

**SKILLS FRAMEWORK FOR FOOD MANUFACTURING  
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

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| <b>TSC Category</b>                | Manufacturing and Operations                                                                                                                                                            |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                          |                |
| <b>TSC</b>                         | Manufacturing Process Management                                                                                                                                                        |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                          |                |
| <b>TSC Description</b>             | Perform process engineering and ensure the stability of the manufacturing process as well as troubleshoot process deviations and propose strategies for process performance improvement |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                          |                |
| <b>TSC Proficiency Description</b> | <b>Level 1</b>                                                                                                                                                                          | <b>Level 2</b>                                                                                                                                                                                                                                                                            | <b>Level 3</b>                                                                                                                                                                                                                                                                                                                                  | <b>Level 4</b>                                                                                                                                                                                                                                                   | <b>Level 5</b>                                                                                                                                                                                                                                                                                                                                                           | <b>Level 6</b> |
|                                    |                                                                                                                                                                                         | <b>FMF-OPR-2005-1.1-14</b>                                                                                                                                                                                                                                                                | <b>FMF-OPR-3005-1.1</b>                                                                                                                                                                                                                                                                                                                         | <b>FMF-OPR-4005-1.1</b>                                                                                                                                                                                                                                          | <b>FMF-OPR-5005-1.1</b>                                                                                                                                                                                                                                                                                                                                                  |                |
|                                    |                                                                                                                                                                                         | Perform manufacturing processes and take corrective actions in accordance to out-of-control action procedures                                                                                                                                                                             | Analyse manufacturing process stability and verify process performance                                                                                                                                                                                                                                                                          | Review process performance and troubleshoot process deviations                                                                                                                                                                                                   | Formulate strategies for manufacturing process performance improvements and recommend follow-up actions                                                                                                                                                                                                                                                                  |                |
| <b>Knowledge</b>                   |                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Basic concepts of the type manufacturing processes</li> <li>Basic configuration set-up for manufacturing processes</li> <li>Various hardware equipment used in manufacturing processes</li> </ul>                                                  | <ul style="list-style-type: none"> <li>Process functions</li> <li>Process parameters</li> <li>Process monitoring</li> <li>Process flows</li> <li>Process materials</li> </ul>                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Process parameters</li> <li>Process monitoring</li> <li>Recipe optimisation</li> <li>Process release procedure</li> </ul>                                                                                                 | <ul style="list-style-type: none"> <li>Types of process performance metrics</li> <li>Problem solving techniques</li> </ul>                                                                                                                                                                                                                                               |                |
| <b>Abilities</b>                   |                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Prepare to carry out manufacturing processes in accordance to standard organisational procedures</li> <li>Operate machine in accordance to procedures</li> <li>Take corrective action in accordance to out-of-control action procedures</li> </ul> | <ul style="list-style-type: none"> <li>Identify process function in the manufacturing process</li> <li>Determine critical process parameters</li> <li>Determine process monitoring to maintain process stability</li> <li>Analyse process stability</li> <li>Verify process performance</li> <li>Determine follow-up action required</li> </ul> | <ul style="list-style-type: none"> <li>Set up process monitoring to determine process stability</li> <li>Identify process deviations</li> <li>Troubleshoot process deviations</li> <li>Maintain process stability</li> <li>Verify process performance</li> </ul> | <ul style="list-style-type: none"> <li>Define project to meet process performance</li> <li>Establish project scope of work and the number of hours based on business requirements</li> <li>Execute project in accordance with project plan</li> <li>Evaluate project effectiveness in accordance with project objectives</li> <li>Recommend follow up actions</li> </ul> |                |