1. Title	Aeronautical NDT inspections by radiographic gamma ray methods
2. Code	EMAMWS414A
3. Range	Radiographic gamma ray methods aeronautical NDT inspections are usually carried out in a specialist bay or workshop
4. Level	4
5. Credit	9
6. Competency	Performance Requirement 6.1 Working principles ♦ Understand the working principles for the radiographic gamma ray NDT inspections. 6.2 Inspection methods and procedures ♦ Able to review the maintenance documents and procedures to decide on maintenance task. ♦ Able to prepare the work area, obtain and check the resources for serviceability in accordance with the procedures,e.g. publications, materials, tools, equipment, safety equipment, environmental conditions established, area secured. ♦ Able to match the identification of part with documentation by comparing serial and/or part numbers. ♦ Able to prepare the part for radiography in accordance with the procedures,e.g. clean surface finish. ♦ Able to set up and calibrate the Gamma ray equipment in accordance with the procedures,e.g. orientation, distance, film placement, film identification marking. ♦ Able to expose the film in accordance with the procedures,e.g. control density, sensitivity.

		♦ Able to process the film in accordance with the procedures,e.g. manual, automatic. ♦ Able to inspect the radiograph in accordance with the procedures,e.g. inspection equipment, standards, specifications, precision measuring equipment, relevant and non relevant indications.
	6.3 Professional approach	♦ Able to understand the legislative requirements, aviation authority requirements, manufacturers' publications and the maintenance organizations' approved maintenance practices and requirements in carrying out the task. ♦ Able to complete the task within the stipulated duration. ♦ Able to prepare the inspected part for storage or transit in accordance with the procedures,e.g. post-test clean, inhibit, blank, and pack. ♦ Able to check the resources for serviceability and return them to service or storage in accordance with the procedures,e.g. tools, equipment, safety equipment, publications. ♦ Able to handle the unused materials in accordance with the procedures,e.g. serviceable, unserviceable, waste, hazardous. ♦ Able to complete the documentation in accordance with the procedures,e.g. labels, work cards, log books.

	♦ Able to return the work environment in a state which enables the next task to begin in accordance with the procedures.
7. Assessment Criteria	The integral outcome requirement of this UoC is: (i) Able to carry out aeronautical NDT (non destructive testing) inspections using radiographic gamma ray methods by preparing the part for radiography, producing the radiograph, and completing the post inspection tasks.
8. Remarks	(Ref: HKAR-66 Module 7.15 & 7.18) Candidates must pass the following vision examinations: 1 Near vision acuity The examination should assure natural or corrected near-distance acuity in at least one eye to show that the applicant is capable of reading a minimum of Jaeger Number 2 or equivalent type and size letter at a distance of not less than 12 inches (30.5cm) on a standard Jaeger test chart. The ability to perceive an Ortho-Rater minimum of 8 or similar test pattern is also acceptable. 2 Color contrast differentiation The examination should demonstrate that the applicant is capable of distinguishing and differentiating contrast among colors used in the method. Ref: NZQA - 4085