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System Radiographic Characterization of 7MV Self-Magnetic Pinch Diode on RITS-6¹ TIM J. WEBB, MARK D. JOHNSTON, BRYAN V. OLIVER, Sandia National Laboratories — The 7 MV, 160 kA induction voltage adder RITS-6 is used as a test bed for research and development of sub-100 ns flash x-ray radiography of which the self-magnetic pinch (SMP) diode is an example. The x-ray source properties such as dose, source spatial distribution, and energy spectrum couple with the imaging detector sensitivity and blur to form the radiologic system performance which is also highly dependent on the imaging geometry. The system performance of some SMP diode configurations will be presented.

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