



## Calvert Cliffs: Safe and Secure by Design

*Almost 30 years ago, Constellation Energy – then Baltimore Gas & Electric – began a tradition of excellence at Calvert Cliffs Nuclear Power Plant. Year after year, Constellation Energy has continued that tradition, earning national recognition by the Institute for Nuclear Power Operations for maintaining operational excellence at Calvert Cliffs. In doing so, Constellation Energy continues to prove that high levels of safety, reliability and efficiency go hand in hand.*

Other national organizations hold Constellation Energy in high regard for the commitment to safe, secure operations demonstrated at Calvert Cliffs. The National Safety Council has honored Calvert Cliffs with the organization's Industry Leader Award for safety performance and the Green Cross for Safety Excellence. The company also earned the Nuclear Energy Institute's Top Industry Practice Award for developing at Calvert Cliffs an integrated risk management program that increases plant safety and plant production. In 2007, Calvert Cliffs' became the first plant in the Constellation fleet to apply for OSHA's Voluntary Protection Programs (VPP) "STAR" level of performance. OSHA's VPP STAR designation is reserved for work places that have implemented a comprehensive safety and health management system and demonstrated safety performance above industry average.

### **Operating safely begins with a safe design**

Being honored among industrial and nuclear facilities comes from Calvert Cliffs' design and Constellation Energy's commitment to operating securely and safely. The team continually maintains and improves the plant's redundant safety systems based on the best practices in the energy industry.

The plant's redundant safety systems protect nuclear fuel. While in use, nuclear fuel is protected by a ceramic case, called a pellet. Pellets sit in fuel rods and are contained in a building with thick concrete walls. Once spent, fuel is stored under cool water within a concrete structure for a decade. Radioactivity drops significantly during this decade. Then the spent fuel moves to a secure concrete structure on site awaiting a national spent-fuel storage site to open at Yucca Mountain, Nevada. At Yucca, the spent fuel will remain secure as it loses the remaining radioactivity.

After terrorist attacks on the United States in 2001, experts studied nuclear power plant security with added scrutiny. In 2002, the Center for Strategic and International Studies found that nuclear power plants were the best defended among possible terrorism targets. Later in 2002, the Nuclear Energy Institute and the U.S. Department of Energy partnered with international experts from the Electric Power Research Institute to study nuclear power plant security. This scientific study found that containment buildings at U.S. nuclear power plants would protect against a radiation release if struck by a large commercial jetliner loaded with jet fuel. More information on these studies can be found at [www.nei.org](http://www.nei.org).



*In 2006, the Department of Homeland Security announced the nuclear portion of its National Infrastructure Protection Plan (NIPP) at Calvert Cliffs. The site served as a pilot plant for this program and provided the foundation for the ongoing development of the nuclear sector's portion of the NIPP.*



*The Institute of Nuclear Power Operations accredits training programs.*

### **Training bolsters a safety-conscious culture**

Constellation Energy's Calvert Cliffs team has been recognized as an industry leader in training. For every employee, training begins on the first day at work and never ends.

Everyone participates in annual training on safe work practices. Additional training is required for employees who have access to plant areas where nuclear systems are located. The operations staff works on a rotating shift, so that every fifth week is a training week, spent requalifying on fundamental and advanced job skills and studying the latest technology and techniques for safe, reliable, efficient operations.

Training ranges from computer-based, self-study courses to a formal, 18-month classroom program approved by the National Academy of Nuclear Training, with additional testing by the Nuclear Regulatory Commission. All training programs are formally evaluated and accredited by the National Nuclear Accrediting Board on a set frequency.

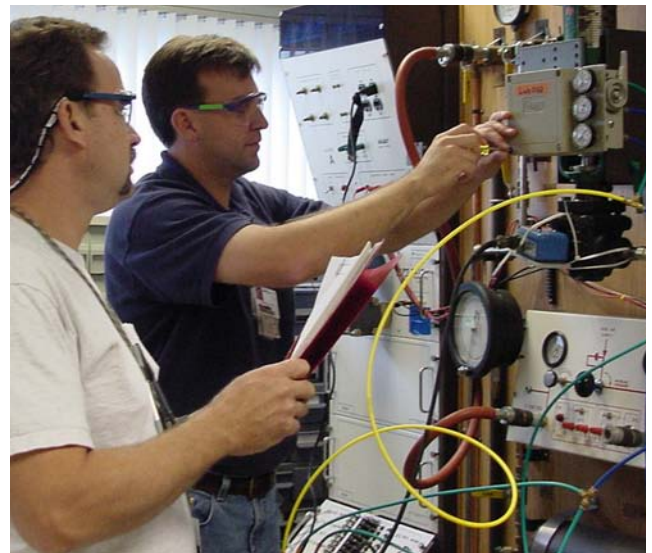
### **Federal oversight reinforces safe operations**

In addition to testing nuclear plant operators, the U.S. Nuclear Regulatory Commission (NRC) regulates and oversees all operations at Calvert Cliffs and all other nuclear power plants. NRC inspectors work on site daily. Additional inspectors review operations on a regular basis, totaling thousands of hours of federal oversight a year.

Although an emergency at Calvert Cliffs is unlikely, the plant must have a federally approved emergency plan, which the NRC and the Federal Emergency Management Agency test each year. The Calvert Cliffs team works constantly with federal, state and local emergency management agencies as part of this plan.

Every year these partners conduct intense emergency management training drills. Every two years the NRC grades these exercises, and every six years the graded drill includes agencies within a 50-mile radius of Calvert Cliffs.

At Calvert Cliffs, redundant safety systems, a safe design, and well-trained personnel reflect Constellation Energy's commitment to generating reliable, efficient energy safely in today's environment. Safety is our top priority.



*First-line supervisors take ownership of training, helping employees enhance skills.*