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A Study in Regulation & Treatment of Sewerage in Hisar City

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Abstract

Sewage also known as “Waste Water” is water carried waste, in solution or in suspension and intended to be removed from the community. Sewerage refers to the infrastructure that carries Sewage. Hisar Sewerage system is about Forty Years is quite old. Due to non-shifting of dairies from City Centre to outskirts of the City, Livestock dung is major Public Health problem in regulation of Sewerage System in Hisar City area. Regulatory compliance Legal accountability, managing complexity Resources, operational and reputational risk and Environmental impact are warm challenges of Hisar Sewerage system growing, urbanization insufficient infrastructure, water contamination and considerable Public Health effects are significant issues in Hisar. A Study of Sewerage in Hisar City found that not only Technical but Management & Social awareness of Public towards sewerage system in Hisar are playing considerable role in regulation & operation of present system.

Keywords: Sewage, regulatory, legal, managing, technical, operational infrastructure, public health

Introduction

Hisar is situated in the State of Haryana in North-Western region of India. It is located 161.2 KM to the West of New Delhi, India’s Capital, and has been identified as a counter Magnet City for the National Capital Region to Develop as an alternative development Centre as geometrical progressive growth of New Delhi.

Geographically, Hisar is located at 29.09⁰ N 75.43⁰ E in west Haryana. It has average Elevation of 215 m above Mean Sea Level. The Region is part of the alluvial Ghaggar-Yamuna Plain & its Southern and Western portions mark a gradual transition to the desert. India for census 2011, Hisar is an Urban agglomeration coming under category of Class I, UAs/Towns. Present population of Hisar Metropolitan Region is about 4,22,000. The Municipal Corporation of Hisar, consisting of 20 wards is headed by a Mayor.

The main objective of sewage treatment in city is to protect the Environment, Social, Economic and Public Health from the pollutants.

Water is the most important natural resource needed to restore life on the planet. In terms of sustainable development goals, water as a resource and access to clean water is a central

theme to most of Sustainable Development Goals out of 17 SDGs.

Unsustainable expansion is the urban population places great strain on city planners, notably in terms of providing clean and affordable water. Sectoral water demands are increasing incessantly, with irrigation and domestic requirements with rapid growth in population and urbanization of the country, the generated waste water volume also would enrage at the same pace. The depletion fresh water requirements in terms of quantity and quality would worsen the situation.

The present study deals with the problems of sewerage system in Hisar city and trying to find out the day-to-day problems concern to urban sewage system with its Collection, Treatment and Safe disposal of the generated waste water (Effluent). The primitive method of collecting and disposing of the society wastes has been modernized and replaced by a system in which these wastes are mixed with sufficient quantity of water and carried through closed conduits under of gravity flow. Continuous growth of the population and the process of urbanization crating over load on the available service of the sewerage system in the Hisar city.

Table 1: Ward Wise population of Hisar City

Ward	Population	Literacy	Sex-ratio
CCS HAU campus & Mini Sect. (OG) WARD NO.-0032 (Rural MDDS CODE:645583)	5641	77.43%	729
Hisar (M Cl) WARD NO.-0001	9546	74.69%	907
Hisar (M Cl) WARD NO.-0002	12683	79.56%	894
Hisar (M Cl) WARD NO.-0003	8349	72.21%	883
Hisar (M Cl) WARD NO.-0004	6394	81.69%	894
Hisar (M Cl) WARD NO.-0005	7508	82.17%	929
Hisar (M Cl) WARD NO.-0006	5591	72.63%	891
Hisar (M Cl) WARD NO.-0007	25827	77.85%	560
Hisar (M Cl) WARD NO.-0008	8219	78.57%	901
Hisar (M Cl) WARD NO.-0009	13506	74.38%	754
Hisar (M Cl) WARD NO.-0010	13810	59.39%	871
Hisar (M Cl) WARD NO.-0011	5971	66.66%	881
Hisar (M Cl) WARD NO.-0012	10504	70.57%	895
Hisar (M Cl) WARD NO.-0013	10539	64.49%	857
Hisar (M Cl) WARD NO.-0014	6706	66.6%	860
Hisar (M Cl) WARD NO.-0015	9484	64.46%	873
Hisar (M Cl) WARD NO.-0016	10596	65.79%	885
Hisar (M Cl) WARD NO.-0017	10084	75.97%	888
Hisar (M Cl) WARD NO.-0018	9019	72.97%	901
Hisar (M Cl) WARD NO.-0019	8103	81.22%	884
Hisar (M Cl) WARD NO.-0020	6848	82.87%	891
Hisar (M Cl) WARD NO.-0021	9420	72.51%	887
Hisar (M Cl) WARD NO.-0022	7393	78.67%	921
Hisar (M Cl) WARD NO.-0023	7182	84.92%	936
Hisar (M Cl) WARD NO.-0024	6586	80.88%	903
Hisar (M Cl) WARD NO.-0025	14504	73.08%	856
Hisar (M Cl) WARD NO.-0026	13079	84.75%	915
Hisar (M Cl) WARD NO.-0027	9387	78.36%	907
Hisar (M Cl) WARD NO.-0028	6841	77.62%	879
Hisar (M Cl) WARD NO.-0029	8401	78.15%	918
Hisar (M Cl) WARD NO.-0030	11265	83.18%	747
Hisar (M Cl) WARD NO.-0031	8038	76.76%	926

