Abstract

In this paper a simplified method for estimating the peak load in the large cold stores is found and its occurrence day by utilizing two new variables A & B. The first variable represents the number of days that is necessary for cooling the product (storage) up to the needed temperature according to the daily temperature differences only. The second variable represents the number of days required for cooling the total product (storage) depending upon the daily storage mass only without returning back to the details of distribution of the daily thermal load that is followed in calculating thermal load for cold stores. By the demonstrative and analysis of the thermal load in cold stores with detailing study for each effective factors in estimating the thermal load characteristic is observed that the factors daily temperature differences (D T) and storage mass (m) per day affect significantly in estimating the peak load values and day of occurrence