2022 SPRING EFCOG SQA Meeting Notes and Attendance Wednesday April 27, 2022

The agenda for the EFCOG SQA Group 2022 Spring meeting (Spring2022_EFCOG_SQA_Agenda_Final) on this date Wednesday April 26, 2022 is used as reference to the sections of the notes, based upon each agenda item. The agenda as well as the presentations for agenda items, and this document of notes/attendance will be emailed out as reply all to the people in the Outlook invite of this meeting. Please see the presentation of an item for information provided within, the notes taken in this document are those in addition to what was shown in the presentations. The Chat log is provided in a document attached to the email sent out with the notes. The attendance is available at the end of this document.

Meeting hosted by Teri Vincent EFCOG SQA Group Co-Chair, of Y-12/Pantex.

A. **Welcome** – Safety, Security, and Quality Moment, by Pat Auer/LLNL.

1. Pat shared how he received safety notice for software on his truck which is used tow. There was a software issue for patch, safety issue for truck. It is important to watch for recalls that may include software. In this case, the problem affected the brakes.

B. **Discussion of Tuesday Group Sessions**, **Moderator:** Teri Vincent

1. **CGD of Software presentation:** Sid Ailes of Atkins, had a comment - One thing to test the software, testing doesn't prove it works in environment you are working in, configuration of hardware/software is important. Appreciate input from group. Pat Auer of LLNL, noted that software is part of a system, safety functions, testing comes into play. Tested with configuration of a plant valve, have to inspect hardware and test software. Driver for reports DOE Order 435.1 Radiological Safety Management. Sid responded inspection of host computer software operating system, version identifiers need to be done, then do testing Pat suggests skipping over test variables. Sid said there may be limited time to do testing. Pat noted there is mix of safety and non-safety software. Sid responded, often people see test, only run supplier test problems, need to do more than that. Pat noted need to run only vendor tests, LLNL doesn't always test everything. Needs to be peer reviewed, do more than vendor testing. Data peer reviewed.
2. **EDD presentation**: Teri noted that, there were lots of these devices at labs. Need to evaluate them.
3. Marylou Apodaca of SNL commented that couldn't hear much of the presentation. Discussions were helpful. Sidney Ailes of Atkins noted it was a good presentation. Middle ground, organizations demand open product to inspect OEM, that's overkill, violate warranty, excuse e-prom, need technical expertise to understand equipment. Marylou responded no confidence of industry for testing EDD. Hold off loading, expect users to do testing. Pat responded not much confidence in system which consists of items from different vendors. Significant testing. More expensive to do dedication. Sid responded problem with valves significant. Using standard valve to control liquid fuel in reactor for example. All of a sudden valve was leaking, due to not made with correct material. 100's thousands of monies lost. Teri responded, don't know what you are going to get, even on computers. Marylou noted what do you do about the board EDD? Part of problem, we don't always get notified of S/CI.