Source: Google

Review of Literatures

Sewerage Operation and Legal Domain

The 74th Constitutional Development includes 18 functions aimed at strengthening ULBS through devolution of power. The Water (Prevention and Control of Pollution) Act and its Amendments aims to prevent and control water pollution and ensure wholesomeness of water. The Water (Prevention and Control of Pollution) Cess Act provides for the levy and collection of cess on water consumed by consumers. The Environment (Protection Act) provides for the protection and improvement of the environment. The National Environmental Tribunals Act provides for liability for damages arising out of any accident while handling any hazardous substance for effective and expeditious disposal of cases arising out of such accidents. The Hazardous Waste (management and handling) Rules are mainly meant for management and handling of hazardous substances. According to the concept of "designated best use" developed by the CPCB, out of several uses a particular water body is put to, the use that demands the highest quality of water is called its "designated best use", and the water body is designated accordingly. The General Standards for Discharge of Environmental Pollutants under the Environmental

Protection Rules stipulate specific standards for emission and effluent discharge, general standards for discharge of environmental pollutants, ambient air quality standards, and standards for emission from motor vehicles. The BIS Discharge Standards have been with held as at the time of this writing because national discharge standards are being adopted widely.

The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 was passed by the Parliament. As per the Gazette of India dated October 2013, the act shall come into force from 6th December 2013. This Act prohibits manual cleaning of sewers and septic tanks, aims to eliminate insanitary latrines, and rehabilitate identified manual scavengers in alternative occupations.

The 2013 Act Prohibits manual scavenging. It asks State Government and Municipal bodies to identify manual scavenging and rehabilitate them. But a large body of reportage has shown that local bodies outsource sewer cleaning tasks to private contractors, many of them fly-by-night operators, who do not maintain proper rolls of sanitation workers. In case after case of workers being asphyxiated to death, these contractors have denied any association with the deceased. The social justice Ministry has

decided to directly provide funds to workers to purchase cleaning machines, instead of giving money to contractors or municipalities. This is a step in the right direction. (Source: The Indian Express, Nov. 21, 2020) For it to succeed states need to accurately enumerate the workers engaged in cleaning toxic sludge. System need to be put in place to prevent pilferage, ensure that machines reach the right hands. This will require policy makers and local level officials to first acknowledge and then understand how and why manual scavenging continues to be embedded in the caste system.

Sewage Treatment Methodology and Technologies

Sewage treatment (or domestic wastewater treatment, municipal wastewater treatment) is a type of wastewater treatment which aims to remove contaminants from sewage to produce an effluent that is suitable to discharge to the surrounding environment or an intended reuse application, thereby preventing water pollution from raw sewage discharges. Sewage contains wastewater from households and businesses and possibly pre-treated industrial wastewater. There are a high number of sewage treatment processes to choose from. These can range from decentralized systems including on-site treatment systems to large centralized systems involving a network of pipes and pump stations, called sewerage which convey the sewage to a treatment plant. For cities that have a combined sewer, the sewers will also carry urban runoff (stormwater) to the sewage treatment plant. Sewage treatment often involves two main stages, called primary and secondary treatment, while advanced treatment also incorporates a tertiary treatment stage with polishing processes and nutrient removal. Secondary treatment can reduce organic matter (measured as biological oxygen demand) from sewage, using aerobic or anaerobic biological processes.

A large number of sewage treatment technologies have been developed, mostly using biological treatment processes. Design engineers and decision makers need to take into account technical and economic criteria of each alternative when choosing a suitable technology, often, the main criteria for selection are: desired effluent quality, expected construction and operating costs, availability of land, energy requirements and sustainability aspects.

Purposes and Overview of the Study

The overall aim of treating sewage is to produce an effluent that can be discharged to the environment while causing as little water pollution as possible, or to produce an effluent that can be reused in a useful manner. This is achieved by removing contaminants from the sewage. It is a form of waste management.

With regards to biological treatment of sewage, the treatment objectives can include various degrees of the following: to transform or remove organic matter, nutrients i.e. nitrogen and phosphorus, pathogenic organisms, and specific trace organic constituents. Some types of sewage treatment produce sewage sludge which can be treated before safe disposal at reuse. Under certain circumstances, the treated sewage sludge might be termed bio-solids and can be used as a fertilizer.

Or high income countries, the "per person organic matter load" has been found to be approximately 60 gram of BOD per person per day. This is called the population equivalent (PE) and is also used as a comparison parameter to express the strength of industrial wastewater compared to sewage.

Collection of Sewage from Households to Sewage Treatment Plants

Sewerage or sewage system is the infrastructure that conveys sewage or surface runoff using sewers. It encompasses components such as receiving drains, manholes, pumping stations, storm overflows, and screening chambers of the combined sewer or sanitary sewer. Sewerage ends at the entry to a sewage treatment plant or at the point of discharge into the environment. It is the system of pipes, chambers, manholes, etc. that conveys the sewage or stormwater.

