
Pharmaceutical or Medical Products:**

1. A valid license or licenses to manufacture, pack, etc. drugs or operate a Pharmacy under the Drugs Act 1940 and the Rules there under as amended up to date shall be produced.
2. A proper drained washing place with a water tap from Municipal main on meter measurement shall be provided in the room.
3. A metallic Sanitary dustbin or bins of approved pattern with a close fitting lid for each shall be provided and maintained in good repairs for depositing therein waste and sweepings from the trade premises. Arrangement shall be made to remove and deposit this trade refuse at the place appointed by the Authorized officer of the municipal corporation for the removal and deposit of trade refuse. In the alternative, the transport facilities provided by the Municipal Corporation shall be availed of on payment of fixed charges.
4. No person who has not completed his fourteen years shall be engaged on the trade premises in any capacity.
5. No part of trade premises shall be used for stocking, storing or keeping any unserviceable articles.
6. No person suffering from any infectious, contagious or loathsome disease shall be employed in any capacity on the trade premises and necessary medical fitness certificate from approved Hospital shall be obtained every year for all handlers working in the premises.
7. The persons employed or working in the trade premises shall always wear clean apparel.

59.1) Inspection of swimming pools:

Swimming pool water is exposed to (1) faecal contamination and (2) organisms from skin and nasopharynx. The health hazards associated with swimming pools are :

- (1) fungal and viral infections of the skin. This includes Epidermophyton and Trichophyton species which produce athlete's foot and also the papilloma virus, the causative agent of plantar warts.
- (2) infections of the eye, ear, nose and throat.
- (3) infections of the upper respiratory tract,
- (4) intestinal infections and
- (5) accidents

Sanitation Measures:

1. **Recommended Area:** The recommended area is 2.2 sq.m. (24 sq. ft.) per swimmer.
2. **Surveillance:** Rules and regulations governing the use of the pool should be posted in a conspicuous place for the information of the users. These are:
 - b) Persons suffering from skin diseases, sore eyes, cold, nasal or ear discharge of any other / communicable disease should not be allowed into the swimming pool.
 - c) All bathers are strictly instructed to empty the bladder, and if necessary use the toilet.
 - d) A cleansing shower bath in the nude with soap and water is required before entering the pool.
 - e) spitting, spouting of water, blowing the nose etc. are prohibited
 - f) The environment of the swimming pool including the shower rooms, walk ways and pool decks should receive proper disinfection to destroy bacteria, viral and fungal agents.
3. **Filtration of Water:** Swimming pools are equipped with rapid sand filters. The filtering is continuous process, such that all the water is re filtered in less than 6

hours Part of the water, up to 15 per cent, which should be replaced by fresh water every day. The function of water replacement is to remove solutes consisting of ammonia, albuminoid, organic and nitrate nitrogen derived from the bathers. These solutes have the capacity to reduce the bacterial activity of chlorine.

4. **Chlorination:** Chlorination is the most widely used method of pool, disinfection. Various workers have stated that a continuous maintenance of 1.0 mg/litre (1 ppm) of free chlorine residual provides adequate protection against bacterial and viral agents. The pH of water is kept between 7.4 - 7.8

Bacteriological quality: The bacteriological quality of water should reach, as nearly as possible, the standards prescribed for drinking water.

CHAPTER - XIX

GENERAL OFFENSES UNDER THESE

BYE-LAWS

60.1 NO GENERATOR SHALL:

(1) dump, deposit, discharge, spill or release waste, or cause or permit such waste, to be dumped, discharged, spilled or released, whether or not the waste is in a container or receptacle, in or at any public or private place except in a container or at a place which has been specially indicated, provided or set apart for such purpose. For this purpose of these Bye-laws, public or private place includes but not limited to the following (Ref. Schedule 1, Sr. no. 41 to 46 for fees and charges of breach of bye-law 60.1 (1):

- i. any occupied, open or vacant land, playground and gardens
- ii. On the bank of a water body or into water body like rivers, waterways, catchments etc., (Ref Schedule 1, Sr. no. 47,48 for fees and charges of breach of bye-law 60.1 (ii).
- iii. Public street or on any unoccupied ground alongside any street, road, side walk, road dividers etc.
- iv. In a dustbin/vehicle not intended for the removal of the same

(2) Will fully allow rubbish, filth etc., particularly biodegradable waste to accumulate on premises for more than twenty four hours (Ref. Schedule 1, Sr. no. 49 to 52 for fees and charges of breach of bye-law 60.1 (2).

(3) Spit, throw or deposit waste on any public or private road or on any public or private premises within The Bhavnagar Municipal Corporation while driving a vehicle, or from a

parked vehicle or while being conveyed in a vehicle. No driver of vehicle shall allow or permit any passenger in such vehicle to spit, throw or deposit such waste in a like manner (Ref. Schedule 1, Sr. no. 53 for fees and charges of breach of bye-law 60.1 (3).

- (4) shall place, deposit or allow to be placed or deposited on his premises/property any waste, except as permitted by the terms of these Bye-laws (Ref. Schedule 1, Sr. no. 42 to 46 for fees and charges of breach of bye-law 60.1 (4)
- (5) Drive or move any truck or other vehicle filled with waste/litter unless such vehicle are so designed to cover the waste/litter and loaded as to prevent any litter from being blown off or deposited upon any road, side walk, traffic islands, playground, garden or any other public place (Ref. Schedule 1, Sr. no. 54 for fees and charges of breach of bye-law 60.1 (5).
- (6) Cook, bath, spit, urinate, defecate in open, feed animals or birds, utensils or any other object or keep any type of storage in any public place except in such public facilities or conveniences specifically provided for such purposes (Ref. Schedule 1, Sr. no. 55 for fees and charges of breach of bye-law 60.1 (6).
- (7) Dispose of any type of solid waste at road sides, dump sites or any public/private property by burning. This prohibition shall be applicable to all the people including the sweepers (Safai Kamdars) or other employees of The Bhavnagar Municipal Corporation, Contract Workers, Rag pickers or any other individual involved in the work of sweeping and cleaning of the roads and streets and other public places. It shall be the responsibility of the main contractor/ Agency working (Ref. Schedule 1, Sr. no. 56 for fees and charges of breach of bye-law 60.1 (7).
- (8) Dispose or treat household/industrial hazardous waste in a manner offensive to public health and safety (Ref. Schedule 1, Sr. no. 57 for fees and charges of breach of bye-law 60.1 (8).