4. Donna Riggs of Riggs Consulting noted, need to check things for "like for like". Teri noted, break it down if embedded. Corwin Jones and Pat discussed industry OUO EDD notice. Part 21 Remember picture from OIE report? 10CFR21 suspect part, fails, nuclear power plant, notify NRC. Supply chain kept those items. Failed components go back to manufacturer, and they are sent out to industry with batch numbers. Missed documentation to failed component. For example, this component on this board. So, you can look to see if you have same part.
5. Cristy Renner noted that the EPRI documents are very informative, have to remember to look at that. Pat responded all EPRI documents are assessable. Cristy responded not sure if going to right place. Pat responded he will send info.
6. Lincoln Djang noted if you know number, you should be able to go directly to EPRI document. Cristy responded when she tried to do this, couldn't find document. Teri noted, it could be your site is blocking it. Pat will provide link in chat.
7. Tobin Oruch asked, there appears to be 2 meanings of dedication? Sid responded that in 1985 NQA-2 group began to develop section 2.7, saw need to publish in 1991, discussed with industry problem, ANSI talked about bringing existing software. 200 2008 NQA-1 NRC does not address. 10CFR21 for software 2009 Addenda for CGD. What you do about non-safety related software, it is a big hole in standard, have to go to section 2.14, which doesn't make a lot of sense. Pat responded go to your QA program for all software. Sid responded that 2.7 only addresses safety software, order applies to all software, don't have standard for non-safety software. Pat said LLNL follows their own process. Lincoln noted, this may not be graded approach. Pat responded, yes, how much you apply is based upon rigor for risk. LLNL has a simplified SQAP. Tobin asked could still use NQA-1 with less rigor for non-safety software.
8. Corwin Jones from LANL responded, looking at document, non-safety software risk significant should be applied for. Working on quality software, risk significance, non-safety commercial. Area this group needs to clarify on. Area causes confusion for set of safety software in part 2.7. Separate set of applications until you identify hard to justify money, on software that is not nuclear. Has risk. Make area inhabitable.
9. Teri noted have this as group discussion for CGD of non-safety software. High risk non-safety software held to SQA practices. Put on list for monthly meeting. All software clause, for CGD, graded approach. Corwin responded, most labs have graded approach, but some people don't understand this area. Cristy responded we need graded approach for non-safety software. Corwin noted, safety software started in 1985, implement for nuclear, to NQA-1. You won't get killed by something not in this umbrella. Many non-SS affects safety, but don't fall under NQA-1. Donna noted that NQA-1 section 2.7 does not say safety. Corwin responded section 1 of 2.7, is for nuclear safety. 414.1D scope mentions only nuclear. All software, all quality. Donna responded still covers nuclear facility. Corwin responded, others will disagree with this. If it can impact the facility, safety software in fence, chemical plant in separate fence. Reactivity of facility. For example, glove boxes fall within, can cause reactivity. Nuclear waste causes no reactivity, falls out of NQA-1 because EPA area.

C. **Cyber Security** standards & Overlap of SQA and Cyber and group discussion, by Gregg Pope – LLNL. **Cyber Security Overview Presentation**

1. Just finished course on cyber security. Have background related to cyber security. Most experience as software developer.
2. Two types of orgs: 1) know you are being attacked, 2) don't know you are being attached, but in both situations, you are being attacked.
3. Most common attacks are via email, 34% insiders, 19% malware does the most damage. Start with phishing attacks or social engineering. Or not patching vulnerabilities, keeping up with updates from MSN for vulnerabilities.
4. Cyber standards ISO/IEC 27001 – implement a info security management system, keep technology up to date, orgs audited. NIST SP 800-53 Rev 5 most comprehensive crosswalk.
5. Tom Bundy asked, VPN Service allows info from home to encrypted, for the discussion on SQA overlap, how folks are going from SQA program for EA SQA assessment. Mentioned throughout in work design, not spelled out in comprehensive SQA program. Overlap in agenda, looking for more on threat. Greg responded we typically don't have developers talking to cyber security, not trained in cyber security, to write good code. Need to implement developers trained to not do certain things. Plan for cyber secure software at the beginning, not at the end. Look at interactions of applications. Tutoring daughter in C+ Python, teacher give problem, assume user puts in correct info. Hackers won't put in correct info, neither will users.
6. Charlie West responded lots of info for software, defensive programming 16443 on IASA, and NIST 850, 852. Should I bring in cyber security into quality standard? Marry two. Or leave separate. Point to cyber security standard to be implemented with quality standard. Greg responded, we haven't done a good job marrying cyber and SQA. 414.1D has "assure no malware in software". Lots of measures penetration testing, coding standards/templates. Aviation industry going to limit syntax to certain forms, look at quality as meta over security and safety. Secure and regular software, secure has vulnerability analysis similar to FMEA, what things can go wrong. Add step in requirements, need to say something beyond saying secure, say common threats, mitigation steps to guard against. Bad news is developer may not be able to do, they just don't know. Integrate cyber security standards within quality standards. Put in constraints, analyze hazards, make sure mitigation in place. Charlie responded, like to discuss more. Control systems, lot of things cause death, hurt people. Could set up discussion. Greg responded Safety & Security are related. Hackers disabled safety part of software. Hacker defects safety functions. Security can nullify and impact safety. Teri noted we could look at this more in another meeting. Greg said he could provide 50 things to do about your software document.
7. ***Teri suggested we could look at this more in another meeting. Have SQA best practice, come up with.
8. Corwin responded we have existing process R2 SQA design control, protect facilities. Blown past that. Cyber security, demand patch to safety software, introduce failure. Competing regulations. Security would not do change without design control review. Design should consult security. Design engineering & SQA. More concerns for EDD. Deliberate change to baseline of software. 737 Max incident for example. Single baseline control. 7 databases software in, tied to cyber security. Our demands coincide with cyber needs. Disaster Recovery subset of cyber security. We need this. Same problems at commercial side, also in DOE.

