

# Standard Operating Procedures for Desludging of Septic Tanks

September 2020

## Annexure II: Sample Questionnaire for Survey

### Survey- Sample Questionnaire

1. Property ID : \_\_\_\_\_
2. Type of structure:  
\_\_\_\_\_
3. Status of property:  
\_\_\_\_\_
4. Are you an owner or a tenant of this property? \_\_\_\_\_
5. Is this property located in slum or non-slum area?  
\_\_\_\_\_
6. How many households live on this property?  
\_\_\_\_\_
7. Where do you dispose greywater from kitchen and bathroom?  
\_\_\_\_\_
8. Do you have your own toilet within your premises?  
\_\_\_\_\_
9. Is the toilet functional/ in use?  
\_\_\_\_\_
10. Where do you go for use of toilet facilities?  
\_\_\_\_\_
11. What is the type of toilet facility is being used? \_\_\_\_\_
12. Number of septic tanks within the property:  
\_\_\_\_\_
13. Distance of septic tank from the nearest well/bore :  
\_\_\_\_\_
14. Septic tank outfall is connected to:  
\_\_\_\_\_

- 15. What is the shape of your septic tank:  
\_\_\_\_\_
- 16. Can you provide the dimensions of the septic tank?  
\_\_\_\_\_
- 17. How many chambers are there in the septic tank:  
\_\_\_\_\_
- 18. The base of septic tank is:  
\_\_\_\_\_
- 19. Are there ventilation pipes for septic tanks:  
\_\_\_\_\_
- 20. What construction materials have been used for constructing septic tanks?  
\_\_\_\_\_
- 21. What is the age of septic tank?  
\_\_\_\_\_
- 22. Where is septic tank located?  
\_\_\_\_\_
- 23. Is the septic tank accessible from road for cleaning by using a suction emptier truck?  
\_\_\_\_\_
- 24. What is the approximate distance of septic tank from the road?(in metres)  
\_\_\_\_\_
- 25. Is there proper access with manholes/covers for any of the chamber of septic tank  
which can be easily opened : \_\_\_\_\_
- 26. Material type of access cover \_\_\_\_\_
- 27. What is the average frequency of cleaning of septic tank?  
\_\_\_\_\_
- 28. When was the septic tank cleaned last?  
\_\_\_\_\_
- 29. Why was the septic tank emptied?  
\_\_\_\_\_

30. Were there any problems during emptying of septic tanks?  
\_\_\_\_\_

31. Whom did you contact for this service?  
\_\_\_\_\_

32. How much did you pay for the septic tank emptying service?  
\_\_\_\_\_

33. Property number as per Council property tax records:  
\_\_\_\_\_

34. Please specify the property number type:  
\_\_\_\_\_

35. Enter the property ID:  
\_\_\_\_\_

36. Name of the respondent:  
\_\_\_\_\_

37. Contact no:  
\_\_\_\_\_

38. Contact no of tenant:  
\_\_\_\_\_

39. Contact no. of owner:  
\_\_\_\_\_

40. Name of the property owner:  
\_\_\_\_\_

41. What is the number of household members?  
\_\_\_\_\_

42. Is the area flooded/ water logged during monsoon season  
\_\_\_\_\_

43. How many times is the area flooded/ water logged?  
\_\_\_\_\_

44. What is the age of this property in years?  
\_\_\_\_\_

# Annexure III: Forms filled and submitted at various stages of desludging

a) **Septic tank cleaning form to be signed by household owner, truck operator, FSTP operator**

**Septic tank cleaning form**

**Household contact details:**

1. Name: \_\_\_\_\_
2. Contact: \_\_\_\_\_
3. Address: \_\_\_\_\_
4. Property ID: \_\_\_\_\_
5. Property type: Individual Household/ Apartment/ Commercial Complex/ Other  
\_\_\_\_\_

**Septic tank details:**

6. Septic tank cover open or not? Yes/No
7. Amount in liter: \_\_\_\_\_
8. Type: Septic tank or any other \_\_\_\_\_
9. Has the septic tank cover been placed again? Yes/No
10. Any problems/defects encountered – Pipe not available, manhole at the wrong place, any form of cracks or damage observed, vent pipe availability

I, the person signing below, declare that the details mentioned above are true and my septic tank has been cleaned.

Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Emptying operators details:**

11. Driver's Name: \_\_\_\_\_
12. Permit Number: \_\_\_\_\_
13. License Number: \_\_\_\_\_

- 14. Truck Capacity: \_\_\_\_\_ liter
- 15. Septic tank emptying date: \_\_\_\_\_
- 16. Number of trips for cleaning septic tank: \_\_\_\_\_

The above described septic tank has been cleaned by me and the collected septage has been transported to the address mentioned below. I affirm that these mentioned details are true.

Driver’s name and signature

**Receipt from official of Faecal sludge treatment plant’s supervisor**

Desludging truck operator has disposed the collected septage at our facility.

Was there any debris/rubbish found in the disposed septage? Yes/No

If any:

How many trips were required to transport septage from the above mentioned septic tank to the treatment plant : \_\_\_\_\_

Date of disposal of this septage at the treatment plant : \_\_\_\_\_ Time : \_\_\_\_\_  
Quantity of septage : \_\_\_\_\_

Name and signature of Faecal Sludge Treatment Plants project supervisor

\_\_\_\_\_

Under the terms and conditions of Municipality.

\*These are four carbon copies submitted to various stakeholders

# Annexure IV: Flyers for households for awareness



CITY X

## “Scheduled Emptying of Septic Tanks scheme”

Septic tanks of each and every property of the municipal council will be emptied at least once in every 3 years

**You clean your septic tanks only when it overflows...But are you aware of the side effects of not cleaning it periodically?**

**Septic tank should be emptied every 3 years  
Avail Nagarpalika services to empty!**

And the good news is...  
Nagarpalika will get in touch with you regarding your turn for emptying as per schedule and you do not have to pay for this.

**DON'T MISS YOUR TURN . . .**

**For queries, please call the call center no : XXXXXXXXXX**



# Remember!

		 	
<p>Service is available to each household once every 3 years</p>		<p>Contractor will visit between 7 am and 5 pm. Be present at home and ready! Keep Septic tank cover open for visit</p>	
			
<p>Contractor will call 2 days before scheduled visit</p>		<p>When constructing new septic tank, do not seal cover and give proper access</p>	
	 <ul style="list-style-type: none"> <li>Helmet</li> <li>Safety goggles</li> <li>Mask</li> <li>Suit with apron</li> <li>Rubber gloves</li> <li>Torch</li> <li>Gum boots</li> </ul>		
<p>Cleaner should be wearing proper safety gear</p>		<p>No one should enter tank! Manual scavenging is prohibited by law</p>	
			
<p>There should not be any spillage or damage to septic tank</p>		<p>After emptying sign the receipt given by contractor</p>	
			
<p>No payment is to be done to the contractor</p>			
			
<p>Do not put acid/harsh chemicals, or solid waste in your septic tanks</p>		<p>There should not be any spillage in the city or disposal in drains</p>	
			
<p>Septage should only be disposed at designated treatment plant</p>			

Note: These pamphlets can also be converted into vernacular language for wider dissemination



