

Testing efficiency procedures for Packaged wastewater treatment high-efficiency

Request the use of the building as a test facility.

A residential building, condominium, hotel, educational institute, office building, factory, testing laboratory, or building with a central wastewater reservoir, or a place certified by the Board, must have the wastewater characteristics listed in Table 1.

Table 1: Wastewater Characteristics for Testing Treatment Tanks

Characteristics of wastewater	Criteria	Methodology of testing
BOD (mg/L)	212.5–287.5	Part 5210
Total suspended solids (mg/L)	255 – 345	Part 2540
TKN (mg/L)	72 – 98	Part 4500-N _{org}

Wastewater treatment Installation

Install test septic tanks and the necessary machinery to pump wastewater from the central wastewater collection reservoir into the test septic tank, as shown in Figure 1 (if the test septic tank needs to be used with a grease trap). Follow the manufacturer's instructions when installing the grease trap.)

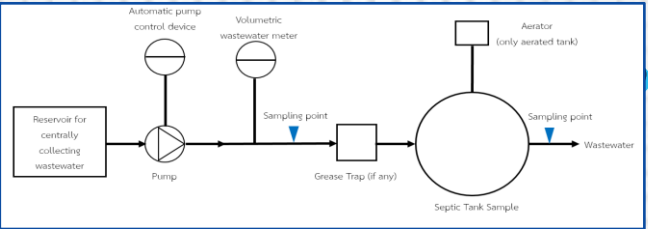


Figure 1: Diagram showing the installation of a combined tank type septic tank.

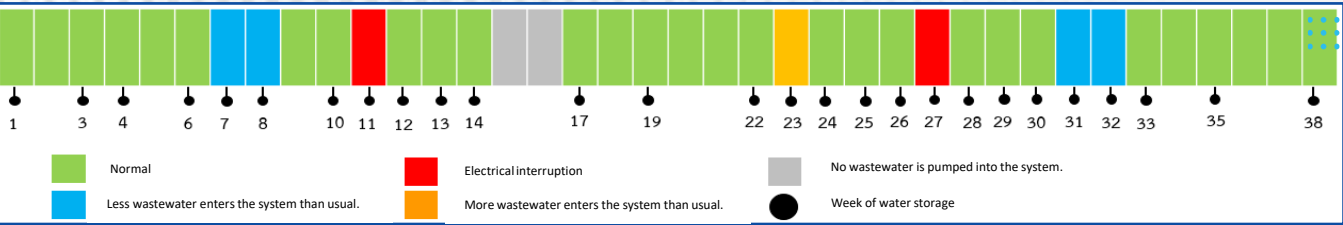


Figure 2 shows the water collection week.

wastewater treatment Efficacy Label

- The initial fertilization (Seeding) shall be as specified by the manufacturer in the operating instructions of the tanks of that type of treatment tank. The treatment tank is removed from the system.
- Aeration Rate (Only aerated septic tank) as specified in the instruction manual of the tank of that type of treatment tank.
- The total volume of wastewater pumped into the sample septic tank each day in liters must be equal to 10% of the sample septic tank's working volume, as indicated on the label, and in the ratio shown in Table 2.
- Figure 2 shows the duration and conditions for testing a septic tank.

Analysis and Reporting

- Reports the startup time before the system returns to normal weekly
- Report the results of wastewater and often discard water in each condition. Sample retention test according to Fig.2 compare with of wastewater levels according to table 1. The effluent characteristics must be of value the sector A. According to TIS. 2962-2562 and the test results are calculated at the 80th percentile.
- Reporting the volume of wastewater pumped into the wastewater treatment tank each day. in each condition in the septic tank test 3 days a week by reporting the measurement results along with a video of that measurement

Table 2 Methodology of Wastewater Characteristics

Characteristics of wastewater	Methodology of testing
BOD (mg/L)	Part 4500-0
Total Nitrogen (mg/L)	Part 2540
BOD of sludge (mg/L)	Part 4500-0

Table 2 shows the daily volume of wastewater pumped into the septic tank.

Period (Hour)	The volume of wastewater pumped into the septic tank each day.
3	30
3	15
6	0
2	40
3	15
7	0

Reducing greenhouse gas emissions Label

Total greenhouse gas emissions must be calculated to be less than 370 kilograms of carbon dioxide equivalent per year. (kgCO2eq/m3/year) per 1 cubic meter of wastewater treatment, which is determined to be 10 kgCO2eq/m3/year lower than the current greenhouse gas emissions from municipal wastewater management with stationary wastewater treatment systems. (Equivalent to planting 1 tree per 1 cubic meter of wastewater treatment) by analyzing the samples in Table 3.

