



C-10 Envisions A Clean, Safe, Sustainable Energy Future

August 18, 2010

C-10 Research and Education Foundation Statement Concerning Submerged Electric Cables at Seabrook Station

NextEra, Seabrook Station owners, have **applied 20 years in advance of their license expiration** without evidence that the reactor can be safely operated or managed to assure public safety until 2050.

After Seabrook Station's last refueling in October 2009, the NRC cited NextEra with a violation for inaccessible submerged (under water) electric cables.

Background: The NRC has not required a full accountability of all cable locations and condition at the nation's nuclear power plants. The NRC has required the industry to report the cables that have failed in service but failed to specify a clear regulatory requirement outlining a comprehensive cable monitoring program.

According to the NRC's Office of Regulatory Research, The NRC has not designed a cable system monitoring program that can provide "reasonable assurance" that the **cables meet all applicable regulations to perform their intended function in the plant environment under all anticipated operational occurrences and design basis events.** "Until the NRC require a comprehensive cable monitoring program, they are out-of-compliance with NRC regulations 10 CFR 50, Appendix B, (quality assurance), the maintenance rule (10 CFR 50.65) and environmental qualification regulations (10 CFR 50.49) which require that programs and administrative controls be established to monitor and detect corrective actions and design modifications, consistent with its safety significance, so that any future cable degradation is minimized," ¹⁾ licenses are operating out of their design basis and clearly in violation of their existing license requirements.

In our opinion, the NRC is knowingly allowing NextEra to operate outside the regulations; that NRC does not know the extent of NextEra's non-compliances; and furthermore, we believe the NRC does not have the authority to do this without a license amendment.

We believe a Demand for Information (DFI) Order should be requested of NextEra to demonstrate that all inaccessible cables at Seabrook are capable of performing their required function be it safety or non-safety related.

It is further requested that the NRC certifies that:

1. All cables (accessible and inaccessible) have been identified as to their location, age and repair history.
2. All Cables can perform their design functions when called upon for their function.

Significance Electric Cables:

Almost every active safety and non safety system at Seabrook Station is dependent upon electrical power to perform its function to prevent major accidents. If an accident occurs, electrical power is required to prevent a reactor meltdown with major radioactive releases to the environment.

NextEra has been cited after their refueling in October 2009 by NRC Inspectors for finding two vaults of submerged and inaccessible electric cables. They have pumped out the areas but can not assure the public that these cables will remain a dry environment or continue to perform as required.

Nuclear plant are designed to cope for a short period, typically four hours, without alternating current (AC) electrical power. During this short period, electrical power from batteries can be used to control steam-driven pumps that cool the reactor core, once the batteries are depleted. If workers have not restored AC electrical power from the onsite emergency diesel generators or the offsite electrical grid, the plant then proceeds towards a reactor meltdown.

Loss of electrical power increases the likelihood for a major release of radioactive material to the environment.

¹⁾ "Essential Elements of an Electric Cable Condition monitoring Program". USNRC, Office of Regulatory Research, Prepared by: Brookhaven National Laboratory, Upton NY 11973-5000 Pub Jan 2010

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Paul Blanch will attend both hearing sessions and be available for comment.