New Interlock System for BEPC, J.S. CHEN, T.H. LI, X.Y. NA, <u>S.M. TANG</u>, J.M. WU, Beijing IHEP - A new interlock system for BEPC has been developed in order to improve the reliability of the personnel safety and the subsystem's interlocks. Another role of the system is to update the BEPC TV status screen every 20 seconds. The system will be operational in the next BEPC running period. The hardware of the new interlock system is based on industrial Programmable logic controllers (PLC). By means of the PC_links, the interlock system is composed as a distributed control system. One inexpensive multimedia IBM/486 PC which is equipped with two screen interface card and 4-serial ports card, is used as the operator interface. The application programme dedicated for the system is written in visual C^{++} language under Chinese MS-Windows. In case there is a failure, the message is displayed visually, supplemented by a voice message, which causes the operator to pay attention.