

Online Certificate Training Programme Co-Treatment of Faecal Sludge and Septage at STP 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 8 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 <https://scbp.niua.org/?q=training-modules/co-treatment-faecal-sludge-and-septage-design-module-part-presentation-slides>

Part B, Learning Notes <https://scbp.niua.org/?q=training-modules/co-treatment-faecal-sludge-and-septage-design-module-part-b-learning-notes>

Part C, Workbook <https://scbp.niua.org/?q=training-modules/co-treatment-faecal-sludge-and-septage-design-module-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 2nd November to 10th November 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 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, 2 November 2020	1	Approaches for Faecal Sludge and Septage Treatment	Stages of FSSM	90 min.				
			Approaches for treatment;					
			Objective of treatment;					
			Treatment mechanisms,					
			Stages of treatment;					
			Standards for treatment;					
			Rationale for co treatment					
Tuesday, 3 November 2020	2A	Characterization of Liquid Waste: Faecal Sludge, Septage and Sewage	Parameters for characterization,	90 min.				
			Characteristics of sewage,					
			Types of sludge and its characteristics					
			Exercise: Concentration and load; peak flow rate and loading rate					
	2B	Sewage Treatment Plant & Co treatment	Objectives of treatment,					
			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.					
			Wednesday, 4 November 2020		3	Planning of Co Treatment of Sludge and Sewage	Identifying co treatment opportunities	90 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.								
Case Study: Hyderabad, HMWSSB / Trichy, IIHS								

Thursday, 5 November 2020	4	Septage Receiving Station	Importance of septage receiving station,	90 min.
			Components of septage receiving station,	
			Types of septage receiving station	
			Solid Liquid Separation	
			Standard Operating Procedure at receiving station.	
Friday, 6 November 2020	5	Co treatment in Liquid Stream at STP	Treatment units in liquid stream	90 min.
			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	
Saturday, 7 November 2020	6	Co Treatment in Sludge Stream at STP	Treatment units in sludge stream	90 min.
			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	
Monday, 9 November 2020	7	Disinfection of Sludge	Treatment objectives	90 min.
			Co composting	
			Solar Drying House	
			Thermal Drying	
			Thermal treatment of biosolids	
			Case Study: Bijnor, CSE / Puri, OWSSB	
Tuesday, 10 November 2020	8	Final assessment	Final assessment and Exercise discussion	90 Min.