



Designation: C 787 – 9603

Standard Specification for Uranium Hexafluoride for Enrichment¹

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1. Scope

1.1 This specification covers uranium hexafluoride (UF₆) intended for feeding to an enrichment plant. Included are specifications for UF₆ derived from unirradiated natural uranium and UF₆ derived from irradiated uranium that has been reprocessed and converted to UF₆ for enrichment and subsequent reuse. The objectives of this specification are twofold: (1) To define the impurity and uranium isotope limits for Commercial Natural UF₆ feedstock so that the corresponding enriched uranium is essentially equivalent to enriched uranium made entirely from virgin natural UF₆; and (2) To define additional limits for Reprocessed UF₆ (or any mixture of Reprocessed UF₆ and Commercial Natural UF₆). For such UF₆, special provisions may be needed to ensure that no extra hazard arises to the work force, process equipment, or the environment.

1.2 The scope of this specification does not comprehensively cover all provisions for preventing criticality accidents or requirements for health and safety or for shipping. Observance of this specification does not relieve the user of the obligation to conform to all international, federal, state, and local regulations for processing, shipping, or in any other way using UF₆ (see, for example, TID-7016, DP-532, ORNL-NUREG-CSD-6, and DOE-5633-3B)-O 474.1).

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

¹ This specification is under the jurisdiction of ASTM Committee C-26 on Nuclear Fuel Cycle and is the direct responsibility of Subcommittee C26.02 on Fuel and Fertile Material Specifications.

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