Winner

Roof Asset Management Program (RAMP)

A-8-08

Innovative National Nuclear Security Administration (NNSA) Roof Asset Management Program Saves Energy

The Roof Asset Management Program (RAMP) is the Department of Energy's (DOE) National Nuclear Security Administration (NNSA) effort initiated in October 2005. This innovative and unique process manages roofing repairs and replacements at six sites, as a single portfolio, under one contract.

Partners (the six sites) in this innovative program include:

- Kansas City Plant (Kansas City, MO),
- Pantex (Pantex Plant, Carson County, TX),
- Y-12 (Y-12 National Security Complex, Oak Ridge, TN),
- Los Alamos National Laboratory (Los Alamos, NM),
- Lawrence Livermore National Laboratory (Livermore, CA), and
- Nevada Test Site (Las Vegas, NV).

The contractor selected for the program was Building Technology Associates, Inc. (BTA), an experienced Roof Asset Management firm based In Michigan.

The program uses a single database and centralized management for 4,700 separate roof areas, totaling over 16 million square feet, for these six sites. This is the first multi-site facilities management program instituted for the NNSA and has delivered outstanding results and is considered a model for other programs within NNSA.

Key program attributes include:

- A unique team management approach, using NNSA site and headquarters representatives working closely with BTA employing proven processes and user-friendly technology.
- Emphasis on strategic, proactive repairs to extend roof life.
- Ensures proper use of HQ (headquarters) funding through a single prioritized list of roofing needs.
- New centralized tools and technology (using historical and actuarial roof data) to analyze our roofs, prioritize repairs and replacements, and identify opportunities for planning, quality, and savings.

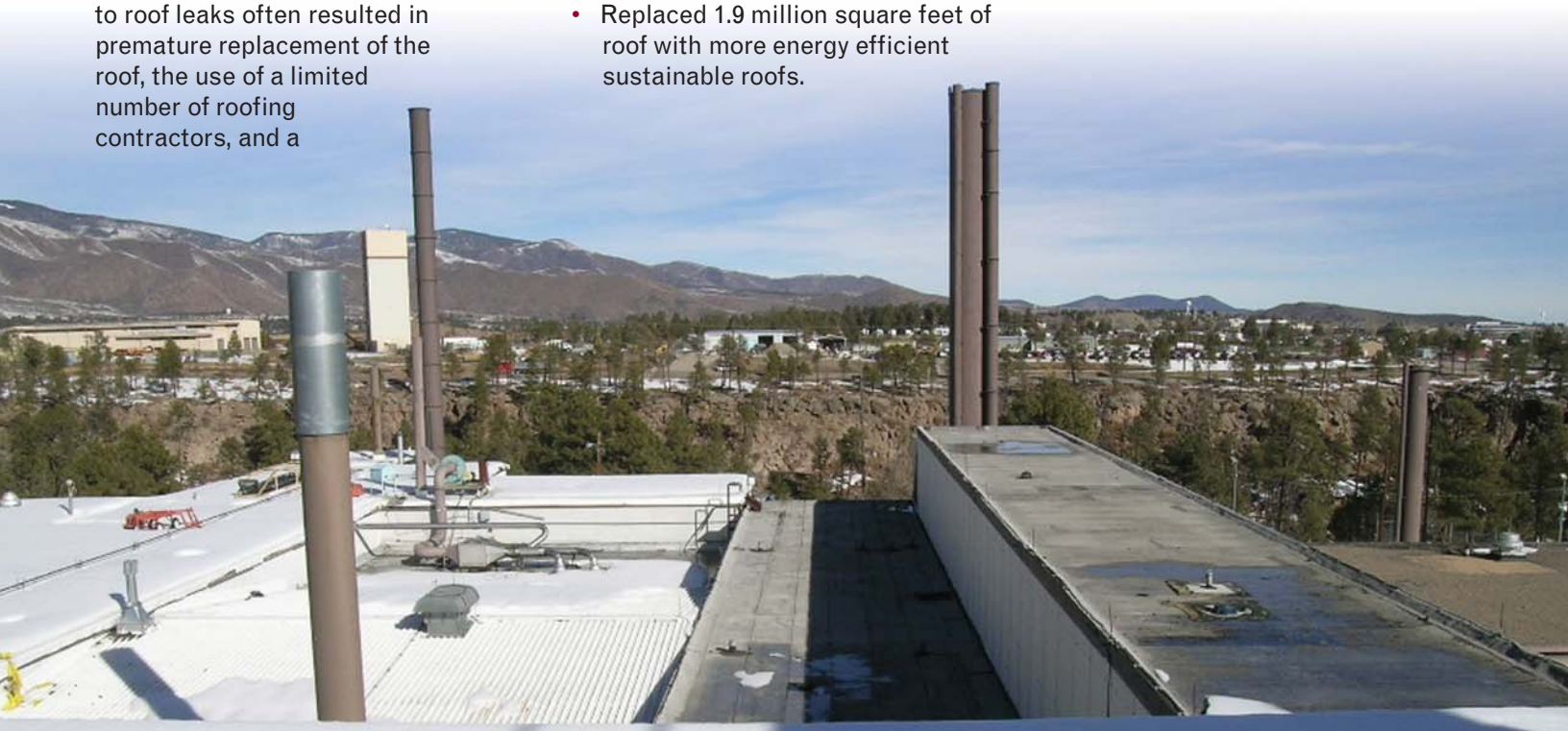
NNSA site - Lawrence Livermore National Laboratory, CA

- Increased bidding competition, prequalified contractors, and consistent construction standards.
- Use of sustainable construction materials and methods, and reduction in energy usage.
- Regular reviews of program performance, opportunities for improvement, discussion of new directions, and sharing of lessons learned.

Prior to the program, appropriations went to individual sites, to spend as they saw fit. Our roofing concerns were often addressed only when critical operations were interrupted by roof leaks. This reactive approach to roof leaks often resulted in premature replacement of the roof, the use of a limited number of roofing contractors, and a higher cost of roof replacements. We now view roof leaks as opportunities for repair and life extension rather than a large capital investment in reroofing, and we now use funding previously spent on a few select roof replacements to instead extend the life of hundreds of roof areas.

- Key RAMP accomplishments and benefits to date include:
- Added $19.3 million in value to our roofing portfolio through life extending repairs.
- Saved $7 million in construction costs.
- Increased average remaining life of roof inventory by 25 percent.
- Replaced 1.9 million square feet of roof with more energy efficient sustainable roofs.
- Eliminated $46 million in deferred maintenance from the 2003 congressional baseline.
- Realized energy cost savings exceeding 50 percent.
- Achieved exceptional safety record.

RAMP has allowed NNSA to more effectively manage this $370 million portfolio of roof assets. This is a mature, flexible, and very effective management process that can be applied to other agencies with limited modifications.



Example of roof showing benefits of increased insulation as part of "RAMP"