

Plant Turnaround

Owners of commercial facilities, manufacturing processes, and industrial plants recognize that maintenance of their equipment assets is a reality. Most inspection, repair, replacement, alteration, and minor maintenance work can be done while the plant is in operation or “on line.” However, there will come a time when a plant has to undergo a scheduled process outage for the major maintenance work. This outage is referred to as a “plant shutdown.”

The management of a plant shutdown is known as the “plant turnaround.” The plant turnaround procedure is a continuous process from one major scheduled maintenance outage to the next. It starts well before the plant is taken off-line and continues for a period of time after the scheduled major maintenance work has been completed. The plant shutdown is part of the plant turnaround procedure called the “execution phase.”

Plant shutdowns for scheduled major maintenance work are the most expensive and time-consuming of maintenance projects because of the loss of production and the expense of the turnaround itself. They can be complex; and as the complexity increases, they become more costly and difficult to manage. A plant shutdown always has a negative financial impact. This negative impact is due to both loss of production revenue and a major cash outlay for the plant turnaround and shutdown expenses. The positive side is not as obvious; therefore, it is often overlooked. The positive impacts are an increase in equipment asset reliability, continued production integrity, and a reduction in the risk of unscheduled outages or catastrophic failure.

A major scheduled plant shutdown is of short duration and high intensity. It can consume an equivalent cost of a yearly maintenance budget in four to five weeks. It also requires the greatest percentage of the yearly process outage days. As the plant shutdown is the major component of plant downtime and maintenance costs, proper plant turnaround management will have a significant impact on the bottom line.

