1047-05-213 Hong-Jian Lai* (hjlai@math.wvu.edu), 320 Armstrong Hall, West Virginia University, Morgantown, WV 26506-6310, Yanting Liang (lyt814@math.wvu.edu), 320 Armstrong Hall, West Virginia University, Morgantown, WV 26506-6310, and Yehong Shao (shaoy@ohio.edu), Arts and Science, Ohio University Southern, Ironton, OH 45638. On s-hamiltonian connected line graphs.

A graph G is hamiltonian-connected if any two of its vertices are connected by a Hamilton path (a path including every vertex of G); and G is s-hamiltonian-connected if the deletion of any vertex subset with at most s vertices results in a hamiltonian-connected graph. In this paper, we prove that the line graph of a (t + 4)-edge-connected graph is (t + 2)-hamiltonian-connected if and only if it is (t + 5)-connected, and for $s \ge 2$ every (s + 5)-connected line graph is s-hamiltonian-connected. (Received January 29, 2009)