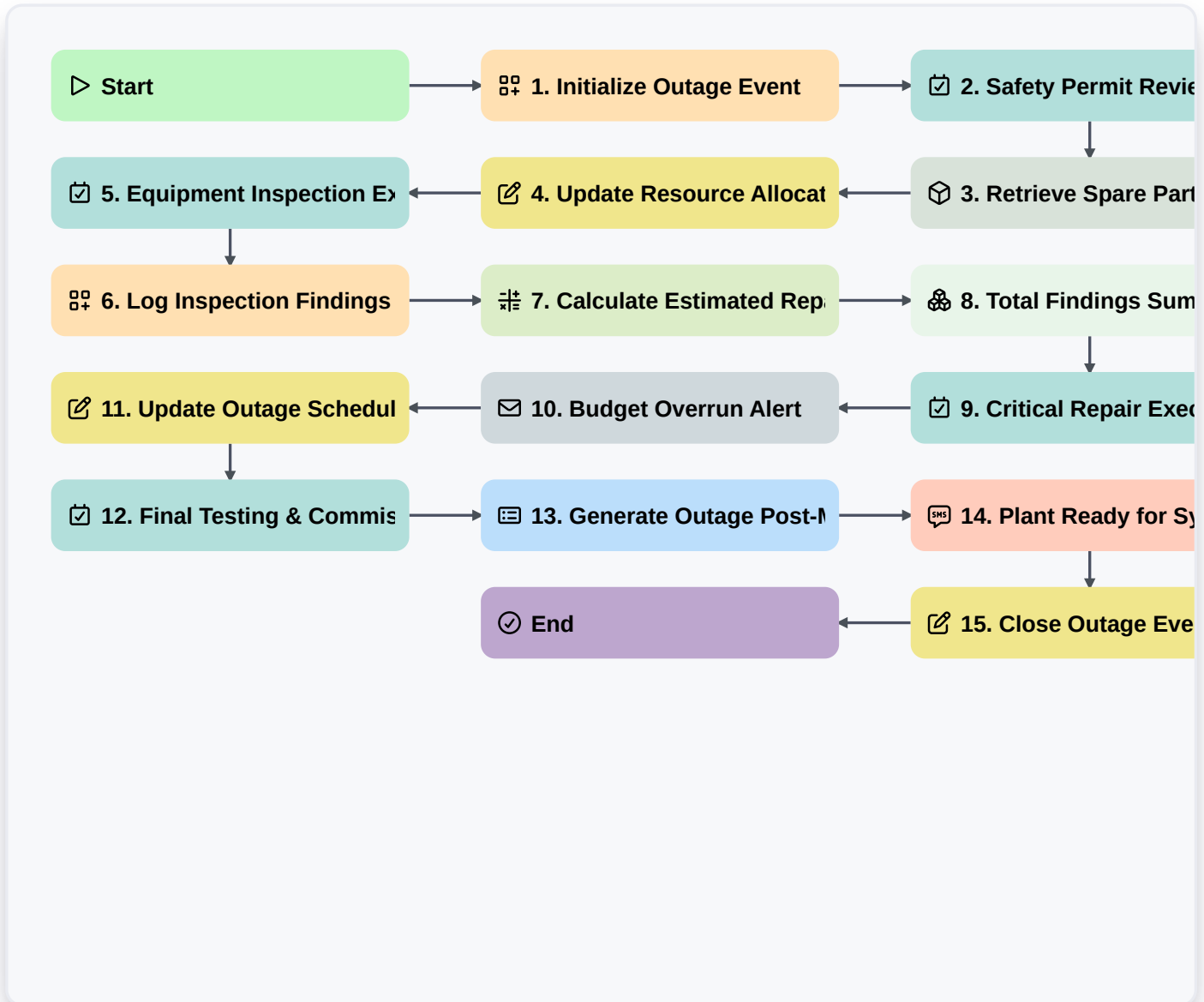


Power Plant Outage Management Process



▷ Start

Start of the Workflow/Process.

🗄️ 1. Initialize Outage Event

Create a new Outage Event entry in the Outage Data Model to define start/end dates and scope.

✅ 2. Safety Permit Review

Assign a task to the Safety Officer to review and approve the high-risk work permits required for the outage.

📦 3. Retrieve Spare Parts Inventory

Fetch all critical spare parts entries from the Inventory Data Model to verify availability for the outage scope.

✍️ 4. Update Resource Allocation

Update the Outage Event entry with the confirmed list of contractors and technicians assigned to the period.

✅ 5. Equipment Inspection Execution

Create tasks for technicians to perform physical inspections on turbines, boilers, and auxiliary systems.

🗄️ 6. Log Inspection Findings

Create new entries in the Inspection Findings Data Model for every defect or anomaly discovered during inspection.



7. Calculate Estimated Repair Cost

Calculate the total estimated cost by summing labor hours and parts cost identified in the inspection findings.

8. Total Findings Summary

Aggregate all inspection findings to count the total number of critical vs. non-critical defects found.

9. Critical Repair Execution

Create high-priority tasks for the engineering team to address all 'Critical' flagged findings.

10. Budget Overrun Alert

Send an automated email to the Plant Manager if the calculated repair cost exceeds the predefined outage budget.

11. Update Outage Schedule

Update the Outage Event entry with the revised completion date based on the repair progress.

12. Final Testing & Commissioning

Assign tasks to the operations team to run sequence tests and pressure tests before synchronization.

13. Generate Outage Post-Mortem Report

Generate a comprehensive report summarizing all tasks completed, costs incurred, and findings recorded.

14. Plant Ready for Synchronization Alert

Send an SMS notification to the Grid Dispatcher indicating that the plant is ready to reconnect to the grid.

15. Close Outage Event

Update the Outage Event status to 'Completed' and archive the event data.

End

End of the Workflow/Process.