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- (9) Dump, deposit or treat waste in a way disregarding of the instructions by The Bhavnagar Municipal Corporation in sanitation zones/Zero waste zones declared by The Bhavnagar Municipal Corporation (Ref. Schedule 1, Sr. no. 58 for fees and charges of breach of bye-law 60.1 (9).
- (10) Dump, deposit or treat waste in 'no entry/restricted entry' zones notified by The Bhavnagar Municipal Corporation without prior permission from the concerned authority (Ref. Schedule 1, Sr. no. 59 for fees and charges of breach of bye-law 60.1 (10).
- (11) Damage or remove without permission any infrastructure including vehicles, containers and equipment provided for the provisions under these Bye-laws (Ref. Schedule 1, Sr. no. 60 for fees and charges of breach of bye-law 60.1 (11).
- (12) No builder/contractor/agency/individual shall cause mosquito breeding within the premises of construction sites due to water logging/stagnation (Ref. Schedule 1, Sr. no. 61 for fees and charges of breach of bye-law 60.1 (12)
- (13) Keep the premises dirty of litter of the animals (Ref. Schedule 1, Sr. no. 62 for fees and charges of breach of bye-law 60.1 (13)
- (14) Dump C&D waste/debris in storm water drains, road pavements, open lands belonging to government or The Bhavnagar Municipal Corporation and/or on the sides of public roads (Ref. Schedule 1, Sr. no. 63 for fees and charges of breach of bye-law 60.1 (14).
- (15) Carry out the de-sludging or cleaning of septic tanks by un-authorized contractor/agency. Manual handling of the sludge is prohibited as per 'The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013' (Ref. Schedule 1, Sr. no. 9 for fees and charges of breach of bye-law 60.1 (15).

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- (16) Discharge the effluents from de-sludging of septic tanks in water ways, drains, open land, agricultural field or any other non-designated spot, but shall discharge it in the sewage treatment plants only (Ref. Schedule 1, Sr. no. 41 for fees and charges of breach of bye-law 60.1 (16).
- (17) No person shall allow the inflow of any substance likely to injure the drain or to interfere with its flow to the public sewer-line. This prohibition shall be read together with the section 167 of Gujarat Municipalities Act, 1963 (Ref. Schedule 1, Sr. no. 64 for fees and charges of breach of bye-law 60.1 (17).
- (18) No person shall discharge or cause to discharge domestic sewage from private drains to road, open lands, water ways, agricultural land or any other non-designated locations without adequate treatment (Ref. Schedule 1, Sr. no. 65 for fees and charges of breach of bye-law 60.1 (18)
- (19) No person shall connect domestic sewer to the public sewer line without obtaining necessary permissions from The Bhavnagar Municipal Corporation (Ref. Schedule 1, Sr. no. 39,40 for fees and charges of breach of bye-law 60.1 (19).
- (20) No person shall deposit or cause to deposit any type of waste in open drains and/or manholes, thus creating blockage/clogging in sewer lines. This provision is applicable to The Bhavnagar Municipal Corporation staff depositing street sweeping in the open drains. (Ref. Schedule 1, Sr. no. 66 for fees and charges of breach of bye-law 60.1 (20).
- (21) No person shall cause damage to public sewer lines by illegal projections or encroachments (Ref. Schedule 1, Sr. no. 67 for fees and charges of breach of bye-law 60.1 (21).
- (22) No person shall dispose domestic sewerage in to the storm water drainage (Ref. Schedule 1, Sr. no. 66 for fees and charges of breach of bye-law 60.1 (22).

(23) Street vendors / hawkers selling food items at specific food corners or in their food carts shall provide facilities for segregation and storage of solid waste generated from their activities in their own dustbins / bags / sack. The food cart / corner including vessels and utensils shall be maintained in a clean and hygienic way. Any vendor / hawker not following shall be punishable under the law.

60.2. Any infringement of the provisions of above Bye-laws 7 - 59 by owners/occupiers of the property and even servants, agents, representatives of the agents or servants of the agents shall be considered as offense under these Bye-laws by generators and shall be punished/fined/compounded as detailed in Schedule 1 of these Bye-laws.

60.3 Prohibition against obstruction of sanitary Services - No Person should prevent, obstruct or interfere with any sanitary services provided by concerned authorities/ The Bhavnagar Municipal Corporation/or any concerned government agency or department.

CHAPTER – XX

ENFORCEMENT OF THE PROVISIONS OF THESE **BYE-LAWS**

61. PROCEDURE FOR ENFORCEMENT OF THE PROVISIONS OF THE BYE-LAWS

- (1) If the offenders accept the offence (both the Major and Minor offence), compromise fees and administrative charges shall be collected by the Authorized Officer/ Employee/Officer of Nuisance Detection Squad (NDS) and the Offender shall be given the receipt of the same.
- (2) In case of Minor Offences (As specified in Schedule II), if the Offender pays compromise fees and administrative charges on the spot, no legal action would be initiated further.
 - 2.1 However, if the offender refuses to pay compromise fees and administrative charges, the Authorized Officer/ Employee of The Bhavnagar Municipal Corporation or Officer of Nuisance Detection Squad (NDS) shall demand his / her identity proof.
 - 2.2 Based on the identity proof the Authorized Officer/ Employee of The Bhavnagar Municipal Corporation or Officer of Nuisance Detection Squad (NDS) shall serve the notice on the spot u/s 472 of GPMC Act specifying the provisions of Section 468. If the offender in response to the notice served pays the compromise fees and administrative charges to the head of the concerned department &/or designated officer in response to the notice served to the offender, no further action shall be initiated against the offender. In such cases, the administrative charge to be collected shall not exceed the maximum amount as shown in Schedule I.

- 2.3 If the offender does not produce his/her identity proof, the Authorized Officer of The Bhavnagar Municipal Corporation or the officer of Nuisance Detection Squad (NDS), shall exercise the powers under section 42 of the Criminal Procedure Code, in pursuance of the powers of the additional officers, as conferred on him under section 22 of the Gujarat Police Act.
- 2.4 If the offender fails to respond to the notice served and does not pay the compromise fees and administrative charges then a complaint can be lodged against the offender in the court having jurisdiction and the Dy. Municipal Commissioner authorized by the Municipal Commissioner may at his discretion take actions to attach the property (wherever applicable) till such compromise fees and administrative charges are paid by the Offender. The attached property would be released only upon the specific order passed by the attaching Authority.

In case of Major offences (as specified in Schedule II) if the offender declines to pay compromise fees and administrative charges on the spot, in such cases the Dy. Municipal Commissioner authorized by the Municipal Commissioner shall undertake necessary actions to attach the property (wherever applicable) after a show cause notice is served and lodge a complaint against the offender in the nearest police station. The attached property would be released once the compromise fees and administrative charges are paid and specific written orders are given by the attaching authority.

