Management Review Minutes

| Date: | 12-18-17 | Location: | <u>Corporate</u> |
|-------|----------|-----------|------------------|
| | | | |

Attendees: Pete Heinke, Dave Pratt, Gary Jantonio, Christopher Sweet, Craig Mathiason, Randy Richards (Phone), Robert Heinke, Rick Rowland.

| Inputs | Outputs (Comments, Attachments, Action Items) | | | | | |
|----------------------------|---|--|--|--|--|--|
| Status of Actions | 1. Training for GAD QA (ISO Internal Auditor). Brian Smith attended | | | | | |
| from Previous Mgmt | ISO Internal Auditor Training (Stat-A-Matrix) in April 2017 in | | | | | |
| Reviews | Chicago, IL | | | | | |
| | QA Auditor needed for LYN in order to perform process audits. Dean | | | | | |
| | Burley was trained and performed process audits until Zach Delp (LYN | | | | | |
| | QA) was hired. | | | | | |
| | Re-tagging application needed from IT to assist with Mis-Tags. This | | | | | |
| | was not accomplished. | | | | | |
| Changes in External | 1. ISO 9001: 2008 is set to expire on September 14, 2018 and the new | | | | | |
| & Internal issues that | , | | | | | |
| are relevant to the | required to transition or have their ISO certifications expire. | | | | | |
| QMS. | 2. Jemison Metals will have our final surveillance audit (CLV, SMT, | | | | | |
| | LYN) at the end of January 2018 and our Registration audit to ISO | | | | | |
| | 9001: 2015 will occur in August 2018. | | | | | |
| | 3. Lynchburg Fabrication Startup | | | | | |
| | 4. Personnel: | | | | | |
| | a. DEC: Rachel Howard left Jemison. R. Rowland & B. Smith | | | | | |
| | have covered until F. Sides, Director of Operations, was hired. | | | | | |
| | Frank has previous experience as QMR and will handle non- | | | | | |
| | admin related quality tasks. Administrative quality tasks are | | | | | |
| | distributed among B. Smith (GAD) & B. Clem (SMT). | | | | | |
| | b. CLV: Steven Busicnki left Jemison in September 2017. We are currently searching for a replacement and/or other alternatives. | | | | | |
| | c. LYN: Zachary Delp was hired as the QMC. Zach has a strong | | | | | |
| | background in automotive fabrication and quality. | | | | | |
| Customer Satisfaction | Customer feedback via formal corrective action requests was reviewed, by | | | | | |
| & Feedback from | plant location. 34 requests were made, which is higher than in previous | | | | | |
| relevant interested | years (9 in 2017, 22 in 2016). This likely reflects the transition to larger | | | | | |
| parties | corporate customers (Eaton, GE, etc), which have more formalized QMS's. | | | | | |
| • | corporate customers (Euron, 62, 616), which have more formulated Qivio 8. | | | | | |
| | Total corrective actions, for 2017, is above our historical average and | | | | | |
| | reflects an emphasis on institutionalizing fixes across our facilities. | | | | | |
| | | | | | | |

Customer Satisfaction & Feedback from relevant interested parties (continued)

<u>DPPMs</u> – DPPM performance, through November 2017, was reviewed for all branches and total company. The YTD DPPM performance, against the 4,000 or less goal is as follows and includes pricing errors: (CLV 3,039, GAD 4,060, LYN 4,312, SMT 2,606, Total Company 3,389). Gadsden & Lynchburg branches did not meet goal due to several large customer credits. In each case, Jemison team members worked to address the issues.

Historical DPPM performance was reviewed. 2017 is on track to be the best DPPM performance since 2009 and reflects a positive quality performance trend while the company continues to grow and increase shipments. Increased communication of issues to the plant floor to drive accountability is believed to have contributed to this trend.

Pareto analysis of the top rejection causes was reviewed. Surface quality was our #1 cause in 2017. Most of the surface quality issues were related to our Decatur facility on surface critical HRPO. In excess of \$200,000 in capital was spent in order to reduce these occurrences with some positive effects compared to 2016. Work in this area is ongoing.