In many cities, sewage or municipal wastewater is carried together with stormwater, in a combined sewer system, to a sewage treatment plant. In some urban areas, sewage is carried separately in sanitary sewers and runoff from streets is carried in storm drains. Access to these systems, for maintenance purposes, is typically through a manhole. During high precipitation periods a sewer system may experience a combined sewer overflow event or a sanitary sewer overflow event, which forces untreated sewage to flow directly to receiving waters. This can pose a serious threat to public health and the surrounding environment.

Types of Treatment Processes Based on Different Technologies

Sewage can be treated close to where the sewage is created, which may be called a decentralized system or even an on-site system i.e. on-site sewage facility, septic tanks, etc. Alternatively, sewage can be collected and transported by a network of pipes and pump stations to a municipal treatment plant. This is called a centralized system.

A large number of sewage treatment technologies have been developed, mostly using biological treatment processes. Broadly, they can be grouped into high tech on high cost versus low tech and low cost options, although some technologies might fall into either category. Other grouping classifications are intensive or mechanized systems which are more compact and frequently employing high tech options versus extensive or natural or nature-based systems usually using natural treatment processes and occupying larger areas systems. This classification may be sometimes oversimplified, because a treatment plant may involve a combination of processes, and the interpretation of the concepts of high tech and low tech, intensive and extensive, mechanized and natural processes may vary from place to place.

Examples for more low-tech, often less expensive sewage treatment systems are shown below. They often use little or no energy. Some of these systems do not provide a high level of treatment, or only treat part of the sewage (for example only the toilet wastewater), or they only provide pre-treatment, like septic tanks. On the other hand, some systems are capable of providing a good performance, satisfactory for several applications. Many of these systems are based on natural. Treatment processes, requiring large areas, while others are more compact. In most cases, they are used in rural areas or in small to medium-sized communities. For example, waste stabilization ponds are a low cost treatment option with practically no energy requirements but they require a lot of land.

Objectives and Scope of Work

Objectives of the Present Study

The objectives of my project are as following:

- i). Review of existing Sewerage plans in the city. Formulate future plan (AMRUT 2.0) for prioritized area.

- ii). Monitoring Regulation & Efficiency of the Sewerage Treatment Plants. Monitoring of regulation of Sewerage System presently in city under Domain of Public Health Engineering Department.
- iii). Study of Redressal Mechanism of complaints concerned to operation and maintenance of Sewerage System in Hisar City.

Scope of Work in Present Study

Scope of this dissertation is to study the present status of existing Sewer regulation and Sewerage Treatments with Analysis of results within domain of the protection of Environment at year 1986. Scope of study also including conversant dialogue based approach concern to consumer's complaints concerned to sewage system in Hisar city. Coordination with Public Health Engineering Department, which enable users to apply for new sewer connections, lodge complaints and online payment etc. analysis the consumers satisfaction ratio regarding regulation and maintenance of sewerage system.

Site Visits and Findings

While there are many challenges facing waste water treatment plants, there are 03 major topics that we find to be the biggest main points for operation and regulation of sewerage treatment plants.

- i). Energy consumption
- ii). Operational Costs &
- iii). Management efficiency

The fact that sewers are buried in the ground out of sight & STP are usually in more or less out-of-the-way locations tends to create a lack of public interest in them. There is too, an innate dislike in the average person's mind for the whole subject of sewerage. This attitude on the part of the public undoubtedly is reflected in the official tendency to be slack in the administration and care of sewer systems and sewerage treatment plants and to do only that which absolutely necessary for their operation. The householder is not concerned with the sewer in the street so long as it takes care of his wastes, he never less it and it never bothers him except in rare cases when it become logged on the other hand, he can see any defect in the surface of the street and since its condition is important to his every day, he is not show to complain when it needs attention. The Sewage Treatment Plant is rarely visited by any but those responsible for its care, and even if it were visited, most people would expect to find a smelly, unsightly place, and would not realize that such a condition might be due to improper case in operation.

The net result of all of this is that nearly all administrators reduce the expense of sewerage operation to a minimum and do just what is necessary to keep sewerage systems open and treatment plants from getting too objectionable. Money saved in the way can readily be allocated where the public can see the results-and never have sufficient funds to satisfy the demands from our citizens for street work and similar services.

I do not mean to give the impression that we are deliberately set out to neglect our waste disposal utilities, but we are all Human are likely to take care of those things which cause the most complaints, to the possible neglect of those which are not bothering US. (From sewage works journal by P.F. Hopkins)

Discussions and Constrains at Site

Disadvantages of Sequencing Batch Reactors (SBR) Technology

- Expense of providing aeration
- More automated switches & valves are associated with higher level of maintenance.

Disadvantages of Moving Bed Biofilm Reactor (MBBR) Technology

- The reaction tank is prone to having blind corners.
- Red worms and sewage flies like to eat the bio-films.

