

## **EFCOG SQA Quarterly Meeting Notes and Attendance February 16, 2022**

Notes are by Agenda item for meeting.

\*\*See presentation deck for each Agenda item information shared/reviewed with group.

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

### **Safety/Security Moment**

- Teri provided a safety share regarding having a questioning attitude. A job gets done at the right quality level and all the needed work activities with a better understanding; by everyone asking lots of questions. Sometimes people who own software, have enough info to determine the quality level. Our ability to question their use of the software, and its interfaces; can help us to get it right the first time.

### **Announcements, Updates, and Dates to Remember:**

1. Spring meeting is scheduled for April 25-29, 2022. Please mark this on your calendars.
2. Our group is meeting quarterly now, as we don't have a Chair. If we could have someone volunteer for this position, or be willing to co-chair with Teri, then we could move back to monthly meetings. Our group also is still looking for a Meeting Coordinator. Please contact Teri and Carol to volunteer for these open positions.
3. Teri asked Chris/Christian Palay if they have seen an increase in the usage of the DOE Organizational Excellence Forums website, as our group usually provides encouragement in our meetings for members to use it. Christian responded that he has not seen an increase in usage to the Community of Practices at this website. Also, the site has been recently upgraded, which resolved some of the past issues it had.
4. Christian mentioned that he has permanently moved to a new job in the Office of Enforcement, he is no longer in the DOE AU-32 group, Office of Quality Assurance and Nuclear Safety Management Programs

### **Spring Meeting Planning:**

1. Teri noted that now that we have moved to quarterly meetings, this is our meeting prior to the spring conference, where we need to plan for our agenda topics. She asked, what presentations or group discussions would the group like to have?
2. Justin Suder of MSTs, said that he is new to our group, and asked what things are usually discussed at this type of meeting? Teri responded that usually we have an update from AU-32, and then look for topics that interest people.
3. Tom Bundy of ORNL, asked could we have topic of SQA & Agile Development, have we had a recent agenda item for this topic? Vicki Pope of LLNL, responded that we had this topic discussed probably 5-6 years ago, it would be a good topic to revisit. Would be good to map Agile activities to DOE O 414.1D Attachment 4 Safety Software work activities. Carol Olijar of ANL, noted that she thought she heard in NQA-1 committee meeting, that this was a task to be done by the NQA-1 committee, but the sub-committee group leader was not able to complete, because the project was turning into a training session for Agile. It may have been dropped from that committee. Donna Riggs of Riggs Consulting responded, she is on the NQA-1 committee and this task has not been dropped, it is on-hold, for upper committee to provide guidelines. Teri mentioned at her site they use Agile.

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4. Vicki mentioned that for the Fall 2021 meeting, Diana Marquez of WRPS, was going to give a presentation on “SQA Taxonomy” but was not able to do so, perhaps we could ask her to present this topic at the Spring 2022 meeting.
5. Teri noted, a group discussion item that was not able to be done at the Fall meeting was for: “How is S/CI integrated with your SQA Program?”.
6. Other topics suggested at the meeting are: Share Cyber Standards for Implementation, and SQA Metrics.
7. Veronica Camarillo-Morris of LANL, liked the idea of a topic for Cyber Security. Greg Pope of LLNL volunteered to provide a presentation on Cyber Standards.
8. Corwin Jones of INL, noted the overlap of SQA and Cyber such as for Service Now. It would be a good opportunity to consolidate efforts between Cyber and SQA. Greg agreed with this. Greg noted, sometimes software developers are not steeped in Cyber or SQA. It would be good to have communication across these different areas for a better quality software application. Corwin responded, one of the attributes to have secure software is thru Cyber Security. Cyber should be talking with SQA. Cyber may have patch, but SQA may respond with the patch may break the safety software application. Greg said he can put a presentation together that will be useful. One of the key things the SQA POC must ensure is that there is no malware in your software, it can be hard to prove this, if you don't know what system software is used to create your application. There can be underlying vulnerabilities.
9. Corwin noted, that for automated testing, using the Getlab tool, a new release could be automatically released that can affect your safety software applications. Greg responded, this is a good idea, to look at automated testing tools with respect to possible impact on SQA. Classified applications are not hooked up to the network, malware can slip into software. Most of us don't know all the software we are using. Such as Apache Struts had known vulnerability recently that hackers took advantage of. If hacker can figure out if your application uses Apache Struts, they can hack into your application because of this vulnerability.
10. Corwin mentioned with SQA, there can be unauthorized impact thru software cyber attack, can be internal to company, such as cyber analyst making a patch update. 99% of software failures comes from inside company use, not outside use.
11. David Louie of SNL asked, What about firmware, manufacturers can have a bad chip, it may be hard to detect this. Teri suggested this could be good topic for April. Greg said he is working on firmware, he could present this topic.
12. Corwin noted that company created chip for two companies that didn't know how they got attacked. Have to have this software to run this hardware. Corwin dealt with 2 years of software affecting hardware. Had impact on equipment used for cyber security. Teri asked if Corwin would be interesting in doing presentation on Cyber. Corwin is in the NITSEL group.
13. Corwin stated he has pet peeve, for the “Responsible Individual” role in safety software, he believes it can be audit fodder because trying to maintain who the software owners is difficult. Software owner should be the manager or director of department. Such as Engineering owner, person responsible for engineering. Still meet intent of DOE O 414.1D for Responsible individual. Just not give a specific name. Usually you will have Technical & Process expert roles for a software application.
14. Justin said he could bring generic info, go thru review process to share with group.
15. Carol Olijar of ANL, suggested perhaps instead of Corwin being a presenter, we could have a panel discussion, with some of the people who have been discussing these topics – Greg, Corwin, and Tom.

