

Table 2

Some Key Definitions

Nuclear accountability. The practice of nuclear material accounting by the facility operator and the state system of accounting for and control of nuclear material (SSAC) and, in addition, the verification of evaluation of this accounting system by a safeguards authority (SSAC or IAEA) with subsequent statements of results and conclusions which make it possible to determine the degree of assurance provided by the safeguards measures. Accountability includes activities such as the following.

At the Facility Level:

- Dividing nuclear material operations into material balance areas (MBAs).
- Maintaining records describing the quantities of nuclear material held within each MBA.
- Measuring and recording all transactions involving the transfer of nuclear material (international or domestic) from one MBA to another or changes in the amount of nuclear material present due to nuclear production or nuclear loss.
- Periodically determining the quantities of nuclear material present within each MBA through the taking of the physical inventory.
- Closing the material balance over the time period spanned by two successive physical inventories and computing the material-unaccounted-for (MUF) for that period.
- Providing for a measurement control program to determine accuracy of measurements and calibrations and correctness of recorded source and batch data.
- Testing the computed MUF against its limits of error for indications of undetected loss.
- Analysing the accounting data to determine the cause and magnitude of mistakes in recording, unmeasured losses, accidental losses and unmeasured inventory (holdup).

At the SSAC Level:

- Preparing and submitting accounting reports to the IAEA as appropriate.
- Ensuring that the accounting procedures and arrangements are correctly adhered to.

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