Legal Framework & Policies

- Water (Prevention & control of pollution) Act 1974.
- The prohibition of employment as manual scavengers and their rehabilitation Act 2013.
- National Environmental Tribunal Act of 1995.
- Water (Prevention and control of pollution) cess Act 2003.

Government's Step for Protection of Manual Scavengers

Requirements of technological advancements & need of automatic/robotic machines for sewerage cleanings.

Manual scavenging is defined as "the removal of human excrement from public streets and dry latrines, cleaning septic tanks, gutters and sewers".

- The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill, 2020.
- It proposes to completely mechanize sewer cleaning, introduce ways for 'on-site' protection and provides compensation to manual scavengers in case of sewer deaths.
- The building and Maintenance of Insanitary Latrines Act of 2013
- It outlaws construction or maintenance of unsanitary toilets, and the hiring of anybody for their manual scavenging, as well as of hazardous cleaning of sewers and septic tanks.
- Prevention of Atrocities Act.
- In 1989, the Prevention of Atrocities Act became as integrated guard for sanitation workers, more than 90% people employed as manual scavengers belonged to the Scheduled Cast. This became an important landmark to free manual scavengers from designated traditional occupations.

Legislation on Sewage Sludge Management (SLM)

Indian cities are very old and have a primitive and small drainage capacity. Generally, Indian cities used to have a large portion of barren land where water was being transferred via drainage which were not very far, and land absorbs the water, refined by the topographic of soil and refills ground water.

Rapid urbanization has led to occupy not just barren lands, but it has dissolves many villages in their boundaries with no land to accommodate that much water. Secondly, the drainage are already working at their full capacity for daily drainage.

Construction of New Sewerage/Drainage in City

Construction of new sewerage/drainage has many hurdles as it involves many costs.

- i). Drainage/Sewerage laying
- ii). Construction of Roads
- iii). Loss of livelihood & business for that period of the process.
- iv). Loss of other utilities services like cables/pipes lines etc.

- v). Not just limited to a specific area.
- vi). Difficulties to lay in unplanned cities and most of Indian cities are unplanned. It does not have straight roads and people occupying public property etc.

In practice contractor has to face many difficulties & won't get the actual cost, so he all be saving cost at various end.

Problems/Bottle Necks in Operation/Regulation & Maintenance of Sewerage Systems in Hisar City

- i). It has been observed that in most of the parts of the city sewer deterioration begins with initial flaws such as sewer pipe overloading can lead to sewer cracking.
- ii). Sewer failure can also be caused by leaking joints also the ingress of tree roots or vegetation may cause sewer blockage.
- iii). In Hisar City in some of the wards (Ward no. 06 Bharat Nagar, Ward no. 05 DhaniShyam Lal & Ward no. 07 Shiv Nagar) underground sewer network often stands exposed as clogged and over flowing manholes continue to plague the system. The problem has been acute in Mill gate area, auto market area, where a large number of dairies and commercial workshops are located. Dirty water of sewerage has been lying stagnant in number of areas of the city specifically in ward no 09 (Netaji Colony), 07 Some Portion the dirty water is not only causing problems to people, but also crating pollution.
- iv). Causes of Sewerage Overflow
 - Blockages
 - Inadequate carrying capacity
 - Leaking pipes
 - Power outages at pumping stations

Sewerage over Flow Complaints in Different Domain Sources

Existing infrastructures of Sewerage Systems in Hisar City (Last updated on 31.03.2023)

Public Health Engineering Department Haryana Toll Free Number

Citizens can call on Toll Free Number 1800-180-5678 to register complaint regarding drinking water and sewerage in the Rural or Urban area under the jurisdiction of Public Health Engineering Department, Haryana.

Right to Service Commission (Government of Haryana)

The commission under Section 17 of the Act can take Suo Moto notice of failure to deliver services in accordance with this act and refer such cases for decision to the first or the second grievance redressal authority and pass such orders, as may be appropriate the Haryana Government in the first instance notified 163 services under Act vide notification dated 07.05.2015 for time bound delivery and also notified the designated officers.

Chief Minister (C.M.) Windows

CM Window is a grievances redressal and monitoring system in Haryana implemented since 25.12.2014 in all districts and all departments of Haryana as FLAGSHIP programme of Haryana written complaints given by the citizens will be registered in the system, resulting in the complaints reaching the officers concerned with in the stipulated time period
Complaint Redressal Mechanism

Table 2: Table shows mode complaint.

Mode of Complaint	Number of Complaint's	% Satisfaction
Total C.M Window Received from 01-04-2022 to 31.03.2023	53	90
SNK from 01.04.2022 to 31.03.2023.	3897	70.08
Social Medias/Twitter's etc.	282	78
Direct complaints received in office (Hard Copy)	260	80

Swachhta Abhiyan App'

- It has been developed to identify and geotag the data of insanitary latrines and manual scavengers so that the insanitary latrines can be replaced with sanitary latrines & rehabilitate all manual scavengers to provide dignity of life to them.

