Heat Load on Divertors in NCSX\textsuperscript{1} T.B. KAISER, University of California, Lawrence Livermore National Laboratory, D.N. HILL, LLNL, R. MAINGI, ORNL, D. MONTICELLO, M. ZARNSTORFF, PPPL, A. GROSSMAN, UCSD — We have continued our study\cite{1-3} of the effect of divertors in NCSX, using magnetic field data generated by both the PIES and VMEC/MFBE equilibrium codes. Results for comparable equilibria from the two codes agree to within statistical uncertainty. We follow field lines from a surface just outside and conformal with the LCMS until they strike a divertor plate or the first wall, or exceed 1000m in length, with effects of particle scattering mimicked by field-line diffusion. Current candidate divertor designs efficiently collect field lines, allowing fewer than 0.1% to reach the wall. The sensitivity of localized power deposition, assumed to be proportional to the density of field-line strike-points, to adjustments in the divertor configuration is under investigation.


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