9. Teri noted Software doesn't go through development without cyber security involved. 1 database for software. Corwin responded he would like to benchmark with Teri. This group can identify good and bad practices, look at higher level. Teri responded, nice to have something to go by. Corwin noted, always interested in what people on outside recommend. Teri noted for infrastructure group, can they support software. Integrate with explosives group for changes to software. Corwin noted there are findings of NRC Audits. You can find this in google search.
10. Cyber security should be tested every 3 years.

D. **Tool for spreadsheets demonstration and Matlab software**, by Greg Pope of LLNL.

1. ESA company for Configuration Management spreadsheet, someone else changes. Show spreadsheet to show how ESA technology works. Assess risk. Estimating software projects, risky business. Different categories like what source language – familiar with lower risk, unknown higher risk.
2. Greg gave spreadsheet to ESA to put at website, representative of spreadsheet, using their software, added wrapper to access, but not change spreadsheet. Now using website instead of spreadsheet. Include weighting factor. Software does more than spreadsheets, for Europe software nuclear area. Can be used for MATLAB, that adds GUI to it. Fortran, C++, can limit to what use. Used for any application. Another feature can put in more than one value.
3. Checks inputs, invalid values, EASAP submitted successfully. Demo of EASA. Works on iPad. Take with you somewhere. Group do you have any spreadsheets/applications that you would want to put at EASA?
4. Carol Olijar of ANL asked, could we use this tool for Toolbox codes? Greg responded go through export process for LLNL, email assessment report to white house on health of stockpile, cyber security a question for stockpile of weapons. Do see questions from top about SQA & cyber security. AAR report.
5. Keith Morrell, noted NISTL nuclear info technology group for NIST, similar to EFCOG. Try to find contact in chat message.
6. ***Teri responded the sooner our groups can work together with cyber &SQA the better. Meetings with cyber weekly, SQA watches their back, and same for us. Very important in our software world, come from all angles, work together.

E. **SharePoint:** how to identify what should be controlled; utilizing calendars with overlays, workflows, item lists, alerts, data sheets, quick links, etc. Are other DOE sites only evaluating certain portions or only when specific features that are utilized? **Moderator:** Teri Vincent – Y12/Pantex.