Common Problems with Sewage Treatment Plants (STPS)

- i). High efficient BOD levels in the treated effluent can have a number of causes some of which are shown below
- ii). In complete waste water treatment due to organic overloading
- iii). Low oxygen concentration
- iv). Low hydraulic detention time.
- v). High or bacteria growth
- vi). Sludge accumulation and loss of old sludge to the effluent.

Major Operational Challenges Facing Sewerage Treatment Plants

Energy Consumption for Sewage Treatment Plant: Energy consumption is one of the largest expenses in operating waste water treatment plant. In municipal waste water treatment, the largest proportion of energy is used in biological treatment, generally in the range of 50-60% of plant usage. Advance biological treatment process has the potential to significantly reduce the energy demand at treatment plant.

Staff Engaging for Sewage Treatment Plant: Operators of waste water treatment facilities must be adequately trained and certified in they are on call 24 hours a day and are responsible for overseeing very thing from pipe leaps and valve to electrical and equipment this work become specially demanding during change in and seasonal changes.

Sludge Production during the Treatment of Waste Water: Sludge is the residue generated during physical, chemical & biological treatment. A major empower mental challenge for waste water treatment is the disposal of excess sludge produced during the process. Safe and long term solutions for the destination of sludge produced by waste water treatment plants are a vital elements of a sustainable functioning facility.

Foot Print of Activated Sludge Treatments: Activated sludge treatment has many challenges one of the biggest being the footprint it demands STP are costly to conduct and occupy substantial land areas. Primary and secondary processes rely upon vast tracts of land for large and costly settling tanks and basins. Due to population constantly increasing municipal waste water treatment plants need to expand their capabilities too.

Advanced technologies that use smaller process basins by increasing the amount of biomass per unit volume, increasing the biomass concentration are leading the way in reducing the footprint.

Complaints Redressal Mechanism

While there are many challenges facing waste water treatment plants, there are 03 major objectives that we find to be biggest pain points for operation and regulation of sewerage treatment plants.

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- ii). Operation costs
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Public Health Engineering Department Haryana, Toll Free Number

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Right to Service Commission (Government of Haryana)

The commission under Section 17 of the Act can take suo moto notice of failure to deliver services in accordance with this act and refer such cases for decision to the first or the second grievance redressal authority ad pass orders, as may be appropriate. The Haryana government in the first instance

notified 163 services under the act vide notification dt. 07.05.2015 for time bound delivery and also notified the designated officers.

Conclusions

- i). The Blockage, Clogging, Back water, overflow etc. are the major concern of the service of sewerage system in Hisar city. Old waste water systems (About 70 Years Old) often contain vitrified clay pipes and these pipes are responsible for significant proration of blockage.
- ii). Dynamic nature of the city, lack of public awareness, challenging physical set-up of the region and sewer construction, maintenance and cleaning issues, inappropriate collection and treatment, poor Economy are the major issues of Hisar sewerage system.
- iii). Overload or pressure on the system (highly populated areas i.e. Mahavir colony, old sabji mandi, sainiyan Mohalla, Bharat Nagar, Patel Nagar etc., old Hisar city become the major vulnerable zones for the crises of sewage system).
 - a) The Dynamics of city and sewage system (unplanned growth, vertical expansion, narrow road network, slum zone, multi type waste water discharge i.e. Auto market, cloth market, Grain market etc. are the major city concerns in maintenance of the sewage system).
 - b) **The Sewage System User Perspective:** It has been found that the sewage blockages concerning to the non-degradable and floating in flushable solid and sanitary napkin dipper, different size polythene, cooking oil and food etc. mainly enter into the drain due to irresponsible personal to community attitude towards the city sewerage system. (Photo Attached), Just like Tibba Dana sher area ward no. 6, Multani chowk ward no. 5 in the city.
- iv). **Maintenance, Cleaning and Age Deterioration:** The proper, timely and regular maintenance and cleaning issues have another aspect of the sewage system crises. Basically, the maintenance and cleaning task mainly deal with to provide the continuous and without any interruption service to the end user. The technical and non-technical problems such as Economy base and application of the sewage system, Number of skilled and non-skilled workers, quantity and quality of the available cleaning equipment's, communication gap between user and service etc. are major causes for the inappropriate chore of the miniatous and cleaning of sewerage system.
- v). **Collection and Treatment of the Sewage:** In some areas, many users not connect their personal waste water drain to the available network of the city sewer. Generated waste water discharge acclimates around the house on the open or vacant space or plot. (Gap in water supply and sewerage connection in Hisar city as per available records are 17359 Nos. as on dated 31.03.2023)
- vi). No arrangement for dung collection is the root cause of sewerage (particularly in Patel Nagar, Gandhi dairy colony (ward No. 17), Bharat Nagar (ward No. 6), mill gate areas of the city (ward no. 7&9)) blockage. (Photo Attached) Dirty water accumulates in streets and roads since Municipal Corporation is reeling under financial arises and also does not have appropriate land for transfer/shifting dairies and establishing a Bio Gas plant. Efforts has been made by Municipal Corporation regarding door-to-door collection of dung in the city up to certain extent presently.