In 2018, DPPMs will be reported separately for DEC & GAD vs the combined DPPMs method of previous years. (R. Rowland). DEC surface issues improvement activities will continue. (F. Sides, R. Rowland)

On Time Delivery – On Time Delivery (OTD) performance was reviewed. YTD OTD performance is as follows: (CLV 98.4%, GAD 91.2%, LYN 98.7%, SMT 98.3%, Total Company 95.9%). The main cause of the low numbers was identified in Summer 2017 as Gadsden Fabrication. Some of the reason for the low numbers was inaccuracy in the invoice line items due to the huge volume of items as well as accurate communication with the fabrication customer base. There are many activities ongoing to improve this situation, including a SWAT team of top Jemison personnel (D. Pratt, R. Richards, R. Rowland, F. Sides, R. Heinke) working on efficiency improvements. Additionally, our Fabrication customers are generally satisfied with our delivery performance (per our territory managers). We also began tracking fabrication separately part way through October to increase visibility on this subject.

In 2018, we will track and report OTD separately for DEC & GAD as well as separately for fabrication vs "normal" service center shipments. (R. Rowland, M. Bradford)

<u>Devaluations</u> – Devaluation performance was reviewed. YTD Devaluation performance is as follows, against the goal of 0.50% of revenue: (CLV 0.33%, GAD 0.52%, LYN 0.45%, SMT 0.35%, Total Company 0.41%). Additionally Operations was at 0.24% of revenue against a goal of <0.18% and sales was at 0.09% of revenue against a goal of <0.19%. The GAD and operational misses were essentially related to the surface critical HRPO issues in DEC.

| Customer Satisfaction & Feedback from relevant interested parties (continued) | In 2018, GAD & DEC % of revenue will be tracked separately. They were already tracked separately in dollars, but we will now have revenue separated. (R. Rowland, M. Bradford, G. Jantonio). Activities related to improved performance for DEC surface critical HRPO are ongoing. (F. Sides, R. Rowland). We will likely change the term devaluations to internal DPPMs in 2018 (TBD). Audit Results (External) – Customer audits and Amplus audits were | | | | |
|--|--|--|--|--|--|
| | reviewed. Amplus results resulted in continued registration in June (Corporate, GAD & DEC). January 2018 will be 9 month surveillance audits in CLV, LYN & SMT. August 2018 will be a full registration audit to ISO 9001: 2015. | | | | |
| | Audit Results (Internal) – 2017 internal audits met the audit plan requirements. We had 115 YTD internal audits with an increased focus on adherence to part spec requirements and sampling frequencies and plans. | | | | |
| | Performance of External Providers – Supplier ratings, for our top mill suppliers, was reviewed. Nucor Berkeley, Nucor Decatur, Nucor Gallatin, Metal One and NLMK were rated in Q3 2017. Their Q3 and YTD performance was reviewed. Only NLMK scored in the red in Q3. This performance was essentially due to a series of large credits associated with one customer, Nordfab, and chem treat streaks (a cosmetic issue). YTD mill claims rate is at 1.07%, which is a historically good average since we began supplier ratings. | | | | |
| Quality Policy | The quality policy was reviewed and determined to be appropriate and suitable. | | | | |
| Adequacy of Resources | CLV QA is currently vacant. Discussion centered around whether to replace. Need to determine whether to replace. (R. Rowland, C. Mathiason, D. Pratt) Online gauge calibration system would be a nice to have. (R. Rowland to evaluate). | | | | |
| Effectiveness of Actions to Address Risks and Opportunties | • The main method of evaluating business risk is twofold: 1) The model is used for quotation and capability, while 2) Customer contract management reviews are held to assess ongoing business risk. Both of these activities have allowed Jemison to grow profitably over time. | | | | |
| Opportunities for Improvement | Actions highlighted in blue, above, list many of the opportunities for improvement at Jemison. Jemison is ~4 months into a full ERP re-write that is expected to take 2-3 years. This new ERP system is expected to greatly improve efficiency | | | | |

JEMISON

METALS

MANAGEMENT REVIEW

12-18-17



Management Review Requirements (ISO 9001)

"Top management shall review the organization's quality management system (QMS), at planned intervals, to ensure its continuing suitability, adequacy, effectiveness and alignment with strategic direction of the organization. This review shall include assessing opportunities for improvement and the need for changes to the QMS, including the quality policy and quality objectives."

