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NIF ignition target requirements, margins, and uncertainties: Rev3.1¹ S.W. HAAN, Lawrence Livermore National Lab, J.D. SALMONSON, D.S. CLARK, D.A. CALLAHAN, B.A. HAMMEL, L.J. SUTER, M.J. EDWARDS, B.J. MACGOWAN, M.M. MARINAK, D.H. MUNRO, B.K. SPEARS, J.D. LINDL — We describe simulations of NIF ignition targets, concentrating on a Be-ablator design that uses 1.3 MJ to heat a hohlraum to 285eV. Requirements have been developed to define all aspects of the target, fabrication, laser pulse, and features of the pre-ignition experiments used to finalize the design. We describe a model, normalized to simulations, that characterizes the margin of the target as a function of input parameters and uncertainties. The model is used to quantify the impact of each requirement, and to project the probability of ignition, both shot-to-shot variations and given systematic errors. Backup targets are being kept active: other drive temperatures between 270 and 300eV; and CH and C ablators. This presentation emphasizes changes in the requirements in the last year, and the relative performance of the CH and Be designs.

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