4/14/23, 1:02 PM हिंसार हेल्पलाइन नं. 14420 पर नहीं हो रहा सीवर संबंधी समस्या का समाधान - Helpline No. Sewer Related Problem Is Not Being Solve...

होम > हरियाणा > हिंसार > अंबाला > करनाल > कुरुक्षेत्र

समस्या का समाधान

अमर उजाला ब्यूरो
Updated Thu, 09 Feb 2023 12:12 AM IST



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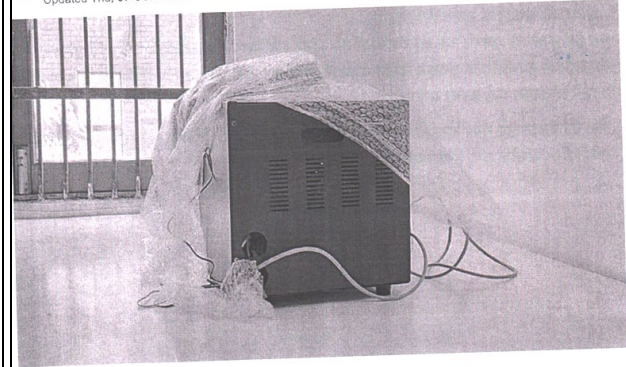
हिंसार। मेयर गौतम सरदाना ने बुधवार को सीवर संबंधी समस्याओं के समाधान के लिए चल रहे हेल्पलाइन नंबर 14420 का निरीक्षण किया। इस दौरान कई खामियां मिलीं। कोई अधिकारी हेल्पलाइन नंबर की निगरानी तक नहीं कर रहा। साथ ही हेल्पलाइन नंबर पर आई शिकायतों को भी अधिकारी गंभीरता से नहीं ले रहे और निर्धारित समय में समाधान नहीं किया जा रहा। पिछले 8 दिनों में मिलीं 20 शिकायतों में से सिर्फ 5 का ही समाधान हो सका है। इन खामियों को लेकर मेयर ने कहा कि वह इस बारे में केंद्र सरकार को पत्र लिखेंगे।

बता दें कि मिनिस्ट्री ऑफ हाउसिंग एंड अर्बन अफेयर्स की तरफ से सफाई मित्र सुरक्षा अभियान के तहत हेल्पलाइन नंबर 14420 की सुविधा शुरू की गई थी। चूंकि ज्यादातर नगर निगम में शहर का सीवर सिस्टम निगम ही देखता है तो इस हेल्पलाइन नंबर की निगरानी निगम ही करता है। मगर हिंसार में जनस्वास्थ्य विभाग के पास ही सीवर सिस्टम है तो इस हेल्पलाइन नंबर के निगरानी की जिम्मेदारी भी उसी की बनती है।

अब टोल फ्री 14420 नंबर पर होगा सीवरेज समस्या का समाधान

अमर उजाला ब्यूरो

Updated Thu, 07 Oct 2021 11:12 PM IST



नगर निगम कार्यालय में टोल फ्री नंबर के लिए रखी मशीन। - फोटो : Hissar

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हिंसार। आपकी गली-मोहल्ले में कहीं भी सीवर ब्लॉक हो गया है तो इसके लिए आपको अब ज्यादा परेशान होने की जरूरत नहीं है। इसके लिए नगर निगम ने हेल्पलाइन के टोल फ्री नंबर 14420 को डायल करना होगा। यह आईपी बेस्ड फोन नंबर है, जोकि सीधे कंप्यूटर पर शिकायत दर्ज करता है। टोल फ्री नंबर पर 24 घंटे शिकायतें दर्ज करवाई जा सकती हैं। हालांकि निगम कार्यालय शाम पांच तक खुला रहता है तो कुछ दिनों तक पांच बजे तक ही कॉल अटेंड होगी।

अब शहरवासी 14420 नंबर पर कॉल कर सीवर संबंधित समस्याओं का समाधान करवा सकेंगे। नगर निगम ने यह टोल फ्री नंबर सेवा शुरू कर दी है। चूंकि शहर की सीवर व्यवस्था जनस्वास्थ्य विभाग व हरियाणा शहरी विकास प्राधिकरण (एचएसवीपी) के पास है तो निगम प्रशासन ने इस नंबर पर आने वाली कॉल को अटेंड करने के लिए इन विभागों को कर्मचारी उपलब्ध करवाने की मांग की है। हालांकि तब तक नगर निगम के कर्मचारी ही इस नंबर को अटेंड करेंगे।

4/15/23, 3:23 PM

Government to enumerate people who clean sewers - The Hindu

TH

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NAMASTE SCHEME |

Government to enumerate people who clean sewers

Since 2017, 351 people have died while cleaning septic tanks and sewers, shows data

August 12, 2022 09:02 pm | Updated August 13, 2022 07:41 am IST - New Delhi

ABHINAV LAKSHMAN

COMMENTS SHARE

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Ministry of Social Justice and Empowerment draws distinction between sewer cleaning and manual scavenging. File | Photo Credit: PTI

