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| Tracking Number: | | | | | Customer/ Machine: | | | | | | Response Due Date: | | | | | | | | | | | | | | | Status | | | | |
| 8D Problem Solving Worksheet – Long Form | | | | | | | | | | | | | | | | | | | | | | | | | |
| Step | | 0 | 1 | | | 2 | 3 | 4 | | | | | | 5 | | | | 6 | | | | 7 | | | | | 8 | | | |
| Action | | Prepare | Team | | | Describe | Contain | Diagnose | | | | | | Solve | | | | Validate | | | | Prevent | | | | | Wrap | | | |
| Registered problem and Short Term Corrective Action in place in house. | | | | Long Term Corrective Action developed but not implemented. | | | | Long Term Corrective Action implemented. Monitoring/evaluating effectiveness. | | | | | | | | | | | | Long Term Corrective Action confirmed effective. Problem closed. | | | | | | | | | | |
| 0 | | Prepare for Problem Solving - Does the problem warrant/require an 8D? If so comment why and proceed. | | | | | | Is an Emergency Response Action Needed?  (If needed document actions in Action Item Table) | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | Assemble 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. | | | | | | Team Goals:  Team Objectives: | | | | | | | | | | | | | | | | | | | | | | |
| Name (Team Leader First) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 2A | Describe Problem - Provide the starting point for solving the problem or nonconformance issue.  Need to have “correct” problem description to identify causes. Need to use terms that are understood by all. | | | | | | | Sketch of Problem | | | | | | | | | | | |  |  |  |  |  |  | |  |  |  |  |
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| Part Number(s)/ Process: | | | | | | | |  |  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
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| Customer(s)/ Machine: | | | | | | | |  |  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
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| List all of the data and documents that might help you to define the problem more exactly? | | | | | | | |  |  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
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| Is there an action plan to collect additional information? | | | | | | | |  |  |  | |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |
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| 2B | IS | IS NOT |
| Who | Who is affected by the problem?  Who first observed the problem? (internal/external)  To whom was the problem reported? | Who is not affected by the problem?  Who did not find the problem? |
| What | What type of problem is it?  What has the problem?  What is happening?  Do we have physical evidence of the problem in our possession? | What does not have the problem?  What could be happening but is not?  What could be the problem but is not? |
| Why | Why is this a problem?  Is the process where the problem occurred stable? | Why is it not a problem? |
| Where | Where was the problem observed?  Where does the problem occur? | Where could the problem be located but is not?  Where else could the problem be located but is not? |
| When | When was the problem first noticed?  When has it been noticed since? | When could the problem have been noticed but was not? |
| How Much/ Many | Quantity of problem?  How Much is the problem causing in dollars, people, & Time? | How many could have the problem but don’t?  How big could the problem be but is not? |
| How Often | What is the trend (continuous, random, cyclical)?  Has the problem occurred previously? | What could the trend be but is not? |
| 2C | Problem Description - Combine the relevant information, this will be your Problem Description | |

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| 3 | Interim Containment Actions - Temporary actions to contain the problem and “fix” until permanent correction is in place. (Note: Validate that the action taken works).  Document Actions in the Action Item Table |
| 4A | Diagnose Root Cause – Analyze for “Root Cause” of the problem. Identify and verify the Escape Point. |
| Brainstorm the possible causes of the problem (attach) |
| 4A | Cause and Effect Diagram (Attach copy of complete diagram(s) as appropriate) |
| How made/operated? Why did it get out/ fail?  People Materials/Info Machine Problem (effect) People Materials/Info Machine  Method Environment Measurement Method Environment Measurement  Note on Diagram(s) circle the most likely contributors (3 max) from each side. | |
| 4B | 5 – Why Analysis |
| Ask – Why did this happen?  Ask – Why did this happen?  Ask – Why did this happen?  Ask – Why did this happen?  Ask – Why did this happen? | |

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| 5 | Identify Solutions – Solutions that address and correct the root cause. Solutions determined to be the best of all the alternatives. Document and verify the Permanent Corrective Action (PCA) in the Action Item Table. | |
| 6 | Validation - Implement and validate to ensure that corrective action does “what it is supposed to do.” Detect any undesirable side effects. Document this on the Action Item Table. Return to root cause analysis, if necessary. | |
| 7 | Prevention (Design / Information Systems Review) - Determine what improvements in systems and processes would prevent problem from recurring. Ensure that corrective action remains in place and successful. | |
| 7A | Address Similar Systems - List similar systems. Assign Action Item and Individual to Follow Up to correct products/ machine with the potential for the same defect. | |
| Product/ Machine / Process / Action | | Assignee |
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| 7B | Review the following documents / systems. | | | |
| Check if Applicable | Document | Assignee | Completion Date | |
| Planned | Actual |
|  | Control Plans |  |  |  |
|  | Engineering Master Specifications |  |  |  |
|  | Manufacturing Set-up Sheet |  |  |  |
|  | Manufacturing Check Sheet(s) |  |  |  |
|  | QA Inspection Work Instructions |  |  |  |
|  | QA Inspection Forms |  |  |  |
|  | PM Procedure(s) |  |  |  |
|  | Job Descriptions(s) |  |  |  |
|  | Job Certifications/ Recertify |  |  |  |
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| 8 | Congratulate Your Team!  - Use all forms of employee recognition and document as necessary.    Celebrate successful conclusion of the problem solving effort.  Formally disengage the team and return to normal duties. | | | |
| Was the Problem Solving Worksheet Effective? | | | | |
| Yes/No | Signature/Title | | | Date |
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| Action Item Table | | | | | | | | | | | | |
| Actions | | | | Implement and Verify Actions | | | | | | | | |
| Action # | Fault / Item | Containment/ Corrective Action | | Verify | How Verified | | Action | Assignee | | Planned | Actual | Status |
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Note: Copy this page and attach as often as necessary