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| --- | --- |
| Complaint Number: | Open Date: xx/xx/xx Target Date: xx/xx/xxCompleted Date: xx/xx/xx Total Days Open: xx |
| Customer:  | Part Number:  | Part Name:  |
| Symptom Description:  |
| Step | D0 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 |
| Action | The Planning Stage | Establishing the Team | Problem Definition / Statement & Description | Developing Interim Containment Action | Identifying & Verifying Root Cause | Identifying & Implement Permanent Corrective Actions (PCA) | Preventing Recurrence | Recognizing Team Efforts |
| D0 | Emergency Response Actions Needed / The Planning Stage24-hour response to the corrective action (D1-D3)Sort activity at Supplier, at Pace, at Pace Customer and elsewhere |
| D1 | Establishing the Team:Establish a small group of people with the process / product knowledge, allocated time, authority, and skill in the required technical disciplines to solve the problem and implement corrective actions. |
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| Name | Function | E-mail | Phone |
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| D2 | Problem Description |
| Initial Problem DescriptionProvides the starting point for solving the problem ornon-conformance issue. Need to have “correct” issue description to identify causes. Need to use terms that are understood by all. | Sketch / Photo of the Problem |
|   |
| List all the data and documents that might help you to define the problem more exactly* X
* X
 |
| Detail the timeline of events: |

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| --- | --- |
| D2 | Root Cause thought starters: N’s should be considered in the 5 WHY analysis |
|  | <1> Correct Process?  Y[ ]  N[ ]  1.1 Are the work instructions standardized, correct, current, and legible? Y[ ]  N[ ]  1.2 Were the instructions/procedures followed?  Y[ ]  N[ ]  1.3 Has the operator been on the job 1 month or longer? Y[ ]  N[ ]  1.4 Is the operator trained and/or have they received annual refresher training? Y[ ]  N[ ]  1.5 Did the operator follow the Reaction Plans? Y[ ]  N[ ]  1.6 Was the Control Plan adequate? Y[ ]  N[ ]  1.7 Was the Control Plan followed?<2> Correct Tool? Y[ ]  N[ ]  2.1 Are tools, fixtures, gages, &/or error proofing in place & being used? Y[ ]  N[ ]  2.2 Are tools functioning correctly (not broken, bypassed, not worn, set correctly)?Y[ ]  N[ ]  2.3 Are machines functioning correctly (PM done, fixtures and locators maintained)? Y[ ]  N[ ]  2.4 Was the gage(s) mastered and properly functioning? <3> Correct Parts? Y[ ]  N[ ]  3.1 Is the correct part for the application clearly identified and being used? Y[ ]  N[ ]  3.2 Is 5S Workplace effective (part# marked, storage area/racks labeled)?  Y[ ]  N[ ]  3.3 Is the part storage effective (parts free of debris, damage, breakage)? <4> Parts in Spec? Y[ ]  N[ ]  4.1 Is the part within specification?  Y[ ]  N[ ]  4.2 Is the variation within specification acceptable?  Y[ ]  N[ ]  4.3 Is the variation acceptable to the customer? <5> Process Variation Acceptable?Y[ ]  N[ ]  5.1 If any of items 1-4 are N (NO), enter a “N”  |

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| D2 | Problem Information |
| Who | Who is affected by the problem? Who first observed the problem? To whom was the problem reported?  |
| What | What type of problem is it? What has the problem (part id, lot #s, etc)? What is happening with the process & with containment? Do we have physical evidence of the problem?  |
| Why | Why is this a problem (degraded performance)? Is the process stable?  |
| Where | Where was the problem observed? Where does the problem occur?  |
| When | When was the problem first noticed? When has it been noticed since?  |
| How Many | Quantity of problem (quantity of parts)? How much is the problem costing in dollars, people, & time?  |
| How Often | What is the trend (continuous, random, cyclical)? Has the problem occurred previously?  |

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| D3 | Immediate Containment Actions |
| Developing Interim Containment ActionsList Temporary actions to contain the problem and “fix” until permanent correction is in place |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| Picture of Certification Mark on the Part Provide picture of details & clean date. | Picture of Certification Mark on the Box Provide picture of details & clean date. |
| Sort Results: Sorted By:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Supply Chain Location | Quantity PartsSorted | QuantityFailed | Comments |
|  |  |  |  |  |
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| D4 | Fishbone Diagram (Ishikawa Cause & Effect Diagram) |

