



# **SHOW ME THE WAY**

## **JOPLIN, MISSOURI**

### **THERMAFIBER PLANT**

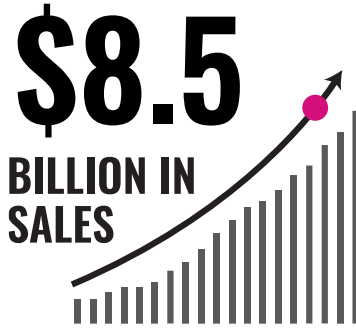
February 2023



# OWENS CORNING AT A GLANCE



CONSECUTIVE YEARS  
AS A FORTUNE® 500  
COMPANY



\*2021  
REVENUE



**19,000**  
EMPLOYEES PLUS 1  
PINK PANTHER



**31**  
COUNTRIES  
WHERE WE  
OPERATE

Serving residential, commercial, and industrial markets

INSULATION | ROOFING | COMPOSITES

# OUR MISSION, PURPOSE AND VALUES

## OUR MISSION

To build  
a sustainable  
future through  
material  
innovation

## OUR PURPOSE

Our people  
and products  
make the world  
a better place

## OUR VALUES

Global in scope,  
human in scale

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Caring  
Curious  
Collaborative  
Committed

# WELCOME TO JOPLIN

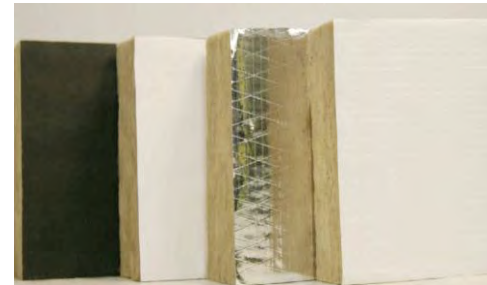


**Thermafiber®**



# HISTORY OF JOPLIN SITE

- → **1911** Riley Robinson builds a distilling plant
- **1934** Prohibition repealed and distilling plant rebuilt
- **1950** Plant transitioned to making animal feed products
- **2013** 2013 Mars Pet Food Plant closes plant
- **2017** Owens Corning builds brand new Joplin Thermafiber® plant
- **2019** Targeted Equipment Investment
- **2022** New production line investment for horticulture business – VidaWool®





# OWENS CORNING JOPLIN, MISSOURI PLANT



**2017**

production started



**120**

employees



Serving the  
Insulation  
Industry



**1** Insulation  
production line

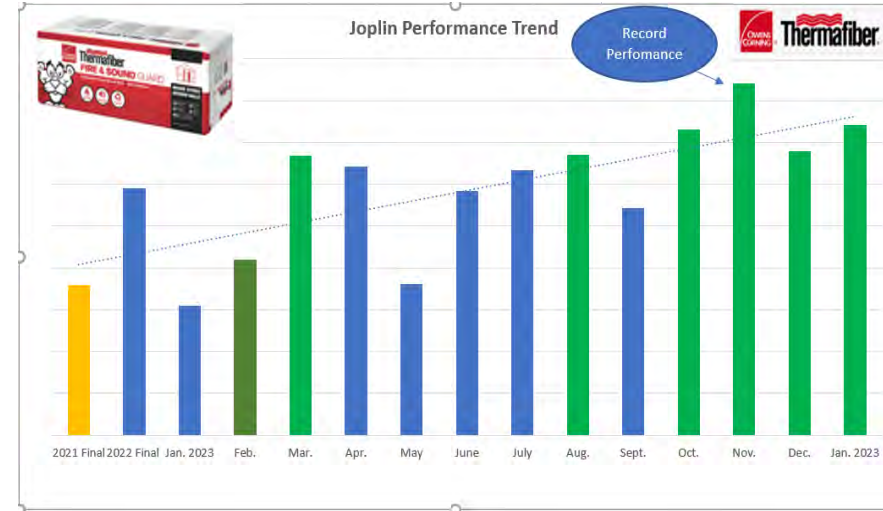


**1** Horticulture  
Fabrication  
Line

Supporting our customers, employees and community

# JOPLIN OPERATION PERFORMANCE

- → **SEPT-DEC 21** Focused Improvement on top losses
- **FEB 22** Reliability and Maintenance Assessment
- **MAR 22** Reorganization of Maintenance Leadership
- **SEPT 22** Reliability Workshop – Ops/Tech/Maint.
- **OCT 22** Waites Continuous Monitoring Up and Running
- **NOV 22** Record Uptime Performance



