

1. Title	Inspect, test and commission high voltage transmission installations
2. Code	EMELIT409A
3. Range	Applicable to the inspection, testing and commissioning of high voltage transmission power networks and associated installations. Master client's and various technical requirements for various kinds of high voltage transmission power network facilities, associated installations, control equipment and protection devices; perform the inspection, testing and commissioning.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Understand client's requirements and the inspection, testing and commissioning specifications specified by international standards</p> <ul style="list-style-type: none"> ◆ Understand client's requirements and the inspection, testing and commissioning specifications specified by international standards ◆ Understand the requirements of the Safety Rules (Electrical) on inspection, testing and commissioning ◆ Understand the characteristics of high voltage transmission equipment for inspection, testing and commissioning including various kinds of switches, transformers, cables, protection and control devices, etc. ◆ Understand the details of the inspection, testing and commissioning items for various kinds of high voltage transmission equipment, including insulation resistance test, high voltage test, primary injection test for inverter, secondary injection test for various kinds of protection relays, vacuum tube DC high voltage test, etc. ◆ List the details of the inspection, testing and commissioning items required <p>6.2 Implement inspection, testing and commissioning on high voltage transmission installations</p> <ul style="list-style-type: none"> ◆ Inspect the operation of various types of high voltage transmission installations or equipment such as various kinds of high voltage transmission switches, transformers, cables, overhead lines, protection and control devices, earthing systems, lightning protection system, etc. ◆ Implement recognized inspection, testing and commissioning on various types of high voltage transmission installations, such as primary and secondary injection test, insulation resistance test, high voltage withstand test, dielectric strength test, vacuum tube DC high voltage test, etc.

	<ul style="list-style-type: none"> ◆ Implement various types of protection relay tests for protection devices such as: overcurrent relay, earth fault relay, three-phase unbalance protection relay, over or under voltage protection relay, etc. ◆ Analyze the inspection, testing and commissioning results of high voltage transmission installations, and judge whether the installations inspected are qualified <p>6.3 Professionalism in inspecting, testing and commissioning high voltage transmission installations</p> <ul style="list-style-type: none"> ◆ Follow the regulations and safety guidelines for the industry to ensure that the inspection, testing and commissioning of high voltage transmission installations are safely performed, and the high voltage transmission installations can be used safely
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to inspect the operation of various types of high voltage transmission installations or equipment; (ii) Capable to master the using methods and key points for testing instruments; and (iii) Capable to follow the regulations and safety guidelines for the industry to test and adjust various types of high voltage transmission installations and protection devices, and complete the test report.
8. Remarks	