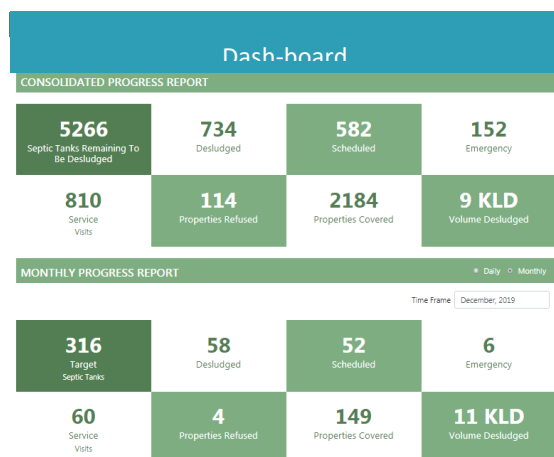
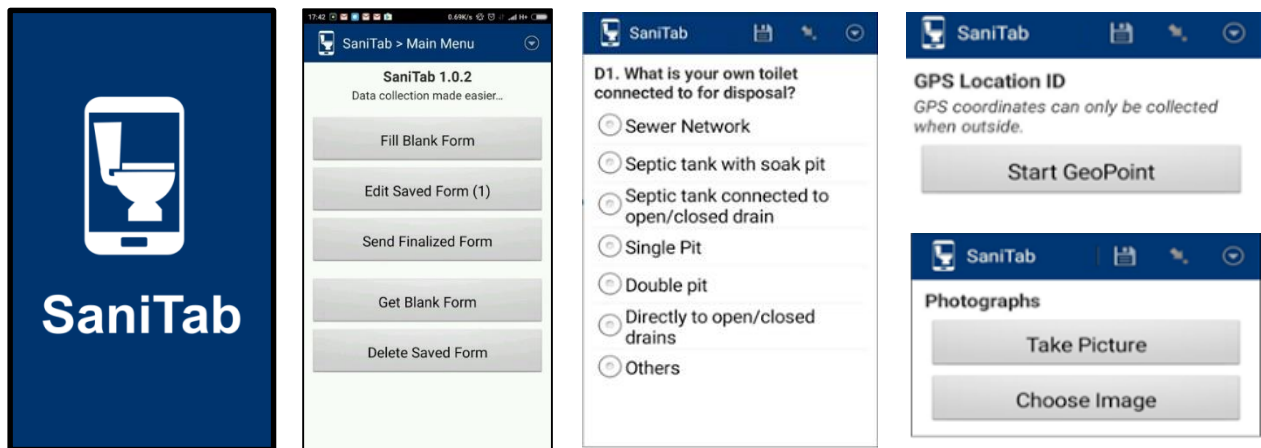


# Annexure VI: SaniTab

SANITab is a digital data collection tool for “Sanitation Services Assessment” that is eminently customizable, easy to administer, and that provides quick analyses of surveyed data. The key features are:-

- Mobile application and online dashboard
- Citywide digital data collection tool
- Enabling environment for spatial analysis
- Quick and ease in survey, minimizing human error
- “Real time” monitoring of survey activity
- Survey at scale

The objective of this application is to help cities assess its sanitation scenario, while collecting the required information through household surveys and building a city level database. Based on this cities can make appropriate sanitation improvement plans for their respective cities.



### Dashboard captures:

- City specific reports
- Spatial mapping of toilet facility
- Onsite sanitation system
- Geo-tagged data of each household
- Information on reasons for not having toilets
- Credit preferences for building toilets
- Downloadable data

# Annexure VII: Geo-reference In-Out Report

Famous Water Supplier  
**Transports**  
**Geofence In-Out Report**  
 Vehicle Wise Report  
 Order By Time

Vehicle : MH 46 E 1002

Date: 25 Apr 2018 00.00 To 26 Apr 2018 00.00

Event	Geofence	Date
Entering Geofence	Famous Point	25 Apr 2018 09.13
Entering Geofence	Famous Point	25 Apr 2018 09.46
Entering Geofence	Famous Point	25 Apr 2018 12.43
Entering Geofence	Famous Point	25 Apr 2018 13.38
Entering Geofence	Famous Point	25 Apr 2018 17.55
Entering Geofence	Famous Point	25 Apr 2018 18.37
Entering Geofence	Famous Point	25 Apr 2018 21.37

## Over-speeding of vehicle report

Famous Water Supplier  
**Transports**  
**Overspeeding Report : Speed 45 (Kmph)**

Vehicle :MH 46 E 1002

Date: 25 Apr 2018 00.00.00 To 26 Apr 2018 19.14.00

Date	Address	Speed (Kmph)
26 Apr 2018 13.57.12	Shankarahi Apartments, Samarth Nagar, New Sanghavi, Pimpri-Chinchwad, Maharashtra 411027, India	49