62. IMPLEMENTATION OF THE PROVISIONS:- The Bhavnagar Municipal Corporation shall prepare a detailed manual for the implementation and enforcement of the various provisions of these Bye-laws. The same shall also include delegation of powers to agents/representatives of the agents/officers and employees of the The Bhavnagar Municipal Corporation laying down the conditions subject to which they said powers shall be exercised.

- 63. COMPROMISE FEE UNDER THE BYE-LAWS:-** Any offense under this bye-law is compoundable and the concerned officer of the Corporation duly delegated and empowered by the Municipal Commissioner can enter into compromise and collect Compromise fee under Section 481(b) of GPMC Act as described in the schedule 1 of this bye laws.
- 64. ADMINISTRATIVE CHARGES UNDER THE BYE-LAWS:-** Corporation is at liberty to levy administrative charges as fixed by the Municipal Commissioner with the sanction of the Corporation under section 479 of the GPMC Act. Administrative charges are to be collected from the offender who violates any of the provisions of this bye laws. Administrative charges shall be collected by authorized nuisance detector/employee/agency/agent of the corporation. By the collection of the administrative charges offender shall not get himself free from the liability of facing penal action, but is an additional source to meet the expenses incurred by the Corporation for removal of nuisance.

CHAPTER – XXI

OBLIGATORY DUTIES AND RESPONSIBILITIES OF THE Bhavnagar MUNICIPAL CORPORATION AND CITIZENS IN IMPLEMENTATION OF BYE LAWS

65. The Bhavnagar Municipal Corporation shall follow all the prevailing and relevant provisions of acts, rules and regulations while implementing the Public health byelaws as mentioned below in ANNEXURE - A:

1	Acts
	<ol style="list-style-type: none">1. The Gujarat Municipal Corporation Act, 19492. CPHEEO Manual on Sewerage and Sewage treatment, 20163. CPHEEO Manual on Solid Waste Management, 20164. Environment and Pollution Laws, 20125. United Nation’s Indicators of sustainable Development: Guidelines and methodologies6. The Gujarat Town Planning and Urban Development Act, 19767. The Gujarat Municipalities Act 1963,8. The Gujarat Housing Board Act, 19619. The Bombay Rents, Hotel and Lodging, House Rates Control act, 194710. ‘The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013’11. The Gujarat Municipal Finance Board Act, 197912. The Gujarat Slum Areas (Improvement, Clearance and Redevelopment) Act, 197613. The Gujarat Ownership Flat Act, 197314. The Gujarat Regularization of Unauthorisation Development Act, 200115. Shops and Establishment Act16. Bombay Police Act17. Industries Development and Regulation Act, 195118. Insecticides Act, 196819. Cinemas (Regulation) Act20. Food Safety and Standards act, 200621. Environment (Protection) Amended Act, 199122. Water (Prevention and Control of Pollution) Act, 197423. Air (Prevention and Control of Pollution) Amended Act, 198724. The Epidemic Disease Act, 189725. The Notifiable Diseases Act
2	Rules

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	<ol style="list-style-type: none">26. The Municipal Solid Waste (Management and Handling) Rules, 201627. The Construction and Demolition Waste (Management and Handling) Rules, 201628. The Water (Prevention and Control of Pollution) Amendment Rules, 201129. The Air (Prevention and Control of Pollution) Rules, 198230. The Environment (Protection) Amendment Rules, 201231. The Hazardous Waste (Management and Handling) Rules, 200832. The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 200933. The Biomedical Waste (Management and Handling) Rules, 201634. The Batteries (Management and Handling) Amendment Rules, 201035. The Noise Pollution (Regulation and Control) Amendment Rules, 201036. The Recycled Plastics Manufacture and Usage (Amendment) Rules, 200337. The E-Waste (Management and Handling) Rules, 201638. The Plastic Waste (Management and Handling) Rules, 201639. The Food Safety & Standards (Amendment) Rules 2017
3	Circulars/press notes/manuals
	<ol style="list-style-type: none">1. Relevant Circulars by SWM department of Concerned authorities2. Relevant Circulars by Public Health Department of Concerned authorities3. Circulars and rules by various other government agencies like GPCB and GUDC4. Relevant press notes by different departments5. Existing Manuals by SWM and Public Health Department of Concerned authorities

However, some of the general obligatory duties and responsibilities of The Bhavnagar Municipal Corporation shall be as follow:

65.1 OBLIGATORY DUTIES OF THE Bhavnagar MUNICIPAL CORPORATION:

1) Action against Transport Contractors/The Bhavnagar Municipal Corporation Employees:

The Bhavnagar Municipal Corporation shall take action against the Transport Contractor and/or the employees of The Bhavnagar Municipal Corporation, if any worker of the contractor or any of the employees of The Bhavnagar Municipal Corporation, mixes segregated waste at any point of collection, or fails to pick up waste as per the specified time schedule.

2) Provision of Adequate Infrastructure facilities:

The Bhavnagar Municipal Corporation shall provide adequate infrastructure facilities to assist citizen’s compliance with these Bye-laws. In addition to waste collection services; litter bins, dry waste sorting centers, and composting centers shall be set up, wherever possible and essential, in consultation with local citizens. Adequate community toilets shall be provided in slum localities and other such areas that do not have individual toilets. Pay and Use toilets may be constructed **at other places in the city area preferably at every 500 meters distance** with the participation of Community Based Organizations or private contractors or NGO’s to prevent nuisance such as defecating/urinating, washing and bathing on public places. Installation of dual plumbing system for grey (sullage) and black (sewage containing night soil) water and segregation of grey and black water and possibility of reuse of grey water for various options like flushing of toilets, use in gardens etc. for saving fresh water shall be provided and monitoring of such use by installing suitable water meters may be promoted. Possibilities of treatment of Black water which is more polluted in a separate sewage treatment plant based on latest technologies with possibility of energy recovery from such sewage may be promoted and practiced.

3) Citizen Resource Base:

The Bhavnagar Municipal Corporation shall facilitate information about composting as well as recycling of dry waste through dry waste sorting centers and about septage management and different facilities of onsite sanitation through its website. Record keeping and MIS system shall be set up to create data base for property/ Household level sanitation systems.

