

## **Vince Bacanskas**

Director/Chief Engineer  
Entergy Operations  
Vbacans@entergy.com  
601.368.5913

### **Biography**

Vince is currently Director/Chief Engineer at Entergy Nuclear Operations, Inc. He has 24 years with Entergy and 37 in nuclear power. He has worked as an engineer, supervisor, manager and director in Engineering. He has an SRO Management Certification from River Bend. He is currently part of nuclear corporate engineering in Jackson, MS, but has spent 22 years of his Entergy career at the River Bend and James A. FitzPatrick nuclear power plants.

Prior to joining Entergy, Vince has worked at Clinton Power Station, Gilbert Commonwealth, Stone & Webster, and United Engineers in design and construction of new power plants and modifications to existing plants. He was a United States delegate to the International Atomic Energy Agency Conference on Nuclear Plant Aging in 1990.

Vince spent several years at the Franklin Research Center in Philadelphia. He was part of the team that performed the NRC reviews of licensee responses to IEB 79-01b. He supported the NRC in performing research and development as well as supporting numerous NRC inspections including EQ baseline inspections in the late 1980's. He managed the EQ laboratory and performed several EQ qualification tests for industrial clients and research tests for the NRC. He was author or co-author of several NUREG/CR documents on EQ research and aging of nuclear power plant components.

Vince was a member of IEEE and the IEEE Nuclear Power Engineering Committee for over 10 years and was also was a member of SC-2, Qualification, WG 2.1 on IEEE 323, SC-3 Operations, Maintenance, Testing, & Reliability, and a charter member of WG 3.3 on Maintenance Good Practices.

### **Abstract – Environmental Qualification: Have we learned from history or are we doomed to repeat it?**

A proposed Appendix A, "General Design Criteria for Nuclear Power Plant Construction Permits" to 10CFR50 was published in the Federal Register on July 11, 1967. Criterion 2 of this new GDC required in part that "The design bases for these structures, systems and components shall reflect (2) appropriate combinations of the effects of normal and accident conditions..." Criterion 4 went on to say that: "Structures, systems and components important to safety shall be designed to be compatible with the

environmental conditions associated with normal operation, maintenance, testing and postulated accidents, including loss of coolant accidents. In 1969, a steam test facility was designed and constructed at the Franklin Research Center in Philadelphia, PA and the first MCA test was performed on nuclear plant equipment and a new discipline was launched. In the mid 1970's, NRC reviews indicated deficiencies in the documentation, qualification practices, and knowledge of materials and components response to nuclear environments. The NRC spent millions of dollars on EQ Research during the 1970's and 1980's that established the basis for the knowledge we have today of how components age, and respond to a radiation environment. We use the results of this research today without, in many cases, recognizing where it came from and in many cases without understanding the theoretical basis behind it. Today's discussion will reach back to much of the theoretical research, who performed it, where it is documented, and how we can best use it to maintain and improve our EQ Programs and the dangers of forgetting it.