CLAIMS

1. A portable inspection apparatus for placement in an inspection area and for inspection of vehicles passing through the inspection area, the portable inspection apparatus comprising:

a support structure arranged to extend away from a surface of the inspection area;

a base for disposal on the surface;

an inspection field generator comprising an emitter and a detector for generating an inspection field, wherein the emitter is configured for emitting X-ray or gamma ray radiation and the detector is configured for detecting X-ray or gamma ray radiation, a first one of the emitter and the detector being supported by the support structure and a second one of the emitter and the detector being supported by the base; and

a ramp arranged to pivot relative the surface between a stowed position and a deployed position in which the ramp extends away from the base for allowing a vehicle to pass over the ramp and the base through the inspection field;

wherein the first one of the emitter and the detector supported by the support structure is configured to move between a first position at a first distance from the base and a second position at a second distance from the base;

wherein the support structure includes an upper section and a lower section, wherein the upper section is movable relative to the lower section between the first position and the second position in which a first one of the upper section and the lower section houses a part of the second one of the upper section and the lower section.

2. The apparatus as claimed in claim 1, wherein a plurality of pivots are provided adjacent the ramp for allowing the ramp to move between the stowed position and the deployed position.

3. The apparatus as claimed in claim 1, arranged for the one of the emitter and the detector supported by the support structure to be locked in the first position.

4. The apparatus as claimed in claim 3, wherein each of the upper section and the lower section includes an aperture arranged to receive a locking member therethrough to

lock the one of the emitter and the detector supported by the support structure in the first position.

5. The apparatus as claimed in claim 4, wherein the upper section comprises a bar member and the lower section comprises a slot for the bar member to run within the slot as the one of the emitter and the detector supported by the support structure moves between the first position and the second position and wherein each of the bar member and the slot has a aperture for receiving a locking member therethrough.

6. The apparatus as claimed in any preceding claim, wherein the support structure comprises a vertical support structure and a gantry structure extending from the vertical support structure, the gantry structure arranged to support the one of the emitter and the detector supported by the support structure.

7. The apparatus as claimed in any one of the preceding claims, arranged for the ramp to be secured in the stowed position.

8. The apparatus as claimed in any preceding claim, further comprising a first drive system for moving the ramp between the deployed position and the stowed position.

9. The apparatus as claimed in any preceding claim, further comprising a second drive system for moving the one of the emitter and the detector supported by the support structure between the first position and the second position.

10. The apparatus as claimed in claim 1, further comprising a controller configured for at least one of:

receiving a first control signal from a control system to control movement of the ramp relative to the surface between the deployed position and the stowed position; and

receiving a second control signal from the control system to control movement of the one of the emitter and the detector supported by the support structure between the first position and the second position.

11. The apparatus as claimed in claim 10, wherein the control system is at least one of a remote controller and a computer.

12. The apparatus as claimed in any one of the preceding claims, wherein the ramp includes an aperture for bolting the ramp to the surface.

13. The apparatus as claimed in any one of the preceding claims, further comprising a sensor disposed adjacent the ramp for detecting presence of an object on the ramp.

14. A method of operating a portable inspection apparatus for placement in an inspection area and for inspection of vehicles , the method comprising:

providing a support structure arranged to extend away from a surface of the inspection area;

providing a base for disposal on the surface;

generating an inspection field using an inspection field generator comprising an emitter and a detector for generating an inspection field, wherein the emitter is configured for emitting X-ray or gamma ray radiation and the detector is configured for detecting X-ray or gamma ray radiation, a first one of the emitter and the detector being supported by the support structure and a second one of the emitter and the detector being supported by the base;

pivoting a ramp relative the surface between a stowed position and a deployed position in which the ramp extends away from the base for allowing a vehicle to pass over the ramp and the base through the inspection field;

moving the one of the emitter and the detector supported by the support structure between a first position at a first distance from the base and a second position at a second distance from the base; wherein moving the one of the emitter and the detector includes: moving an upper section of the support structure relative to a lower section of the support structure between the first position and the second position in which a first one of the upper section and the lower section houses a part of the second one of the upper section and the lower section.

15. The method as claimed in claim 14, further comprising locking the one of the emitter and the detector supported by the support structure in the first position.

16. The method as claimed in claim 14 or claim 15, further comprising securing the ramp in the stowed position.