

Online Certificate Training Programme Co-Treatment of Septage and Sewage for Practitioners

Concept Note

About the Training Program

This certificate course helps to understand all aspects and importance of Co-treatment of Septage and Sewage across the treatment and service value chain. The course uses the Case Method for training and is mix of presentations, videos, handouts, exercises and case studies. This is an intensive 9 days course consisting of online session every day followed by quiz and exercises. A separate session is arranged at the end of the course specially dedicated to resolve the doubts and provide more clarification to the participants.

This module is developed by NIUA, New Delhi in partnership with ESF, Pune. The module is structured as follows: -

Part A, Presentation Slides

Part B, Learning Notes

Part C, Workbook

Objective

To build the capacities of the participants so that they can understand, analyze and apply the learnings in the real-life scenario for technical and financial planning, execution and financial management of Co-treatment of Septage and Sewage at a city level with some case studies in India.

Target Audience

The participants should be from engineering background with experience on liquid waste management projects. The participants should be ready to spend 45 to 120 mins. according to the agenda per day from 21st September to 1st October 2020 for the course and required to solve the exercises and quiz timely.

Certificate

In order to be eligible for a certificate at the end of the training course, the participant has to attend all the sessions, complete the given exercises and complete the quiz. Upon evaluation of the attendance, exercise and quiz of the participants, a certificate will be provided to the participant.

AGENDA

The sessions will include the introduction, session presentation, case studies, exercises and quiz. The session wise agenda of the training programme is as follows: -

Date	Session	Topic	Contents	Duration
Monday 21 September, 2020	1	Approaches for Faecal Sludge and Septage Treatment	Stages of FSSM	45 min.
			Approaches for treatment;	
			Objective of treatment;	
			Treatment mechanisms,	
			Stages of treatment;	
			Standards for treatment; Rationale for co treatment	
Tuesday 22 September, 2020	2	Characterization of Liquid Waste: Faecal Sludge, Septage and Sewage	Parameters for characterization,	60 min.
			Characteristics of sewage,	
			Types of sludge and its characteristics	
			Exercise: Concentration and load; peak flow rate and loading rate	
Wednesday 23 September, 2020	3	Sewage Treatment Plant & Co treatment	Objectives of treatment,	75 min.
			Treatment mechanisms,	
			Treatment chain - Multi Barrier Approach;	
			Addition of sludge for co treatment;	
			Impact of unscientific co treatment of sludge	
			Exercise: Forming treatment chain at the Sewage Treatment Plant.	
Thursday 24 September, 2020	4	Planning of Co Treatment of Sludge and Sewage	Identifying co treatment opportunities	60 min.
			Precautions for adding sludge in sewerage system	
			Stages of planning	
			Checklist for collection of data	
			Administrative controls for conducting co treatment of septage with sewage	
			Exercise: Pre-feasibility check for co treatment of septage with sewage.	
Friday 25 September, 2020	5	Septage Receiving Station	Importance of septage receiving station,	75 min.
			Components of septage receiving station,	
			Types of septage receiving station	

			Solid Liquid Separation Standard Operating Procedure at receiving station.	
Monday 28 September, 2020	6	Co treatment in Liquid Stream at STP	Treatment units in liquid stream Design criteria Precautions and checks for co treatment Mitigating the impact of co treatment through O&M Exercise: Check for primary and secondary treatment units for Activated Sludge Process for co treatment	105 min.
Tuesday 29 September, 2020	7	Co Treatment in Sludge Stream at STP	Treatment units in sludge stream Design criteria Precautions and checks for co treatment Mitigating the impact of co treatment through O&M Exercise: Check for thickening, digestion treatment units for Activated Sludge Process for co treatment	105 min.
Wednesday 30 September, 2020	8	Disinfection of Sludge	Treatment objectives; Co composting; Solar Drying House; Thermal Drying; Thermal treatment of biosolids	90 min.
Thursday 1 October, 2020	9	Q&A, discussions, feedback, final assessment		90 Min.