4) Bio-degradable puja articles:

The Bhavnagar Municipal Corporation shall authorize interested organizations to collect bio-degradable "puja" articles (flowers, leaves, fruits etc.) at certain designated sites near water-bodies such as rivers, lakes, ponds etc. In notified

receptacles. The collection from such receptacles shall preferably be composted at a suitable location.

5) Point-to-Point waste collection services:

The Bhavnagar Municipal Corporation shall provide for the collection of the municipal solid waste from specific pick-up points on a public or private road up to which the generator must bring the collected and stored waste for delivery to a municipal vehicle that shall be provided by The Bhavnagar Municipal Corporation. The services of the municipal vehicle shall be provided by The Bhavnagar Municipal Corporation for point-to-point collection of waste according to the route plans at such times and at such spots as notified by the concerned Municipal Commissioner in advance for specified types of waste for different localities.

6) Collection at source:

The Bhavnagar Municipal Corporation shall provide for the collection of municipal solid waste from premises of a building or group of buildings from waste storage receptacles kept on the premises to which The Bhavnagar Municipal Corporation vehicles/workers shall be provided access at such times as may be notified by the concerned Municipal Commissioner of The Bhavnagar Municipal Corporation.

7) Data about waste received at Waste Processing or Disposal Centre like Secured Landfill:

The Bhavnagar Municipal Corporation shall release publicly, the monthly data about the quantity of waste going to the different Waste Processing Centers or Secured Landfills. Such information shall be available at the Office and on The Bhavnagar Municipal Corporation website.

8) Community Bins in public places:

a) The Bhavnagar Municipal Corporation shall provide and maintain suitable community bins on public roads or other public spaces, as determined by The

Bhavnagar Municipal Corporation itself or through an Agent as an interim arrangement till The Bhavnagar Municipal Corporation make provision for collection at source or point-to-point collection by municipal vehicle at the required frequencies and shall notify the same on The Bhavnagar Municipal Corporation’s website from time to time.

- b) Segregated waste shall be delivered by the concerned generators to such community bins and thereafter collected by The Bhavnagar Municipal Corporation. The Bhavnagar Municipal Corporation or its Agents to ensure compliance of segregation and avoidance of public nuisance and health hazards shall man these community bins. Every community bin shall have at least two separate receptacles for bio-degradable and non-bio-degradable waste. Details of all such places including the arrangements and schedules of waste collection from such places shall be available at the Office and on The Bhavnagar Municipal Corporation’s website.
- c) Municipal Commissioner and authorized officers of The Bhavnagar Municipal Corporation shall ensure that at any time, the community bins are not overflowing nor exposed to open environment, preventing their scattering by rag pickers, stray animals or birds etc.

9) Dry waste sorting centers:

In order to regulate and facilitate the sorting of the recyclable and non-recyclable waste, The Bhavnagar Municipal Corporation shall provide for as many dry waste sorting centers as possible and required. These dry waste sorting centers shall be on The Bhavnagar Municipal Corporation’s land or land belonging to the Government or other bodies, made available especially for this purpose or in the form of sheds or kiosks provided at suitable public places and shall be manned/operated by registered cooperative societies of rag pickers/ licensed recyclers or any other Agents authorized/appointed by The Bhavnagar Municipal Corporation. The non-recyclable waste, which remains after sorting shall be further, transported from such

sorting centers from time-to- time to waste disposal sites for processing. Such center shall be fenced/ screened in such a way that waste shall not be visible to passersby.

10) Time schedule and route of collection:

The daily and weekly time schedules and routes of The Bhavnagar Municipal Corporation’s collection of different types of municipal solid waste shall be fixed and notified in advance by the concerned officers. Details shall be available at the Office and on The Bhavnagar Municipal Corporation’s website.

Similarly, the arrangements for the collection of construction and demolition waste and garden and horticultural waste, by The Bhavnagar Municipal Corporation or its licensees shall be made available to the public as well as to the bulk generators of waste by the Municipal Commissioner of The Bhavnagar Municipal Corporation.

11) Surprise checks:

The Municipal Commissioner or any authorized Officer/Agent of The Bhavnagar Municipal Corporation shall have right to enter, at all reasonable times, with such assistance as he considers necessary, any place for the purpose of (i) performing any of the functions entrusted to him by The Bhavnagar Municipal Corporation or (ii) determine whether and if so, in what manner, any such functions are to be performed or whether any provisions of these Bye-laws has been complied with.

12) Formation of Nuisance Detection Squad (NDS) in each ward of The Bhavnagar Municipal Corporation:

A Nuisance Detection Squad shall be formed by The Bhavnagar Municipal Corporation, comprising of “**Nuisance Detectors**” who may be the employees of The Bhavnagar Municipal Corporation, Retired Police Officers, Retired Army men or any other such people and who are appointed and empowered by the Municipal Commissioner to collect compromise fee/administrative charges from the offenders of the provisions of this bye-laws. The Municipal Commissioner/Municipal

Commissioner of The Bhavnagar Municipal Corporation shall strengthen the system of Nuisance Detectors by providing suitable uniforms and vehicles to Nuisance Detectors. The Nuisance Detection Squad will give specific opinion regarding the closures, termination of contracts and disciplinary actions on the following issues or for any offenses mentioned in the bye laws:-

- 1) Repeatedly the Nuisance Detection Squad found the production and distribution of banned plastic/thermocool/other banned materials from the same place/unit, they will recommend the closure of such unit to Municipal Commissioner of The Bhavnagar Municipal Corporation and on receipt of such report the Municipal Commissioner of The Bhavnagar Municipal Corporation shall ask the Pollution Control Board to take necessary action required for closure of such unit.
- 2) The Nuisance Detection Squad will if repeatedly found any agency/contractor burning waste in open and/or transporting the waste in uncovered vehicles, then they will ask the concerned municipal authority awarding the contract to terminate the contract after following due procedure under the principle of natural justice.
- 3) If the Nuisance Detection Squad caught hold of any municipal employee burning the waste in open, then they will report the same to concerned municipal authority to take disciplinary action against such employee.

13) Publicity: Citizen Information Services:

The Bhavnagar Municipal Corporation shall publicize the provision of the Bye-laws through the media of signs, advertisement, leaflets, announcement on radio and televisions, newspaper articles and through any other appropriate means, so that all citizens are made aware about their legal duties and about The Bhavnagar Municipal Corporation recycling, refuse & anti-litter services and fines.

14) Designated officers and periodic reports:

The Municipal Commissioner of The Bhavnagar Municipal Corporation shall designate officers under their control who shall be responsible for implementing the

obligatory responsibilities of The Bhavnagar Municipal Corporation specified under these Bye-laws in accordance with the micro-plans and time schedules for implementation during the financial year. The specific plans and time schedules and achievements against the same along with reasons for short falls, if any, shall also be shared publicly by the Municipal Commissioner through The Bhavnagar Municipal Corporation’s website.

