

Developing a simple formula for a high-tech product

Keeping in mind that diversity is the key to the future economic success of the Confederated Tribes, the Warm Springs Tribal Council, after careful consideration, signed a joint venture with Structural Technology Inc. (STI) February 2. The Madras-based company is owned by Terry Turner and Phil Rodda.

The new tribal enterprise, by issuing product licenses and producing environmentally friendly fire-resistant refractory and door materials out of a combination of diatomaceous earth (D.E.) and other natural materials, will provide long-term employment for tribal members and substantial economic returns for the Tribe. The Tribe's newest enterprise is located at the former Warm Springs Forest Products Industries plywood plant.

Tribal Council allocated \$250,000 of the Economic Development Initiative Fund to start up operations, due to begin on a limited basis in April. Initially, Warm Springs Composite Products, as it is called, will operate as a subdivision of Warm Springs Forest Products Industries. All purchasing, personnel and payroll services will be provided by WSFPI. Warm Springs Composite may assume these responsibilities when plant operations are in full swing, but for now, "it's easier to do it this way," says Bob Macy, project coordinator and liaison among the new plant, joint venture and Tribe.

The joint venture, 51 percent of which is owned by the Tribe with STI owning the remaining 49 percent, is the first of its kind for the Tribe. The Tribe will provide project development money and STI will provide technical expertise. Licenses will be awarded to manufacturers desiring to produce D.E.-based materials. The first licensee is WSCP itself. Royalties will be paid to the joint venture for the use of the proprietary processes and formulas, says WSCP general manager Turner. The joint venture also has the authority to seek other licensees, such as Weyerhaeuser and U.S. Gypsum.

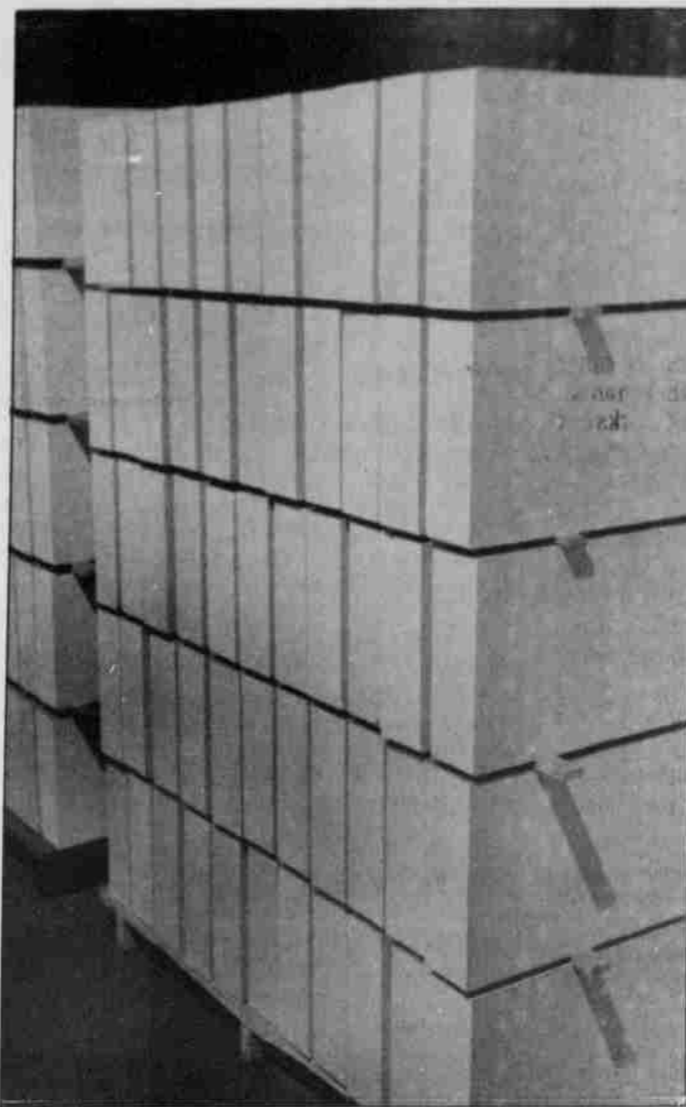
Another way to realize profits is to actually manufacture the fire-proof products in Warm Springs and market them. In doing so, Warm Springs will be entering a national and world-wide market with their new products. The \$5.3 billion refractory brick market and the \$40 million mineral fire door core industry are currently dominated by large corporations such as Weyerhaeuser and Georgia Pacific. According to Turner, Warm Springs can produce superior fire-proof products at competitive prices. The products manufactured at the plant so far have proven to be high quality and have passed strenuous heat testing time after time at independent laboratories. The refractory bricks exhibit qualities as good if not better than what's currently on the market. A number of other D.E.-based products are on the horizon that will be looked at as being important products in the home construction industry.

