

Blowdown Test Facility CANDU LOCA Fuel Tests

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ABSTRACT

Four Blowdown Test Facility (BTF) in-reactor experiments were performed to improve the understanding of CANDU fuel and fission-product behaviour under accident conditions, and to provide data for use in reactor safety code validation. In the BTF-107 test, a three-element cluster of CANDU-sized fuel elements was subjected to severely degraded cooling conditions resulting in a high-temperature (≈ 2770 K) transient. The other three tests in the BTF program, BTF-104, BTF-105A and BTF-105B, were conducted with single CANDU-sized fuel elements at maximum temperatures of 1800-2200 K in a steam-rich environment. The presentation will summarize the results of the BTF test series, focusing on the post-irradiation examination (PIE) results.