**SESSION TRANSACTION PLAN FOR TWO-DAY CAPACITY BUILDING PROGRAMME FOR**

**URBAN DEVELOPMENT DEPARTMENT AND MUNICIPAL CORPORATION DEPARTMENT**

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| **SESSION NUMBER** | **SESSION TITLE AND DURATION** | **OBJECTIVE** | **SESSION TRANSACTION PLAN** | **EXPECTED OUTCOME**  **AND FOLLOW-UP RESOURCES** |
| SESSION 1 | **Session Title:** "Building Regulatory System: Administration and Permits as per SP 73: 2023"  **Duration:** 1 Hour 15 Minutes | **Objective:**   * To provide an in-depth understanding of the building regulatory system. * To explore administrative roles and the building permit process. * To discuss practical applications and challenges using SP 73: 2023. | **Session Breakdown**  **1. Introduction (10 minutes)**   * **Objective**: Set the stage for understanding the session's importance. * **Content**:   + Overview of SP 73: 2023.   + Importance of standardized building regulations. * **Methodology**: Presentation with key highlights.   **2. Overview of Building Regulatory System (10 minutes)**   * **Objective**: Familiarize participants with the regulatory framework. * **Content**:   + Key components of the building regulatory system.   + Roles of various regulatory bodies. * **Methodology**: Lecture with visual aids.   **3. Administrative Roles and Responsibilities (10 minutes)**   * **Objective**: Deep dive into administrative structures. * **Content**:   + Responsibilities of state urban departments and municipal corporations.   + Coordination and communication strategies. * **Methodology**: Interactive discussion with real-world examples.   **4. Building Permit Process (15 minutes)**   * **Objective**: Understand the building permit process. * **Content**:   + Steps in the permit application process.   + Key documentation and approval criteria. * **Methodology**: Walkthrough of the permit process with visual aids.   **5. Case Studies and Problem-Solving (15 minutes)**   * **Objective**: Apply learning to real-world situations. * **Content**:   + Analysis of case studies related to building permits.   + Common challenges and best practices. * **Methodology**: Group activity analyzing case studies, followed by discussion.   **6. Innovations and Updates in SP 73: 2023 (10 minutes)**   * **Objective**: Discuss new provisions and their implications. * **Content**:   + Innovations in SP 73: 2023.   + Impact on urban development practices. * **Methodology**: Presentation followed by Q&A.   **7. Conclusion and Q&A (5 minutes)**   * **Objective**: Summarize key points and clarify any doubts. * **Content**:   + Recap of session highlights.   + Open floor for questions. * **Methodology**: Summary and interactive Q&A session. | **Expected Outcomes:**   * Participants will have a clear understanding of the building regulatory system as per SP 73: 2023. * Enhanced knowledge of the roles and responsibilities of administrative bodies in the permit process. * Ability to navigate and apply the building permit process effectively. * Improved problem-solving skills through case study analysis. * Awareness of the latest innovations and updates in SP 73: 2023 and their practical implications. * Increased engagement and knowledge retention through interactive activities.   **Follow-up Resources:**   * Access to SP 73:2023 * Access to relevant sections of the NBC. * Contact information for further queries or guidance. |
| SESSION 2 | **Session Title:** "Land Development and Development and Building Controls"  **Duration:** 1 hour 30 minutes | **Objective:**   * To provide an in-depth understanding of land development processes. * To explore development and building controls outlined in SP 73: 2023. * To discuss practical applications and challenges in implementing standardized regulations. | **Session Breakdown**  **1. Introduction (10 minutes)**   * **Objective**: Set the context and importance of the session. * **Content**:   + Overview of SP 73: 2023.   + Significance of standardized development regulations. * **Methodology**: Presentation with key highlights.   **2. Overview of Land Development Process (15 minutes)**   * **Objective**: Familiarize participants with land development procedures. * **Content**:   + Key stages of land development.   + Roles of various stakeholders. * **Methodology**: Lecture with visual aids.   **3. Development and Building Controls (25 minutes)**   * **Objective**: Understand the controls and guidelines for development and construction. * **Content**:   + Zoning regulations and land use.   + Building height, density, and FAR (Floor Area Ratio) controls.   + Environmental and sustainability considerations. * **Methodology**: Detailed walkthrough with examples.   **4. Case Studies and Practical Applications (20 minutes)**   * **Objective**: Apply theoretical knowledge to practical scenarios. * **Content**:   + Analysis of case studies illustrating development controls.   + Discussion on challenges and best practices. * **Methodology**: Group activity analyzing real-world case studies, followed by discussion.   **5. Innovations and Updates in SP 73: 2023 (15 minutes)**   * **Objective**: Discuss new provisions and their implications for land development. * **Content**:   + Key updates and innovations in SP 73: 2023.   + Impact on urban development and planning. * **Methodology**: Presentation followed by Q&A.   **6. Conclusion and Q&A (5 minutes)**   * **Objective**: Summarize key points and address participants' queries. * **Content**:   + Recap of session highlights.   + Open floor for questions. * **Methodology**: Summary and interactive Q&A session. | **Expected Outcomes:**   * Participants will gain a clear understanding of land development processes as per SP 73: 2023. * Enhanced knowledge of development and building controls. * Ability to apply standardized regulations in practical scenarios. * Improved problem-solving skills through case study analysis. * Awareness of the latest innovations and updates in SP 73: 2023 and their practical implications. * Increased engagement and knowledge retention through interactive activities.   **Follow-up Resources:**   * Access to SP 73:2023 * Access to relevant sections of the NBC. * Contact information for further queries or guidance. |
| SESSION 3 | **Session Title:** "Role of Geospatial technologies in infrastructure planning"  **Duration:** 1 Hour | **Objective:**   * To introduce the principles, fundamentals and Standards of Geospatial Information. * To explore the role of geospatial technology in Infrastructure planning and resource management. * To discuss practical applications and challenges of Geospatial information systems. | **Session Breakdown**   1. **Introduction to Geospatial Technologies and Tools (15 minutes)**  * **Objective**: Build a foundational understanding of geospatial Technologies. * **Content**:   + Definition and scope of geospatial technologies.   + Overview of Geographic Information Systems (GIS) for mapping and analysis.   + Role of Remote Sensing in monitoring and planning.   + Basics of Global Positioning Systems (GPS).   + Importance of geospatial technologies in sustainable resource management. * **Methodology**: Presentation with visual aids and interactive discussion.  1. **Application of Geospatial Planning in Resource Management (20 minutes)**  * **Objective**: Explore real-world applications and benefits. * **Content**:   + Case studies on land use planning, water resource management, and disaster management.   + Benefits of geospatial planning in optimizing resources. * **Methodology**: Case study analysis with group discussions.  1. **Standards of Geospatial Information (10 minutes)**  * **Objective**: Provide an understanding of the key standards of Geospatial Information and their utilization. * **Content**: * Overview of National Geospatial Policy * Overview of key standards of Geospatial Information * Importance of data accuracy, interoperability, and metadata in geospatial systems. * **Methodology**: Presentation with examples of standards and guidelines.  1. **Challenges and Best Practices (10 minutes)**  * **Objective**: Address common challenges and explore strategies for success. * **Content**:   + Key challenges in geospatial planning implementation.   + Best practices for overcoming these challenges. * **Methodology**: Open discussion with practical examples.  1. **Conclusion and Q&A (5 minutes)**  * **Objective**: Recap key insights and address participants' queries. * **Content**:   + Summary of session highlights.   + Open floor for participant questions. * **Methodology**: Interactive Q&A session. | **Expected Outcomes:**   * Participants will develop a foundational understanding of geospatial technologies (GIS, Remote Sensing, GPS) and their capabilities. * Increased awareness of how these tools can aid in urban and infrastructure planning. * Participants will be able to apply geospatial data in real-world scenarios while adhering to national and international standards for accuracy, interoperability, and quality in geospatial information management. * Understanding the role of data-driven insights in making efficient, cost-effective, and sustainable decisions. * Improved problem-solving skills through case studies and real-life examples. * Awareness of common challenges and best practices in adopting geospatial technologies. * Motivated to advocate for the inclusion of geospatial solutions in future projects and initiatives.   **Follow-up Resources:**   * Access to relevant BIS documents. * Access to additional resources and updates on BIS Website. * Contact information for further queries or guidance. |
