

<b>TSC Category</b>	Engineering Design Management					
<b>TSC</b>	Engineering Drawing Interpretation and Management					
<b>TSC Description</b>	Use engineering drawings, equipment datasheets, vendor equipment engineering drawings and layouts and equipment datasheets to support construction, operations, maintenance and engineering activities					
<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>EGS-OPR-1026-1.1-1</b>	<b>EGS-OPR-2026-1.1-1</b>	<b>EGS-OPR-3026-1.1-1</b>	<b>EGS-OPR-4026-1.1-1</b>	<b>EGS-OPR-5026-1.1-1</b>	
	Identify engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to support construction, operations and maintenance activities	Select and apply engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to support construction, operations and maintenance activities	Interpret engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to coordinate construction, operations and maintenance activities	Analyse engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to supervise construction, operations, maintenance and engineering activities and for continuous process improvement related projects	Validate engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to manage construction, operations, maintenance and engineering activities	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>Basic engineering drawing and symbols</li> <li>Purpose of Process Flow Diagrams (PFDs)</li> <li>Purpose of Process Engineering Flow schemes (PEFS)</li> <li>Methods of using Piping and Instrumentation Diagrams (P&amp;ID's)</li> <li>Methods of reading equipment datasheets</li> <li>Principles in document filing and table of contents</li> </ul>	<ul style="list-style-type: none"> <li>Principles of engineering drawings standards</li> <li>Methods of interpreting engineering drawings and diagrams</li> <li>Methods of equipment and system identification using alpha numeric tag numbering systems</li> <li>Document control management systems</li> <li>Terminology of standard drawing components</li> <li>Abbreviations and terms</li> <li>Drawing sizes and scaling</li> </ul>	<ul style="list-style-type: none"> <li>International standards and symbols</li> <li>Detailed assembly drawings</li> <li>Principles of detailed engineering drawings</li> <li>Principles of instrumentation diagrams including loop diagrams, connection details, system overviews</li> <li>Vendor engineering drawings and datasheets</li> <li>Technical lettering and symbols</li> <li>Instrument Society of America (ISA) standards</li> </ul>	<ul style="list-style-type: none"> <li>Document control and management system</li> <li>Engineering drawings design standards and symbol conventions</li> <li>Engineering drawings storage and security</li> <li>Methods in document filing</li> <li>Methods in maintaining working files</li> </ul>	<ul style="list-style-type: none"> <li>Methods in managing engineering drawing documents development</li> <li>Methods of maintaining "As Built" documentation</li> <li>Methods of evaluating engineering drawing techniques</li> </ul>	

**SKILLS FRAMEWORK FOR ENGINEERING SERVICES  
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE**

<p><b>Abilities</b></p>	<ul style="list-style-type: none"> <li>• Locate and select the correct drawing for a unit or system for reference</li> <li>• Read and interpret PFDs to identify the general flow of processes and equipment</li> <li>• Use P&amp;IDs to identify the general flow of processes and equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Locate, interpret and use datasheets when performing operations</li> <li>• Use engineering drawings to supervise construction, operations and maintenance</li> <li>• Use engineering drawings when interfacing with and supporting construction, maintenance and project teams</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret Process Flow Diagrams (PFDs), Piping and Instrument Diagrams (P&amp;IDs) and other engineering drawings to support work activities</li> <li>• Interpret datasheets and other technical documentation to support work activities</li> <li>• Use technical engineering drawings and datasheets when collaborating with other engineering departments to support work activities</li> <li>• Apply technical engineering drawings and datasheets during preparation for construction, operations and maintenance activities</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse Process Flow Diagram (PFDs), Piping and Instrumentation Diagram (P&amp;IDs) and other engineering drawings and documentation to supervise work activities</li> <li>• Implement continuous process improvement related projects</li> <li>• Facilitate the use of technical engineering drawings and datasheets when supervising preparations for construction, operations or maintenance work activities</li> <li>• Supervise correct documentation control, storage and security of drawings and data</li> </ul>	<ul style="list-style-type: none"> <li>• Validate engineering drawings in managing construction, operations and maintenance troubleshooting and fault finding activities</li> <li>• Manage critical reviews of engineering drawings and designs</li> </ul>	
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