<table>
<thead>
<tr>
<th>TSC Category</th>
<th>Engineering Construction, Operations and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSC</td>
<td>Equipment and Systems Testing</td>
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<tr>
<td>TSC Description</td>
<td>Execute equipment and systems testing procedures to ensure continuity of operations and meet standards of performance</td>
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<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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<td>EGS-MAI-2006-1.1-1</td>
<td>EGS-MAI-3006-1.1-1</td>
<td>EGS-MAI-4006-1.1-1</td>
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<tr>
<td>Conduct equipment and system tests</td>
<td>Implement equipment and system testing procedures</td>
<td>Develop equipment and system testing procedures and schedules, and lead follow-up actions based on test results</td>
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### Knowledge

- Equipment and system testing techniques
- Types of testing and measuring instruments and their applications
- Testing procedures
- Methods of calibrating, and testing measuring instruments
- Equipment cleaning and maintenance procedures
- Testing and calibration documentation procedures
- Hazards and safety precautions associated with testing
- Health, Safety and Environment policies, procedures and regulations
- Method of determining testing criteria
- Equipment manuals, systems diagrams, plans and drawings
- Techniques for identifying malfunctions and defects
- Guidelines for calibration and testing of measuring instruments
- Techniques of interpreting testing results
- Techniques of digital data analysis, comparisons and representations
- Follow-up measures according to testing results
- Health, Safety and Environment policies, procedures and regulations
- Equipment and system testing best practices
- Principles of test planning
- Principles of mechanical, civil, structural, instrumentation and control, and electrical engineering
- Applicability and limitations of tests and techniques
- Testing methodology and limitations
- Technical reporting standards
- Documentation protocol
- Techniques of interpreting testing results
- Follow-up measures according to testing results
- Stakeholder communication and management

### Abilities

- Identify areas for testing using appropriate procedures and tools
- Prepare areas for testing in accordance with the relevant legal and safety requirements
- Implement testing procedures according to instructions and specifications
- Implement measuring equipment calibration procedures
- Plan equipment and system tests to be conducted according to organisational guidelines and regulatory requirements
- Incorporate relevant workplace safety and health (WSH) risk control
| | • Prepare materials, tools and equipment to be used during testing  
| | • Check measuring instruments for functionality, damage and/or missing parts  
| | • Calibrate measuring instruments according to organisational procedures  
| | • Apply testing procedures to conduct tests on equipment and systems  
| | • Escalate test failures in accordance with organisational procedures  
| | • Maintain test equipment  
| | • Adhere to relevant Health, Safety and Environment (HSE) risk control measures when conducting tests  
| | • Maintain complete and accurate records of testing and instrument calibrations  
| | • Perform challenge tests according to established testing procedures  
| | • Review accuracy of testing equipment calibration  
| | • Oversee testing work and check that it is executed according to work schedules  
| | • Implement risk control measures to mitigate possible issues in executing work  
| | • Analyse testing results and suggest follow-up measures  
| | • Monitor testing works conducted and ensure compliance with Health, Safety and Environment (HSE) policies, procedures and regulations  
| | • Implement risk control measures into test activities  
| | • Advise others on best practices methods and procedures to conduct required tests  
| | • Ensure tools, equipment and testing devices required are obtained and checked for correct operation and safety  
| | • Report testing findings to relevant stakeholders  
| | • Document any WSH risk control measures and procedures infringements  
| | • Validate test results and approve follow-up measures  
| | • Recommend actions to rectify any faults identified during testing  

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