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Validation of a Laser-Ray Package in an Eulerian Code PAUL BRADLEY, MIKE HALL, Los Alamos National Laboratory, PATRICK MCKENTY, TIM COLLINS, DAVID KELLER, Laboratory for Laser Energetics, University of Rochester — A laser-ray absorption package was recently installed in the RAGE code by the Laboratory for Laser Energetics (LLE). In this presentation, we describe our use of this package to implode Omega 60 beam symmetric direct drive capsules. The capsules have outer diameters of about 860 microns, CH plastic shell thicknesses between 8 and 32 microns, DD or DT gas fills between 5 and 20 atmospheres, and a 1 ns square pulse of 23 to 27 kJ. These capsule implosions were previously modeled with a calibrated energy source in the outer layer of the capsule, where we matched bang time and burn ion temperature well, but the simulated yields were two to three times higher than the data. We will run simulations with laser ray energy deposition to the experiments and the results to the yield and spectroscopic data. Work performed by Los Alamos National Laboratory under contract DE-AC52-06NA25396 for the National Nuclear Security Administration of the U.S. Department of Energy..

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