1. SharePoint out there, what is controlled, not controlled, what are different sites doing?
2. Tom Barsz of ANL, noted that there are 2 groups for NE that claim they have NQA-1 SharePoint. Never thought of SharePoint as software quality. Teri responded there I so much flexibility with new version of SharePoint. Tom responded he convinced division to put records in SharePoint. Teri noted records limited/managed created/produced out of SharePoint using database. Tom responded files on SharePoint server, need to be qualified, requirements and tested just like any other product. Teri noted all software must be managed, so should SharePoint What could best practices be? SharePoint itself, and applications using SharePoint. Could look at this both ways.
3. Christian Palay of DOE asked, "Records or application?". Teri responded depends which way use SharePoint. At my lab we have parent/child relationship. Cyber Security allows us to use. High level documents, not have to have for lower levels. Any applications created using SharePoint may not need their own SharePoint SQA plan. Testing would be on children of system. Entry for high level in software inventory. Higher level documents, not overtax cyber by only doing one evaluation.
4. Tom noted for change control, should be considered, for MSN changes, that can affect application, could be challenging. Teri responded, need to apply graded approach, how we define, depends on what we do for each software type. Depends on intended use. Are labs looking at SharePoint to be managed for SQA. My lab is.
5. Corwin responded needed to exercise control for SharePoint sites. Greg responded, compared to spreadsheet. Test expose to SQA. Wouldn't test Excel. LLNL excludes office software such as SharePoint think it would be excluded. Teri noted Version Control of SharePoint, gives version, and some testing ability. Lucy Richards, noted quality baseline functionality within SharePoint, still under configuration management. Marlene Underwood, responded depends on if using for Outlook invites, calendars. Teri noted this may be magic question, where do we draw this line?
6. Veronica Camarillo Morris noted Quality SharePoint at high level MSN, COTS, purpose buy D risk level. Problem is how utilized by each department; we don't have level of training for sufficient impact. I don't use software that way. Grade to highest level of use. Depends on intended uses. Corwin responded never imagine using in business-critical process or safety level, need to use graded approach for SharePoint version control on each phase, why put control on low-risk software? Veronica responded software at low risk, but used for systems making critical or access decisions then we need to grade too higher. Managed by infrastructure. This person uses for critical safety function, but not everyone. Corwin responded for example Excel. My trust in SharePoint org should not use if for critical need. So many holes. Should be group to manage SharePoint. How do we know anyone is using software for critical needs – depends on organization. Teri responded could have limitations to development access to SharePoint.
7. Corwin responded, difficult to review inventory for what is retired. Most of safety software list, has Excel, SharePoint. Teri noted Christian suggest someone fill out form, white paper of how they will use SharePoint. Louanna Akers could work with Marlene Underwood. Not yet developed for safety basis platform. Before, curious how others managing. Not sure correct approach.

8. Teri suggests look at deeper, white paper, to talk more on their reviewing link from Christian. SharePoint hard one. Louanna on team developing white paper with Veronica. Haven't considered Corwin says hard to do.

F. **Follow-up Discussion** – Phase 1 Enterprise-Wide Assessment of SQA Process Implementation, Presenter: Aleem Boatright DOE EA

1. Can't answer questions on Phase II. Why are we doing assessment? Aleem responded that Cyber Security integration of SQA, really interested in understanding. What considerations are needed, is it implemented consistently across organizations. Want to understand what everyone is doing, what order should include. Look at determination of safety/non-safety software. First phase is for learning and understanding to comply with order. Then build more focused criteria for targeted assessments. Make recommendations to ESHSS, some kinds of changes for DOE. Implementation of non-safety software. Understand how implemented. Request listing of all software, what has been done for each of them. Understand grading levels. Security software not universally understood for 414.1D. Application with SQA.
2. Field element oversight, quality stand to get qualified. Phase 2 follow what was requested in Phase 1, could include more. Shouldn't look a lot different. Process to categorize assessments on the program. Drill down to training of practitioners. Analysis to classify/grade software, may pick set of software, to verify grade level in inventory. Phase 2 understanding of all software at sites. Reveal anomalies.
3. Yes, speak to people responsible. Not determined yet, expectation looking at contractor, look at safety software, non-safety software, COTS. Typical assessment. No, the report that was used to determine to do this assessment is not readily available. Most info is reflected in plan from it.
4. Justin Suder asked What about cyber documentation, if need would come into play at meetings/interviews? Tricky one, no requirement to have cyber integrated with SQA. Looking for if you have integrated in documented manner, provide documentation. Or if plan to do this.
5. Veronica Camarillo Morris, asked do we have requirements for cyber in procurement, stands don't line up in NQA-1. Teri noted, often viewed as not. Best can be for NQA-1 Cyber & SQA, not well defined.
6. Aleem noted DOE O 414.1D strictly, clearly reason org would create process, flow down of NQA-1 expectation in SQA for cyber security.
7. Justin Suder noted if generic cyber with purchasing, look for what cyber implemented, more of doing over WebEx or on site? Aleem noted, will not be onsite for Phase 1, Phase 2 will be, for subset of sites. Sampling from each program office. Work thru site leads to each site in EA office. Oversight planning. Adequate heads up.
8. Carol Olijar of ANL asked, if interested in software related to high-hazard facilities, would be a lot of data for all software. Aleem responded he can handle it all, for example didn't grade software, not related to nuclear facilities.