15) Transparency and Public Accessibility:

To ensure greater transparency and public accessibility, The Bhavnagar Municipal Corporation shall provide all necessary information that is required to be publicized through its website.

16) Co-ordination with Government Bodies:

The Bhavnagar Municipal Corporation shall co-ordinate with other government agencies and authorities, to ensure compliance of these Bye-laws, within areas under the jurisdiction or control of such bodies.

65.2 Obligatory Responsibilities of The Bhavnagar Municipal Corporation and /or Generators of waste in case of some specific categories/situations:

Keeping in mind the particular nature of some situations, the following responsibilities are specifically mandated:

1. Slums:

- 1.1 The Municipal Commissioner or the concerned officers shall extend solid waste management to currently uncovered areas within their zone.
- 1.2 Where applicable, The Bhavnagar Municipal Corporation shall extend door-to-door collection system at fixed times at a point outside the slum, for collection of segregated solid waste.
- 1.3 In exceptional cases, until the services of a door-to-door collection system at required frequencies provided at designated spots on a public road or any other public place for the time being, manned community waste storage bins

shall be maintained by The Bhavnagar Municipal Corporation, where segregated waste shall be deposited by the generator and from where The Bhavnagar Municipal Corporation shall collect such waste.

1.4 Cleanliness drives shall be conducted by The Bhavnagar Municipal Corporation with the help of local councilors, Citizens organizations, Government bodies / Corporate for the cleanliness of areas inside the slums, from time to time.

2 Poultry, Fish and Slaughter Waste (From all areas other than designated slaughter houses and markets):

2.1 Every owner / occupier of any premises other than designated slaughter houses and markets, who generates poultry, fish and slaughter waste as a result of any commercial activity, shall store the same separately in closed, hygienic condition and deliver it at a specified time, on a daily basis to The Bhavnagar Municipal Corporation's collection vehicle provided for this purpose. Deposit of such waste in any community bin is prohibited and shall attract fines as indicated in the schedule of Fines.

2.2 The Engineering Department of The Bhavnagar Municipal Corporation shall be responsible for repair/remodeling of civic facilities in the markets to provide maximum hygiene and sanitary conditions in the market premises.

3 Vendor/Hawkers:

All vendors/hawkers shall keep their biodegradable and other waste unmixed in containers / bins at the site of vending for the collection of any waste generated by that vending activity. It shall be the responsibility of the generator/ vendor to deliver this waste duly segregated to the municipal vehicle of The Bhavnagar Municipal Corporation or to the nearest designated community bins. Failing which fine shall be imposed as per the Schedule of Fines. Each Vendor/hawker shall be responsible to maintain "Clean Aangan". Moreover, they shall also maintain clean and hygienic conditions for their utensils and food items being used. The food corner / food cart has to be pleasant and hygienic. It must have special arrangements for dish washing.

4 House-gullies:

- 4.1 It shall be the responsibility of the owner/occupier of premises with house-gullies to ensure that no waste is dumped or thrown in the house-gully and to segregate and deliver any solid waste to the waste collection vehicle which shall be provided by The Bhavnagar Municipal Corporation at such spots and at such times as may be notified by the Municipal Commissioner of The Bhavnagar Municipal Corporation.
- 4.2 Where owners/occupiers of such premises wish to avail of the services of The Bhavnagar Municipal Corporation for the cleaning of the house gully, they must apply to the office of The Bhavnagar Municipal Corporation and pay suitable prescribed charges as notified by The Bhavnagar Municipal Corporation from time to time. It shall be the responsibility of the owners/occupiers to provide access to the house gully for cleaning purposes.

5 Litter by owned / pet animals:

It shall be the responsibility of the owner of any pet animal to promptly scoop/clean up any litter created by pet animals on the street or any public place and take adequate steps for the proper disposal of such waste possibly by their own sewage system. Moreover, these pet animals shall also be tagged and record maintained by The Bhavnagar Municipal Corporation, so that it shall be useful in the future.

6 Public Gatherings and Events:

- 6.1 For Public Gatherings and Events, organized in public places for any reason (including for processions, exhibitions, circus, fairs, political rallies, commercial, religious, socio-cultural events, protests and demonstrations etc.) where Police and/or The Bhavnagar Municipal Corporation's permission is required, it shall be the responsibility of the Organizer of the event or gathering to ensure the cleanliness of that area as well as all appurtenant areas.
- 6.2 **A Refundable Cleanliness Deposit:** The Organizer of the event shall pay required deposit with the concerned zonal office for the duration of the event,

which shall be refundable on the completion of the event on notifying that the said public place has been restored back to a clean state and any waste generated as a result of the event has been collected and transported to designated sites, to the satisfaction of Municipal Commissioner of The Bhavnagar Municipal Corporation. This deposit shall be only for the cleanliness of the public place and does not cover any damage to property. This section shall also, apply to various other events which are being organized out the Municipal Parks i.e. on roads/lanes etc.

In case the Organizers of the event wishes to avail of the services of The Bhavnagar Municipal Corporation for the cleaning, collection and transport of waste generated as a result of that event, they shall apply in advance to the concerned Office of The Bhavnagar Municipal Corporation and pay the necessary charges in advance as may be fixed for this purpose by The Bhavnagar Municipal Corporation.

7 Receptacles on private property:

Every owner or occupant of private property shall maintain authorized refuse receptacles on private premises provided the receptacles are not visible from public street/roads and sidewalks.

8 Other public places:

The Government / Semi-government, statutory bodies shall be responsible for implementation of these Bye-laws within the public premises owned/occupied by them.

9 Duty of Societies/Associations/Management of Commercial Complexes to clean their premises and to provide Community Bins:

It shall be incumbent on the management of Co-operative Societies, Associations, of residences, Multi Storied Buildings, Commercial Complexes, Institutional buildings, markets and the like to arrange for daily cleaning of their internal streets, common spaces etc. and provide community bin/bins of appropriate size as may be

prescribed by The Bhavnagar Municipal Corporation, for the temporary storage of food/biodegradable waste duly kept segregated by the members of the society/association for facilitating primary collection of food/biodegradable waste from one point by the municipal authorities. A separate community bin may similarly be provided for the storage of recyclable waste where door to door collection of recyclable waste is not practiced.