| SESSION 4 | **Session Title:** "General Building Requirements as per SP 73: 2023"  **Duration:** 1 Hour | **Objective:**   * To provide a comprehensive overview of general building requirements as per SP 73: 2023. * To familiarize participants with the key standards and guidelines for building design and construction. * To discuss the practical application of these requirements in real-world scenarios. | **Session Breakdown**  **1. Introduction (10 minutes)**   * **Objective**: Set the context for the session and highlight the importance of adhering to general building requirements. * **Content**:   + Overview of SP 73: 2023.   + Importance of standardized building requirements. * **Methodology**: Presentation with key highlights.   **2. Key General Building Requirements (20 minutes)**   * **Objective**: Discuss the essential building requirements outlined in SP 73: 2023. * **Content**:   + Building layout and design principles.   + Safety, accessibility, and sustainability considerations.   + Fire safety, ventilation, lighting, and sanitation requirements. * **Methodology**: Lecture with visual aids and examples.   **3. Practical Applications and Compliance (20 minutes)**   * **Objective**: Understand how to apply general building requirements in practice. * **Content**:   + Case studies illustrating compliance with SP 73: 2023.   + Common challenges and solutions in adhering to the requirements. * **Methodology**: Case study analysis and group discussion.   **4. Innovations and Updates in SP 73: 2023 (5 minutes)**   * **Objective**: Highlight key updates and innovations in the latest version of SP 73: 2023. * **Content**:   + Notable changes and their implications for building design.   + Impact on urban planning and construction practices. * **Methodology**: Brief presentation.   **5. Conclusion and Q&A (5 minutes)**   * **Objective**: Summarize key points and address participants' queries. * **Content**:   + Recap of session highlights.   + Open floor for questions. * **Methodology**: Summary and interactive Q&A session. | **Expected Outcomes:**   * Participants will have a clear understanding of general building requirements as per SP 73: 2023. * Enhanced knowledge of safety, accessibility, and sustainability standards in building design. * Ability to apply these requirements in practical scenarios. * Awareness of updates and innovations in SP 73: 2023 and their implications. * Increased engagement and knowledge retention through interactive discussions.   **Follow-up Resources:**   * Access to SP 73:2023 * Access to relevant sections of the NBC. * Contact information for further queries or guidance. |
| SESSION 5 | **Session Title:** "Requirements for Special Developments and Buildings”  **Duration:** 1 Hour 15 Minutes | **Objective:**   * To provide an overview of the specific requirements for special developments and buildings as outlined in SP 73: 2023. * To familiarize participants with the standards and guidelines for designing and managing special types of buildings. * To discuss practical applications and case studies. | **Session Breakdown**  **1. Introduction (10 minutes)**   * **Objective**: Set the context for the session and highlight the importance of special building requirements. * **Content**:   + Overview of SP 73: 2023.   + Importance of standards for special developments. * **Methodology**: Presentation with key highlights.   **2. Key Requirements for Special Developments (25 minutes)**   * **Objective**: Discuss the essential requirements for special developments outlined in SP 73: 2023. * **Content**:   + Design considerations for high-rise buildings, industrial buildings, and heritage structures.   + Safety and environmental considerations.   + Accessibility and sustainability standards. * **Methodology**: Lecture with visual aids and examples.   **3. Practical Applications and Compliance (20 minutes)**   * **Objective**: Understand how to apply the requirements for special developments in practice. * **Content**:   + Case studies illustrating compliance with SP 73: 2023.   + Common challenges and solutions in adhering to the requirements. * **Methodology**: Case study analysis and group discussion.   **4. Innovations and Updates in SP 73: 2023 (15 minutes)**   * **Objective**: Highlight key updates and innovations in the latest version of SP 73: 2023. * **Content**:   + Notable changes and their implications for special developments.   + Impact on urban planning and construction practices. * **Methodology**: Brief presentation.   **5. Conclusion and Q&A (5 minutes)**   * **Objective**: Summarize key points and address participants' queries. * **Content**:   + Recap of session highlights.   + Open floor for questions. * **Methodology**: Summary and interactive Q&A session. | **Expected Outcomes:**   * Participants will have a clear understanding of requirements for special developments and buildings as per SP 73: 2023. * Enhanced knowledge of design and management standards for special types of buildings. * Ability to apply these requirements in practical scenarios. * Awareness of updates and innovations in SP 73: 2023 and their implications. * Increased engagement and knowledge retention through interactive discussions.   **Follow-up Resources:**   * Access to SP 73:2023 * Access to relevant sections of the NBC. * Contact information for further queries or guidance. |