9. Christian Palay of DOE noted there is a tendency only to focus on attachment 4 of order, however the rule subpart A, may/may not affect safety software. Holistic. Christian provided link for document. Can't alleviate look at all software, including for attachment 2. Aleem responded that the EA SQA is focused on all software for management of nuclear facilities. Idaho isn't doing nuclear activities; they may be using software at other lab as safety software.

10. Veronica noted if something is running on your network, they can find anything. Physical use of software for nuclear facilities, hard part to siphon out safety significant from other software. Justin Suder responded some software not on network such as Cority in the cloud. Aleem responded Classified/Non-Classified. Difference between security systems such as LANMAS elements for classified and unclassified. Not just alarms, but material accountability too.

11. Christian noted that cyber security requirements, create documents prescribe policies, cyber another requirement for software must meet. Can't have conflicting priorities. Aleem responded Is guidance clear enough in regulations? Don't think all organizations know.

12. Tom Bundy noted ORNL just found out about assessment. How do they get documents to repository? Aleem responded Max.gov site is the repository used for the documents. He grants access to contractors to upload documents. Let Aleem know your name and email address. His email address is in chat. Aleem will include Tom Bundy oversight lead in email. Christian asked Who qualifies WebEx?

13. Colby Cater asked for copy of plan to be emailed to him, can't put in WebEx. Carol will send out EA SQA plan and memo to all who are invited to this meeting, right now

14. Teri asked about software in the Cloud. Discussion of, wouldn't know of cloud software, tool to do calculations for heat, did review, script run.

G. **Agile SQA,** **Presentation & Moderator:** Lance Abbott of SRS**. Panelists:** Teri Vincent, Greg Pope. **Agile and Software Quality Assurance Challenging Perceptions Presentation.**

1. Lance has a degree in Chemical Engineering, experience as software developer. This presentation is his opinion on subject.
2. Agile Manifesto came out 21 years ago. It was to provide better way to develop software. 12 Core Principles – deliver in teamwork business and technical requirements earlier and quicker.
3. It was determined not worth the endeavor to map Agile to NQA-1, and DOE O 414.1D. There are multiple methodologies to Agile – 42 from Google search. What about Scrum process? Every scrum implementation is unique.
4. Three (3) primary roles – Product Owner (responsible for vision & requirements of product); Scrum Master (provides oversight), and Scrum Team (Implement).
5. Vision to User Stories Requirements such as "As this role person, I want product to do that", to Product Backlog to Sprint Planning to Selected Product Backlog, to Sprint Backlog, to plan out Sprint 2-4 weeks, to Daily Standup meeting, to regular Feedback from Customer. During Sprint develop, test at end of new functionality for distributable product, then perform sprint review (how did we do) to retrospective, move on to Sprint Product Backlog.
6. Anything that conflicts with good SQA principles? What do you map? This is engineering methodology. Different way of doing work. Are Agile & NQA-1/DOE 414.1D Compatible? Yes. How do we do it? We include quality deliverables as tasks such as requirements and testing. Anything can be a deliverable for software testing in sprint.
7. Everyone needs to understand Agile & Scrum process? Really just understanding. Not really solving developers' problems. That is why there are challenges. Developers want to produce quality valued software, quality processes built into toolsets they use. SQA documents are largely a duplicate of work that do not provide value. Getting data out of tools to send to records is painful, time consuming. We produce SQA documents because we are required to do so, not because we believe they improve the product. SQA is documentation centric.
8. What is the real problem? We're always audited for our documents, so it must be only acceptable way? Under what environment were the current SQA requirements created? Documents handwritten, typed up, routed for comments handwritten, routed for wet signatures. The Magic is Agile Guidance for SQA. Better understanding of software development, how reflected in standards, orders, audits. And removal of control records approach.
9. It is most important what we produce is source code & executable, not documents.
10. Teri Vincent, noted want everything, depends on perspective. Stuck in document centric mentality. Corwin Jones of INL, responded INL uses Agile, integrate hold points in stories. We have all documents at end of each story. Need to know what requirements are, to test, tied down, with signatures, reviews, just document. Use electronic signatures. Can run report out of software, include electronic signatures all built in software and report out.
11. Lance asked What are we trying to accomplish, regulators say don't tell me how, just provide what is needed. Ron from chat asked, "How does that affect…". Veronica noted required to have documented code, in NQA-1 Requirement 3. Document from work activity, if have GitLab ticketing system, version controlled, everything in system of record, doc is necessary. Teri responded it is overtaxing our resources, doing double work, we try to allow credit for processes followed, for example acceptance test plan put version on cover page, allow some leeway we can use, so we don't ask for SQA document. With Scrum, if our IT had procedure for how developing software, we could let them take credit, or use Stories if not integrated, info not all included that SQA needs.

