3-Legged 5 Why and 5 How Example

Event #: 1333  Event Date: 1/1/2017  Part #: N/A  Facility / Work Cell: BS2  Shift: 3rd

Team: John Smith, Jane Doe, Paul Jones, Karen Klein, Bob Brewer

Issue description (Clearly define the problem)

Machine operator fell and was injured during the first shift start-up.

There was an oil spill next to machining center

Machining center number 3 was leaking oil.

Seal deteriorated and began cracking.

The leak was not detected and cleaned up prior to the accident?

Area is cluttered and floor dark and dirty so hard to spot any spills

The seal was not inspected and replaced prior to developing cracks?

Regular area cleaning not performed

Operators not trained in proper 5s procedures.

The seal material was not robust to the application.

Seals purchased through secondary supplier for lower price.

Seal material not specified in service manuals

Regular Maintenance not performed on machine

Maintenance behind schedule on PM plans in department

Demand on machines high and production running 24/7

Two older machining centers removed and not replaced

There is no 5S program in place within the company.

Management rejected capital expense as part of cost reductions

Root Cause

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Resolve the Problem

5 Hows (How to resolve problem and keep it from re-occurring)

<table>
<thead>
<tr>
<th>How</th>
<th>Who</th>
<th>When / Timing</th>
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<tbody>
<tr>
<td>Clean up machining area and add additional lighting and initiate 5S project in machining area including regular machine</td>
<td>Machining Manager</td>
<td>Clean up prior to next shift, 5S within 1 week</td>
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<tr>
<td>Investigate better seal material to prolong life and prevent leaks</td>
<td>Purchasing and M.E.</td>
<td>Within 2 weeks</td>
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<tr>
<td>Outsource some of the workload on machining to other facilities until capacity issues can be resolved</td>
<td>Engineering and SQA</td>
<td>30 days</td>
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<tr>
<td>Put together a plan to catch up all PM on machining centers and implement</td>
<td>M.E. Manager</td>
<td>Within 2 weeks</td>
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<tr>
<td>Re-examine cost of new machining centers in c, etc. and present to management for approval.</td>
<td>M.E. and Plant Managers</td>
<td>60 days</td>
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