Review Inputs

- a) Status of actions from previousManagement Reviews
- b) Changes in external & Internal issues that are relevant to the QMS
- c) Information on the performance & effectiveness of the QMS, including trends in:
 - 1) Customer satisfaction & feedback from relevant interested parties
 - 2) The extent to which quality objectives have been met
 - 3) Process performance & conformity of products & services
 - 4) Nonconformities & corrective actions
 - 5) Monitoring & measuring results
 - 6) Audit results
 - 7) The performance of external providers

- d) The adequacy of resources
- e) The effectiveness of actions taken to address risks and opportunities
- f) Opportunities for improvement

Blue highlighted items are changes associated with the ISO 9001: 2015 standard



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Review Outputs: The output from the management review shall include any decisions and actions related to:

- a) Opportunities for improvement
- b) Any need for changes to the quality management system
- c) Resource Needs



STATUS OF ACTIONS FROM PREVIOUS MANAGEMENT REVIEWS

From 2016 Management Review (Resource Needs):

- 1. Training for GAD QA (ISO Internal Auditor). Brian Smith attended ISO Internal Auditor training (Stat-A-Matrix) in April 2017 in Chicago IL.
- QA Auditor needed for LYN in order to perform process audits. Dean Burley was trained and performed process audits until Zach Delp (LYN QA) was hired.
- 3. Re-tagging application needed from IT to assist with mis-tags. This was not accomplished. Further investigation indicated it was not likely to improve occurrences of this issue. The main issue is compliance with existing procedures rather than implementing additional steps.



CHANGES IN EXTERNAL & INTERNAL ISSUES THAT ARE RELEVANT TO THE QMS

- ISO 9001: 2008 is set to expire on September 14, 2018 and the new standard (ISO 9001: 2015) will take its place. All organizations are required to transition or have their ISO certifications expire.
- Jemison Metals will have our final surveillance audit (CLV, SMT, LYN) at the end of January 2018 and our Registration Audit to ISO 9001:2015 will occur in August of 2018.
- Lynchburg Fabrication Startup

Personnel:

- DEC: Rachel Howard left Jemison Metals. R. Rowland & Brian Smith have covered until Frank Sides, Director of Operations, was hired. Frank has previous experience as QMR and will handle non-admin related quality tasks.
 Administrative quality tasks are distributed among Brian Smith & Beverly Clem
- CLV: Steven Busicnki left Jemison Metals in September 2017. We are currently searching for a replacement and/or other alternatives.
- LYN: Zachary Delp was hired as the Quality Management Coordinator. Zach has a strong background in automotive fabrication and quality.



Customer Feedback via Corrective Action Requests since Last Management Review

34 Formal Corrective Action Requests

CLV 7 CA Requests

- 4 Lakeside (2 Edgewave, 1 Rust, 1 Mistag)
- 1 Lincoln Electric (Load Shifted)
- 1 Mansfield (Coils under-sized for Mansfield's OP)
- 1 Rittal (Metal Shavings)

GAD 17 CA Requests

- 9 Freudenberg (3 Under Gauge, 1 Scratches, 1 Burr, 1 ASN Issue, 1 Rippled Material, 1 Under Width, 1 Mistag)
- 1 Gorbel Fab (Cut incorrect part)
- 5 Heil Fab (Bent Backwards, Plasma Miscut, CPP Surface Issues, Slots incorrect, Mistag)
- 1 Jack Daniel (Lost Trim)
- 1 O'neal Birmingham (Skid Issues)

SMT 1 CA Requests

1 GE Lighting TX (Coil Orientation Incorrect)

LYN 3 CA Requests

- 1 GE Salem (Cracking)
- 2 Hill Phoenix (Drag Pad/Roller Marks)

