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Sommario/riassunto	The Committee on Electrometallurgical Techniques for DOE Spent Fuel Treatment was formed in September 1994 in response to a request made to the National Research Council (NRC) by the U.S. Department of Energy DOE. DOE requested an evaluation of electrometallurgical

processing technology proposed by Argonne National Laboratory (ANL) for the treatment of DOE spent nuclear fuel. Electrometallurgical treatment of spent reactor fuel involves a set of operations designed to remove the remaining uranium metal and to incorporate the radioactive nuclides into well defined and reproducible waste streams. Over the course of the committee's operating life, this charge has remained constant. Within the framework of this overall charge, the scope of the committee's work?as defined by its statement of task?has evolved in response to further requests from DOE, as well as technical accomplishments and regulatory and legal considerations. As part of its task, the committee has provided periodic assessments of ANL's R&D program on the electrometallurgical technology.Electrometallurgical Techniques for DOE Spent Fuel Treatment assesses the viability of electrometallurgical technology for treating DOE spent nuclear fuel and monitors the scientific and technical progress of the ANL program on electrometallurgical technology, specifically within the context of ANL's demonstration project on electrometallurgical treatment of EBR-II SNF. This report evaluates ANL's performance relative to the success criteria for the demonstration project, which have served as the basis for judging the efficacy of using electrometallurgical technology for the treatment of EBR-II spent nuclear fuel. It also addresses post-demonstration activities related to ANL's electrometallurgical demonstration project, and makes related recommendations in this area.