CTI FIELD REPORT 66-1-5 (R-84)
SUBJECT: JUDGING TILE APPEARANCE, TEN TYPES

I. INTRODUCTION
   A. This topic is not to be confused with workmanship, it is meant only for the tile.
   B. All of us who have contracted for or installed tile have had the perplexing problem of what to do when you have a doubt about the quality and appearance of the tile that you are handling and installing.
      1. It is difficult to tell exactly how the finished product is going to look until the job is completed and grouted. Strangely enough, manufacturers do not understand this. They feel that if the product is not right, it should not have been installed.
      2. Many persons in the industry find it difficult to judge or grade the tile and many tiles have no standards to judge by.
      3. What do you do for guidance when judging the appearance of the tile?

II. STANDARDS
   A. Currently, we have ANSI A137.1 to use as a guide for quality and appearance in glazed wall tile, ceramic mosaic tile, quarry tile and paver tile.
   B. ANSI A137.1 contains the criteria and actual tests for determining many things about these four types of tile. These are tests that must be run in a testing laboratory. Tile cannot be judged visually. Tests must include abrasive wear, water absorption, bonding capability, thickness, facial dimensions, facial warpage, wedging, crazing, breaking strength and thermal shock.
   C. First, let us establish that culls are not a recognized grade of tile. Culls are tiles that have bisque cracks, ragged and shivered edges or those that have spots, specks, blots, pulls, dry spots, scum, sand or stickers visible at a distance or more than three feet. A tolerance of 5% of seconds is permissible in standard grade tile, but this does not mean culls. Seconds are tiles which may have minor defects which are not permissible in standard grade but are free from defects and biscuit cracks.
   D. When handling standard grade glazed wall tile, we do not expect to find tiles that have the above-outlined imperfections visible at a distance of more than three feet.
   E. When handling standard grade ceramic mosaic tiles, we do not expect to find blisters, structural defects, sharp projections around the tile edges from worn dies, fins or scarred faced (sometimes referred to as dirty faced) tiles.
   F. When handling standard grade quarry tile, we do not expect to find chips noticeable at more than three feet, sand holes or blisters.
   G. Our Field Report No. 76-6-1 lists six other types of tiles that are used in the tile industry. Many of these are now being manufactured and handled by the companies that are manufacturing burnt clay tiles. It is reasonable that we should be concerned with the quality of the body of the tiles, the quality of the glaze, the wearing ability and the appearance of these other type tiles. The Ceramic Tile Institute feels that there should be
III. CONCLUSION
   A. Using jobs on which there have been complaints, discussions on this subject have been held by the Technical Committee of the Ceramic Tile Institute, also at Association meetings and Workshops. These discussions bring out the fact that there is a place for second grade tile. Seconds can and should be used, and when used, they cannot be expected to appear as standard grade. However, discussion has also brought out that when standard grade is specified, the tile industry is putting its best foot forward and no more than 5% of second grade and no culls should be included.