|  |  |
| --- | --- |
| Overview | This standard covers the competence required to safely operate and respond to minor deviations of vessel electrical equipment (including high voltage systems (ie systems greater than 1000 volts) including alternators, generators and control systems. The machinery is prepared for operation and start up and shut down occurs within defined conditions. Circuit breakers are operated and electrical protection devices reset to match requirements and personnel are informed of the relevant operations.  **Target Group**  This standard applies to individuals at an operational level with responsibility for operating and adjusting electrical equipment on vessels, of any type and of any registered power. |

|  |  |
| --- | --- |
| **Performance criteria**  You must be able to: | 1. plan, and prepare for operations to comply with operating instructions, safety and other relevant legislation and guidelines to ensure safety of operations 2. start up and shut down operations as required for safe and efficient equipment operations 3. put equipment on line, couple up and changeover safely and correctly 4. confirm that electrical protection devices are reset and enabled as appropriate 5. monitor, record and maintain specified electrical conditions, supplies and instrument readings within defined levels and manufacturers recommendations for normal operation 6. check for and identify irregularities in the machinery and electrical supply according to schedule and make appropriate adjustments to maintain safe and efficient operation 7. identify and locate common faults and take correct action to prevent damage 8. give sufficient notice of operations to enable other personnel to carry out their responsibilities safely and efficiently 9. communicate effectively, to those who will use the resources, the care that they must take 10. report on the machinery and electrical supply condition and any irregularities or adjustments promptly and accurately to the appropriate person |

|  |  |
| --- | --- |
| Knowledge and understanding  You need to know and understand: | 1. the working principles of electrical machinery 2. the preparation, starting, coupling and changeover of alternators or generators 3. the protection devices fitted to electrical machinery 4. the normal operating parameters for electrical machinery and the adjustments required to maintain conditions 5. the action to be taken in the event of faults arising 6. the use of internal communication systems and effective forms of communication. 7. the application of Statutory Regulations and guidelines, organisational instructions and guidance and vessel contingency plans |

|  |  |
| --- | --- |
| **Developed by** | Maritime Skills Alliance |
| **Version number** | 2 |
| Date approved | January 2012 |
| Indicative review date | December 2016 |
| Validity | Current |
| Status | Original |
| Originating organisation | Skills for Justice |
| Original URN | MSA C13 |
| Relevant occupations | Engineer |
| Suite | Maritime |
| Key words | safely operate; minor deviations; vessel electrical equipment; high voltage |