SCHEDULE 2

Regulation 6(3)

The Components of an Accountancy and Control System

The components of an accountancy and control system, referred to in regulation 6(3), are set out below:

1) a structure of material balance areas in which the physical inventory of qualifying nuclear material in each area and the transfers of qualifying nuclear material into and out of each area can be determined. This structure should be designed to maximise the control of qualifying nuclear material flows and physical inventories;

2) defined roles and responsibilities, that are assigned, and communicated to the staff of a qualifying nuclear facility to meet the obligations contained in these Regulations;

3) quality assurance and quality control measures that detect, describe, address, and reduce sources of errors in and poor performance of the system;

4) a programme of measurements that provides accurate, suitably precise, and representative information that quantifies and characterises qualifying nuclear material;

5) a measurement control programme that validates and provides traceability for measurement results and their uncertainties and ensures that measurements comply with the relevant international standards or are equivalent in quality to those standards, for example by assessing, approving, recording, and calibrating measurement procedures;

6) the ability to track and document the movement of qualifying nuclear material through receipts, packaging, re-packaging, processing, storage, and shipment in a timely manner. The system should show the location, characteristics, and containment of all qualifying nuclear material;

7) the ability to unambiguously identify batches of qualifying nuclear material in whatever containers, process vessels, or equipment they may be located in. The locations in which qualifying nuclear material can be held, as well as positions within these areas, should also be identifiable;

8) an inventory control system to regularly check the agreement between records of qualifying nuclear material, and between those records and the physical reality, and take appropriate action to manage discrepancies as they arise by investigating, documenting, reporting, and resolving such discrepancies;

9) the ability to manage anomalies consistent with the loss or gain of a significant amount of qualifying nuclear material, or any other situation corresponding with regulation 17 (unusual occurrences), in a timely manner by, for example, recognising, investigating, and documenting such anomalies. The system should define personnel responsibilities and authorities to carry out the actions required by regulation 16 (special reports);

10) data processing procedures that store, trace, identify, and produce the information required by these Regulations, and that are required to facilitate the checking of data against the physical reality;

11) reporting and notification procedures that transmit the information required by these Regulations through appropriate channels to the ONR and according to appropriate deadlines;

12) receipt and shipment procedures that check the quantity and characteristics of qualifying nuclear material entering or leaving a qualifying nuclear facility against the accountancy information that must accompany such receipts and shipments. These procedures should also allow for the introduction or extraction of qualifying nuclear material to or from the tracking, identification, and inventory control processes described above;

13) a Physical Inventory Taking (PIT), that is carried out in accordance with regulation 15(3) and 31(4)(b) at least every calendar year, with the period between two successive physical inventory takings not exceeding 14 months;

14) procedures for a PIT that describe the responsibilities of those involved, the methods they should use, the records that should be kept, the associated measurement uncertainties and material balance tests (where appropriate), the reporting that must be made to the ONR, and the steps for authenticating any information made available to inspectors under these Regulations; and

15) a List of Inventory Items (LII), generated from a PIT, that facilitates inspector verification of information provided to ONR against the physical reality. The LII should include information on the mass and composition of qualifying nuclear material per item, as well as its location, containment, identity, and type.