

# HOW TO SOLVE PRODUCTION PROBLEMS

## STEP 1: ISOLATE THE PROBLEM

|                      |   |
|----------------------|---|
| 1. State the Problem | Is it Mechanical, pertaining to things and places?<br>Is it People who: - Don't know, - Can't do, - Don't care, - Won't do?                 |
| 2. Prove the Problem | Statistical data of trouble in production, performance, attitude.   |
| 3. Explore the Cause | Is it Methods, Layout, Tools, Equipment, Materials, Design, Hazards?<br>Is it Wrong assignment? Faulty instructions? Personality situation? |
| 4. Draw Conclusion   | Is it MECHANICAL? PEOPLE? or BOTH   |

## STEP 2: PREPARE FOR SOLUTION

| MECHANICAL?  | PEOPLE?  |   |
|--|--|---|
| Methods, Layout, Materials, Tools, Equipment, Design   | Don't know? Can't do?  | Don't care? Won't do?   |
| Then improve ...<br>Method for better way  | Then improve ...<br>Knowledge – Productivity - Skill   | Then improve ...<br>Attitude and behavior   |
| <p>ANALYZE:</p> <ul style="list-style-type: none"> <li>Overall situation               <ol style="list-style-type: none"> <li>Flow chart</li> <li>Flow diagram</li> </ol>               Question overall job             </li> <li>Specific situation               <ol style="list-style-type: none"> <li>Method</li> <li>Method breakdown</li> <li>Layout</li> <li>Work station set-up</li> </ol> </li> </ul> <p>QUESTION EACH DETAIL.<br/>Using questions starting with:<br/>WHY?, WHAT?, WHERE?,<br/>WHEN?, WHO?, HOW?</p> | <p>GET READY TO INSTRUCT</p> <ul style="list-style-type: none"> <li>Prepare the Workplace.               <ul style="list-style-type: none"> <li>- Get specified tools, material.</li> <li>- Arrange for best efficiency</li> </ul> </li> <li>Prepare Yourself               <ul style="list-style-type: none"> <li>- Breakdown job for instruction.</li> <li>List the important steps.</li> <li>List key points in each step</li> <li>- Plan the instruction.</li> </ul> </li> <li>Prepare the Learner               <ul style="list-style-type: none"> <li>- Put him at ease.</li> <li>- State job. Learn his experience.</li> <li>- Interest him in learning</li> <li>- Explain use and care of tools, equipment, safeguards, etc.</li> <li>- Position him for learning</li> </ul> </li> </ul> | <p>GET THE FACTS</p> <ul style="list-style-type: none"> <li>Review the records.</li> <li>What rules and plant customs apply?</li> <li>Talk with individuals, get opinions and feeling.</li> </ul> <p>WEIGH THE FACTS</p> <ul style="list-style-type: none"> <li>Fit facts together</li> <li>Check for gaps, omissions, contradictions.</li> <li>Consider their bearing upon each other.</li> <li>Check against company practices and policies.</li> </ul> <p>MAKE THE DECISION</p> <ul style="list-style-type: none"> <li>Consider effect upon individual, group, production</li> </ul> |

## STEP 3: CORRECT THE PROBLEM

| DEVELOP THE IMPROVED WAY   | INSTRUCT THE LEARNER   | TAKE ACTION   |
|--|--|---|
| <ul style="list-style-type: none"> <li>Eliminate unnecessary details.</li> <li>Combine where practical.</li> <li>Rearrange for better sequence</li> <li>Simplify necessary details.</li> </ul> <p>RECORD<br/>PROPOSED CORRECTION</p> <ul style="list-style-type: none"> <li>Make a flowchart of new method</li> <li>Make breakdown of new method</li> </ul> <p>PUT IT INTO EFFECT</p> <ul style="list-style-type: none"> <li>Get final approval of all concerned on --Safety, Quality, Quantity, Cost</li> </ul> | <ul style="list-style-type: none"> <li>Instruct.               <ul style="list-style-type: none"> <li>- Tell, Show, Illustrate one step at a time, stressing key points.</li> <li>- Test with "W" questions.</li> </ul> </li> <li>Try out learner's performance.               <ul style="list-style-type: none"> <li>- Have him do the job</li> <li>- Have him repeat, Telling what he is doing</li> <li>- Showing, stressing Key points</li> <li>- Test him with "WHY" questions.</li> </ul> </li> <li>Put him on his own.               <ul style="list-style-type: none"> <li>- Stress quality and safety.</li> <li>- Encourage questions about job.</li> <li>- Tell him who to ask for help.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Consider time and place.</li> <li>Explain the action               <ul style="list-style-type: none"> <li>- Why it is best for him.</li> <li>- Advantages and benefits</li> </ul> </li> <li>Secure understanding and acceptance.</li> <li>Put into effect.               <ul style="list-style-type: none"> <li>- Consider feelings and attitudes.</li> </ul> </li> <li>Notify all concerned.</li> </ul> |

## STEP 4: CHECK AND EVALUATE RESULTS

Follow up to see that the change or the correction has been made.  
What improvements do the records show in Quality, Quantity, Safety, Cost?  
Consider the Human Angle. Note changes in attitudes and relationships  
Inform all those concerned of progress and results of the action or correction.  
Look for ways to prevent a recurrence of this problem