

Profile of Success

Case Study

CONTRACTOR: Central Coating Company, Inc.

LOCATION: San Francisco Bay Area

PROJECT: Replace BUR System and retrofit for solar installation in four phases:

Phase I Replace BUR System with integrated sprayed polyurethane foam (SPF)/photovoltaic (PV) ready solution.

Phase II Install PV panels.

Phase III Complete electrical hookup to tie the PV output into the building's main electrical panel.

Phase IV Install remote energy monitoring system.

ADDITIONAL CHALLENGE:

The operations inside the building include corporate offices, sales and marketing, product development and conference rooms. The application of the new roof required minimal interruptions to staff inside the building.



Replacing heavy, inefficient BUR with lightweight, watertight SPF made it possible to install a Photovoltaic solar system without requiring costly structural upgrade.



SOLUTION: Spray Polyurethane Foam Roof System. The removal of the existing 60,000 sq ft BUR roof and application of the SPF roof with base coat was completed in just 7 days - making the building water tight with increased energy efficiency.

Lightweight - One of the key reasons for choosing SPF for this building was the decision to install a Photovoltaic (PV) Solar System on the roof. The existing BUR roof weighed in excess of 2.2 lbs per square foot while the SPF roof with coatings only weighed approximately 0.6 lbs per square foot. The decision was made to exclude granules from the assembly, allowing for the additional weight necessary for the PV equipment. Installation of the PV solar system was made feasible by reducing the heavier BUR with lightweight SPF. With no net weight added to the building, a costly structural upgrade was avoided.

Energy Efficiency - The existing BUR offered virtually no R value and the dark tan roof had a surface reflectivity around 25% - absorbing 75% of the sun's solar gain into the building each and every day, increasing cooling demand while burning the oils out of the BUR roof. The SPF roof provides an additional R value of 6, reducing the HVAC demand while increasing the comfort level inside the building. The coatings block 100% of the UV, the key ingredient in the degradation and failure mode of asphalt based roof systems. An energy analysis using a DOE 2.2 template demon-

strates the Owners will save over \$20,000 a year in gas and electrical bills.

Seamless - In order to accommodate the mounting requirements for the PV panels, an additional 864 roof jacks had to be installed. Also, the roof required the replacement of wood blocks that were used as pipe supports with sustainable Fiberglass Reinforced Polyurethane blocks. One of SPF's strongest attributes is the self flashing characteristic it has in these situations. Typically, no additional counter flashing is required to insure long term durable performance.

Durability - The PV panels are warranted for 20 years with a much longer projected service life. The SPF roof will require recoating of the foam every 30 years, but will not need to be replaced during the service life of the PV system. If a BUR or single ply had been specified, temporary costly removal of the panels would probably be required for each periodic re-roofing.

Conclusion - Combining the energy efficiency of the SPF with direct onsite generation of electricity, the risk of increasing operating costs is reduced, greenhouse gas emissions are mitigated and dependence on external energy sources is reduced.



CUT YOUR ENERGY BILLS ▶ Reduce Heat Gain In Building
▶ Reduce Cooling Requirements
▶ Improve Building Comfort

EXTEND ROOF LIFE ▶ Stop Damaging UV Rays That Accelerate Degradation
▶ Lower Roof Temperature Reduces Damaging Building Movement
▶ Roof Will Last Indefinitely
▶ Eliminate Leaks

SPARE THE ENVIRONMENT ▶ Reduces Fossil Fuel Usage
▶ Eliminates Tear-Offs
▶ Reduces Air Pollution
▶ Energy Star® - charter partner: EPA energy efficient roofing program

*Any technology is only as good as the service behind it.
Central Coating Company, Inc. has been leading the roofing
industry in Sprayed Polyurethane Foam Roofing Systems
installations by consistently delivering:*

- Unparalleled workmanship and on-time installation.
- Innovative solutions to a wide range of roofing and insulation challenges.
- Long-term, well-trained employees.
- Full time service department providing customer service you can count on year after year.
- Commitment to safety; developed contractor safety and product stewardship program - an industry model

Founded in 1958 by John P. Nolan, Central Coating Company completed its first SPF roofing project in 1967. Today, Central Coating is the SPF roofing leader in the high-tech Silicon Valley and has successful projects throughout California.

Central Coating Company is proud to have the best-qualified employees in the industry. Many of our employees have been with us more than 20 years. Our personnel make the difference in quality, productivity, safety and customer service. Central Coating Company offers a sound financial base and an experienced management team.

John Nolan, a past president of Spray Polyurethane Foam Alliance, developed the contractor safety and product stewardship program that has become an industry model.

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