Introduction to FSIMS

The FSIMS is categorized into five sub-modules:

i. FSM Dashboard (FSMD): The FSMD provides information related FSM services, overall, from containment emptying to transfer and disposal of waste in the FSTP. FSMD provides information about the number of containments; service providers; resources used for service delivery; applications received and responded; containments emptying status, volume of sludge collected, emptied and disposed; and the revenue generated,

ii. Containment Information Management System (CIMS): The CIMS maintains the information about the containments in the city, with their location information and attribute information such as building identification number (in case of multiple building served one containment, BIN of main building responsible for taking care of the containment), sanitation system type, dimensions, volume, last emptying date, next emptying date, etc. If a building is connected to a sewer network, that information is maintained in the building database. However, this module does not include a separate feature for adding new containments, if new containment must be added, it has to be updated in corresponding building in building database, through BIMS. A containment may be shared by multiple buildings or vice versa.

iii. Service Provider Information Management System (SPIMS): The SPIMS maintains the information related to the sanitation service providers registered with the city that provide emptying services within the city. This information is maintained by municipal authority whereas, two other functionalities employee information and desludging vehicles for service provider to maintain their information about their employees and the desludging vehicles. Only those service providers, employees and vehicles registered in this system are eligible to provide emptying, transporting and disposing faecal sludge in the FSTP or area designated by the municipality. This information helps municipality and service providers for efficient management of the resources and efficient service delivery. The information provided by SPIMS also helps monitoring KPIs set by municipality for service providers and tracking emptying vehicles to ensure that the waste emptied from the containment is transported and disposed in the area designated for disposing waste or FSTP allocated by the municipality.

iv. Treatment Plant Information Management System (TPIMS): The TPIMS maintains the information related to the treatment plants that could be FSTP, Centralized Wastewater Treatment Plant, Decentralized Wastewater Treatment Plant or Co-treatment Plant, those used by the city to dispose and treat collected faecal sludge or wastewater. In addition to this, this sub-module also maintains water sample test data with the standard parameters used for monitoring the performance of the treatment plants in the city.

The information maintained by TPIMS along the information maintained by BIMS and the ESIMS, helps municipal to monitor the CWIS indicators such as (i) FS treatment capacity as a % of total FS generated from non-sewered connections, (ii) FS treatment capacity as a % of volume disposed at the treatment plant, (iii) WW treatment capacity as a % of total WW generated from sewered connections and greywater and supernatant generated from non-sewered connections, and (iv) Effectiveness of FS treatment in meeting prescribed standards for effluent discharge.

v. Emptying Service Information Management System (ESIMS): The Emptying Service IMS digitalizes the sanitation service chain and enables the city to manage the entire sanitation service chain, starting from application requests for emptying service from the customer to the safe disposal of faecal sludge at the treatment plant. All the activities involved in this process can be monitored in real-time through ESIMS. The module is divided into four categories according to the different stages of the sanitation service chain i.e. application, emptying, sludge collection and feedback. The complete service chain is managed and maintained through the application section; however, the individual sections maintain further detailed information. There are several functional modules under this sub-module:

§ Application – this functional module is accessible to helpdesk and FSTP operator. The helpdesk uses it for receiving and maintaining application for customer's emptying request and collecting and maintain feedback data. FSTP operators use it for updating sludge transferred from the emptied containment and disposed in the FSTP. There is a function to generate reports of emptying service under this functional module. Helpdesks generally are the part of the municipality's sanitation department, emptier are part of the service providers and FSTP operators can be part of the municipality or the private operator as of municipality's policy.

§ Emptying – there is an easy-to-use native mobile application (android) that allows collection of the emptying information while providing the emptying service, such that the information can be updated in real-time. The mobile application is used by emptier to collect the information such as emptying start and end time, number of trips, total cost for emptying, and the payment receipt number. Emptying details can be viewed in real-time by the help desk and other municipal staff who have access to this module.

§ Sludge collection – FSTP operator in FSTP updates the FS disposal record that includes date, time and volume of waste disposed in the FSTP through the functional module Application through the web app as the waste is transferred and disposed in FSTP. Help desk can view these records in real-time through this functional module.

§ Feedback – this functional module is accessible to the helpdesk, after completing sanitation service chain from emptying to disposal of the waste in the FSTP.

§ Help desks – this functional module is used to create help desk and update their information. Help desks generally are under municipality itself, but the system has the capability of managing multiple help desks.

Data maintained by FSIMS along with the building data and LIC data enables CWIS Information Management System to generate CWIS indicators such as (i) IHHL onsite sanitation system that have been desludged, (ii) Collected FS disposed at the treatment plant or designated disposal site, (iii) Low income onsite sanitation systems that have been desludged, (iv) FS collected from LIC that is disposed at treatment plant or designated area, (v) Educational institutions where FS generated is safely transported to TP or safely disposed in situ, (vi) Healthcare facilities where FS generated is safely transported to TP or safely disposed in situ, and (vii) Desludging services completed mechanically or semi-mechanically.

The data export tools under FSIMS allow users to export data in CSV, Shape and KML format where applicable.

Revision #2
Created 4 February 2025 04:22:10 by Bookstack Editor
Updated 6 February 2025 07:31:29 by Bookstack Editor