10) Receptacles to be kept in good repair and condition:

Receptacles (Community Bins) shall be at all times be kept in good repair and condition and shall be provided in such number and at such places as may be considered adequate and appropriate to contain the waste produced by the citizens supposed to be served by the community bins.

11) Duty of occupiers to deposit solid waste in community bins:

It shall be incumbent on occupiers of all premises for whom community bins have been provided, to cause all segregated domestic waste, trade waste, institutional waste from their respective premises to be deposited in the appropriate community bins.

12) Duty of The Bhavnagar Municipal Corporation to provide and maintain "Waste Storage Depots":

It shall be incumbent on The Bhavnagar Municipal Corporation to:

- a) Provide and hygienically maintain adequate waste storage depots in the city and place large mobile receptacles at such places for the temporary storage of waste collected from households, shops and establishments as well as from streets and public spaces until the waste is transported to processing and disposal sites.
- b) Make adequate provision for closed containers in various parts of the city for the deposition by the citizens of domestic and/or hazardous/toxic waste material adhering to the provisions of hazardous waste rules of the Government of India.

13) Duty of the Occupier of households/shops/establishments to hand over the recyclable material/non bio degradable waste to the waste collectors/waste purchasers/recyclers:

It shall be incumbent on households/shops/establishments to hand over their segregated recyclable waste/ Non-biodegradable waste to waste collectors, waste purchaser or recyclers as may be convenient or as may be notified by the local body from time to time. Such waste shall not be disposed off on the street or in municipal bins or open spaces along with the organic/food/bio degradable waste.

14) Duty of the occupier of households, shops and establishments to deposit domestic/hazardous/toxic wastes in special bins provided by The Bhavnagar Municipal Corporation:

It shall be incumbent on households, shops and establishments to deposit domestic hazardous waste/toxic material in containers provided by The Bhavnagar Municipal Corporation.

15) Duty of The Bhavnagar Municipal Corporation to Collect Waste from Community bins and to deposit it at the Waste Storage Depots for onward transport:

It shall be incumbent for The Bhavnagar Municipal Corporation to remove all solid waste deposited in the community bins on a daily basis and transfer it to the Waste Storage depots/containers identified in the city and arrange for its expeditious transport to processing or disposal sites.

16) Duty of The Bhavnagar Municipal Corporation to clean all public streets, open public spaces and slum areas:

It shall be incumbent on local bodies to arrange for cleaning of all public streets having habitation on both or either side and all slums on all days of the year including Sundays and public holidays.

17) Duty of The Bhavnagar Municipal Corporation to transport the waste stored at the waste storage depots regularly:

It shall be incumbent for The Bhavnagar Municipal Corporation to arrange for the closed transportation of waste stored at waste storage depots before the waste storage containers start overflowing and daily from places where closed containers are not placed.

18) Duty of The Bhavnagar Municipal Corporation to arrange for the processing of food/bio degradable waste through appropriate technology and disposal of rejects:

It shall be incumbent for The Bhavnagar Municipal Corporation to arrange for the processing of food/ organic/biodegradable wastes produced in the city and dispose of the rejects and non-biodegradable waste in an environmentally acceptable manner.

19) Prohibition against deposition of building rubbish:

No person shall deposit or cause or permit to be deposited any building rubbish in or along any street, public place or open land except at a place designated for the purpose or in conformity with conditions laid down by The Bhavnagar Municipal Corporation.

20) Prohibition on Disposal of Carcasses or parts of dead animals etc.:

No person shall deposit or otherwise dispose off the carcass or parts of any dead animal at a place not provided or appointed for this purpose.

21) Prohibition on nuisance created by Stray animals and cattle:

It shall be the responsibility of The Bhavnagar Municipal Corporation to control the menace created by stray animals and cattle moving around in the city, particularly the stray cows, dogs, pigs or any such animals loitering in the city and creating filth, litter and dirt and also causing direct hazard for the public by creating accidents to them. Specific places in waste lands for such animals outside the city area shall be created for them and the stray animals kept there or transported from the city to such places. Food points shall be located at such places where the animals get their food and water and can be isolated from the normal city areas. Special

funds/grants/scheme of the government for such purpose may be utilized for the said purpose. In order to locate the owners of such animals, particularly cows, tagging system of such animals may be practiced when such animals are belonging to their owners. It shall be the responsibility of the owners to feed and maintain such animals when they become old and are not useful to them. For dogs and pigs and other such animals whose owners are not identifiable, they may be tagged and sterilized so as to control their population.

22) **Duty of the The Bhavnagar Municipal Corporation to provide for Safety gadgets and Safety and Cleaning equipment to Safai Kamdars and other workers involved in the MSW operations to prevent and minimize Occupational Hazards occurring from municipal wastes:**

It shall be the duty of The Bhavnagar Municipal Corporation to provide for different types of safety gadgets and safety and cleaning equipment to all the Safai Kamdars and other workers working in The Bhavnagar Municipal Corporation in the SWM department and even other departments where the workers are likely to face occupational hazards occurring from activities involving cleaning of streets, roads and all the places, in delivery and collection of the MSW and in transportation and other operations involved in SWM and other such departments. They shall be motivated to wear gloves, masks, uniforms, safety gumboots, goggles etc. They shall be trained by The Bhavnagar Municipal Corporation to make them aware about the importance of safety mechanisms and equipment and how they can prevent and minimize occupational hazards by the use of such gadgets and equipment. Even procedure of safety permit systems for entering into the manholes of the sewerage lines or while fogging operations or spreading of pesticides and other such activities where they are likely to encounter health related issues. Even this shall be applicable to authorized rag pickers employed for waste collection by NGO's and other welfare associations or any other organizations involved in the waste collection activity.

Note:

Detailed orders in respect of the following shall be issued by the Municipal Commissioner of The Bhavnagar Municipal Corporations:

- (1) Procedures to be followed for the implementations of the provisions of these Bye-laws.
- (2) Delegation of Powers to the Officers / Employees of The Bhavnagar Municipal Corporation.
- (3) Procedures to be followed for the levy of the fines/compromise fees as annexed
- (4) Records and data to maintained
- (5) Distribution of bins

Note about Formation of Nuisance Detection Squad and its functions:-

A Nuisance Detection Squad shall be formed by the municipal corporation, comprising of “**Nuisance Detectors**” who may be the employees of the municipal corporation or retired police employees or retired defence employees and other such people, who are appointed and empowered by the Municipal Commissioner to collect compromise fee/administrative charges from the offenders of the provisions of this bye-laws.