The Ministry of Social Justice and Empowerment (MoSJ&E) is now preparing to undertake a nationwide survey to enumerate all people engaged in hazardous cleaning of sewers and septic tanks, an activity that has led to at least 351 deaths since 2017. Drawing a distinction between this work and manual scavenging, the Ministry insisted

4/15/23, 3:22 PM

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HOME / NEWS / EDITORIAL

सीवर में हत्या: सीवेज की सफाई के दौरान होने वाली इन्सानी मौतों का सवाल

सीवेज की सफाई के दौरान होने वाली इन्सानी मौतें अस्वीकार्य हैं

August 27, 2022 12:38 pm | Updated 12:38 pm IST

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सभी इन्सानी जिन्दगियां कीमती होती हैं। लेकिन हकीकत में, कुछ को दूसरों की तुलना में कम कीमती माना जाता है। अदालतों और सरकारों के प्रयासों के बावजूद, विभिन्न कानून और उन कानूनों पर अमल एक खास श्रेणी के कामगारों - वे जो सीवेज की सफाई में लगे हुए हैं - को नुकसान से महफूज रखने में नाकाम रहे हैं। कई अन्य मानवीय कार्यों की तरह यह काम भी खतरनाक है, लेकिन सीवेज की सफाई में मानव मल की सफाई भी शामिल होती है और इसे श्रम की गरिमा की अवधारणा से परे रखकर नहीं देखा जा सकता। मशीनों के जरिए इस काम को अंजाम दिए जा सकने की सुविधा मौजूद होने के बावजूद इन्सानों को मल हटाने और सीवरों की सफाई के काम में लगाना मानवीय अधिकारों का घोर उल्लंघन है। तमिलनाडु सरकार द्वारा मैनुअल स्कैवेंजर्स के रूप में रोजगार का निषेध एवं उनका पुनर्वास अधिनियम, 2013 के नियमों को अधिसूचित करने के बिलंब होने के बावजूद हालिया कदम को इसी संदर्भ में देखा जाना चाहिए। इन्सानों द्वारा 'मैला ढोना' भले ही पूरी तरह से प्रतिबंधित है, लेकिन नियम यांत्रिक उपकरणों की तैनाती संभव नहीं होने या मानवीय हस्तक्षेप बेहद जरूरी होने की विशिष्ट परिस्थितियों में इन्सान द्वारा सफाई की इजाजत देते हैं। लेकिन इस तरह की प्रक्रिया को अनुमति देने के लिए वैध कारण बताया जाना आवश्यक है। पर, इससे भी ज्यादा महत्वपूर्ण बात यह है कि इसके लिए सुरक्षात्मक उपकरणों की एक लंबी सूची का प्रावधान है जो किसी भी व्यक्ति को सीवर या सैप्टिक टैंक को साफ करते समय मुहैया कराया जाना चाहिए। इन उपकरणों में एयर लाइन ब्रीदिंग उपकरण, एयर लाइन रैस्पिरेटर, एयर प्यूरीफायर गैस मास्क, कृत्रिम श्वसन के लिए एक उपकरण, मास्क और श्वास तंत्र शामिल हैं। इसके अलावा, नियोकता द्वारा क्लोरीन मास्क, आपातकालीन चिकित्सा ऑक्सिजन रिससिटेटर किट, गैसों के लिए गैस मॉनिटर, हाइड्रोलिक उपकरण और प्राथमिक चिकित्सा प्रदान करनी होगी। यह सूची उल्लेख किए गए उपकरणों तक ही सीमित नहीं है। नियमों में उपकरणों के नियमित रखरखाव को भी अनिवार्य किया गया है। स्वाभाविक रूप से, सभी कामगारों को सीवर लाइन में उतारने से पहले उन्हें सुरक्षा उपकरणों से लैस किया जाना चाहिए।

Report for Percentage Satisfied Closed Complaints
SHIKAYATNIVARAN KENDRA (TOLL FREE NO. 1800-180-5678)
 List of Complaints From Date : 01/04/2022 To Date : 31/03/2023 Circle Name: Hisar Circle

Sr. No.	Name of Circle/Division	Name of Executive Engineer	Closed Complaint		Total	% Satisfied	Open Complaint		Total	% Within Referral Time
			Satisfied	Not Satisfied			Within Time	Beyond Time		
1	Hisar Circle		1400	754	1595	45.38%	NA	0	1595	87.77%
	Hisar PHED	ROHIT KUMAR (Add. Ch.)	626	215	754	30.89%	NA	0	754	96.63%
	Hisar PHED No. 1	SAJEEV KUMAR TYAGI	2292	1403	342	36.34	0	11	3634	77.99%
	Hisar PHED No. 2	BALVINDER MAIN (Add. Ch.)	3468	1423	503	70.08%	0	22	3908	85.88%
	Hisar PHED No. 3	BALVINDER MAIN (Add. Ch.)	3940	2429	1077	56.25%	0	22	15417	85.88%
	Total :	13240	7534	5859	2002	56.25%	0	22	15417	85.88%
	Grand Total :	13240	7534	5859	2002	56.25%	0	22	15417	85.88%

