2019 CiSCO
CEMS User's Group

Analyzer, Heated Sample Line and PLC Replacements

Lessons Learned

Analyzer & Sample System Replacements

- Need to define what is staying and what is being replaced – are the items staying compatible and adequate to handle the new system. Be as concise as possible (HSL boots, PSB, new electrical required, . . .)

- Is a plant visit by CiSCO required, expected or beneficial?

- What drawings are available – whose system was it, have there been any modifications that need to be addressed?

- Will the software be modified? How? Small changes or whole new version? Define expectations

Analyzer & Sample System Replacements

- Define installation – who will install what? (HSL, analyzers, support rails, moving electrical, terminating lines)

- How much downtime is expected?

- What is the plant availability?

- Safety requirements – are there special requirements for your site?

- Tools and other items that need to be supplied?

Analyzer & Sample System Replacements

- Are Monitoring Plan updates included?

- Hard Copy Monitoring Plan?

- QA/QC Document – will this be updated? Does one already exist? Can it be provided?

- Will there be a new I/O list provided? New DAHS Specification?

- Are new drawings being supplied?

Analyzer & Sample System Replacements

- How will the O&M Manual be updated?

- Will the analyzer ranges stay the same?

- Will the Calibration gasses need to be changed?

- Are all calibration gasses onsite for the new system?

- Is the OIT still supported?

Analyzer & Sample System Replacements

- Define number of personnel to be onsite and for how many days.

- What assistance will plant provide?

- Is there a plant person assigned to lead the project?

- When can equipment be shipped prior to installation phase?

- Maintenance of other equipment is essential (equipment that has not maintained and fails during installation is out of scope and will result in extra charges – make sure there are adequate spare parts or repair parts onsite).

PLC and OIT Replacement

- GE PLCs – the Fanuc to the RX3i

- Allen Bradley – SLC PLCs - limitations

- Allen Bradley – CompactLogix and ControlLogix

- OIT Panels – Allen Bradley, Automation Direct, GE, Maple

- RealView as an option

PLC and OIT Replacement

- DCS Communication
  - Is it Serial? Will it need to stay that way?
  - CiSCO will propose an Ethernet solution if possible.
  - Need to make sure this communication is defined either in the proposal stage or VERY early in the project.
  - If DCS changes are needed, that is not in CiSCO's Scope.
  - Site DCS person is needed to be active in all phases of the project.

Testing the System Changes

- CiSCO personnel, along with plant personnel, need to make sure that the new system is fully functional (calibrations run correctly, CGAs/Linearity checks if applicable, are functional and accurate, taking system our of service functions properly, communication with DCS is functioning and accurate)

- For the remaining functions that can't be immediately tested – create a list and update CiSCO weekly for the first few months (startup, shutdown, limit alarms, etc.).

- Signoff of daily field service reports from CiSCO technicians to acknowledge the status of the installation and identify any issues and delays that are happening.

What's Next

- Questions and General Discussion