



SPF HELPS NEW  
**LEED-SILVER  
 UNIVERSITY  
 LIBRARY**  
 SHOW ITS CREATIVE SIDE

**SPFA 2012 NATIONAL CONTRACTOR  
 EXCELLENCE AWARD WINNING  
 PROJECT (COMMERCIAL WALL)**

*Congratulations to Carolina Comfort Foam's AESS Division, winner of the 2012 Annual SPFA National Contractor Excellence Award for Commercial Walls. This project is an example of SPF's performance, applicability and appeal, in this case for a new university library committed to a creative, comfortable environment, and sustainability. Winners of the SPFA Award must submit their projects and have them judged best-in-class by a panel of construction industry leaders.*



**NORFOLK STATE UNIVERSITY (NSU)** students will enjoy a new library with wireless connectivity, high-tech resources from computers to video equipment, and a creative, comfortable, architecturally pleasing environment. The \$41 million, 132,000 square foot Lyman Beecher Brooks Library is state of the art inside and out, and replaces the old library built in 1972, which had serious leaks and indoor air quality issues. Both of those are not ideal conditions for a top university library housing the irreplaceable Harrison B. Wilson Archives, which specialize in collecting and preserving historical

documents related to the school and African Americans in Virginia, among other very valuable collections.

"The valuables in the old library seemed to be at risk, and the poor indoor air quality of the old, cramped building produced an environment far from what the institution knew its students deserved," said Bob Duke, president of Carolina Comfort Foam's Applied Energy Savings Systems (AESS).

The library was designed by Moseley Architects and built by S.B. Ballard Construction to LEED standards to reduce energy and water use, improve indoor air quality, and promote the wise use of materials. The design also called for increased wall and roof insulation to reduce energy costs. "Working with an architecture firm like Moseley was great because first, they know sprayfoam and were easy to work with," said Duke. "This means they were able to do their



design job and bring the type of creativity that the customer was looking for, while focusing upon energy efficiency and making this a healthier building for the university.”

One way the building was going to get the most out of its sprayfoam system was by applying it on the exterior of the building. “This is the best way to get four main benefits from the closed cell foam in a commercial application,” said Duke. Among those benefits were a continuous, uninterrupted plane of insulation; an additional weather barrier on the outside of the building; a moisture, air, vapor and thermal barrier all in one product that also cut down on the noise entering the library; and a more efficient and workable use of space inside the interior wall assembly, easing the way for electrical wiring and conduits, communications and water lines.

This application method also allowed for more flexible access to the building for application times, and a natural ventilation environment for the applicators. The natural ventilation reduced the need for indoor ventilation and eased adjacent contractor team scheduling. As the immediate spray area did not

have to be vacated during application, potential complications in the contractor schedule were avoided.

### SOLVING THE COMPLEXITIES

“One of the more interesting and challenging aspects of the installation came from the library’s unique and beautiful circular glass rotunda. This was a very defining component of the library and I can’t imagine any product being able to accommodate this type of curved design better than sprayfoam,” added Duke.

The AESS team had to utilize an 85 foot boom-lift to access the rotunda, and constructed a burlap-box frame over the bucket to restrict any over spray. This lift-and-covered boom was also used when installing 2.5 inches of NCFI InsulBloc closed cell SPF on the exterior walls of the building, helping the crew to complete the installation without interruption to the open and functioning college campus.

“NCFI was very active in coordinating with the architects on this job,” said Steven Loftis of NCFI. “The design was complex, so we wanted to assist in any way we could to get this job done

right, and that meant working on the specs, working with the design team, and helping the general contractor and AESS out wherever we could.”

That commitment to coordination among all teams carried over to installation when the AESS crew had to work in 80-by-100-foot segments of the building due to its size, and schedule SPF installation following the masons’ installation of the brick-ties, and preceding their coming back to put up the final brick exterior. “Jobs like this are an orchestra of moving parts,” said Duke, “and the only way we got this done as well and as timely as we did, is because everyone worked together from the manufacturer, to the GC, through to us. I wish all SPF projects in the industry had this level of open coordination. It makes everything so smooth that when an issue does pop up it’s just handled and we’re back on track.”

According to the SPRING 2008 Client Satisfaction Assessment, conducted by the university among library users, respondents’ suggested improvements ranged from “Being open 24 hours with a Starbucks,” to “Pencil sharpeners in Room 240,” to “Free food.” But,

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interestingly, comments also demonstrated that students were feeling the distracting effects of the old building's poor performance; "A little air conditioning. It is very hot right now," and "The temperature – it's sometimes too cold, and too hot. It needs to be comfortable and adjust to the weather we have every day."

"Among the greatest known benefits of SPF are its air-sealing capability and high insulating value, which directly affect the comfort levels of people indoors. I look forward to going back to the school after their next satisfaction survey and seeing what the library users have to say about their comfort, effectiveness in the library and pride in this awesome new building," said Duke.

"As a two-time victor of the SPFA Annual National Contractor Excellence Award competition for commercial walls, we may not be the biggest firm out there, but we have a sincere commitment to quality, safety and excellence on every project we are involved in. We always do our best, despite the inevitable challenges, to give to the customer exactly what they are looking for. AESS is very proud of this project and the recognition from the industry for it." ○

**AESS**, based in Charleston, S.C., has been in the energy efficiency business since

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**Bob Duke, President, Carolina Comfort Foam's Applied Energy Savings Systems (AESS)**

2004 and formally incorporated in 2006. It provides energy efficiency upgrades for all types of new and existing buildings. AESS, as a fully certified and accredited air barrier contractor in spray foam, fluid-applied, and self-adhered methods, has product and service offerings recognized by the Air Barrier Association of America (ABAA). In addition, AESS is a multi-year award winner with SPFA, and winner of the 2008 BASF Building Envelope Excellence Award. AESS specializes in federal and military applications, and has a service range spanning the east coast

of the United States. **NCFI**, headquartered in Mt. Airy, N.C. since 1964, manufactures polyurethane foam chemical systems for spray foam-in-place insulation (SPF), roofing, geotechnical application, marine floatation, packaging, specialty molding, and many other uses. The company also offers a complete line of flexible foams for furniture seating, transportation seating, bedding, carpet underlay, and packaging. NCFI also has manufacturing plants in Hickory, N.C., Dalton, Ga., and Salt Lake City, Utah. To learn more about NCFI visit [www.NCFI.com](http://www.NCFI.com).