12. Lance responded Devil in detail, of implementation of Scrum. Scrum training, more rigorous process, not less. Corwin suggested go thru training for Scrum. Lance responded quality is not free. Not to avoid quality work. How do we use enough Agile/Scrum? Can have high quality software in work not related to NQA-1.

13. Christian Palay of DOE in chat stated "DOE 243, electronic records, mandate goes into effect, for all retention of electronic records. Cusp of greatness. A lot of documentation in sprints. When systems have failure, how do you talk about in court without records? DOE not in paper business. Think about, get ahead of it. Veronica responded LLNL has electronic records documents. Still need to maintain electronically. When purchasing software, already have documents from vendor. Thousands of pages on SAP. Is documentation important? Can we do less. Lance said yes.

14. Corwin stated has to be legible. Create QA record. Surprised people still printing things out. Can create report, not on paper. Problem, most developers don't know what is required. Don't realize requirements need for testing. Build electronic signature in JIRA. Test results all in JIRA. How does it fit into your project?

15. Greg Pope of LLNL answered No. There are two challenges for funding mechanisms. People misunderstood Agile. Challenged by things around project. Need to create schedule. Lance responded What level of effort for a project challenge? Veronica responded scan Agile work well, for small applications, not work well for applications built from scratch, how do you do that, migrating software? The reason for push for Agile, introduce risk have to do with education. Lance responded modified Agile for large safety code, still producing1000's of pages of documentation. Veronica is going to wait until application is complete to document. Lance responded he waits until viable product to release, before completing SQA documents. He has EPIC 6 sprints before development for example, can't test in 2 weeks until all software is available to test. Test in process.

16. Teri noted do testing at each sprint and at end of cycle. Lance responded, not deploy for 6-8 months for safety software. Sid Ailes of Atkins responded back in day, software to do with nuclide in Fortran code, how many sites still developing using Fortran with Scrum – for numerical calculations. Greg responds still have Fortran, programs language doesn't matter Spoke with co-inventor of Scrum, identify problems early as possible, important to find problems early. Corwin responded Minimum Viable Product. Safety Software has more rigor, doesn't matter methodology, has to meet requirements.

H. <u>Toolbox Alternatives White Paper,</u> Presenter: Pat Auer of LLNL, **Safety Software Central Registry Toolbox Alternatives Presentation.**