DEC 6 CA Requests

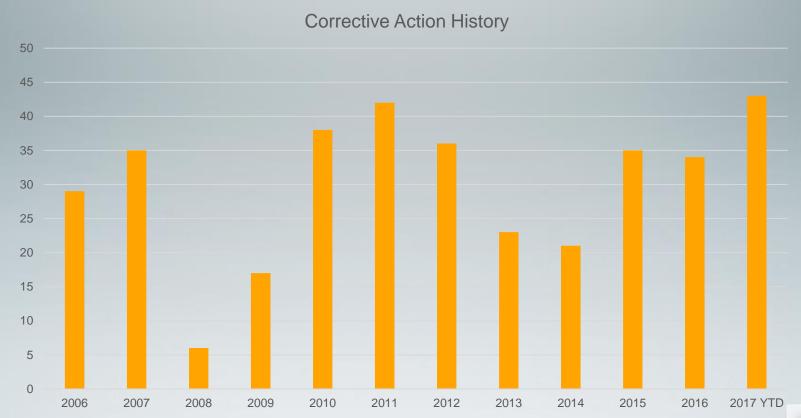
- 1 Eaton Fab (Coil Breaks)
- 3 Eaton Mexico (Squareness, Length Short, Residual Stress)
- 1 GE Transportation TX (Length Short)



Corrective and Preventive Actions (CA & PA)

Corrective & Preventive Actions are the heart of continuous improvement.

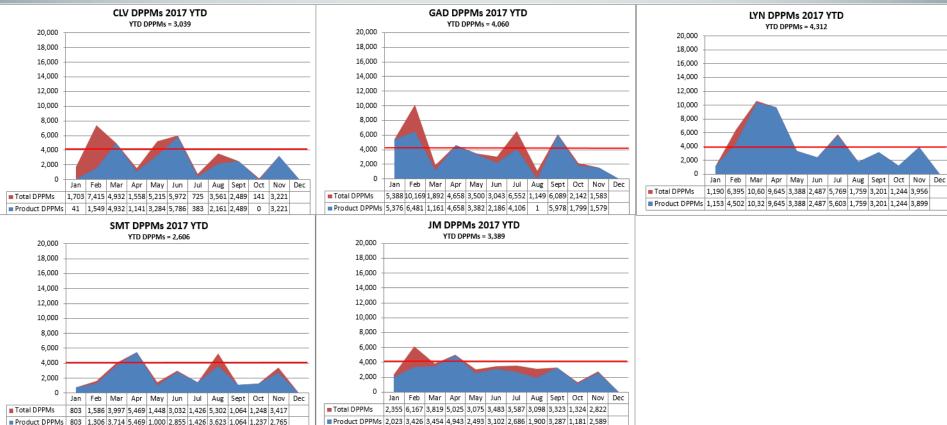
- 1. Documented problem or potential problem
- 2. Assigned responsibilities
- 3. Follow-up verification through internal audits





Customer Feedback DPPMs

Jan-Nov 2017



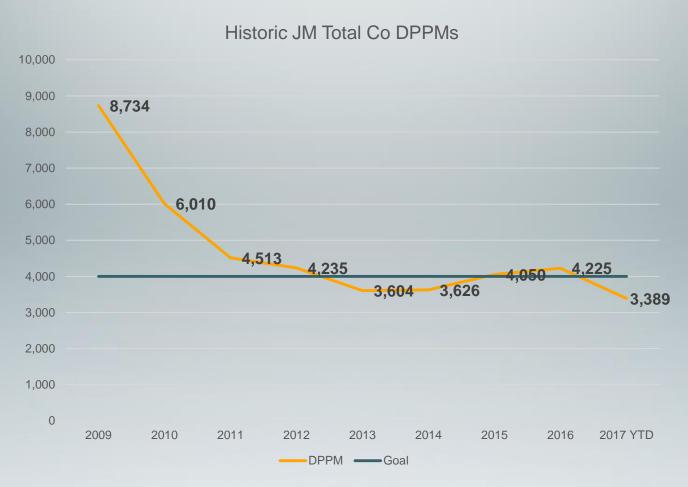
Company Goal <4,000 DPPM YTD Results

 $CLV = 3,039 \quad GAD = 4,060 \quad LYN = 4,312$

SMT = 2,606 Total Co = 3,389



Customer Feedback DPPMs



2017: Increased communication of issues to the plant floor to drive accountability. Weekly Devals & Case Call + Cases communicated each week to hourly personnel at the plants.