Turner adds that the process to produce the high-tech, fire-resistant materials is really quite simple and cost effective—combine D.E., shredded newsprint, perlite, glass fibers, gypsum, hydrostone, cement, retarder and water—pour into door or brick molds, allow to set up, remove from the molds and allow to dry. It takes only about 50-cents in raw materials to produce an item that will sell for about \$18. Turner and Rodda have also formulated a way to press the wet sludge to form high-density "rail material" that can be cut into strips and used to reinforce fire-proof doors.

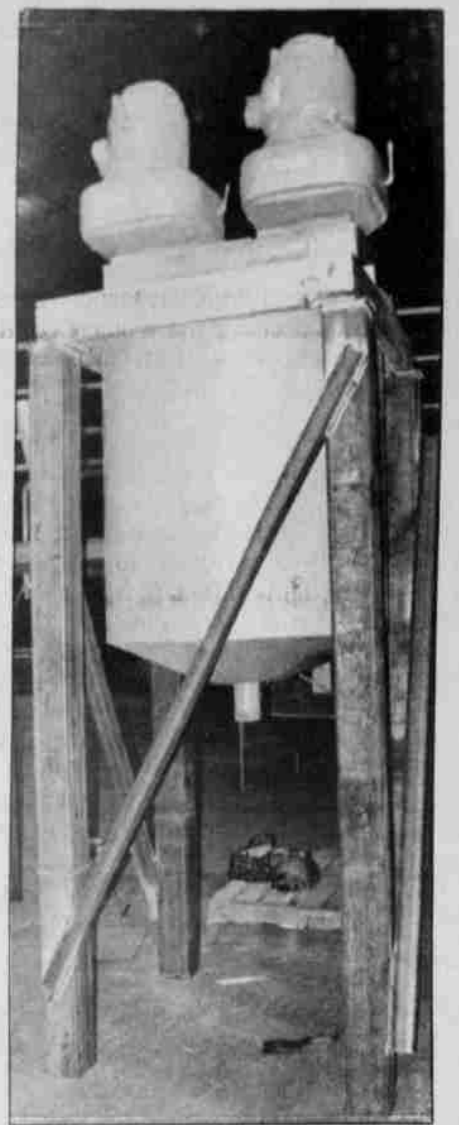
Initial sales analysis, expense, income and employment projections look favorable for the project. By April, eight full-time employees will be on board with a total of 26 expected by the end of the year; the project should be turning a profit by June and total gross sales for the year should be well over \$1.5 million.



Louie Tewee works gelatinous material after it has been poured into brick mold.



Hundreds of refractory bricks, used in aluminum industry, have been produced at the plant. The one cubic foot bricks measure four inches, by twelve inches by three inches.



A three hundred gallon mixer will be used to combine materials before pouring into molds.



Terry Turner, left, and Phil Rodda, owners of Structural Technologies, Inc. review plans for developing a mechanism that will simplify removing rail material from forms.



Powdery by nature, this substance, mixed with many other natural minerals, will result in superior fire-proof products.