

- **Job Problem News –**
  - **Floor Moisture Problems –** According to Howard Kanare of Construction Technology Laboratories, who gave a seminar at Surfaces 2003, concrete floor moisture problems are still very prevalent in the overall floor covering industry. Howard said there are key construction issues causing most of the problems: **1. Fast-track construction schedules** – not allowing the time or qualified labor to do it right. **2. Value-engineering** – substituting with less expensive products and methods that don't perform properly. **3. Curing Compounds** – trying to compensate for the lack of quality concrete and installation methods by using additives that cause other problems; such as becoming a bond breaker. **4. Concrete strength/slump** – Using additives in cement to increase strength in spite of adding more water.
  - **Some of the problems** Howard identified were: **1. High pH + Moisture cause many problems** – Alkali migration with moisture attacks some adhesives and substrates. **2. Lack of Vapor Retarders** - All floors on grade should have vapor retarders to control moisture. **3. Microbials** – a moisture problem that has food and warmth to grow fungi. **4. Contaminants** – expansive reactions with moisture. **5. Incompatible Underlayments** – moisture grows crystals. **6. Efflorescence** – salts carried through concrete by moisture.
  - **The natural moisture sources** were identified as: **1. Precipitation** – new concrete needs protection from moisture. **2. Hydrostatic Pressure** – Cannot happen to slab-on-ground; water level must be above floor. **3. Capillary Rise** – can travel ten feet or more above water table. **4. Osmotic Pressure** – moisture travels to equalize and can create high pressures. **5. Sweating** – dew point where warm, moist air flows over cooler slab and saturates air with water. **6. Condensing** – dew point where high relative humidity in slab and moisture condenses under flooring.
  - **Robert C. Higgins**, VP and chemist for SINAK Corp., reported in his recent article titled Dew Point & Condens-

sation that dew point and condensation problems constitute upwards of 30-40 percent of the moisture problems investigated. Dew point is created when a surface is cool enough to allow moisture within the environment to change from its vapor (gaseous) form to liquid (water) form. **Two primary reasons are: 1.** Lower temperatures typically have lower pressures, encouraging water vapor to move from warmer (higher pressure) to cooler (lower pressure), **and 2.** Water becomes increasingly cohesive as it cools, causing its molecules to cling together ever tighter as temperatures drop until they solidify into ice. **Propane heaters** can compound the problems when used in cold weather because 90 percent of the exhaust is hydrogen, which will combine with oxygen in the air to form water. Believe it or not, 5 gal of burned propane fuel can introduce over 4 gal of water into the immediate environment! Must have proper air movement and dehumidification when using the heaters. - *Published in The*

*Construction Specifier Magazine*  
*December 2002.*

- **Quality Control News–**
  - **Proper Thin-set practices–** Per ANSI A108.5 for a thin-set installation, use the flat side of trowel to key into properly prepared substrate, then comb thin-set with proper notched trowel in one direction, and then beat tile into fresh thin-set moving perpendicular to trowel ridges. Average contact area shall not be less than 80% except on exterior or shower installations where it shall be 95% coverage when not less than three tiles or tile assemblies are removed for inspection. Coverage should be sufficiently distributed to give full support of edges and corners of tile.
  
- **Training News -**
  - **University of Ceramic Tile And Stone campus coming soon** - By March 21st, the first online course will be available called *Understanding the Basics of Ceramic Tile*. It is a very comprehensive, but enjoyable journey for people new to ceramic tile whom want to understand the basics of

ceramic tile and learn to sell more ceramic tile. After passing the course post-test the student can print out a diploma. Courses can be customized for companies. For more information go to [www.ctasc.com/UCTaS+Online+Courses](http://www.ctasc.com/UCTaS+Online+Courses).

- **Attend Ceramic Tile University seminar** at Coverings on Tuesday, March 25<sup>th</sup>, room 312C, from 8:00am – 11:00am presented by marketing guru Jonathan Trivers and industry expert Donato Pompo.
- **Marketing News –**
  - **Psychology of Consumption** – People are more likely to consume a product when they are aware of its cost, according to research. Advance sales and price bundling all serve to mask how much a buyer has spent, decreasing the likelihood that the buyer will actually use it. One of the first steps in building long-term relationships with customers is to get them to consume your product regularly. *Read Harvard Business Review September 2002 for details.*
  - **Why we Misread Motives** – Research suggests that managers are not as good at judging employee motivation as they think. Extrinsic incentives bias is our tendency to assume that others are more driven than we are by external rewards for work, which is false. When surveyed U.S. adults rank *important work* highest and *pay* third. But when asked what motivates others, 75% say *pay*. By stressing extrinsic motivators, while over-looking intrinsic ones, well-meaning managers may be pushing the wrong levers. Assume what motivates you motivates others. *Read Harvard Business Review January 2003.*
  - **Economic Forecast** – “U.S. construction spending is expected to decline 1.5 percent during 2003 to \$685 billion, from an estimated \$695 billion in 2002. Even though the outlook suggests a third consecutive year of decline in construction spending, these projections imply 2003 will rank as the fifth best year in history.” *Excerpt from Portland Cement Association article. Read CTaSC Economic Forecast*  
<http://www.ctasc.com/Resources+a>
- **Business Planning News –**

[nd+Links/Economic+Forecast/for details.](#)

- **Stone Knowledge News –**
  - **Geological Classification –**  
Not all polished stone is marble. MIA says rock is part of the earth's crust that falls into three generic groups: **igneous, sedimentary and metamorphic**. Hot molten magma rises upward from the earth's core to the surface where it cools and hardens and becomes an **igneous stone**. **Granites** are usually classified as igneous stones. **Sedimentary stones** are the products of erosion or weathering of rock deposits including the remains of plants, animals and other organisms. Accumulations of eroded materials become consolidated, and as a result of the extreme pressure from the weight of overlying material, and form **Sedimentary stone**. **Limestones** are usually classified as sedimentary stones. **Metamorphic stones** are created through dynamic geologic activity caused by extreme heat, pressure, or contact with chemical solutions, occurring adjacent

to or within a deposit of either igneous or sedimentary stone. **Marble** is a metamorphic rock resulting from the recrystallization of limestone. *For more information refer to the MIA and Architectural Stone book by Mark A. Chacon.*

- **Something to Think About.... –**
  - The amount of food waste being sent to landfills has nearly tripled in two decades. Analysis uncovered that American households throw away about 1.3lbs of food per day compared to the 1980s when only 3 lbs of food per week was disposed. One possible conclusion proposed was that people are trying to eat healthier by buying fresh food, but get too busy and the food rots. *U.S. Department of Agriculture.*
- **Ceramic Tile And Stone Consultants ([www.CTaSC.com](http://www.CTaSC.com))**
  - **Is a National Service Company** providing Job Problem Investigations and Expert Witness Services, Quality Control Services for Product and Installation Methods, Training programs (online and onsite), Marketing Research and Outsourcing Services, and Business Planning.