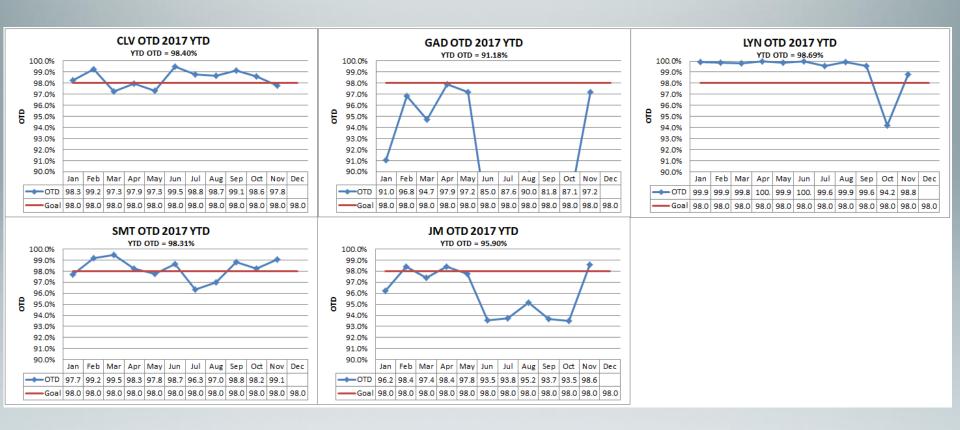
Customer Feedback DPPM Analysis



- •2016 Data Showed:
 - •1) Surface \$229k 2) Sales Entry \$96k
 - 3) Packaging/Shipping \$83k
- •2017 Data shows Surface as #1, with Cupples bottom side HRPO, HP Drag Marks, ERMCO bottom side HRPO, Draka Burr, & Modine Grey Paint issues making up the top 5



Customer Feedback On-Time Delivery (Jan-Nov 2017)



Gadsden Fab has been the main drag on company OTD performance. We began reporting GAD-FAB separately part way through October and November EOM showed Gadsden Non-Fab at 99.66% and FAB at 95.30% (97.2% overall). We will continue to report/monitor FAB separately, although it is combined into the above reports.



Devaluation Tracking



| 2016 Data: |
|------------------|
| Finished Goods |
| Inventory was #1 |
| (\$178k). #2 |
| Machine |
| Malfunction & #3 |
| Operator Error |

| 2017 Devals thru November | | | | |
|---------------------------|-----------|-------------|-------------|--|
| | Goal % of | Actual % of | | |
| | Revenue | Revenue | \$ Devalued | |
| GAD | | | \$84,066 | |
| DEC | <0.50% | 0.52% | \$192,947 | |
| CLV | <0.50% | 0.33% | \$106,157 | |
| LYN | <0.50% | 0.45% | \$104,133 | |
| SMT | <0.50% | 0.35% | \$203,715 | |
| Total Co. | <0.50% | 0.41% | \$691,018 | |
| Operations | <0.18% | 0.24% | \$408,439 | |
| Sales | <0.19% | 0.09% | \$154,504 | |



EXTERNAL AUDIT RESULTS

March 2017 (DEC) – Nucor Decatur Audit (Toll).

- 6 Opportunities for Improvement
- 0 Findings

August 2017 (LYN) – Nordfab quality audit.