The Nuisance Detection Squad will give specific opinion regarding the closures, termination of contracts and disciplinary actions on the following issues:-

1. Repeatedly the Nuisance Detection Squad found the production and distribution of banned plastic/thermocool/other banned materials from the same place/unit, they will recommend the closure of such unit to Municipal Commissioner of The Bhavnagar Municipal Corporation and on receipt of such report the Municipal Commissioner of The Bhavnagar Municipal Corporation shall ask the Pollution Control Board to take necessary action required for closure of such unit.
2. The Nuisance Detection Squad will if repeatedly found any agency/contractor burning waste in open and/or transporting the waste in uncovered vehicles, then they will ask the concerned municipal authority awarding the contract to terminate the contract after following due procedure under the principle of natural justice.
3. If the Nuisance Detection Squad caught hold of any municipal employee burning the waste in open, then they will report the same to concerned municipal authority to take disciplinary action against such employee.
4. Any of the above provisions will not preclude the erring individual, contractor or municipal employee from prosecution under the Environment Protection Act.

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5. For offenses 2, 3, 12, 14, 16-19, 28, 29 & 31 in addition to the compromise fee, the offender shall be asked to clear out the nuisance caused by them within specified time in a manner as prescribed by The Bhavnagar Municipal Corporation.

SCHEDULE 1: SCHEDULE OF FEES AND CHARGES

Sr. No.	Bye-Law No.	Offense	Applicable to		Comp. Fee		Admin. Charges	
					Min.	Max.	Min.	Max.
1	7 – 15	Non-Segregation of solid waste as detailed in bye -law from 7 - 15	Residential		100	500	100	500
			Commercial & institutional		500	500	500	1000
			Industrial		500	500	1000	3000
			Others		500	500	500	2000
2	16 – 26	Storage of waste in non -designated locations disregarding the provisions from 16 – 26	Residential		100	500	100	500
			Commercial & institutional		500	500	500	1000
			Industrial		500	500	1000	3000
			Others		500	500	500	2000
3	27 – 34	Delivery and collection disregarding the provisions from 27 – 34	Residential		100	500	100	500
			Commercial & institutional		500	500	1000	3000
			Industrial		500	500	2000	5000
			Others		500	500	1000	4000
4	35 – 38	Processing and disposal disregarding the provisions from 35 – 38	Residential		-	-	-	-
			Commercial & institutional		500	500	1000	3000
			Industrial		500	500	2000	10000
			Others		500	500	1000	5000
5	39 (3), 60.1(19)	Illegal Drainage connection	Residential	4"	100	500	500	1000
				4 - 6"	100	500	1000	2000
				> 6"	150	500	2000	3000
6	39 (3), 60.1 (19)	Illegal Drainage connection	Commercial	4"	250	500	500	1500
				4 - 6"	250	500	1500	2000
				> 6"	500	500	2000	4000

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Sr. No.	Bye-Law No.	Offense	Applicable to	Comp. Fee		Admin. Charges	
				Min.	Max.	Min.	Max.
7	39, 40, 41,	Liquid waste management - connection to public sewers (excl. (60.3))	Individual/Residential	250	500	250	500
			Commercial (excl. gen. no. 9)	300	500	1000	3000
			Industrial	500	500	5000	15000
			Slaughter houses	500	500	5000	15000
			Workshops and garage, dairy and cattle sheds	500	500	2000	5000
8	42, 43	Non-compliance to septic tanks and on-site treatment disregarding bye-laws 42, 43,	Individual/Residential	200	500	200	500
			Commercial	250	500	1000	5000
			Industrial	500	500	2000	10000
			Others	500	500	2000	10000
9	44,60.1 (15), 60.1 (16)	Sludge Removal /Desludging in offensive manner disregarding bye-laws 44, 60.1 (15)	Individual/Residential	250	500	1000	3000
			Commercial/Institutional	300	500	2000	5000
			Industrial	500	500	5000	10000
			Others	500	500	2000	5000
10	45	Manhole Cleaning disregarding provision 45 of bye-law	Individual	250	500	250	500
			Agent/Agency/Contractor/Service Provider	300	500	2000	5000
11	46(1) -(2), 47	Vector Breeding	Residential (1 - 4)	100	500	1000	2000
			Commercial	300	500	2000	5000
			Industrial	500	500	5000	10000

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Sr. No.	Bye-Law No.	Offense	Applicable to	Comp. Fee	Comp. Fee	Admin. Charges	Admin. Charges
				Min.	Max.	Min.	Max.
12	48.1.1	Sanitary And Hygienic Requirements For Food Manufacturer/Processor/Handler	Individual/Commercial/Others	300	500	2000	5000
13	48.1.2	Sanitary And Hygienic Requirements For Street Food Vendors And Units Other Than Manufacturing/Processing	Individual/Commercial/Others	300	500	1000	3000
14	49	Improper E – Waste Handling/Sale/Trade/Processing	Commercial	500	500	10000	30000
15	49. A	Improper Plastic Waste Handling/Sale/Trade/Processing	Commercial	500	500	5000	15000
16	50	Creating Public Health Nuisance due to Air Pollution	Residential	500	500	2000	5000
17	50	"	Commercial	500	500	5000	10000
18	50	"	Others	500	500	5000	10000
19	51	Indoor Air Pollution	Individual	500	500	2000	5000

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Sr. No.	Bye-Law No.	Offense	Applicable to	Comp. Fee	Comp. Fee	Admin. Charges	Admin. Charges
				Min.	Max.	Min.	Max.
20	52	Air Pollution due to emission of pollutants in the ambient air and in stacks	Residential	500	500	2000	5000
21	52	"	Commercial	500	500	5000	10000
22	52	"	Others	500	500	5000	10000
23	53	Offenses under Noise Pollution	Residential	500	500	1000	2000
24	53	"	Commercial	500	500	2000	5000
25	53	"	Others	500	500	2000	5000
26	54.1	Cremation or Burning	Residential	500	500	2000	5000
27	54.2	Earth Burial	Residential	500	500	2000	5000
28	55	Offenses for Not meeting Requirements for Slaughter Houses – 55.1 to 55.4	Residential	500	500	2000	5000
29	55	"	Commercial	500	500	5000	10000
30	55	"	Others	500	500	10000	25000
31	56	Offenses for Not meeting Requirements for the trade of Beauty Parlor/Hair Cutting Salon	Residential	300	500	1000	3000

