

#### D. System Overload

Occasionally, the system will be requested to create space for a new program when the system is already operating at maximum capacity. If the request comes from a user Teletype, the system responds by merely typing CALL LATER PLEASE at that Teletype. However, the request may come from some already running program which cannot be delayed until space is available for the requested program. In order to avoid loss of information in this situation, descriptions of all requested programs are stored in a special list on the big drum. Each time that a program is added to this list, an in-limbo entry is placed in the Swapper's tables; the in-limbo program is actually a routine in Executive core which starts the first program in the list and creates a new in-limbo entry if there are further programs in the list. If running the in-limbo program would exceed system capacity, the system alerts the machine operators and "throws away" the in-limbo program (by deleting its entry in the Swapper's tables in core) but retains the list on the big drum. At any future time, the programs in the list may be started either by the machine operator or by the addition of a new program to the list.