- Formal report not provided. Verbal Pass, No Findings
 September 2017 (CLV) SDI Audit (Toll).
- Formal report not provided. 1 Observation
 December 2017 (SMT) Doosan Audit
- Formal report not provided. 2 Observations

Amplus Global Registration & Surveillance Audits

June 2017 were our 9 month surveillance audits at Corporate, GAD & DEC. January 2018 will be 9 month surveillance audits at CLV, LYN & SMT August 2018 will be a full registration audit to ISO 9001:2015



AMPLUS AUDIT RESULTS

- 9 Month Surveillance Audits
 - Corporate Mon 6/5/17
 - 1 Observation
 - GAD Tue 6/6/17
 - 8 Observations
 - 1 Opportunity for Improvement
 - DEC Wed 6/7/17
 - 5 Observations

Summary

- 0 major findings
- 0 minor finding
- 15 Observations / Opportunities for Improvement
- ContinuedRegistrationRecommended

Next Surveillance Audits (CLV, SMT, LYN) – Wk. of 1/29/18 3 Year Re-Registration Audit (All Locations) ~August 2018



INTERNAL AUDITS

| Process Audit by Location | | | | |
|---------------------------|------|---------------|-----|--|
| | 2015 | 2016 2017 YTD | | |
| CLV | 38 | 19 | 16 | |
| SMT | 29 | 29 | 37 | |
| DEC | 13 | 18 | 22 | |
| GAD | 8 | 20 | 18 | |
| LYN | n/a | 4 | 22 | |
| Со | 88 | 90 | 115 | |

2014 had 4 internal audits. 2015 had 88 process & internal audits. 2016 had 90 process & internal audits. 2017 YTD had 115 process & internal audits.

The goal in 2017 was an increased focus on adherence to part spec requirements and sampling frequencies and plans.



Status of Ongoing QMS Activities

- QMS Changes
 - Transition to ISO 9001:2015 Required NLT Sept. 2018
 - Fabrication added in Lynchburg
 - 2018 DPPM tracking will separate DEC & GAD
- Personnel
 - Zachary Delp Lynchburg QA, New Hire
 - Steven Busicnki Cleveland QA, Left Jemison



Supplier Scorecards

| Mill Source | Quality | Delivery | Service | Overall |
|-------------------|---------|----------|---------|---------|
| | | | | |
| Nucor Gallatin | 3.0 | 1.3 | 0.4 | 4.7 |
| Nucor-Berkeley | 2.4 | 1.2 | 0.4 | 4.0 |
| Nucor-Decatur | 1.8 | 1.2 | 0.4 | 3.4 |
| Metal One America | 1.8 | 0.9 | 0.3 | 3.0 |
| NLMK | 0.6 | 1.2 | 0.3 | 2.1 |

| Final Rating Scale | | | | |
|--------------------|----------|--|--|--|
| 3.5-5 Good | | | | |
| 2.5-3.4 | Marginal | | | |
| <2.4 | Poor | | | |

| Total (All Groups) | | | | | | |
|---------------------|----------------|-----------------|----------|--|--|--|
| Vendor | Weight Claimed | Weight Received | Claims % | Top Claim Reasons (in order) | | |
| | | | | PITTING, SCALE AND PITS, SURFACE, ZINC | | |
| NLMK | 956,238 | 45,063,989 | 2.12% | RUN | | |
| | | | | COIL BREAKS, BRUISES, ROLL MARKS, PITS | | |
| Nucor Decatur | 992,647 | 92,006,620 | 1.08% | AND SCALE | | |
| | | | | CHEM STREAKS, SURFACE, SCRATCHES AND | | |
| METAL ONE AMERI | 380,481 | 34,576,175 | 1.10% | LAMINATION | | |
| | | | | EDGE WAVE, RUST, EDGE STRAIN, UNDER | | |
| NUCOR-BERKELEY | 588,463 | 89,067,239 | 0.66% | WIDTH | | |
| Nucor Gallatin | 0 | 8,280,660 | 0.00% | | | |
| Total (All Groups): | 1,868,613 | 174,138,540 | 1.07% | | | |

2017 Thru Q3 = 1.07%

2016 Full Year = 0.83%

2015 Full Year = 1.3%

2014 Full Year = 2.1%



Resource Needs

- CLV Quality Replacement
- Online Gauge Calibration System (Wish List)

Other Business?

