FIG 8-6 Nurse caring for an infant in a radiant warmer. (Photo courtesy E. Jacobs, Texas Children's Hospital, Houston, TX.)

A high-humidity atmosphere contributes to body temperature maintenance by reducing **evaporative heat loss**. A number of "microenvironments" may be used with VLBW and ELBW infants to minimize evaporative and **insensible water losses**. These include items such as food-grade plastic bags or plastic wrap, humidified reservoirs for incubators, and humidified plastic heat shields covered with plastic wrap (Fig. 8-7). When such environments are used, special care must be taken to avoid bacterial contamination of the warm and humid environment by organisms such as *Pseudomonas* and *Serratia,* which have an affinity for moist environments; postnatally acquired pneumonia from such organisms may be fatal, particularly in VLBW infants. A systematic review of practices to decrease hypothermia at birth in LBW infants found that plastic wraps (polyethylene) or bags kept preterm infants warmer, leading to higher temperatures on admission to neonatal units and less hypothermia (Lewis, Sanders, and Brockopp, 2011; McCall, Alderdice, Halliday, et al, 2010). This practice is now recommended in the Neonatal Resuscitation Program guidelines published by the American Heart Association (Kattwinkel, Perlman, Aziz, et al, 2010).