



Cypress Nuclear Industry Users Group Meeting

Non-Invasive Digitization of Nuclear Plants

Dates: January 28th - 29th, 2025

Objective: Maximize operational effectiveness and return on investment for Wireless Gauge Readers: and other non-invasive digitization solutions.
Share Operational Experience among users and potential users, provide user feedback to Cypress, hear latest developments from Cypress

Host: Southern Nuclear Company
Hank Strahley - Operations Support Manager, Plant Hatch
Steve Brown - Operations Support Manager, Plant Vogtle 1&2

Location: Plant Vogtle, Waynesboro, Georgia

Format: Hybrid - in-person for those who can travel to Waynesboro, virtual (Teams) for other participants

Logistics: Attendees will be responsible for travel to and from Waynesboro, and hotel accommodations. Meals, team activity and all other incidentals will be covered by Cypress EnviroSystems

Participants: Innovation leaders, Operations, I&C, Engineering, Maintenance, Radiation Protection/Health Physics

Current/prospective Cypress users:

Duke Energy	South Texas
NextEra	APS (pending installation)
Constellation Energy	Nebraska Cooper
Southern	Energy Northwest Columbia
Xcel Energy	Ameren
Luminant	AEP
Bruce Power	Entergy
PSEG	TVA
Vistra	

Tuesday, January 28th

8:00am - 8:30am	Breakfast
8:30am - 8:45am	Safety message and welcome from Southern Nuclear
8:45am - 9:00am	Review of Agenda and Objectives of Meeting
9:00am - 9:15am	Introductions - participants
9:15am - 9:45am	Celebrating Success - UN International Atomic Energy Agency Award Southern Plant Hatch - Innovation for Nuclear Plants 40 competing global entries for four awards Energizing adoption - support from executive team
9:45am - 10:15am	Overcoming Obstacles and Challenges Xcel Prairie Island - Operator Feedback WGR obstructing view of gauge - making rounds more difficult WGR calibration disturbed when operators twist off WGR Need error indication when calibration is disturbed How Xcel/Cypress jointly developed solution
10:15am - 10:30am	Break
10:30am - 12:00pm	Return on Investment Justification - new case studies, examples Extending acceptable material life (Duke Energy) Automating operator webcam monitoring (Duke Brunswick) Condition based maintenance, condensate polisher (Vistra Davis Besse) Using crash carts for emergent troubleshooting (Southern Hatch) Fault detection for EHC tank level (South Texas) Startup monitoring after fault (Constellation Peach Bottom) Valve Cycle Isolation monitoring (Duke fleetwide)
12:00pm - 1:00pm	Lunch (catered)
1:00pm - 1:30pm	Recap Users Group Resources Update on Use Case Library Update on Best Practices Library Peer Contact List
1:30pm - 3:00pm	Best Practices for Smooth Deployment Pre-installation checklist Engagement with Operators Use of Operator Dashboards - Duke and Xcel versions Clarity of Roles and Responsibilities for Maintenance Use of Tech Specs vs. EC's where possible Bounding conditions for Safety Related and Seismic Structures Configuration Control of Non-Permanent Plant Equipment
3:00pm - 3:15pm	Break
3:15pm - 3:45pm	Cybersecurity and network architecture Upgrading Field Deployed GBC's to Centralized VM GBC's
3:45pm - 4:00pm	Questions from New/Prospective Users Top five advice for new users, Q&A
5:00pm - 8:00pm	Team Activity: Group dinner plus TBD Activity

Wednesday, January 29th

8:00am - 8:30am Breakfast

8:30am - 9:00am Recap latest list of non-invasive digitization solutions from Cypress for Nuclear Industry

9:00am - 10:00am Product Roadmap Discussion

New releases:

- Webcam Video Integration
- Flip Door
- 3rd party sensor integration (from Multi-Tech)
- WGR V2.6
 - Detection of WGR moved or removed - calibration invalidated
 - Remote change of WGR sampling rate
 - Image subtraction - can read more gauges
- Temperature monitoring
 - Magnetic stick on temperature monitoring
 - Thermocouple Monitoring IP67 enclosure
- Barrel liquid level indicator

In-work in pipeline

- WGR capture and store image upon command
- Hazardous location Class 1 Div 2, ATEX Zone 2
- International versions for Asia (Europe already available)

New User Requests/Priorities?

10:00am - 10:15am Break

10:15am - 10:45am Use of Generative Artificial Intelligence in Nuclear Plants

- How is each utility addressing this?
- Best applications for initial adoption?

10:45am - 11:30am Introduction to Southern chapter users group

- What is rationale to have local chapter
- What relationship with industry group

11:30am - 12:30pm Lunch (catered)

12:30pm - 2:30pm Plant Tour of Vogtle 3 & 4

- Newest plant in the US Fleet
- Commercial operation started 2023