Sr. No.	Bye-Law No.	Offense	Applicable to	Comp . Fee	Comp. Fee	Admin. Charges	Admin. Charges
				Min.	Max.	Min.	Max.
32	56	"	Commercial	500	500	1000	3000
33	57	Offenses for Not meeting Requirements for keeping Laundry shop/business/ dhobi ghats	Residential	300	500	1000	3000
34	57	"	Commercial	500	500	1000	3000
35	58	Offenses for Not Meeting Requirements for Cosmetics and Toilet Goods Shop	Commercial	500	500	2000	5000
36	59	Offenses for Not Meeting Requirements for manufacturing, preparing, packing etc. by any process or operation Pharmaceutical or Medical Products	Commercial	500	500	5000	10000
37	59	"	Others	500	500	5000	10000
38	59.1	Offenses for not maintaining sanitation requirements of Swimming pools	Commercial	500	500	2000	5000

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Sr. No.	Bye - Law No.	Offense	Applicable to		Comp. Fee		Admin. Charges	
					Min.	Max.	Min.	Max.
39	60.1 (19)	Illegal Drainage connection	Residential	4"	100	500	500	1000
				4 - 6"	100	500	1000	2000
				> 6"	150	500	2000	3000
40	60.1 (19)	Illegal Drainage connection	Commercial	4"	250	500	500	1500
				4 - 6"	250	500	1500	2000
				> 6"	500	500	2000	4000
41	60.1 (16)	Sludge Removal/Desludging/ Disposal disregarding bye-laws 44, 60.1 (16)	Individual/ Residential		250	500	2500	5000
			Commercial/ Institutional		300	500	5000	10000
			Industrial		500	500	15000	30000
			Others		500	500	5000	10000
42	60.1 (1), 60.1 (4)	Dump, deposit, discharge, spill or release waste, or cause or permit such waste to be dumped, discharged, spilled or released, whether or not the waste is in a container or receptacle, in or at any public or private place except in a container or at a place which has been specially indicated, provided or set apart for such purpose (excluding water ways and canals)	Residential (Sr. No. 1, 2, 3)		100	500	500	1000
			Residential (Sr. No. 4)		100	500	1000	2000
			Commercial (Sr. No. 10)		300	500	2500	5000
			Commercial (Sr. No. 6 less than 250 Sq. mt. area)		300	500	5000	10000
			Commercial (Sr. No. 5)		300	500	2000	5000

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Sr. No.	Bye - Law No.	Offense	Applicable to	Comp. Fee		Admin. Charges	
				Min.	Max.	Min.	Max.
43	60.1 (1),	Dump, deposit, discharge, spill or release waste, or cause or permit such waste to be dumped, discharged, spilled or released, whether or not the waste is in a container or receptacle, in or at any public or private place except in a container or at a place which has been specially indicated, provided or set apart for such purpose (excluding water ways and canals)	Hotel Kitchen Waste contractor	500	500	2500	5000
44	60.1 (4)		Commercial (Sr. No. 6 above 250 Sq. mt. area)	500	500	5000	10000
45			Generator at Sr. No. 13 (Hospitals)	500	500	5000	10000
46			Generator at Sr. No. 13 Dispensaries	500	500	1000	2000
47	60.1 (1) (ii)	Dumping and littering of waste in canals, water body like rivers waterways etc	Residential	100	500	1000	2000
48	60.1 (1) (ii)	"	Commercial	300	500	2000	5000
49	60.1 (2)	Accumulation of Filth in premises for more than 24 hours	Residential	100	500	100	500
50	60.1 (2)	"	Commercial & institutional	300	500	500	1000
51	60.1 (2)	"	Industrial	300	500	2000	5000
52	60.1 (2)	"	Others	300	500	2000	5000
53	60.1 (3)	Spit, throw or deposit waste in public/private roads from vehicle	Offender	100	500	250	1000

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Sr. No.	Bye - Law No.	Offense	Applicable to	Comp. Fee		Admin. charges	
				Min.	Max.	Min.	Max.
54	60.1 (5)	Transportation of waste disregarding conditions in the contract document	Contractor	200	500	2000	5000
55	60.1 (6)	Creating public nuisance by spitting, urinating, feeding animals or birds etc	Offender	250	500	250	500
		Open Defecation	Offender	100	500	500	1000
56	60.1 (7)	Open burning of waste	Offender	250	500	500	1000
			Contractor/ Agency	250	500	1000	2000
57	60.1 (8)	Hazardous waste handling, removal or transport in offensive manner to public health and safety	Residential	100	500	2000	5000
			Commercial & institutional	250	500	2500	5000
			Industrial	250	500	5000	15000
			Others	250	500	7500	10000
58	60.1 (9)	Dumping/Depositing waste in offensive manner in sanitation/zero waste zones	Residential	100	500	500	1000
			Commercial & institutional	250	500	1000	2000
			Industrial	250	500	2000	5000
			Others	250	500	2000	5000
Sr. No.	Bye - Law No.	Offense	Applicable to	Comp. Fee		Admin. charges	
				Min.	Max.	Min.	Max.

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59	60.1 (10)	Entering Prohibited/No Entry zones	Offender	200	500	500	1000
60	60.1 (11)	Damaging or removing ULB's/ Municipalities infrastructure including damage to ULB's / Municipalities property due to accident	Offender	250	500	5000	10000
61	60.1. (12)	Vector Breeding in construction sites	Less than 500 Sq. mt.	100	500	1000	2000
			500 - 1000 Sq. mt.	250	500	2000	5000
			Above 1000 Sq. mt.	250	500	5000	10000
62	60.1 (13)	Littering by animals	Owner of animal	200	500	1000	3000
63	60.1 (14)	Depositing C&D waste in non - designated locations		300	500	2000	5000
64	60.1 (17)	In-flow of substances injurious to drain	Residential	200	500	2000	2000
			Commercial	250	500	2000	5000
			Industrial	250	500	2000	5000
65	60.1 (18)	Discharge domestic sewage from private drains to road, open lands, water ways, agricultural land or any other non-designated locations	Residential (1 - 4)	100	500	1000	2000
			Commercial	250	500	2000	5000
			Industrial	250	500	5000	10000

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Sr. No.	Bye - Law No.	Offense	Applicable to	Comp. Fee		Admin. charges	
66	60.1 (20), 60.1. (22)	Causing clogging in public sewers/disposing sewage in storm water drainage	Offender /Residential	250	500	1000	2500
			Commercial & Institutional	300	500	2000	5000
			Industrial	300	500	5000	10000
			Others	300	500	5000	10000
67	60.1 (21)	Damage to public sewer line by projection or encroachment	Offender /Residential	150	500	1000	2000
			Commercial	250	500	2000	5000
			Industrial	300	500	5000	10000
			Others	300	500	5000	10000

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