

Subpart D—Special Nuclear Material of Moderate Strategic Significance

§ 74.41 Nuclear material control and accounting for special nuclear material of moderate strategic significance.

(a) *General performance objectives.* Each licensee who is authorized to possess special nuclear material (SNM) of moderate strategic significance or SNM in a quantity exceeding one effective kilogram of strategic special nuclear material in irradiated fuel reprocessing operations other than as sealed sources and to use this material at any site other than a nuclear reactor licensed pursuant to part 50 of this chapter; or as reactor irradiated fuels involved in research, development, and evaluation programs in facilities other than irradiated fuel reprocessing plants; or an operation involved with waste disposal, shall establish, implement, and maintain a Commission-approved material control and accounting (MC&A) system that will achieve the following performance objectives:

- (1) Maintain accurate, current, and reliable information on, and confirm, the quantities and locations of SNM in the licensee's possession;
- (2) Conduct investigations and resolve any anomalies indicating a possible loss of special nuclear material;
- (3) Permit rapid determination of whether an actual loss of a significant quantity of SNM has occurred, with significant quantity being either:
 - (i) More than one formula kilogram of strategic SNM; or
 - (ii) 10,000 grams or more of uranium-235 contained in uranium enriched up to 20.00 percent.
- (4) Generate information to aid in the investigation and recovery of missing SNM in the event of an actual loss.

(b) *Implementation schedule.* Each applicant for a license, and each licensee that, upon application for modification of its license, would become newly subject to the requirements of paragraph (a) of this section shall:

- (1) Submit a fundamental nuclear material control (FNMC) plan describing how the performance objectives of § 74.41(a) will be achieved, and how the

system capabilities required by § 74.41(c) will be met; and

- (2) Implement the NRC-approved FNMC plan submitted pursuant to paragraph (b)(1) of this section upon the Commission's issuance or modification of a license or by the date specified in a license condition.

(c) *System capabilities.* To achieve the performance objectives specified in § 74.41(a), the MC&A system must include the capabilities described in §§ 74.43 and 74.45, and must incorporate checks and balances that are sufficient to detect falsification of data and reports that could conceal diversion of SNM by:

- (1) A single individual, including an employee in any position; or
- (2) Collusion between two individuals, one or both of whom have authorized access to SNM.

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§ 74.43 Internal controls, inventory, and records.

(a) *General.* Licensees subject to § 74.41 shall maintain the internal control, inventory, and recordkeeping capabilities required in paragraphs (b), (c), and (d) of this section.

(b) Internal controls.

(1) A management structure shall be established, documented, and maintained that assures:

- (i) Clear overall responsibility for material control and accounting (MC&A) functions;
- (ii) Independence from production and manufacturing responsibilities; and
- (iii) Separation of key responsibilities.

(2) The overall planning, coordination, and administration of the MC&A functions for special nuclear material (SNM) shall be vested in a single individual at an organizational level sufficient to assure independence of action and objectiveness of decisions.

(3) The licensee shall provide for the adequate review, approval, and use of written MC&A procedures that are identified in the approved FNMC plan as being critical to the effectiveness of the described system.

(4) The licensee shall assure that personnel who work in key positions