1. Pat described White Paper to group, he plans to go ahead and approve. Chris Beaman of EHSS-32 worked with him on this project.
2. From 2003 history with 6 codes, 2 more added. Existing codes out of date, no funding to maintain toolbox. April 2021 full EFCOG subtask to make it useful, plan for toolbox to no longer be supported by DOE. Fall 2021 survey with Chris on resources to use, got no feedback. In November 2021 DNFSB met with EHSS-32. Clear codes not added, old codes, what to do to fix. EHSS-32 developed project plan for new codes not added to Toolbox. Suggest Team approach. EHSS-32 Project Plan due June 2022, goal to complete white paper too.
3. Selected 3 alternatives, identify advantages/disadvantages of each:
   a. Eliminate SSCR toolbox, treat as otherwise required code, perform qualification steps.
   b. Have a site or sites manage SSCR and perform audits.
   c. Have DOE manage a direct support contract or similar vehicle to perform audit.
4. Establish DOE Complex user group or forum. All options require sites to acquire the code and incorporate into sites QA/SQA program to meet DOE O and NQA-1 requirements for qualification. Option 2 or 3, SSCR be like supplier list similar to EFCOG's supplier list.
5. Recommendations and then DOE select/approve. DOE asked team to come up with alternatives. What could we do, not how could we do it? DOE takes White Paper, feedback from Defense Board, still kicking out results from their review. Come up with best path forward. DOE articulate the how. All communicated with stakeholders.
6. Option 1 Advantages: DOE no longer manage if goes away. Disadvantages: Sites qualify. Still evaluate sites. SSCR goes away. Increased costs to sites. Increased documentation could require CGD. Otherwise Acquired process varies. Sid responded CPASS developed by other sites, no QA program, no documentation, not make sense one site to bear this cost. Documentation may not have been retained for all releases. NIST creator of CPASS. Would need exemption for audit. Create and education process. Chris responded, each implementor would need to evaluate codes.
7. Option 2 Advantages: Have site manage toolbox. Need funding for audits. SMEs perform audits. Does not make each site qualify a code. Disadvantages: pick a site. SMEs restricted to one sight, technical bias. Some DOE oversight, funding may be needed. Sanjay responded single site, or farm out to other sites? Pat responded LLNL would want to involve other SMES from other sites. Team effort. Sanjay asked could there be a conflict of interest, if say LLNL managed code, they can't audit it. Pat responded, would need to avoid doing this.
8. Sanjay noted options 2 & 3 share qualified suppliers, not audit every version, but make sure program on track, most current version at toolbox. Pat responded Yes.
9. Yevonne Deaton of DOE showed the 3 options in the chat from page 10 of the presentation.
10. Option 3 Advantages: DOE or direct support contractor perform audit and maintain SSCR. DOE contacts approve all contracts. DOE owns process. Disadvantages: need contract, cost justification up to DOE. Don't have to do dedication process. Not more than 20 codes. Not significant audit. Yevonne responded if doing for DOE, would you be considered DOE auditors, qualified for safety software? Did you take into consideration? Not just NQA-1, but also TQ qualified. Assure software used for safety analysis – SHADS. Pat responded, Yes, NQA-1 lead auditor qualified. Not a fed. Chris responded this is more to how, not what.

11. Pat noted update is up for this consideration. Teri responded NQA-1 subcommittee, someone not related to SQA, want to step up and be on NQA-1 committee?

I. <u>Sub-task Updates, Presenters</u>: Task Group Leaders**.**
   - Toolbox Alternatives (Pat Auer)
   - Otherwise Acquired SW (Pat Auer)
   - Testing Spreadsheets (Greg Pope)
   - SW Standards & Orders (Cristy Renner)
   - Cloud Hosted SQ (Russell Swannack was leading – needs a new leader – white paper is in draft)
   - Internet of Things (never started; needs leaders/members if we want to keep it)
   - SW Benchmarking & Surveys (Teri Vincent)

1. SW Standards & Orders **Cristy stated software standards and orders white paper, need to do at another time.**
2. <u>Toolbox Alternatives</u> **Pat to meet with John Hendricks, additional examples needed for CGD to add to paper.**
3. <u>Testing Spreadsheets</u> Greg had nothing new to report. Spreadsheet Checklist available for use, like to get feedback from group. Regarding White Paper, Sid is working on this. Sid not started on yet, maybe this summer.
4. <u>Cloud Hosted SQ</u> Looking for new leader. Orlando Ferrer, volunteering as he is part of team, can lead it.
5. <u>Internet of Things</u> next meeting to discuss. Christian gave ideas on. Needs people.
6. <u>SW Benchmarking & Surveys</u> not done much yet, need to have meeting.

