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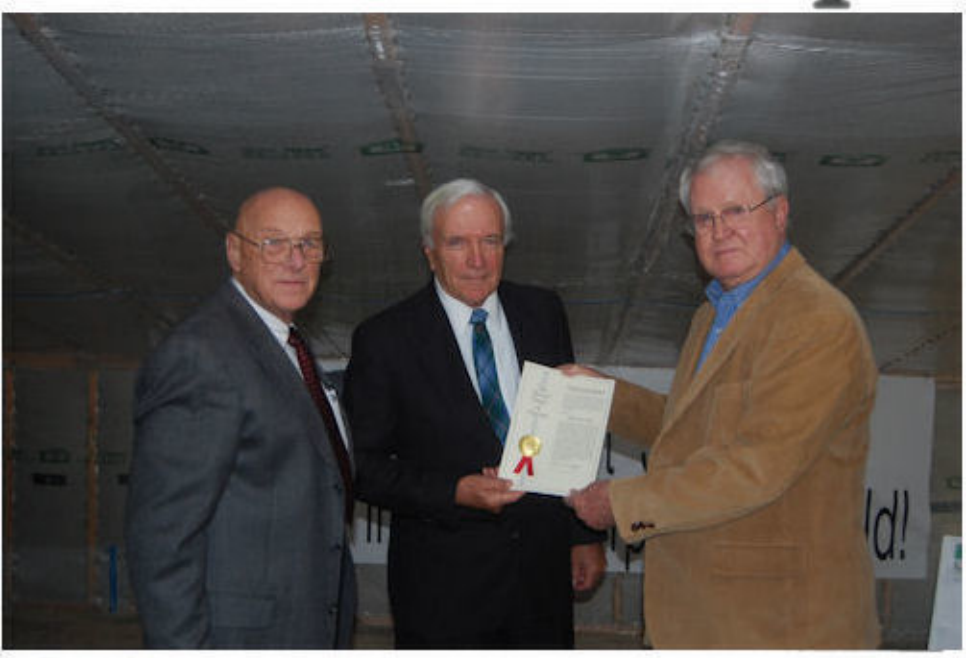
South Bristol company receives patent



From left to right, Green Comfort Safe, Inc. Chairman Richard Munson, interim President Daniel H. Thompson and Par/PAC board member Dr. Ray Anderson with the patent Green Comfort Safe received for an insulation manufacturing process. The men are standing in a demonstration room insulated with cellulose fiber. (J.W. Oliver photo)

By J.W. Oliver

A South Bristol company, in partnership with the University of Maine, has received a patent for a manufacturing process it says will "revolutionize" the insulation industry.

Green Comfort Safe Inc., will hold the patent jointly with the University of Maine System Board of Trustees.

The patent lists two South Bristol residents - Green Comfort Safe Inc. Chairman Richard Munson and interim President Daniel H. Thompson - among the inventors.

Munson hopes to receive a patent for the result of the process, the Celluborate insulation fiber, by the end of the year.

Munson and Thompson tout the fire-retardant material, made from recycled cardboard and liquid borate, as a safer, more effective alternative to fiberglass insulation.

Munson and his wife, Cheryl Munson, own the Unique Yankee Inn. Munson insulated the inn's annex with a similar material. The three-bedroom, 3600 square foot building has never used more than 197 gallons of propane in any winter, he said.

Eventually, the company envisions establishing corporate headquarters in Damariscotta with a flagship manufacturing plant in the Lewiston/Auburn area. The factory would employ 66 workers, Munson said.

Later, the company would attempt to reopen shuttered paper mills "wherever we can," Munson said, in an effort to employ the industry's laid off work force and take advantage of the mills' equipment.

"It will give us the opportunity to bring a significant amount of revenue into the state of Maine," Munson said. Taggart Construction of Freeport will build a demonstration home when the factories start production.

The company would eventually license the technology to manufacturers "throughout North America," Munson said.

A percentage of the price of every bag of insulation sold would go to the University of Maine, which helped develop the process and the product, Munson said.

Munson plans to donate a share of the proceeds to research the health effects of fiberglass insulation. The material is a carcinogen and contributes to the development of asthma in young children, he said.

The other common insulation material, foam, is petroleum-based, Munson said.

The "most difficult challenge," at present, is finding the capital necessary to buy and install equipment, hire and train employees and market the product. The company estimates the figure at $5 million.

The project's investors, including Munson and Dr. Ray Anderson, have already invested approximately $200,000 in the technology.

Thompson, the interim president of Green Comfort Safe Inc., "is working with the financial community right now" to finance the next step, Munson said, with hopes of having funding in place by spring.

"We're optimistic about being able to move very quickly," Munson said.

The University of Maine has already made about 500 pounds of the insulation in a laboratory.

Munson and Thompson believe it "far superior" to the cellulose insulation currently on the market, including the Canada-made product insulating the annex.

The cardboard Green Comfort Safe will use is "10 times more available" than the newsprint other manufacturers use, Thompson said. Other manufacturers have tried to use corrugated cardboard, only to find the glue damages production machines. Green Comfort Safe and the university have overcome this obstacle by using an enzyme to break down the glue.

Munson and Thompson think they can produce it for less with a higher percentage of recycled material. The cardboard-based product also produces less dust, they said.

"We're just ordinary people doing something we like to think is extraordinary," Munson said. Celluborate "will make homes substantially safer" and has the potential to dramatically reduce home heating costs, carbon dioxide emissions and American dependency on foreign oil.

"When I go, and it won't be much longer before I go, I want to leave the world a better place," Munson said.

Richard Munson uses a blowtorch to demonstrate the insulating and flame retardant properties of his Celluborate fiber, made from 90 percent recycled cardboard. (J.W. Oliver photo)