4/19/23, 12:41 PM Welcome to Public Health Engineering Department, Haryana

LIST OF PENDING APPLICATIONS/COMPLAINTS

Total Applications/Complaints : 16

Export To Excel

#	Application/ Complaint No./ Mode	Application/ Complaint Type	Circle, Division, Sub Division, Vill/Town	SDE/JE Name & Mobile No.	Date/Time of Receipt	Days Pending
1	597947 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 2 (L) : Hisar	GIRISH(SDE) 9813511677 / JAI SINGH (Add. Ch.) JJE 9812022224	Thu, 30-Mar-2023 09:47 AM	20
2	597947 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 2 (L) : Hisar	GIRISH(SDE) 9813511677 / JAI SINGH (Add. Ch.) JJE 9812022224	Thu, 30-Mar-2023 09:47 AM	20
3	598140 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 2 (L) : Hisar	GIRISH(SDE) 9813511677 / JAI SINGH (Add. Ch.) JJE 9812022224	Thu, 30-Mar-2023 08:42 PM	20
4	598140 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 2 (L) : Hisar	GIRISH(SDE) 9813511677 / JAI SINGH (Add. Ch.) JJE 9812022224	Thu, 30-Mar-2023 08:42 PM	20
5	595690 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Wed, 22-Mar-2023 08:11 AM	28
6	595690 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Wed, 22-Mar-2023 08:11 AM	28
7	597339 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Tue, 28-Mar-2023 10:12 AM	22
8	597339 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Tue, 28-Mar-2023 10:12 AM	22
9	598137 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Thu, 30-Mar-2023 08:18 PM	20
10	598137 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Thu, 30-Mar-2023 08:18 PM	20
11	598694 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Sun, 02-Apr-2023 09:47 AM	17
12	598694 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle (D) : Hisar PHED No. 3 (S) : Hisar PHESD No. 3 (L) : Hisar	JASBIR(SDE) 9992691407 / NARESH KUMAR (Add. Ch.) JJE	Sun, 02-Apr-2023 09:47 AM	17
13	599438 IVRS	Sewerage Blocked/Over flow of Manholes	(C) : Hisar Circle	JASBIR(SDE) 9992691407 /	Tue, 04-Apr-2023	15

<https://phedharyana.gov.in/Admin/FrameSet>

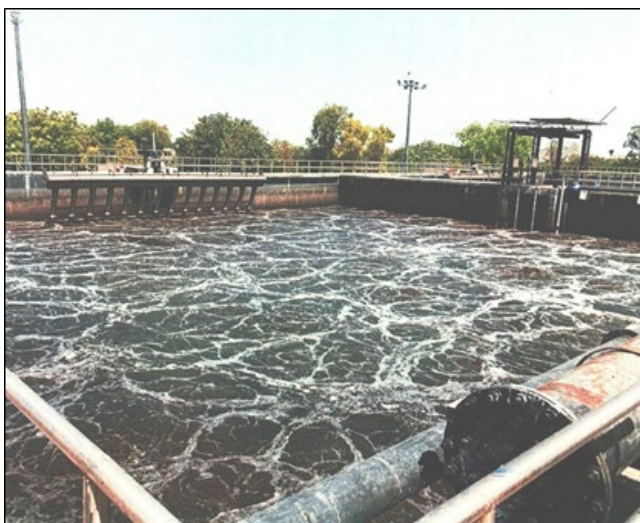
Fig 1: Existing Sewerage Treatment Plants existing Sewerage Treatment Plants (40 MLD) at Rishi Nagar, Hisar & its operational mechanism.



Fig 2: Tibba Danasher Area Ward No. 6



Fig 3: Ward No. 5 Multani chowk Near Guru Ravidass Ji Maharai Mandir Today's Desilting by Desilter Machine



What is "Appropriate"?

- Low cost with Minimum possible Mechanization
- Simple in Operation
- Suitable for Incremental improvement and
- Recycle and Reuse oriented



Fig 4: Nature of Sewerage related Public Grievances.

(AMRUT 2.0 (Atal Mission for Rejuvenation and Urban Transformation) launched by Hon'ble Prime Minister on 01 Oct 2021, the mission envisages providing water tap connection and sewerage/septage services in 500 AMRUT cities. Hisar is one of them and a comprehensive details (DPR) project report regarding replacement of old sewerage network, laying of new sewerage network connection of new sewerage treatment plants (STPs) and Augmentation of Existing STPs as well as the tertiary treatment of treated waste water have been taken in then Detailed project report in AMRIT 2.0 domain. General public/citizen complaints redressal mechanism is existing and effective but utilizing in limited phase like tollfree number, CM Window and complaints through other social medias i.e. Twitter, CP gram etc. due to lack of awareness.

References

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4. Review of sewerage system, condition & awareness measures by Sitesh Kumar Singh and Others
5. Sewerage Manual by CPHEEO
6. Book of Sewage Treatment by Mattcalf and eddy
7. Office of Nagar Nigam, Hisar
8. Book of Sewerage treatment by S.K. Garg
9. Manual of Sewerage and Sewage Treatment (Second Edition) by JBA
10. The Environment (Protection) Act, 1986, BARE ACT.