## PM Compliance %



## Reactive Work %



# START WITH TPM

- **September – December 2021**

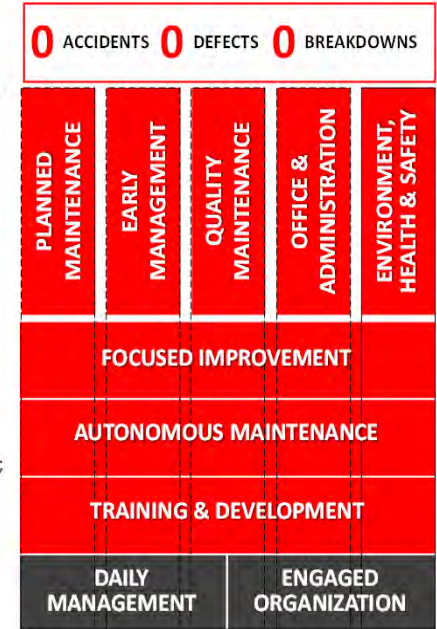
- Joplin had already started their TPM Journey
- With an understanding of their top losses, a Focused Improvement project was started
- Packaging had the highest losses and thus was the focus area
- AM and PM teams worked together to identify losses
  - Break Down Analysis process was initiated
  - The team then developed plans and design improvements to mitigate
- Today we have seen about 50 percent improvement



“The Involvement of everyone in structured teams (Pillars) working to a common goal”

“The achievement of Zero Injuries, Zero defects and Zero Losses”

“Maintenance: Maintaining or being maintained; keeping going; keeping in repair; supporting, without impairment”

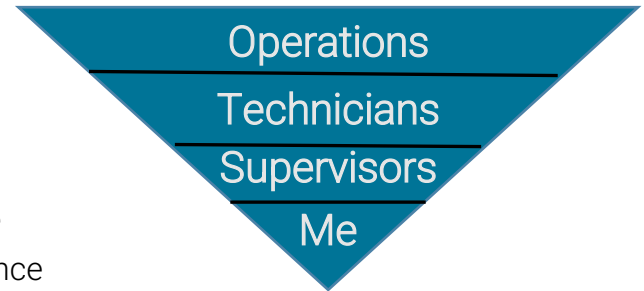




# ASSESS TO IDENTIFY THE GAPS & FILL THE OPEN LEADERSHIP ROLES

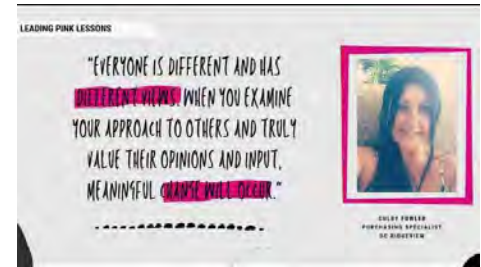
- **February 2022**

- Partnered with the Reliability and Maintainability Center (RMC), to execute an assessment, with internal assessment data
- New Maintenance Leader (Calvin Dennis) joined the plant at the end of March
- With the assessment report reviewed and aligned on, a short-term plan was put in place to start the journey to proactive
- Meet the team learn the equipment, observe what was going well and where there were opportunities
  - Found the strongest regional support seen in his career
- Morale, growth & opportunities, skills development
- Maintenance Organizational structure opportunities
  - Flight risks
  - Prioritizing the right work at the right time
  - Plant coverage
  - Work Life balance
- Established Open Communication
  - Connection, Style, solid process
  - Everyone has a voice
  - Support the team with tools, resources needed to achieve our goals



# WORKSHOP

- **Key leaders, supervisors and technicians from the plant came together in a workshop, with RMC, Business and Enterprise reliability participation and facilitation**
  - A common goal to achieve World Class performance, as the central theme
  - Over the course of the 3 – day workshop, the group formed strong partnership and commitment
  - After several exercises, the of opportunities were prioritized and reduced to a focused Top Five plan
    - Key Foundational Processes
    - Preventive maintenance (PM) optimization
    - Root Cause analysis (RCA) / Breakdown Analysis (BDA)
    - Predictive Maintenance and Digital continuous equipment monitoring
    - Planning and scheduling
  - A leader was assigned for each plan element, and aggressive timelines were developed
  - Key Performance Indicators (KPIs) are tracked
- **During the same period, Owens Corning launched Leading Pink Leadership**
  - Focus on Inclusion and Diversity, people development and leading high performing teams
  - Uncover and address the needs of the employees, to enable them to succeed



# RESULTS

- **The Maintenance and reliability team collaborated with the operations, technical, TPM, business and enterprise reliability teams to create a sustainable culture with focus on:**
  - Eliminating breakdowns with strong RCA
  - Implementing Precision maintenance best practices
  - PM Optimization and improving PM compliance by 30 percent
  - Growing and developing maintenance technicians, with internal and external training
  - Becoming laser focused on planning and scheduling
  - Reorganization of the Maintenance Supervisor schedules
- PM Compliance has been above 90 percent for the last five months
- Focus on Inclusion and Diversity, people development and leading high performing teams
- Decrease in turnover, improved morale
- An empowered and engaged workforce with voice to support the plant
- Less reactive maintenance and upset conditions to promote improved safety
- By building these relationships and empowering our people, the Joplin plant has achieved record operating performance, all while serving our customers at the highest levels



# OWENS CORNING

Owens Corning is a global building and construction materials leader committed to building a sustainable future through material innovation. Our three integrated businesses – Composites, Insulation, and Roofing – provide durable, sustainable, energy-efficient solutions that leverage our unique material science, manufacturing, and market knowledge to help our customers win and grow. We are global in scope, human in scale with approximately 19,000 employees in 31 countries dedicated to generating value for our customers and shareholders and making a difference in the communities where we work and live. Founded in 1938 and based in Toledo, Ohio, USA, Owens Corning posted 2022 sales of \$9.8 billion. For more information, visit [www.owenscorning.com](http://www.owenscorning.com).