| SESSION 6 | **Session Title:** "Piped Drinking Water Management System as per IS 17482"  **Duration:** 1 Hour 15 Minutes | **Objective:** To provide participants with an understanding of IS 17482, which outlines the guidelines for the management of piped drinking water supply systems, focusing on water quality, distribution systems, and the operational framework for effective service delivery. | **Session Breakdown**  **1. Importance of Potable Water and Challenges faced by Water Utilities (10 minutes)**   * **Objective:**   + Introduce the importance of piped drinking water systems in urban and rural areas for public health and sustainable development.   + Highlight the role of standardized guidelines like IS 17482 in ensuring quality and reliability in water distribution. * **Content:**   + Overview of current situation of water crisis globally and India.   + Challenges faced in managing water utility   + The importance of a systematic approach to water management. * **Methodology:**   + **Presentation** (Slides/Visual aids): Show the components of piped drinking water systems and key challenges.   + **Discussion:** Engage participants with a question about the water supply challenges they face in their areas.   **2. Objective and General Requirements of Piped Drinking Water Systems (15 minutes)**   * **Objective:**   + To introduce participants to IS 17482 and its relevance in providing a comprehensive framework for managing piped drinking water systems.   + To explain the key guidelines provided in IS 17482 for water quality, infrastructure, and operation. * **Content:**   + Overview of IS 17482: Scope, purpose, and importance.   + The role of local authorities, utilities, and stakeholders in implementing IS 17482.   + Identification of Issues within the system   + Overview of the processes in purification of Drinking Water   + Management Information System * **Methodology:**   + **Presentation**: Explanation of the general requirements in IS 17482, with visuals to explain key concepts.   **3. Role of Leadership, Planning and Support for Water Quality Management in Piped Systems (20 minutes)**   * **Objective:**   + To emphasize the importance of top management for water quality control with planning and support * **Content:**   + Responsibility of top management   + Maintenance of Records   + Policy communication and implementation   + Assign Roles for work and objectives to achieve   + Identification of constraints * **Methodology:**   + **Presentation**: Discuss water quality management principles and guidelines from IS 17482.   + **Interactive Q&A:** Ask participants about their current practices for water quality monitoring and share best practices for improvement.   **4. Execution during Operation (20 minutes)**   * **Objective:**   + To provide participants with practical insights into operating and maintaining piped drinking water systems as per IS 17482. * **Content:**   + Service requirements identification   + Infrastructure development and considerations   + Maintenance requirements   + Emergency preparedness   + Audit * **Methodology:**   + **Presentation**: Provide guidelines from IS 17482 related to operation and maintenance of systems.   + **Interactive Discussion**: Ask participants to discuss maintenance challenges they face and how they could apply IS 17482 solutions.   **5. Conclusion with Assessment and Q&A (10 minutes)**   * **Objective:**   + To discuss about performance assessment and improvement   + To allow participants to ask questions, share concerns, and clarify doubts regarding the implementation of IS 17482. * **Content:**   + Auditing, Assessment and Complaint   + Open floor for participant questions.   + Provide answers and additional insights into the specific topics covered in the session. * **Methodology:**   + **Q&A Session**: Allow participants to ask questions related to the management and implementation of piped drinking water systems.   + **Discussion**: Encourage participants to share practical challenges and how IS 17482 could assist in addressing them. | **Expected Outcomes:**   * Participants will gain insights into the critical role of IS 17482 in guiding the management of piped drinking water systems. * Learn Best Practices: Acquire knowledge about water quality management, system infrastructure, and operational practices to ensure reliable and safe drinking water. * Learn about effective approaches for addressing common issues in water distribution systems, such as leakage, contamination, and maintenance challenges. * Be able to implement the guidelines of IS 17482 in their municipalities or organizations to improve drinking water management systems.   **Follow-up Resources:**   * Access to IS 17482 and related BIS documents. * Contact information for further queries or guidance. |
