



Assure Earth

Earth First

Practical & Compliant

Waste & Wastewater Systems

PCB APPROVAL GUIDE

Kerala – Practical Approach

A field-oriented guide to obtaining CTE & CTO approvals for sewage treatment and effluent management projects.

In Kerala, obtaining PCB approvals is **mandatory** for most projects generating sewage or industrial effluent. These approvals ensure treatment systems meet environmental standards.

CTE

Consent to Establish

Required **before construction**.
Design approval from PCB.

CTO

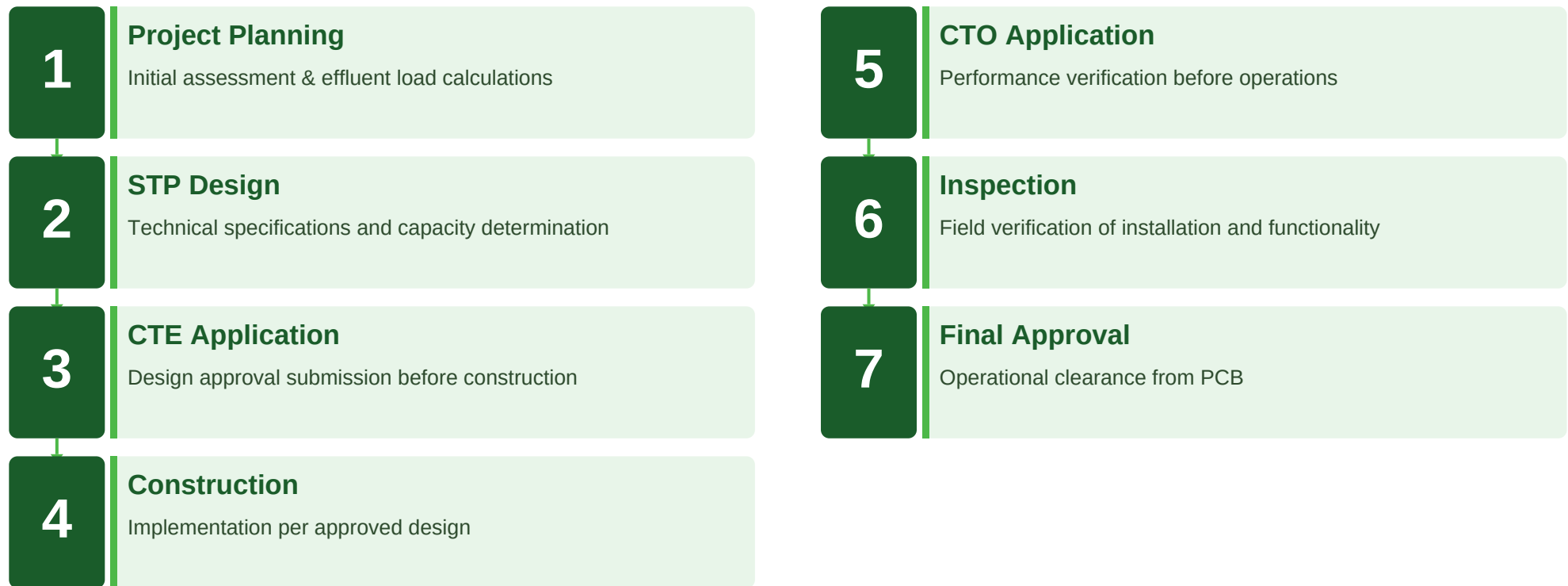
Consent to Operate

Required **before operations**.
Performance verification.

Planning for both approvals from project inception prevents costly delays and ensures compliance.

Key Facts

- **Mandatory** for projects generating sewage / effluent
- **Sequential** — CTE must always precede CTO
- **Early Planning** — engage PCB from project inception
- **Kerala-Specific** — local PCB interpretations apply
- **Both** design and execution must match approval



Understanding the difference between CTE and CTO is fundamental. Each serves a distinct purpose at different project stages.

Aspect	CTE — Consent to Establish	CTO — Consent to Operate
Timing	Before construction begins	Before operations commence
Purpose	Design approval & capacity check	Performance verification & compliance
Focus	Theoretical capacity & proposed design	Actual performance & functionality
Documentation	Design calculations & layout drawings	As-built drawings & trial run data
Inspection	Design review only	Physical inspection & testing required
Validity	Typically 1–2 years for construction	Ongoing, subject to periodic renewal

General Rule

If a Sewage Treatment Plant (STP) is required for your project, **PCB approval is mandatory**. This applies to both residential and industrial projects across Kerala.

The requirement ensures effluent discharge meets prescribed standards before entering public water systems.

~10 KLD

STP typically required — begin planning for PCB approval from the outset.

~20 KLD

PCB scrutiny becomes likely with enhanced documentation and site visits.

Higher volumes

Stricter requirements, multiple inspections, and continuous monitoring mandated.

■ **Note:** Always consult the local PCB office for project-specific requirements based on industry category and effluent characteristics.

CTE approval requires comprehensive documentation covering legal, technical, and environmental aspects of the proposed STP installation.

1 · Application & Basic

- PCB application form with prescribed fees
- Ownership / lease documents
- Location plan in PCB format
- Project details & capacity justification

2 · Technical Specifications

- Complete STP design report with calculations
- Process flow diagrams & schematics
- Layout drawings showing equipment placement
- Material specifications & component details

3 · DG & Air Pollution

- DG set specifications & capacity
- Stack height & emission details
- Air quality impact assessment if applicable
- Environmental clearance if required

CTO approval focuses on actual implementation and operational readiness. Documentation shifts from design to execution verification.

As-Built Documentation

- Updated layout drawings reflecting actual installation
- Equipment specifications matching installed units
- Any modifications to original approved design

Operational Records

- Trial run status & duration documentation
- Operation & maintenance plan
- Operator training certificates

Compliance Verification

- Effluent sampling & testing (post-stabilisation)
- Reuse system verification records
- DG compliance certificates

■ **Important:** Test reports may not be required initially. PCB typically allows 30–45 days stabilisation before demanding effluent test results.

Inspection Checklist

Capacity: STP sized as per approved design

Installation: Civil & mechanical per drawings

Functionality: All systems operational

O&G; Trap: Installed and functioning

Reuse System: Treated water provisions in place

DG Compliance: Stack height & specs as approved

Common Mistakes

- ✗ Incorrect STP sizing
- ✗ No buffer capacity planned
- ✗ Reuse requirements ignored
- ✗ DG non-compliance
- ✗ Late PCB engagement
- ✗ As-built deviations from approved drawings

Recommendations

- ✓ Start PCB engagement early
- ✓ Align drawings with actual execution
- ✓ Plan compliance from day one
- ✓ Slightly oversize — never undersize
- ✓ Keep O&G; trap functional always
- ✓ Maintain O&M; records from trial run



Assure Earth

Need Help with PCB Approvals?

Assure Earth provides end-to-end support for CTE & CTO applications across Kerala — from first consultation to final approval.

- Pre-application consultation & feasibility assessment
- Documentation preparation & submission support
- Design review and compliance verification
- Inspection coordination and follow-up
- Ongoing compliance monitoring & renewal support

Get In Touch

Talk to us — we'll guide you through the entire approval process.

Abraham George · @ 9895203735

Voice & WhatsApp

Biju Neelambaran · @ 9388640894

Voice & WhatsApp

✉ **assureearth@gmail.com**

Assure Earth

Environmental Compliance & Engineering Services

Practical, Compliant Waste and Wastewater Systems