# APPENDIX



# HOW DID CULTURE CHANGE –

## CALVIN DENNIS JOPLIN MAINTENANCE LEADER

**March 28, 2022 (Start Date)**

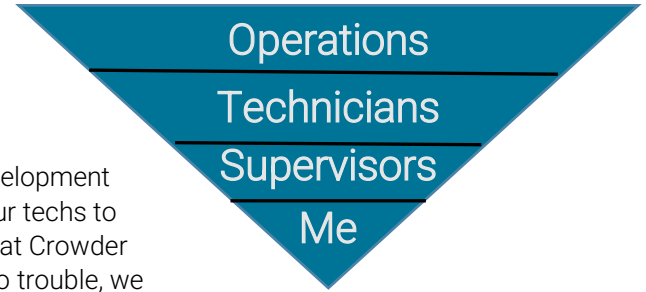
- Jacob & KC has an aggressive onboarding plan for me and new supervisor Michael Palomar
  - Attend the Kansas City Plant for two weeks to view a successful operation
  - Mentors provided along with an on-boarding checklist (very supportive)

### **Take time in the beginning**

- ❑ I took the first few weeks meeting the people, learning the equipment, and observing to see what was going well in Joplin and where we had opportunities to improve. After meeting the people (technicians), it was clear morale needed a boost. The team stated that Jason was leading them in the right direction, but they felt growth and opportunities were limited. One tech stated that he felt lost as his skills were not as good as others, but he did not know how to improve himself. My observations of the two maintenance supervisors led me to believe they would leave the company unless changes were made. Both guys were working Monday through Friday 12 to 15 hours a day, then taking calls through the night and on the weekends. During the downtimes we did a lot of work, but it wasn't always the right work.
- ❑ **Open Communication:** I shared with the entire team my credentials, and my management style. I'm not a top-down guy who barks orders. I'm here to make sure we have a solid process and to support the reliability team so we can achieve the vision the company has set before us. I'm here to make sure we have the tools and resources needed to achieve our goals. Everyone on my team has a voice, it's not my way or the highway!

# HOW DID CULTURE CHANGE – CONT.

## CALVIN DENNIS JOPLIN MAINTENANCE LEADER



- ❑ **Building Trust:** Keeping your word goes a long way. I assured the techs that training, and development would be available, and it is. We have sent four to techs to Precision Maintenance training, four techs to Motor Control training and currently two techs are enrolled in the PLC Control Logic program at Crowder College. We don't micromanage our techs, we trust our techs to deliver and when they get into trouble, we step up and provide the support they need!
- ❑ **Promote and Build the Team:** It was clear to me that we have some very highly skilled guys on our team who are leaders, and they want to lead. I promoted John Tunnell to controls lead and made him responsible for the development of the control's techs, controls projects, and program updates. He helps the supervisor assign the work to the control's techs, he backfills for my supervisors when they are on vacation, and he meets with me weekly to review his leadership progress. John aspires to be a Maintenance Manager. I'm helping him develop the skill necessary to reach that goal. David Woodard also backfills for my supervisors when they go on vacation, and he is my Co-Pillar lead for the TPM PM Pillar.
- ❑ **Organizational Structure:** I wanted to make sure we had maximum coverage at the plant while providing work life balance for my two supervisors. I proposed Sunday through Wednesday, and Wednesday through Saturday schedule and they both agreed to work that schedule. 4-day 10-hour shift gives them 3 days off each week and the plant receives 7-day coverage. This was a win for everyone.
- ❑ **Getting to Root Cause:** I challenged the team to ask themselves why. Why did the failure occur and will the repair you made prevent the failure from happening again? I ask my team why our process did not prevent the failure. Is the component that failed a part of a PM, and if it is, why didn't the PM prevent the failure? Is the PM frequency correct, and when was the last time we performed a PM?
- ❑ **Organization Prioritization and Discipline:** When I arrived here 10 months ago, we worked on work orders entered by the operations group almost exclusively. I knew to get out of the reactive phase, we needed to complete a high percentage of PM's each week. We shifted our focus allocating 50% of available man hours to PM's and 50% to work orders prioritized by our customers. This has led us to work on the right things at the right time improving our plant performance.