## TSC Category
Process Operations Management

## TSC
Feedstock and Product Transfer Operations Management

## TSC Description
Perform feedstock and product transfer and blending for continuous and/or batch processes to meet operational requirements

<table>
<thead>
<tr>
<th>TSC Proficiency Description</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
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<tbody>
<tr>
<td>ECM-POM-1003-1.1</td>
<td>ECM-POM-2003-1.1</td>
<td>ECM-POM-3003-1.1</td>
<td>ECM-POM-4003-1.1</td>
<td>ECM-POM-5003-1.1</td>
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<tr>
<td>Identify appropriate operational procedures for feedstock and product transfer and blending to assist with continuous and/or batch operations</td>
<td>Apply operational procedures for feedstock and product transfer and blending to operate continuous or batch operations</td>
<td>Interpret operating procedures to monitor and control feedstock and product transfer and blending operations to meet operational requirements</td>
<td>Develop Standard Operating Procedures (SOPs) and control of work processes to supervise feedstock and product transfer and blending operations in safe and reliable operating conditions</td>
<td>Review Standard Operating Procedures (SOPs) and control of work processes to manage feedstock and product transfer and blending operations within design operating parameters</td>
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## Knowledge
- Safe operating procedures
- Batch and continuous operation processes
- Types of storage systems
- Mixing technologies
- Safety Data Sheets (SDS) and hazards associated with handling of chemicals
- Methods of handling dangerous materials and legislative requirements
- Types and functions of material handling and transporting equipment, conveyors, and pallets used in a batch process
- Methods and techniques of lifting and moving loads
- Types of in-tank blending systems
- Types of in-line blending systems
- Types of continuous and batch processing equipment
- Methods of blending ratios and formulas
- Flow measuring and metering systems
- Instrument and control systems
- Safety Data Sheets (SDS) and hazards associated with handling of chemicals
- Types and functions of material handling and transporting equipment
- Types of material control documentation for continuous and batch processes
- Handling of dangerous materials and legislative requirements
- Continuous and batch process operating procedures
- Types of instrumentation, electrical and mechanical components
- Types of monitoring and control systems
- Types of flow measuring and metering systems
- Properties of chemical materials
- Blending technologies and techniques
- Methods of using engineering documentation to assist monitoring, control and troubleshooting
- Automated replenishment methods
- Least cost formulation models
- Blending specifications
- Feedstock properties
- Blending times and optimisation
- Chemistry and types of chemical reactions
- Methods of systematic approach to troubleshooting
- Workflow management methods
- Automated replenishment systems and tool applications
- Operational workflow management
- Lean manufacturing techniques and principles
- Operational excellence principles and practices
- Goal setting and key performance indicators (KPIs)
- Decision making and decision analysis techniques
- Continuous improvement principles and practices
- New technology developments in blending, transfer, storage and automated replenishment systems
<table>
<thead>
<tr>
<th>Abilities</th>
<th>Continuous and batch production preparation</th>
<th>Technical Skills and Competencies (TSC) Reference Document</th>
<th>Manage feedstock and product transfer operations</th>
<th>Optimise feedstock and product blending and transfer operations</th>
<th>Conduct troubleshooting and fault-finding on systems</th>
<th>Make critical decisions to resolve feedstock transfer issues</th>
<th>Lead continuous improvement activities</th>
<th>Review and endorse new technology applications in blending, transfer, storage and automated stock replenishment systems</th>
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<tbody>
<tr>
<td>• Perform blend sampling and testing</td>
<td>• Perform pre-start-up checks and preparation for starting feedstock transfer and blending process units</td>
<td>• Operate, monitor and control continuous and batch processes using process control systems and local interface units</td>
<td>• Manage feedstock and product transfer operations</td>
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<td>• Assist in operation line-up for feedstock and product transfer and blending</td>
<td>• Perform start and/or stop of rotating equipment</td>
<td>• Perform troubleshooting for continuous and batch processes and equipment</td>
<td>• Optimise feedstock and product blending and transfer operations</td>
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<tr>
<td>• Carry out field preparation to start and/or stop pumping and transfer equipment</td>
<td>• Perform start-up and shutdown actions for process equipment and process units following Standard Operating Procedures (SOPs)</td>
<td>• Oversees process quality control parameters</td>
<td>• Conduct troubleshooting and fault-finding on systems</td>
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<td>• Perform lifting and moving of loads</td>
<td>• Monitor and control continuous and batch processes</td>
<td>• Coordinate the use of automated replenishment systems and tools</td>
<td>• Make critical decisions to resolve feedstock transfer issues</td>
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<td>• Perform recording of field process parameters and equipment status</td>
<td>• Operate, monitor and control continuous and batch processes using process control systems and local interface units</td>
<td>• Monitor blend quality assurance processes</td>
<td>• Lead continuous improvement activities</td>
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<td>• Perform start-up and shutdown actions for process equipment and process units following Standard Operating Procedures (SOPs)</td>
<td>• Coordinate with business support departments to manage feedstock supply and product discharge</td>
<td>• Review and endorse new technology applications in blending, transfer, storage and automated stock replenishment systems</td>
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