



Turnaround Assessment Tool

What are a plant's turnaround goals?

- A safely executed turnaround
- No environmental incidents
- The work is completed on schedule
- The work is completed within budget
- A quality work effort
- Long-term equipment reliability

Then why do approximately 80% of executed turnarounds fail to deliver one or more of these elements that organizations define as a successful outcome?

Here are a few answers:

- The effort is "oil to oil" NOT "blinds to blinds"
- Conflict between daily work tasks and long-term strategic efforts
- The job of turnaround manager is not a part-time job
- Understanding complexity with limited experience
- Failure to learn from past mistakes
- Lack of inter-departmental involvement
- Capital and maintenance must be a singular event

How can a turnaround stay on budget and on schedule without compromising quality workmanship?

The answer is a series of **comprehensive turnaround assessments** coupled with **innovative mobile technology** and **leadership focused action** to close all gaps pre-turnaround.

Why Use PK Technology

- ✓ Most comprehensive digital turnaround assessment tool available
- ✓ Flexible approach to the assessment process
 - ✓ Internal peer review without support
 - ✓ Internal peer review with third-party facilitator
 - ✓ Third-party industry experts to facilitate and provide input/opinion

1st

TO USE MOBILE TECHNOLOGY
WITH INSPECTION SERVICES

42%

TIME SAVINGS VS. TRADITIONAL
INSPECTION METHODS

99%

TRANSPARENCY OF
FIELD DATA

The Turnaround Assessment Cycle

T1

Post Audit

Following a turnaround, it is imperative to conduct a lessons learned review by a third party. This effort is designed to identify things that went well so that they can be repeated at the next turnaround. It is also designed to identify opportunities for improvement so that these issues can be corrected the next time. Internal efforts of this sort can suffer due to individual or group bias and should be avoided. Without a post-execution review, there will be no value added to future turnarounds since the information will be lost.

T8-4

Pre-execution

This is the final and last assessment before the actual execution of the work. In this assessment, all the details need to be in place or completed within a short period of time. Significant gaps identified here have the potential, if not corrected, to have a negative impact on the execution effort.

T24-T19

Initial Effort

Conducted at the very beginning of turnaround planning. It is designed to assure that a team has been assembled and there are work assignments made to develop documentation that will direct the remaining effort prior to and during execution. The assessment is also designed to assure that the team understands what is required to assemble the turnaround work scope.

T18-T12

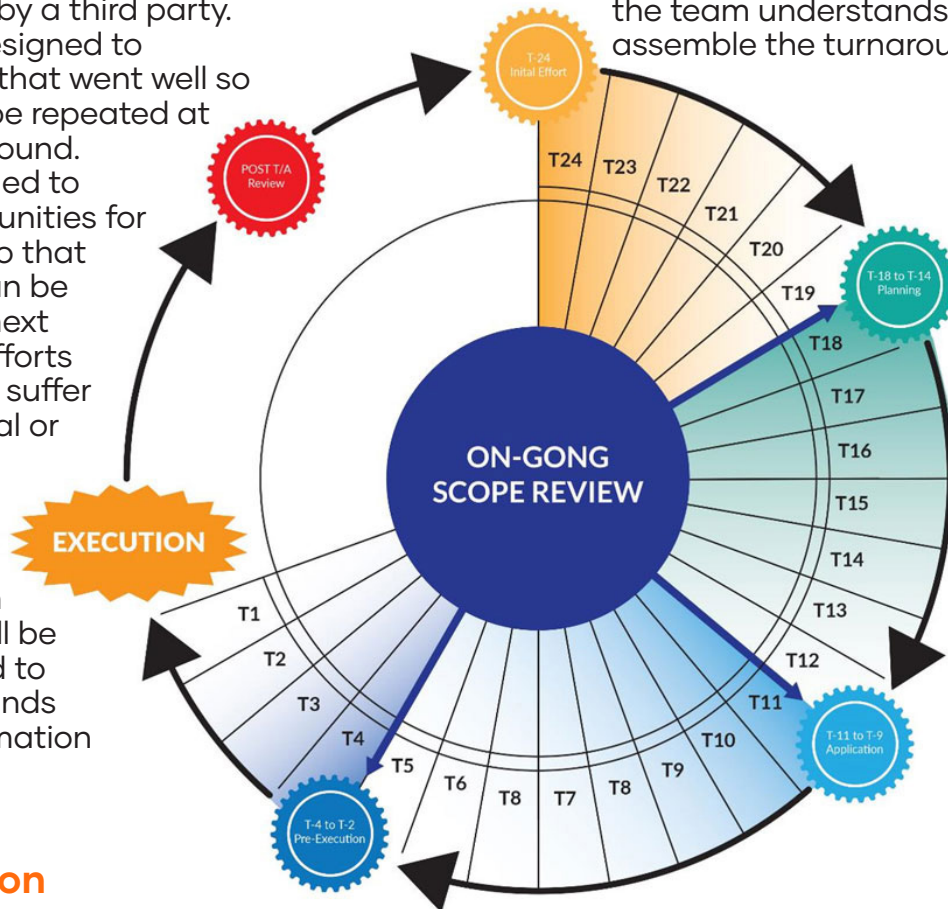
Planning

The assessment at this point in time deals with the development and completion of the detailed documentation which will support the following two stages. This assessment is also checking the development of the turnaround work scope assuring that work items are properly vetted for inclusion.

T11-5

Application

At this level, the assessment addresses the status of preparation activity associated with the categories and subcategories within the developed documentation. There is a detailed check on the status of the work scope which should be almost to the point of "scope freeze."



Turnaround Assessment Topics

- General Logistics
- Strategy
- Outage Preparation
- Staffing
- Safety
- Security & Transportation
- Industrial Hygiene
- Environmental
- Process Safety Management
- Contracts & Contractors
- Outages & Their Capital Projects
- Cost Control

- Inspection
- Procurement of Material
- Materials Management
- Shops Repairs
- Communication Including Radios
- Information Technology
- Training
- Documentation
- Operations (also called Production)
- Scope Related Logistics
- Outage Planning
- Outage Preparation

- Staging
- Transition
- Execution – Effectiveness & Efficiency
- Support
- Meetings
- Testing, Final Inspection & Approval
- Housekeeping
- Post Outage
- Miscellaneous Logistical
- Components
- Forms
- Other Miscellaneous Items