| SESSION 7 | **Session Title:** "Solid Waste Management"  **Duration:** 1 Hour | **Objective:** To provide participants with a comprehensive understanding of the standards IS 16557, IS 18520, IS 12647, IS 12662 in the context of solid waste management (SWM), focusing on best practices for waste segregation, collection, transportation and disposal. | **Session Breakdown**  **1. Introduction (10 minutes)**   * **Objective:**   + Introduce the concept of solid waste management and its importance   + Introduce the challenges in waste management, such as increasing waste generation, lack of infrastructure, and public awareness. * **Content:**   + Key challenges in managing waste in urban settings (e.g., inadequate segregation, poor infrastructure). * **Methodology:**   + Presentation with an overview of session objectives and key terms.   **2. Overview of Solid Waste Management at Household/Community Level and at Commercial Facilities (15 minutes)**   * **Objective:**   + To guide participants in adopting best practices for waste segregation and collection in households and commercial facilities * **Content:**   + Key areas of focus: Waste segregation at source, storage, collection methods, transportation systems. * **Methodology:**   + **Presentation**: To familiarize participants on waste segregation, storage, collection and transfer and role of IS 16557 and IS 18520 in solid waste management.   + **Interactive Discussion**: Encourage participants to share insights on their current SWM practices and how IS 16557 & IS 18520 can be adopted.   **3. Overview of requirements and guidelines on Solid Waste Management Collection Equipment (10 minutes)**   * **Objective:**   + To familiarize participants with requirements on collection equipment used in solid waste management. * **Content:**   + Key areas of focus: Different types of collection receptacles and storage receptacles. * **Methodology:**   + **Presentation**: Importance of collection and storage receptacle and role/relevance of IS 12647 in solid waste management.   + **Interactive Discussion**: Encourage participants to share insights on their current usage of collection and storage receptacles and how IS 12647 can be adopted.   **4. Overview of guidelines for use of vehicles for collection and transportation of solid waste (15 minutes)**   * **Objective:**   + Explain the importance of selection of vehicles for collection and transportation of solid wastes. * **Content:**   + Key areas of focus: To familiarize participants on criteria for selection of vehicles and maintenance of vehicles used for collection and transportation of solid waste. * **Methodology:**   + **Presentation**: Role/relevance of IS 12662 in selection criteria of vehicles and their maintenance for transportation of solid waste.   + **Interactive Activity**: Ask participants to share their current practices and challenges related to waste segregation in their areas.   **5. Conclusion & Q&A Session (10 minutes)**   * **Objective:**   + To provide participants with an opportunity to clarify any doubts, ask questions, and discuss their challenges in solid waste management. * **Content:**   + Open floor for participant questions and discussion on topics covered.   + Address specific issues related to IS 12647, IS 12662 implementation. * **Methodology:**   + Facilitator-led summary and interactive Q&A session. | **Expected Outcomes:**   * Participants will gain knowledge about IS 16557, IS 18520, IS 12647, IS 12662 and their role in improving solid waste management. * Learn how to implement best practices for waste segregation, collection, transportation and disposal. * Understand the challenges and how to overcome them using standardized guidelines to manage the solid waste.   **Follow-up Resources:**   * Access to IS 16557, IS 18520, IS 12647, IS 12662 (Part 1) & (Part 2) and related BIS documents. * Contact information for further queries or guidance. |
| session 8 | **Session Title:** "Recycling of Plastic Waste"  **Duration:** 1 Hour | **Objective:** To provide participants with an understanding of the Indian Standard, IS 14534 for plastic waste recycling, its requirements, and how to implement effective recycling practices to reduce plastic waste and its environmental impact. | **Session Breakdown**  **1. Introduction to Plastic Waste and Recycling (10 minutes)**   * **Objective:**   + To provide a brief overview of the global and national plastic waste crisis and the importance of recycling in mitigating its effects.   + Highlight the role of plastic waste recycling in sustainability and circular economy models. * **Content:**   + Overview of plastic waste: Types of plastic, sources of waste, and their environmental impact.   + Challenges in plastic waste management: Non-biodegradability, contamination, and the growing volume of waste.   + The role of recycling in addressing these challenges. * **Methodology:**   + **Presentation** (Slides): Visual aids to show the scale of plastic waste and the benefits of recycling.   + **Discussion:** Ask participants about plastic waste challenges in their areas and any existing recycling practices.   **2. Overview of IS 14534: Recycling of Plastics (20 minutes)**   * **Objective:**   + To familiarize participants with IS 14534, its guidelines, and its role in standardizing the recycling of plastics.   + To explain the process and best practices for recycling plastic waste as outlined in the standard. * **Content:**   + Overview of IS 14534: Scope, objectives, and its relevance in plastic waste recycling.   + Key elements of the standard:     - Collection and sorting of plastic waste: Importance of clean, segregated plastic waste for efficient recycling.     - Methods of recycling: Mechanical recycling, chemical recycling, and energy recovery.     - Key specifications for recycling facilities: Quality, safety standards, and process requirements.     - Types of plastics covered by the standard: Thermoplastics, PET, PVC, HDPE, LDPE, etc.   + Importance of adopting IS 14534 in enhancing recycling systems. * **Methodology:**   + **Presentation**: Detailed explanation of IS 14534 and its relevance to plastic recycling.   + **Case Study Example**: Share examples of regions or industries successfully adopting IS 14534 in their recycling systems.   + **Visuals**: Diagrams or flowcharts illustrating the recycling process and key guidelines.   **3. Challenges in Plastic Waste Recycling and Solutions (15 minutes)**   * **Objective:**   + To discuss common challenges faced in the plastic recycling process and provide solutions based on IS 14534 guidelines. * **Content:**   + Common challenges in plastic recycling:     - Contamination of plastic waste with food, chemicals, or other non-recyclables.     - Lack of infrastructure for waste segregation and collection.     - Limited access to recycling technologies in some regions.   + Solutions provided by IS 14534:     - Sorting and pre-processing of waste.     - Establishing collection and recycling infrastructure in urban and rural settings.     - Technological innovations in plastic recycling: Smart sorting, advanced recycling methods, and material recovery.   + The role of public-private partnerships in enhancing recycling rates. * **Methodology:**   + **Interactive Discussion:** Ask participants about specific challenges they face with plastic waste recycling.   + **Presentation**: Discuss solutions, technological innovations, and success stories from IS 14534 implementations.   **4. Best Practices for Implementing IS 14534 in Plastic Recycling Systems (10 minutes)**   * **Objective:**   + To provide actionable insights into how municipalities and industries can implement IS 14534 in their recycling systems. * **Content:**   + Best practices for waste segregation and collection as per IS 14534.   + Setting up or upgrading recycling facilities: Requirements for infrastructure, workforce training, and safety standards.   + Collaboration with waste management firms and local communities for effective plastic recycling.   + Case studies of cities/industries adopting best practices for plastic waste recycling.   + **Expected Outcome:** Participants will be equipped with practical steps for implementing IS 14534 and improving recycling systems. * **Methodology:**   + **Presentation**: Share best practices and case studies of effective plastic recycling systems.   + **Interactive Activity**: Participants will reflect on their local context and identify one action they can take to improve plastic recycling practices.   **5. Conclusion & Q&A Session (5 minutes)**   * **Objective:**   + To allow participants to ask questions, share their concerns, and clarify doubts about plastic recycling and IS 14534. * **Content:**   + Open floor for participants to ask questions.   + Facilitators provide additional guidance and answer queries related to plastic waste management and recycling technologies. * **Methodology:**   + **Q&A Session**: Allow participants to ask questions.   + **Discussion**: Provide guidance on the implementation of IS 14534 in specific contexts, as needed. | **Expected Outcomes:**   * Participants will understand IS 14534 and its role in standardizing plastic waste recycling processes. * Learn how to implement IS 14534 in their own municipalities or industries for effective plastic recycling. * Be able to identify challenges in plastic recycling and apply solutions outlined in IS 14534 to overcome them. * Adopt best practices for waste segregation, collection, and recycling based on IS 14534 guidelines.   **Follow-up Resources:**   * Access to IS 14534 and related BIS documents. * Contact information for further queries or guidance. |