J. <u>Daily Wrap-up by</u> Teri Vincent, Pantex/Y-12:

1. Cristy Renner is new co-chair for our group, we will go back to monthly meetings.
2. Feedback – what would you like for Fall? Vicki Pope of LLNL asked will have in person or hybrid, loved joint QA session, kudos to leadership team. Good discussion. Teri noted Greg stepped up and provided excellent presentations along with Lance on Agile.
3. Vicki offered to help out with Survey task group.

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Attendance:

If anyone attended this meeting but does not see their name on the list on next page, please contact:
EFCOG SQA Group Secretary: Carol Olijar (cschultz@anl.gov)

Attendance varied throughout the day, highest number of attendees: 82.

***There were some on the phone, and others who just gave initials or first name. If you see your phone number listed here or initials, and your name is not within this list, please contact Carol Olijar to add you to Attendance List.

First Name	Last Name	Site
Call-in-User-12	Phone	???
Call-in User-19	Phone	???
Charlie	Online	???
Julie	J	???
Ward	Online	???
Lance	Abbott	SRS
Joao	Aguiar	DOE-SR
Sidney	Ailes	Atkins
Louanna	Akers	Northwind Portsmouth
Marylou	Apodaca	SNL
Patrick	Auer	LLNL
Gregory	Baker	NNSA
Tom	Barsz	ANL
Chris	Beaman	DOE
Ward	Best	???
Todd	Billings	DOE-Hanford
Daniel	Blaj	BNL
Aleem	Boatright	DOE EA
Warren	Brown	Hanford/RL
Tom	Bundy	ORNL
Colby	Carter	WIPP
Ellen	Clark	FBP Portsmouth
Bill	Clarno	DOE-RL
Laura	Cook	LLNL
Bryan	Coonfield	WRPS
Mary	Curtis	FNAL
Yevonne	Deaton	DOE
Kenneth	Deutsch	???
Lincoln	Djang	WIPP

Sanjoy	Dnfsb	???
Michael	Dunlevy	???
Randy	Durbin	???
Orlando	Ferrer	RL
Maria	De La Torre Garcia	???
Leo	Gillen	FBP Portsmouth
Faith	Girolamo	SRS
Emily	Gogel	???
Vincent	Grosso	DOE-NV
Sheila	Hahn	RL
Chris	Hall	SRS
Lisa	Hall	Y-12
Sarah	Hartson	NNSA-LFO
Michael	Helland	LANL
Nathaniel	Hein	LANL
Sandra	De La Cruz – Herrera	???
Xiaodong	Jiang	???
Corwin	Jones	INL
Jonathan	Keklak	SRS
Natalie	LaRose	???
Jonathan	Ortega-Luciano	???
Steven	Mahnesmith	SNL
Diana	Marquez	Handford/ISMS
Juanita	McKinney	BNL
Don	McKinstry	LANL
Keith	Morrell	???
Veronica	Camarillo-Morris	LANL
Gregg	Nelson	NNSA-SRS
Carrie	O'Connell	???
Carol	Olijar	ANL
Tobin	Oruch	???
Christian	Palay	DOE
Josh	Pearson	Paducah
Greg	Pope	LLNL
Vicki	Pope	LLNL
Lucy	Richards	Pantex
Donna	Riggs	Riggs Consulting
Kevin	Roberts	???

DeAnna	Robinson	???
Christopher	Rogers	???
Michael	Russell	ORNL/Strata-G
Tracy	Sims	DOE
Terry	Scoggins	ORNL
Paul	Simpson	???
Mike	Sterling	NNSA-NPO
Justin	Suder	MSTS
Dave	Thoman	Amentum
Gladys	Udenta	NNSA
Michele	Vacendak	ANL
Teri	Vincent	Y12/Pantex
Marlene	Underwood	Northwind Portsmouth
Al	Zuckero	DOE-SRS

*Sorted by Last Name, First Name.