

Abstract Submitted
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High Power Neutral Beam Injection System for the MST¹ G. FIKSEL, A.F. ALMAGRI, B.E. CHAPMAN, D.J. DEN HARTOG, S.P. OLIVA, S.C. PRAGER, J.S. SARFF, UW-Madison, A.A. IVANOV, G.F. ABDRASHITOV, V.I. DAVYDENKO, P.P. DEICHULI, V.V. KOLMOGOROV, V.V. MISHAGIN, A.V. SORKOKIN, N.V. STUPISHIN, BINP, Novosibirsk, Russia — Good fast ion confinement in the RFP plasma has been established for some time. Currently, a high power neutral beam injection system for the MST reversed field pinch is being designed and built. The hydrogen neutral beam will have power of 1MW, energy of 25 keV, and duration of 20 ms. Among the goals of the beam injection experiment are: (a) to investigate the beam energy and momentum deposition into the plasma, (b) to study the effect of the fast particles pressure (beta) on plasma confinement, and (c) to study the effect of the fast particles on the tearing and kinetic instabilities in the MST. The injection system details and modeling of the beam-plasma interaction will be presented

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