Serving our profession, our community, our companies and ourselves.
Disaster Planning and Management

**AGENDA**

- Introduction
- Shape Corp – Seavers Fire Case Study
  - The Good and the Bad
- New initiatives at Shape for Risk Mitigation
- Hurricane Harvey Lessons Learned
  - Plastics and Logistics
Disaster Planning and Management
Disaster Planning and Management

- Shape Corp – Seavers Fire Case Study
  - Our main e-coat / powder coat supplier had a major fire on Tuesday May 9, 2017.
  - This had impact on 6 customers, 51 end items.
  - Multiple paint types, colors, and paint racks.

- Were we ready?
Disaster Planning and Management

What did we do well?

- We had personal and business relationships with other suppliers in the area that had capabilities that we needed and we were able to capitalize on those relationships.
- We had a very good relationship with Seavers and they helped us a great deal on working with those suppliers to get them up and going quickly and successfully.
Disaster Planning and Management

What did we do well?

- Centralized the information and communication flow during the first 72 hours of the disaster.
  - Planners collected current inventory, demand, ship plan.
  - Created a single spread sheet with all key data.
  - Provided info to our buyers with prioritizations based on customer needs and inventory positions.
  - Took all the data from the buyers and planners and sent out an executive summary a couple time a day so everyone knew what was going on and we didn’t have a ton of emails flying around.
Disaster Planning and Management

What did we do well?

- Created a unique inventory location in our MRP system and moved all the inventory that was showing at the supplier to that location and put it in a HOLD status.
  - This helped us manage inventory coming back from the supplier that was not affected by the fire.
  - It immediately created demand in our MRP system.
  - This also is where we managed our insurance claim information from.
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- What did we do well?
  - Communicated to impacted customers right away so they knew what the status was and what our plan was.
  - Discussed with customers and internal quality team what the PPAP needs were so we could get them going right away. This included any paint tests (adhesion, submersion, salt spray, visual) that need to take place and negotiated length of time on the tests.
Disaster Planning and Management

What did we do well?

- We sent our e-coat plant manager and quality manager to the new suppliers to evaluate their paint lines and overall capabilities.
- Once new suppliers were running we had our QE on site to help with testing and part checks for the first few days.
- Had our packaging engineering team go to suppliers to create new packaging specs and train their teams.
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- What did we **NOT** do well?
  - We did NOT identify loosing this supplier as a HIGH risk problem prior to the event.
    - We had no wet coat paint suppliers identified in the area, we had very few powder coat supplier identified, and we had a few e-coat but not wet coat.
    - We did not have the raw paint specs readily available to give to new suppliers. Had to get current supplier to find it and they were kind of busy. 😞
    - We did not have paint rack specs readily available to share with new suppliers.
Disaster Planning and Management

- In summary
  - We were able to minimize impact of the fire to end customers
  - Our supplier relationships enabled us to react quickly
  - We were able to identify gaps in our processes and procedures to improve up-front risk mitigation planning
CHANGES MOVING FORWARD
Contingency Planning

- Reviewed corporate contingency FEMA
  - Updated reaction plans for supply disruption (who, what and how)
    - Reviewed and updated contingency plans for our own e-coat equipment
    - Established an audit frequency to test contingency plans
    - Conducting quarterly “table top” drills
Supply Disruption

- Created a catastrophic / supplier crisis response procedure
  - Identifies critical action steps required to assess impact and manage an un-planned supply disruption
    - Defines team roles and responsibilities
    - Internal and external communication plans
    - Decision making authority, ability of team to act
    - Inventory management instructions
Supplier Risk Assessment

- Revised supplier selection and evaluation criteria to include deeper elements of risk assessment and contingency planning
  - Developed supplier classification and ranking system based on type of product and process and potential severity
  - Created visibility around high risk suppliers that could have significant impact to our production
- Will be evaluating class / rank for existing and new suppliers
## Supplier Ranking

### Supplier Class and Ranking

<table>
<thead>
<tr>
<th>CLASS</th>
<th>RANK</th>
<th>RPN</th>
<th>Severity</th>
<th>Time</th>
<th>Occurrence</th>
<th>Contingency plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>25-81</td>
<td>Major, failure stops production</td>
<td>Long lead time to recover (greater than 7 days)</td>
<td>High (1 or more times per month)</td>
<td>No plan in place or risk mitigation actions identified</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>13-24</td>
<td>Moderate, failure will have minor impact to production</td>
<td>Moderate lead time to recover (greater than 48 hrs, less than or equal to 7 days)</td>
<td>Moderate (1 or more times per year)</td>
<td>Moderate plan in place, some elements of plan established</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>0-12</td>
<td>Low, failure will have little to no impact on production</td>
<td>Immediate recovery (less than 48 hrs)</td>
<td>Low (failure every 3 years or more)</td>
<td>Plan in place for each risk identified</td>
</tr>
</tbody>
</table>

*All Class A suppliers or suppliers with a rank of 2 or above require an approved contingency plan prior to business award.*
Contingency Planning

- Supplier nomination process has been updated to require a contingency plan established for any project deemed “high risk” prior to business award.
  - Expanded supplier audit / survey to include supplier contingency plans:
    - Contingency plans required for suppliers who receive a Class A designation or a ranking of 2+
    - Identification of bottle neck processes or high impact elements that could disrupt production
    - Could include alternate supplier options (Shape internal evaluation)
Business Management

- In development: Method to track high risk suppliers and connection to supplier development activities
  - How do we work to minimize risk and improve supplier rank/class)

- SSOW requirements and technical specification data will be attached to the mass production part number in our system, making component level specifications and test / quality expectations visible to the organization
Summary

In summary

- We were able to reflect on the Seavers fire to improve our business processes
  - Supply disruption / crisis management procedure
  - Supplier ranking and classification
  - Contingency planning
  - Enhanced connection to supplier development need to minimize and reduce risks
  - Improved accessibility to technical requirements
HARVEY
Hurricane Harvey Lessons

- PLATIC RESIN
  - Your warehouse FOB point may be in Indianapolis but do you know where your product is made? Houston?
  - Your resin is being made in Oklahoma, but did you know your chemicals are being cracked in Houston?

- ACTIONS
  - Understand the inputs of items like resin and where those inputs are made.
  - Understand both FOB point AND manufacturing point.
Hurricane Harvey Lessons

- Logistics
  - If you ship by rail do you know the route your train takes?
    - KCSM goes through Houston to get to Laredo.
    - Many rail yards got congested through out TX holding cars to and from Houston.

- ACTIONS
  - Understand the ROUTE of long distance rail and what major cities it passes through.
  - Understand that if a major hub is disabled that many hubs in the surrounding area will be hampered with overflow traffic.
Thank You

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