| SESSION 9 | **Session Title:** "Modern Sanitation Solutions: Packaged STPs, Biodigestors and Rotationally Moulded Polyethylene Septic Tanks"  **Duration:** 1 Hour 30 Minutes | **Objective:** To introduce participants to non-sewered sanitation systems, focusing on Packaged Sewage Treatment Plants (STPs), Biodigestors, and Rotationally Moulded Polyethylene Septic Tanks as per the relevant Indian Standards, namely, IS 18797, IS 18150 and IS 18666. The session will highlight how these systems can be implemented effectively in both urban and rural areas where centralized sewage systems are not feasible. | **Session Breakdown**  **1. Introduction to Non-Sewered Sanitation Systems (10 minutes)**   * **Objective:**   + To explain the concept and importance of non-sewered sanitation systems for wastewater treatment in areas without centralized sewage systems.   + Discuss the role of these systems in improving public health and environmental sustainability. * **Content:**   + Overview of sanitation challenges: Lack of sewer networks in rural or peri-urban areas.   + Non-sewered sanitation systems: What they are, how they work, and why they are crucial.   + Types of non-sewered systems: Packaged STPs, Biodigestors, and Rotationally Moulded Polyethylene Septic Tanks. * **Methodology:**   + **Presentation** (Slides): Introduce key concepts and the need for alternative sanitation solutions.   + **Interactive Discussion:** Encourage participants to share the sanitation challenges in their areas and their experiences with decentralized systems.   **2. Packaged Sewage Treatment Plants (STPs) as per IS 18797 (25 minutes)**   * **Objective:**   + To introduce Packaged STPs as an efficient solution for treating sewage in smaller communities or buildings.   + Explain the guidelines in IS 18797 for the installation and operation of Packaged STPs. * **Content:**   + Overview of Packaged STPs: Definition, components, and working mechanism.   + Key features of IS 18797:     - Design requirements: Capacity, treatment stages, and technology used (e.g., MBBR, SBR).     - Operational parameters: Flow, power consumption, effluent quality standards.     - Installation and maintenance guidelines.   + Benefits of Packaged STPs: Compactness, ease of operation, and applicability in small-to-medium scale setups (housing societies, hospitals, hotels).   + Case study: Successful implementation of Packaged STPs in urban and rural areas. * **Methodology:**   + **Presentation**: Discuss the design and working of Packaged STPs based on IS 18797.   + **Visual Aids**: Diagrams of a typical Packaged STP setup and flowchart showing treatment steps.   + **Interactive Activity:** Ask participants if they have used Packaged STPs in their projects or communities and discuss their experiences.   **3. Biodigestors as per IS 18150 (25 minutes)**   * **Objective:**   + To familiarize participants with Biodigestors as an alternative decentralized treatment option for organic waste and wastewater.   + Highlight the guidelines provided by IS 18150 for the construction, installation, and maintenance of Biodigestors. * **Content:**   + Introduction to Biodigestors: Functionality, types (fixed dome, floating drum), and applications.   + Key specifications from IS 18150:     - Design considerations: Size, construction material, and operational conditions.     - Treatment capacity: Wastewater treatment from household to community levels.     - Maintenance and performance monitoring: Cleaning schedules, sludge removal, and effluent quality control.   + Advantages of Biodigestors: Sustainable, cost-effective, and eco-friendly wastewater management, especially in rural areas.   + Case study: Example of a successful Biodigestor installation in a village or small community. * **Methodology:**   + **Presentation**: Explain the working principles of Biodigestors and guidelines from IS 18150.   + **Visual Aids**: Show images or diagrams of different types of Biodigestors and installation procedures.   + **Group Discussion**: Engage the participants with a question about challenges faced in adopting Biodigestors and explore possible solutions.   **4. Rotationally Moulded Polyethylene Septic Tanks as per IS 18666 (20 minutes)**   * **Objective:**   + To introduce Rotationally Moulded Polyethylene (RMP) Septic Tanks as a modern solution for wastewater treatment, especially in areas without access to centralized sewer systems.   + Discuss the guidelines set forth in IS 18666 regarding design, installation, and operation. * **Content:**   + Introduction to RMP Septic Tanks: What they are and how they differ from traditional septic tanks.   + Key features of IS 18666:     - Material properties: Benefits of polyethylene in terms of durability, corrosion resistance, and low maintenance.     - Design guidelines: Size, capacity, shape, and structural integrity.     - Installation and maintenance: Step-by-step guidelines for correct installation, monitoring, and cleaning of the tanks.   + Advantages of RMP Septic Tanks: Lightweight, easy to transport, resistant to environmental degradation, and long-term cost savings.   + Case study: Example of RMP Septic Tank installations in a rural or semi-urban setting. * **Methodology:**   + **Presentation**: Discuss the features and advantages of RMP Septic Tanks as per IS 18666.   + **Visual Aids**: Diagrams or photos of RMP Septic Tanks and their installation in real-world scenarios.   + **Interactive Q&A**: Invite questions from participants on the application of RMP Septic Tanks in their local context.   **5. Key Challenges and Solutions for Non-Sewered Sanitation Systems (5 minutes)**   * **Objective:**   + To discuss common challenges faced when implementing non-sewered sanitation systems and suggest solutions based on the guidelines. * **Content:**   + Common challenges:     - Public awareness and acceptance.     - Proper system design and installation.     - Maintenance and long-term operation.   + Solutions:     - Regular monitoring, training for operators, community involvement, and adequate maintenance schedules.     - The role of local authorities in facilitating the adoption of these systems. * **Methodology:**   + **Presentation**: Summarize common issues and solutions for non-sewered sanitation systems.   + **Interactive Discussion**: Ask participants to identify challenges in their regions and discuss practical solutions.   **6. Conclusion and Q&A (5 minutes)**   * **Objective:**   + To allow participants to ask questions, share concerns, and clarify doubts regarding non-sewered sanitation systems and their implementation. * **Content:**   + Open floor for participant questions.   + Provide expert insights and additional resources for further learning. * **Methodology:**   + **Q&A Session**: Engage with the participants to resolve queries and discuss real-world application scenarios.   + **Closing Remarks:** Provide a summary and highlight the importance of decentralized sanitation systems for sustainable urban and rural sanitation solutions. | **Expected Outcomes:**   * Participants will understand the key non-sewered sanitation systems (Packaged STPs, Biodigestors, and RMP Septic Tanks) and their applications in areas lacking centralized sewage systems. * Be familiar with the Indian Standards (IS 18797, IS 18150, IS 18666) and the guidelines for designing, installing, and maintaining these systems. * Identify the benefits and challenges associated with these systems and understand how to implement them effectively in their regions. * Be equipped with practical knowledge for adopting decentralized sanitation solutions in their communities.   **Follow-up Resources:**   * Access to relevant BIS documents and Indian standards, IS 18797, IS 18150 and IS 18666. * Contact information for further queries or guidance. |
| SESSION 10 | **Session Title:** " Requirements for Street Food Vendors as per IS 16066"  **Duration:** 1 Hour 30 Minutes | **Objective:** To provide knowledge of Indian Standards on requirements for street food vendors as per IS 16066, engage participants in discussions on its implementation through Q&A sessions, and gather feedback on challenges and areas for further improvement. | **Session Breakdown**   1. **Introduction (10 minutes)**  * **Objective:** To familiarize participants with the scope and significance of IS 16066 for street food vendors and its impact on urban food safety and public health * **Content:** Overview of street food vending in urban areas, associated challenges, and the importance of standardized practices. * **Methodology:** Presentation with an overview of session objectives, health risks, and the relevance of IS 16066 in ensuring safe practices.  1. **Key Requirements of IS 16066 (30 minutes)**  * **Objective:** To provide a detailed understanding of the guidelines outlined in IS 16066. * **Content:**   + Hygiene and food safety requirements for street food vendors.   + Infrastructure, equipment, and waste management requirements.   + Roles of municipal authorities in implementation and monitoring. * **Methodology:** Interactive lecture supported by handouts summarizing the standard’s requirements, case studies, real-world examples.  1. **Grading and Ranking of Street Food Vendors (30 minutes)**  * **Objective:** To provide participants with an understanding of the grading and ranking system for street food vendors, as per IS 16066, highlighting its importance in ensuring food safety, hygiene, and quality control. * **Content:**    + Categorization of street food vendors   + Steps for grading and ranking of street food vendors * **Methodology:** Interactive lecture supported by handouts detailing the process of grading of street food vendors  1. **Q&A Session and Discussion (20 minutes)**  * **Objective:** To address participants' questions, clarify implementation challenges, and gather feedback. * **Content:** Open floor for questions and interactive discussion. * **Methodology:** **Facilitated** discussion led by the speaker. | **Expected Outcomes:**   * Awareness regarding IS 16066 * Implementation of system for grading of street food vendors * Feedback regarding specific areas related to food hygiene for standardization which may be taken up.   **Follow-up Resources:**   * Access to Indian Standards related to food hygiene * Contact information for further queries or guidance. |