## Annexure IX: First-aid kit checklist

<b>Checklist for Minimum constituents of the first aid kit that shall be made readily available to the staffs employed in Desludging operation at site</b>			
<b>S. No.</b>	<b>Checklist</b>	<b>Minimum constituents</b>	<b>Yes</b>
1	Small sterilized dressings.	6	<input type="checkbox"/>
2	Medium size sterilized dressings	3	<input type="checkbox"/>
3	Large size sterilized dressings	3	<input type="checkbox"/>
4	Large sterilized burn dressings	3	<input type="checkbox"/>
5	Bottle (30ml) containing a two percent alcoholic solution iodine	1	<input type="checkbox"/>
6	Bottle (30 ml) containing Salvolatile having the dose & mode of administration indicated on the label..	1	<input type="checkbox"/>
7	Snakebite lancet	1	<input type="checkbox"/>
8	Bottle (30 gm) of potassium permanganate crystals	1	<input type="checkbox"/>
9	Pair scissors	1	<input type="checkbox"/>
10	Copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour institutes Government of India.	1	<input type="checkbox"/>
11	Bottle containing 100 tablets (each of 5 gm) of aspirin	1	<input type="checkbox"/>
12	Ointment for burns		<input type="checkbox"/>
13	Bottle of suitable surgical antiseptic solution	1	<input type="checkbox"/>

Source: MoHUA (2018) “Standard Operating Procedure for cleaning of Sewers and septic tank”

## Annexure X: Protective gears and safety devices

<b>Desludgers</b>	<b>Fecal Sludge Treatment Plant Operators</b>
1(a) Facemask	1(a) Facemask
1(b) Breath Mask	1(b) Half-face or full-face air purifier respirator with cartridge
2. Rubber Gloves	2(a) Heat Resistant Hand Gloves (Leather)
3. Uniform/ Apron	2(b) Neoprene rubber hand gloves
4. Gumboots	2(c) Nitrile Rubber hand gloves
5. Safety Helmet	2(d) Disposable Gloves
6. Safety Goggles	3. Uniform
7. Torch	4(a) Safety shoes
	4(b) Gumboots
	5(a) Safety helmet
	5(b) Face shield with helmet
	6(a) safety goggles
	7. Ear plugs

\*Options a, b, c and d are provided for adopting gears according to the context of work/activity and machinery

Source: MoHUA (2018) “Standard Operating Procedure for cleaning of Sewers and septic tanks”

## Annexure XI: Basic qualifications and requirements for desludging operators

Under the Ministry of Skill Development and Entrepreneurship, National Occupational Standards (NOSs) are developed. These specify the standard of performance, knowledge and understanding for carrying out a particular activity in the workplace. A set of NOSs, aligned to a job role called Qualification Packs (QPs), are available for every job role in each industry.

A desludging operator comes under the green sector jobs with waste management as its sub-sector. The reference ID for the QP for desludging operator is SGJ/Q6403. This QP can be referred to identify the job requirements as well as minimum qualification which will be required to carry out the work.

A brief extract from the QP is as follows:

Job Role	Desludging Operator
Role Description	The Desludging Operator, also known as Sludge Emptier is an individual, who is responsible for emptying, transport and disposal of faecal sludge from the septic tank to desludging site / FSTP / Co-treatment plant. He /She has to operate Sludge Vacuum tank with trucks, pumps, suction hoses, and other machinery/equipment to empty the septic tank. He / She is an individual having ability to venture into desludging services for managing Faecal Sludge
NSQF level	4
Minimum Educational Qualifications	5 <sup>th</sup> Pass
Maximum Educational Qualifications	Not Applicable
Prerequisite License or Training	N/A
Minimum Job Entry Age	18 years
Experience	NA
Applicable National Occupational Standards (NOS)	<b>Compulsory:</b> <a href="#">SGJ/N6411: Emptying of septic tank</a> <a href="#">SGJ/N6412: Preventive maintenance, transportation and safe disposal of sludge</a> <a href="#">SGJ/N6413: Health and safety of workplace while doing desludging services</a> <a href="#">SGJ/N0120: Work effectively with co-worker</a> <a href="#">SGJ/N6414: Entrepreneurship skills for FSSM services</a>

The detailed QP for desludging operators is available at: <https://nqr.gov.in/qualification-title?nid=4360>

## Annexure XII: Procedure for medical emergencies

This annex is made to educate the readers. This module does not recommend any one to take first aid steps what have been discussed herewith unless he/she is trained first aid trainer or volunteer after having qualified training from any govt approved agency.

