

# Procedure PL-203: Production Line Slowdown

## Purpose

This procedure outlines the steps for implementing a controlled reduction in production line speed when temperature anomalies persist, preventing potential equipment damage while maintaining partial operational capacity.

## Scope

Applies to all production lines connected to PLCs monitored by the Digital Twin Dashboard where temperature remains elevated despite emergency cooling protocol implementation.

## Prerequisites

- Completed Procedure EC-101 without temperature normalization
- Authorization level B2 or higher
- Notification sent to shift supervisor
- Access to production control systems

## Equipment/Tools Required

- Digital Twin Dashboard access
- Production Control Terminal
- Line speed adjustment authorization code
- Communication device for team coordination

## Procedure Steps

- 1. Verify Continued Temperature Elevation**
  - Confirm temperature remains above 82°F (27.8°C) after 15 minutes of emergency cooling
  - Document current temperature and trend direction
  - Capture screenshot of temperature metrics for reporting
- 2. Assess Production Impact**
  - Navigate to "Production Planning" > "Current Orders"
  - Identify critical production runs that cannot be interrupted
  - Determine optimal slowdown percentage (25-50% recommended)
- 3. Initiate Controlled Slowdown**
  - Access "Production Controls" > "Line Speed Management"
  - Select affected production line(s)
  - Enter authorization code

- Reduce line speed to predetermined percentage
  - Select "Temperature Anomaly Response" as reason code
- 4. **Adjust Process Parameters**
  - Modify process timing variables to accommodate reduced speed
  - Adjust feeder rates proportionally
  - Update quality inspection intervals if necessary
- 5. **Notify Relevant Departments**
  - Alert downstream operations of reduced output
  - Notify logistics of potential delivery adjustments
  - Inform quality control of modified production conditions
- 6. **Monitor System Response**
  - Track temperature readings at 5-minute intervals
  - Monitor energy consumption patterns
  - Document OEE impact in real-time
  - Observe product quality indicators for any deviation
- 7. **Document Intervention**
  - Create incident record in Production Event Log
  - Record start time of slowdown and projected impact
  - Update shift handover notes if applicable

## Completion Criteria

Production slowdown remains in effect until one of the following conditions is met:

- Temperature decreases below 80°F (26.7°C) for 30 consecutive minutes
- Maintenance team provides clearance to resume normal operations
- End of production run is reached

## Restoration Procedure

1. Once temperature stabilizes, gradually increase line speed in 10% increments
2. Monitor temperature response for 10 minutes between each increase
3. Return to standard operating parameters when full speed maintains stable temperature

## Related Procedures

- EC-101: Emergency Cooling Protocol
- MT-405: Maintenance Team Dispatch
- PR-506: Production Recovery After Slowdown
- QA-302: Quality Validation During Speed Variations