Calculating greenhouse gas emissions

Total greenhouse gas emissions = Greenhouse gas emissions from treatment systems + Greenhouse gas emissions from wastewater drainage + Greenhouse gas emissions from sludge disposal.

Eliminating germs in wastewater Label

The wastewater tested must have Fecal Coliform Bacteria and Escherichia coli at not less than 10⁶ MPN per 100 milliliters and must have a disinfection system installed. along with details on how to use and maintain the disinfection system The wastewater leaving the system must contain the amount of bacteria specified in Table 4.

Table 4 Parameter and criteria

Parameter	Criteria
Fecal Coliform Bacteria	<4,000 MPN per 100 ml
Escherichia coli	<1,000 MPN per 100 ml

Wastewater sampling and treatment

Water sampling for wastewater characterization is done using composite sampling. Water samples collected in the early hours must be kept. Samples are collected at least 11 times per day (1 time per hour) during the time of wastewater in and out. (Preservation) using standard methods such as cooling the water sample to 4 ± 2 °C or adding chemicals to prevent the sample's properties from changing.

Testing Laboratory

Must be a laboratory accredited for testing laboratory capability according to TIS 17025 or ISO/IEC 17025 standards, or government laboratories. or a laboratory under state supervision appointed in accordance with section 5 of the Industrial Standards Act B.E. 2511 (and its amendments) can consult the list of testing laboratories accredited under the TIS. 17025-2005

At https://www.tisi.go.th/website/service/list_lab

Application documents

1. Application
2. Certificate for Quality Management System Standard
3. Certificate for Environmental Management System Standard (if any)
4. Factory Business License
5. Important Letter for Trademark Registration
6. Prefabricated septic tank operation manual
7. Industrial Standard Certificate for Prefabricated Septic Tanks for Residential Buildings Standard No. 2962 (if any)
8. The results of testing the finished septic tank's required characteristics according to the industrial standard Prefabricated septic tanks for residential buildings Standard No. TIS. 2962 item 6.1-6.7
9. Documentation of an Environmental Management System



Manual

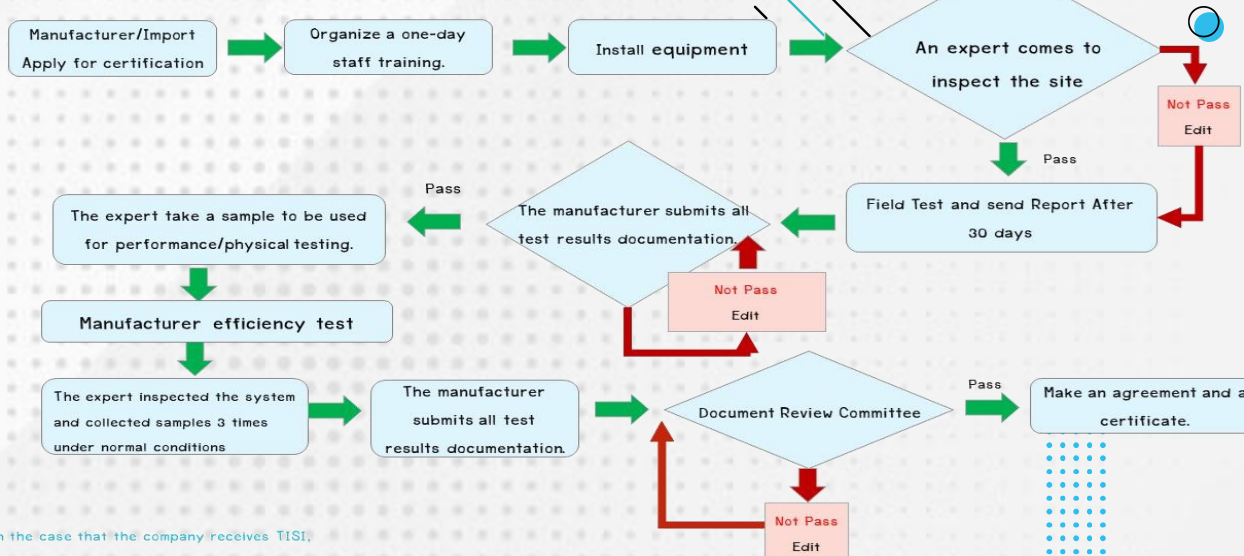
Application for certification of labels for Packaged wastewater treatment high-efficiency



As part of the project

Manual for the high efficiency finished wastewater labeling on the treatment tanks.

Process of the high efficiency finished wastewater labeling on the treatment tanks.



*In the case that the company receives TISI, submit a TIS certificate, for the committee to certify Consider documents