

Electromagnetic Interference/Radio Frequency Interference in Nuclear Power Plants

Training Summary:

After every theoretical presentation, a practical test was performed where it could be observed the applications and validity of what was just learned at the presentations. After the initial test, the test was repeated under different circumstances to learn the differences and ways to mitigate the possible issues.

The great advantages that we had while doing the fellowship in the AMS corporation were that AMS has a lot of experience working with Nuclear Power Plants so many questions and issues that we had were answered very quickly and explained in a very simple way. The other main advantage that we had was that their new laboratory allowed us to practice or recreate every possible scenario we had in mind, see the basics of it and modify the test in order to have the best conditions for our purposes.



What's Next?

The knowledge acquired in the fellowship will help the fellow to do a better diagnostic of future EMI issues that could be affecting systems of the plant, mitigate or eliminate current issues and prepare with better design considerations to control EMI in case a modification is done at the Plant. What was learned will be useful to prepare for the tests that will be done to support the License Renewal application regarding cable tests, aging, and acceptance criteria.

The systems engineer is a key player in the lifecycle and obsolescence management of the systems within the plant, being an evaluator of the proposed changes to the systems and providing inputs and feedback to the design engineer, with the knowledge acquired, the modifications regarding modernization of analog systems will be better prepared and the design considerations, purchase specifications and regulation learned at the fellowship will be applied in future modifications in order to reduce the possibility of EMI.

URIEL RAMIREZ GARCIA

MEXICO

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