#### Date:

June 14, 20XX

## **Company Information:**

Company Name: Core-Heat Technologies, Inc. Applicant: Art Sneen, Manufacturing Cell Lead Project Name: Meeting Customer Demand

## **Company Description:**

Brief overview of the company.

Core-Heat Technologies, Inc., is an Anoka-based company of 110 employees with about \$10 million in annual revenues. For over 55 years, the company has designed, manufactured, and marketed these products to world-wide customers involved in off-highway and marine markets. Core-Heat began to adopt Lean Manufacturing techniques in January 20XX.

## **Project Team:**

List the names and Job Titles of the project team members below. Add more rows as needed

Name	Title	
Bill Kerney	Manufacturing Engineering Manager	
Dick Fettig	Production	
Joey Lloyd	Production	
Mark Mason	Department Lead	
Tony Moline	Set-up Mechanic	
Susan Schifke	Production	

## **Approvals:**

Signature verifying they are aware of and support you leading this project.

Manager: Brian Martin	Approval Date: 6/7/20XX
Peer: Larry Fong	Approval Date: 6/9/20XX

## **Problem Statement:**

Define the problem using current state and target state metrics (numerical values) and providing the call to action (why it is important that you solve this problem) does not include root cause or solution speculation.

From 8-1-20XX to 2-1-20XX our On Time Delivery has dropped from 95% to 85%. We have received notice from ABC Marine, our top customer, that if we are not able to meet their requirements of at least 95% On Time Delivery, they will need to consider switching to another supplier. ABC Marine makes up 25% of our annual revenue.

# **Timeline & Key Actions:**

Define the actions, their owners, due dates, and status. Add more rows as needed.

Action	Owner	Due Date	Status
Identify team members	Art Sneen	2/11	Done
Team training and initial RCA session	Art Sneen	2/18	Done
Solution approach brainstorming session			
w/affinity buckets	Art Sneen	2/27	Done
5S metric documentation	Susan Schifke	3/1	Done
5S training	Art Sneen	3/5	Done
5S Kaizen events	Art Sneen	3/26	Done
Action Plan review and 5S audit	Dick Fettig	4/22	Done
Action item adjustment and 5S audit	Joey Lloyd	5/27	Done
Review of sustainment and results (metrics)	Art Sneen	6/2	Done
Submit project to MA	Art Sneen	6/14	Done

### **Current State:**

Describe the current state conditions, documenting knowns and unknowns in relation to the problem you are trying to solve

The current OTD is 85%, falling short of the 95% target required by ABC Marine. The baseline 5S score is 35%, indicating significant opportunities for workspace organization. Die changes average 21 per week, contributing to inefficiencies, and the lead time is 10 days, which delays meeting customer demands. Known factors include extended setup times and unorganized workspaces, while unknown factors include potential inefficiencies in scheduling processes and material availability.

### Goals:

The measurable goal(s) you plan to achieve, also include the current state metric. Add extra boxes as needed

Goal	Current	
Goal 1:	Current state measurement	
OTD of 95%	of goal 1:	
	85% OTD	
Goal 2:	Current state measurement of goal 2:	
5S Score of 80%	35%	
Goal 3:	Current state measurement of goal 3:	
29 die-changes/week		
	21 die-changes/week	
Goal 4:	Current state measurement	
	of goal 4:	
5 day lead time	10 day lead time	

## **Major Project Activities:**

List the key actions during the project, tell your project "Story"

#### Planning Stage:

I received approval for the project at the end of January and spent some time determining who the participants should be, in consultation with the department supervisor. Brian and I then met with the team, and we explained Lean Manufacturing, why the area had been chosen, what the goals and timing were, and answered questions.

## Action/Implementation Stage:

The project team received three days of training in mid-February on 5S, Visual Management (VM) tools, and Kaizen techniques. This included a Kaizen event on Press #3, to provide handson experience in using the 5S methodology, implementing VM tools, and the Kaizen method. After the initial training, I became the in-house Lean trainer for subsequent training sessions. I also held awareness-level training sessions for the balance of the sheet metal area and included the warehouse people. After the initial Kaizen, the team was anxious to complete the rest of the presses and the entire department. By the end of March, we had completed another three Kaizen events on the rest of the presses and completed a 5S on the entire department. We ended up including all other department employees in at least one 5S activity, even though the team had primary responsibility for completing the project. We changed the first-piece inspection procedure; the die-setters and press operators were trained to perform the first piece inspections and record their data. The run could then begin. QA still must sign off on the first part, and the last part. However, it saves set-up time, and we've had no bad runs. We 5S'd the die storage area and "red tagged" 35 of our 178 dies. We also placed in "temporary" storage another 12 dies that we weren't sure about. (Their red tags are dated Oct 31 – if we haven't used them by then, they get scrapped). We re-numbered and permanently marked all remaining dies and stored them in permanent rack locations. Because of the reduced number of dies, we took out 2 rack bays and moved heavy-duty racks in their place to store coil stock (RM) inside the press area, rather than in the warehouse. We designed and installed Communication Boards 4'x8' dry-erase boards that display daily Press area data. All relevant data is posted - quality, delivery, scrap, and productivity metrics, employee roster/photo, current and planned customer orders, color-coded drop boxes for warehouse personnel, current action plans resulting from Kaizen events.

