ZPI® | **M R** MONITOR™ & REPORT

S&I

SYSTEMS & INTEGRATION

Packaging Line OEE Audits & Improvement Plans

Increase production line performance by identifying and eliminating the root causes of down time

ZPI Packaging Line OEE Audits & Improvement Plans are data-driven, fact-based evaluations of packaging line performance accompanied by detailed plans for improving the OEE of the audited line.

The singular focus of the service isproduction losses identifying and eliminating the root causes of downtime that negatively impacting line performance.

This service is exclusively offered for existing packaged goods manufacturing lines and it offers real-world, cold-light-of-day looks at how lines run, why they run that way and what can be done to make them run better.

This service is ideal for anyone that needs a fact based, comprehensive and objective assessment of the current OEE of a packaging line and a blueprint of what to do about it.

No opinions, no conventional wisdom, no arguments, no debates, just empirical data and a thorough analysis of that data. And best of all ZPI delivers an OEE Audit & Improvement Report that provides a roadmap for what to do about it.

WHY OEE AUDITS & IMPROVEMENT PLANS?

- You are responsible for a packaging line that is not running at required speeds or expected performance levels.

- You have a packaging line experiencing downtime and the true root causes of the downtime are unclear.

- Your operations team is constantly debating or even arguing about what is causing downtime on a packaging line.

- Your team is 100% committed to day-to-day operations and the resources to assess a line and develop an improvement plan are just not available.

- Your plant or company is implementing a continuous improvement initiative and you need to accelerate the start-up process.

- Your plant needs the visibility provided by a packaging line data collection and reporting system but you have not been able to persuade management to invest in a system.

- You are curious about packaging line data collection and reporting systems but you would like to try before you buy.

- If any of these these situations sound familiar, ZPI's Packaging Line OEE Audits & Improvement Plans may be a perfect solution.

HOW DOES IT WORK? WHAT IS INVOLVED?

- ZPI provides on-site access to the ZPI Monitor & Report line monitoring and data collection system.

- The customer provides the latest copies of the PLC and HMI programs for each machine on the line equipped with a PLC or HMI.

- Monitor & Report is configured to enable the collection and analysis of real-time production data from every piece of equipment in the packaging line being audited.

- When the Monitor & Report system goes live, data is captured for all scheduled production for two to three months.

- Throughout the duration of the OEE Audit the ZPI Monitor & Report system captures, aggregates and stores every signal from every piece of equipment in a production line, from inbound raw material handling to finished product palletizing. If something happens on a machine anywhere in the production line, ZPI Monitor & Report captures it and the audit team can analyze it.

- During the data collection portion of the audit, ZPI personnel will also personally observe the line in operation to identify production outliers or unusual line conditions.

- At the conclusion of the data collection and observation process ZPI personnel will analyze the collected data and produce a comprehensive OEE Audit & Improvement Plan Report.

CUSTOMIZABLE & ACTIONABLE DELIVERABLES

The scope and deliverables for our OEE auditing service are 100% customizable. The following list highlights examples of what can be included in our OEE line audits and improvement plans. We will be happy to customize project scope and deliverables to meet your unique requirements.

- **Line Performance Assessment** – Includes calculations of OEE for all packages run on a production line and identifies primary sources of line losses.

- **Existing Equipment Evaluations** – Includes thorough performance profiles of each machine in the line with improvement options recommendations.

- **Changeover Analysis** – Documents and quantifies true changeover times for individual machines and the complete line and identifies options to reduce changeover time.

- **Machine Research & Options Analysis** – Analyzes and quantifies potential gains related to replacing or upgrading existing problematic machines.

- **Follow-up Action Plan** – Documents suggested production line improvements and quantifies the OEE impact of implementing those improvements.

- **OEE Improvement Project Execution Strategy** – Detailed project plan that includes project activities, phases, timing and sequencing along with the production impacts of those activities.

MONITOR & REPORT™

ZPI Monitor & Report is a software-based tool that packaged goods manufacturers use to analyze the performance and maximize the productivity of their production lines. Monitor & Report is an essential resource used in every ZARPAC Packaging Line Audit & Improvement Plan project.

Monitor & Report provides real-time, fact-based alerts and insights into critical production line questions:

- What happened?
- Where in the line did it happen?
- When did it happen?
- How long did it happen for?
- Why did it happen?

In the process, it captures and aggregates historical packaging line performance data so it can be analyzed to identify the root causes of line downtime and support development of targeted corrective action plans.

For more information about Monitor & Report, visit www.zpisoftware.com.

Deliverables Include a Detailed Report Identifying the Root Causes of Losses and a Plan for How to Eliminate Them

ZPI Packaging Line Audits Include a Complete Analysis of the OEE Performance of a Packaged Goods Production Line