**CPR (Cardiopulmonary Resuscitation):** It is an emergency lifesaving procedure. It is a combination of:

- Chest compressions that keeps patient's blood circulating.
- Rescue breathing that provides oxygen to patient's lungs.

### **Chest compressions:**

- Place the heel of one hand on the lower half of the person's breastbone.
- Place the other hand on top of the first hand and interlock your fingers.
- Press down firmly and smoothly (compressing to 1/3 of chest depth) 30 times.
- Administer 2 breaths as described below in mouth-to-mouth,
- The ratio of 30 chest compressions followed by 2 breaths is the same, whether CPR is being performed alone or with the assistance of a second person.
- Aim for a compression rate of 100 per minute.

Effective chest compressions will be tiring. It is important to get help from others if possible, to allow changeover for rest and to keep the compressions effective.

### **Mouth-to-mouth Respiration:**

- If the patient is not breathing normally, make sure he/she is lying on their back on a firm surface
- Open the airway by tilting the head back and lifting their chin.
- Close their nostrils with your finger and thumb.
- Put your mouth over the patient's mouth and blow into their mouth.
- Give 2 full breaths to the patient (this is called 'rescue breathing'). Make sure there is no air leak and the chest is rising and falling. If his/her chest does not rise and fall, check that you're pinching their nostrils tightly and sealing your mouth to his/her. If still no breathing, check airway again for any obstruction.
- Continue CPR, repeating the cycle of 30 compressions then 2 breaths until professional help arrives.



**Measures for stopping heavy bleeding:**

- Put pressure on the wound with whatever available to stop or slow down the flow of the blood.
- Call local emergency numbers or ask for help to get to the hospital.
- Keep pressure on the wound until the help arrives.

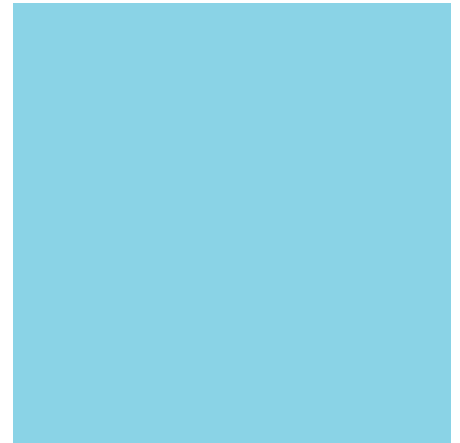
**Response for burn:**

- Call an ambulance for any serious burns. Burns to children or the elderly, electrical or chemical burns as well as burns to the face or genital area, should be attended to immediately.
- Apply CPR if the person is not breathing normally.
- Try to remove clothes and jewellery (from the area that has been burned) only if it is not sticking to the burned area.
- Hold the burned area under gently running water, for about 10 minutes to half an hour.
- To prevent corneal damage (in the case of chemical burns to the eyes), immediately irrigate the eyes with water or a saline solution.
- For second degree burns on the limbs – elevate the limbs higher than the heart.
- To reduce shock as well as loss of body heat, place clean, dry, non-fluffy cloths lightly over the burn.
- Cover the person with a cool, wet, lint-free cloth, while waiting for an ambulance or when transporting the person to hospital.

The details of do's and don'ts and action required for all medical emergency is available at the national health portal: <https://www.nhp.gov.in/miscellaneous/first-aid>

Source: This annex has been extracted from National Health Portal by Government of India. Available at <https://www.nhp.gov.in/miscellaneous/first-aid> accessed on 10.7.20





## CENTER FOR WATER AND SANITATION

The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, CWAS works closely with all levels of governments - national, state and local to support them in delivering water and sanitation services in an efficient, effective and equitable manner.