# **Tools/Skills from Workshops Used:**

What tools or skills were applied from the workshops

5S, Visual Management, Kaizen, Set-up reduction, Brainstorming and prioritizing.

# **Project Results:**

Show the results compared to the goals, after impact of the project, don't use TBD. "Goal" and Current" sections will include the same information from the chart above

Goal	Current	After	Results
Goal 1:	Current state measurement of goal 1:	After improvement measurement of goal 1	Change improvement amount (%) of goal 1
OTD of 95%	85% OTD	96% OTD	12% Improvement
Goal 2:	Current state measurement	After improvement	Change improvement
5S Score of 80%	of goal 2:	measurement of goal 2	amount (%) of goal 2
00 000.0 0. 0070	35%	79%	125% improvement
Goal 3:	Current state measurement	After improvement	Change improvement
29 die-changes/week	of goal 3:	measurement of goal 3	amount (%) of goal 3
20 die onanges, week	21 die-changes/week	29 die-changes/week	38% improvement
Goal 4:	Current state measurement of goal 4:	After improvement measurement of goal 4	Change improvement amount (%) of goal 4
5 day lead time	10 day lead time	5 day lead time	50% improvement

### **Sustainment Plan:**

Explain how the improvements will be sustained going forward.

- Ownership of the process: Team leads in production and materials management will maintain updates to the visual scheduling board. Operators will own 5S routines to ensure ongoing organization.
- Monitoring Plan: Weekly 5S audits will measure adherence to standards.
  Monthly reviews of OTD, setup times, and 5S scores will track performance.
- Potential risks to sustainment and mitigation strategies: Employee turnover could disrupt processes; cross-training and documentation will ensure continuity. Complacency in 5S and scheduling protocols will be mitigated through reinforcement in team meetings. Shifts in production demands may cause deviations; a flexible review process will allow adjustments.

## **Conclusions & Lessons Learned:**

Reflect on key lessons learned throughout the project:

- Lesson 1: Doing a better job of recording initial conditions and data. In some cases, we didn't measure some critical things at all. Improvements were hard to quantify at first. Example: total die maintenance hours are much lower. However, we had no initial data.
- Lesson 2: Spending more time with other employees affected by the changes. We would have had more support if we'd updated the other stakeholders more frequently.
- How These Lessons Will Change Future Approaches: Future projects will emphasize early and frequent communication using visual tools to align teams. Operator involvement will remain a priority during planning and implementation phases to encourage buy-in. Greater emphasis will be placed on documenting baseline conditions to measure progress accurately.

# **Appendices:**

Attach any relevant photos, charts, or additional documentation that supports your project.

Figure 1 – Die-setting Productivity (set-ups/week)

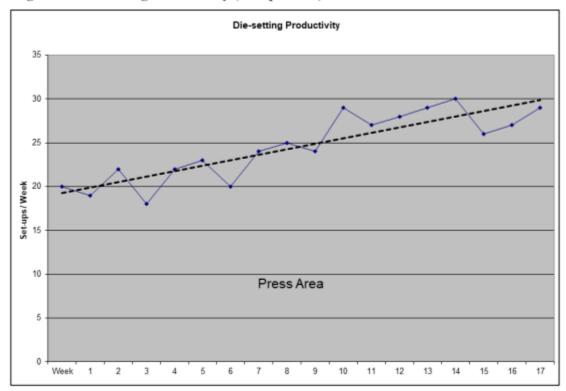


Figure 2 - Scrap Improvement

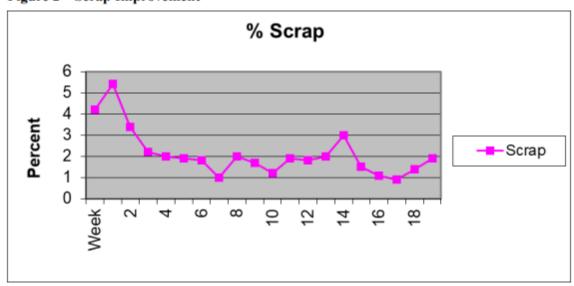


Figure 3 - Press area - 5S audit scores

