

**Subject:** 2016 CMBG Conference - Wireless Design Breakout Session

Thank you all for attending this breakout session. Attached, please find the prescribed agenda we followed, compiled entries from station responses, Columbia Generating Station procedures and the EC guidance, attendance list, and the station responses including Callaway since this meeting is about benchmarking/networking.

**Notes from the session:**

Stations with Wireless Technology

- South Texas Project (STP) is using wireless technology in **Operator Rounds** (Trial run) and **Crane Operation**.
- Columbia Generating Station is using wireless technology in **Wireless Robot for High Radiation area inspection** and **Equipment monitoring in Heater Bay valves**. The station has procedures in place for portable applications and identified EMI/RFI sensitive plant area via baseline survey.
- NextEra Energy (NEE) plants are using wireless technology in **Crane controls & Load Cells** and **Electronic Work Package** (eWP) – not in Power Block. Cell phone restriction varies across the Fleet. The NEE is pursuing power block wireless infrastructure across the Fleet to support:
  - Expand equipment monitoring
  - Expand the use of eWP
  - Operator rounds
  - Real time work activity monitoring
- Callaway uses wireless throughout the site for normal business LAN operations only and not for any remote monitoring. The plant computer is protected and WIFI is not available for either input or output from this system. A guest WIFI is available for contractor use or visitor access and is password controlled. An employee WIFI exists for use by company employees for their mobile devices including personal cell phones. This is controlled by normal lan security and policy implementation. WIFI exists in both the protected and non-protected areas but is somewhat limited in the power block. To date, there are no known uses of our WIFI for remote monitoring which is what I believe they are discussing here. However, there are plans to utilize WIFI for camera's by I&C, we use WIFI for Training with remote classrooms, and probably will get to the point where we are doing some remote monitoring of some non-configuration controlled equipment down the road.

Benchmarking

- Fiber optic back bone infrastructure – STP

Issues/Concerns with Wireless Controls

The use of following devices were discussed:

- Fitbits – stations have not evaluated for EMI/RFI.
- Fobs – such as car starters, garage door openers, etc. devices have capability to emit RFI.
- Cell phones – even in the airplane mode or turned-off, still emitting RFI.

Controls used for EMI/RFI exclusion zones:

- Signs
- Painted area
- Markings on devices

Operating Experience (OE)

The following OEs were discussed:

- Turkey Point: Posting misinterpretation - you need to challenge “What does the posting mean to you?”  
LOOP/Load shed test inadvertent actuation
- Duane Arnold Energy Center: A EMI/RFI sensitive instrument affected by Security radio.

Due to the limited time, the above was a download of quick bullets and discussion, not conclusive resolution to issues. I encourage the group to continue to benchmark and utilize peers as these processes are worked through.

Thanks again,

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