

storage sizing methods; the University of Texas received funding from ASHRAE to develop thermal component models; and the Gas Research Institute sponsored the gas-fired desiccant and evaporative cooling models.

4.5.3 Time Line

Work first began on DOE-2 at LBL in 1976. In 1978, the first version of the program became available. Over time, many versions of DOE-2.1 have been developed (Cairns and Rosenfeld, 1986). The latest version of the DOE-2 (i.e., DOE-2.1D) has several new features including:

- well defined HVAC functions which will allow users to model innovative HVAC controls without changing the computer code;
- custom libraries that users can create, describing building components, systems, schedules, complete zones, and even whole buildings; and
- improved exterior IR calculation for windows and walls.

The next version of DOE-2 is to be released shortly by LBL (Winkelmann, 1988).

Figure 4.4 outlines the distribution system for DOE-2. DOE-2 is available from four different sources:

- magnetic tapes of DOE-2 for mainframe computers are available from LBL;
- PC version from private firms;
- National Technology Information Service (NTIS); and
- National Energy Software Center (NESC).

In recent years, approximately 300 magnetic tape versions of DOE-2 have been sold annually. The PC version also sells around 300 copies annually (Winkelmann, 1988). According to the National Energy Software Center, ten copies of DOE-2.1C were distributed to domestic requesters during the 18-month period ending March 31, 1987. Every quarter LBL publishes the