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| (A) MATERIALS / COMPONENTS |  | (B) METHODS / PROCESS FLOW & PARAMETERS |  | (C) MEASUREMENT METHODS |
| A1 |  |  | B1 |   |  | C1 |   |
| A2 |   |  | B2 |  |  | C2 |  |
| A3 |   |  | B3 |   |  | C3 |   |
| A4 |   |  | B4 |   |  | C4 |   |
| A5 |   |  | B5 |   |  | C5 |   |
| A6 |   |  | B6 |   |  | C6 |   |
| A7 |   |  | B7 |   |  | C7 |   |
| A8 |   |  | B8 |   |  | C8 |   |
|  |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |
| (D) MANPOWER, SETUP & HOURLY PERSONNEL / STANDARDIZED WORK |  | (E) MACHINES / TOOLING / EQUIPMENT |  | (F) MOTHER NATURE / ENVIRONMENT/PACKAGING |
| D1 |  |  | E1 |  |  | F1 |  |
| D2 |   |  | E2 |  |  | F2 |   |
| D3 |   |  | E3 |  |  | F3 |   |
| D4 |   |  | E4 |  |  | F4 |   |
| D5 |   |  | E5 |   |  | F5 |   |
| D6 |   |  | E6 |   |  | F6 |   |
| D7 |   |  | E7 |   |  | F7 |   |
| D8 |   |  | E8 |   |  | F8 |   |

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| D4 | Causal Analysis |
| Escape Cause*How did this defect escape the process and plant?* | Occurrence Cause*How was this defect created?* | Systemic Cause*What systems failed such as Process Control, PFMEA, inadequate Control Plan, inadequate Work standards?* |
| Why 1:  | Why 1:  | Why 1:  |
| Why 2:  | Why 2:  | Why 2:  |
| Why 3:  | Why 3:  | Why 3:  |
| Why 4:  | Why 4:  | Why 4:  |
| Why 5: | Why 5:  | Why 5: |
| Root Cause: | Root Cause: | Root Cause: |

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| D5D6 | ESCAPE – Implement and Validate Corrective Actions to Address how it Escaped the Process |
|  | Action | Responsibility | Date Completed(MM/DD/YY) |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
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| 10 |  |  |  |

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| D5D6 | OCCURRENCE – Implement and Validate Corrective Actions to Address how the defect was made |
|  | Action | Responsibility | Date Completed(MM/DD/YY) |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
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| 5 |  | . |  |
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| D5D6 | SYSTEMIC – Implement and Validate Corrective Actions to Address how the system failed to prevent |
|  | Action | Responsibility | Date Completed(MM/DD/YY) |
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| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  | . |  |
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| 8 |  |  |  |
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| D7 | Prevent Recurrence & Read Across to Other Products and Processes |
| Address Similar Systems (Read Across / Prevention of Failure Mode Recurrence) Y[ ]  N[ ]  Can this issue happen again? Y[ ]  N[ ]  Has this been implemented on other parts and processes? Y[ ]  N[ ]  Has a pokayoke been developed to prevent this issue from recurrence? |
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| Process / Item | Who Responsible | When  |
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| D7 | Review the following documents / systems |
| Document | Who Responsible | Completion Date |
| Planned | Actual |
| Management System Manual | - |  |  |
| Standardized Work Instructions |  |  |  |
| Inspection Work Instructions |  |  |  |
| Layered Process Audits (LPA) |  |  |  |
| Process Flow Charts |  |  |  |
| Process Control Plans |  |  |  |
| Design FMEA / Process FMEA |  |  |  |
| Packaging Instructions |  |  |  |
| Gages |  |  |  |
| PPAP |  |  |  |
| Engineering Change Approval |  |  |  |
| Preventive Maintenance System |  |  |  |
| Other:  |  |  |  |

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| D8 | Congratulate Team |
| Was this problem solving exercise effective? Has it been verified with a follow-up?  |
| Yes,No | Signature / Title / Date | Findings |
|  | General Manager |  |
|  | Quality Manager |  |