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16. Greg noted he uses Agile at his lab, has no trouble using. A concern can be some places have turned Agile into a methodology. It is supposed to be process to get frequent feedback, instead of with waterfall waiting a year to get feedback from customer. User stories in Agile are requirements. Should be able to map.
17. Teri noted she is using Agile at her lab. A good question for this topic discussion is does Agile work with safety software.
18. Corwin mentioned there can be a misunderstanding of what Agile is. He was speaking with a scrum master, that asked if SQA has to be done after each story. The answer is no, SQA is done with the scrum tasks, not as after thought. Need to get owners buy-in before going into production. Make sure all info is correct. Have miniature waterfalls for sprints. Make sure stop point before production.
19. Teri suggested, to not think of SQA as extra work. Capture in manner to meet SQA program, not some extra thing. Take credit for things already being done. Not doing extra work. Work with Engineering to have version number in test documents for example. Need integration with Cyber, other functions like Quality, Cyber, all working together.
20. Corwin responded, think of Engineering as component id which is unique in that database, then id for software, and one for Cyber and one for IT. Can have same info in separate ids in separate databases for each of these areas.
21. Teri noted we have the following possible agenda topics for the Spring agenda:
  - a) Agile SQA – maybe map to 10 414.1D Work Activities? (Kary Cook/Bob Daubt [PNNL] did the presentation in ~2016/2017 Spring Meeting) - Tom, Greg, Teri, ???
  - b) How/if Suspect/Counterfeit Item analysis and tracking are integrated into the SQA Program
  - c) Present/create a few SQA-related survey monkey surveys
  - d) Software Gone Wrong – SQA mishaps in the media
  - e) Software Quality metrics – panel discussion?
  - f) Cyber Security standards used? How well integrated with the SQA program? Access Controls, Exception Handling, etc. (Greg Pope volunteered to do a presentation), implementation.
  - g) Overlap of SQA and Cyber - Greg, Corwin - ???.
  - h) SQA Taxonomy - Diana,
  - i) Automated testing, such as Getlab affect on safety software for patch updates - ???
  - j) DOE Responsible Individual role, define as title instead of name – Corwin, ???.
22. Teri thanked Justin, Corwin, Greg for stepping up in this meeting, being willing to be a presenter or group discussion attendee. It is good if we have variety of topics for meeting.

### Sub-Task Groups:

#### **Existing Sub-Task Groups:**

1. For **Toolbox Alternatives**, Pat Auer of LLNL, sent an email to Teri providing status update for this group. He said Team met with AU-32 in January and discussed path forward. Plan is to provide 3-4 alternatives, along with advantages and disadvantages of each alternative. We expect to have draft whitepaper complete by March 31 and to close the task by the Spring EFCOG meeting in April.
2. For **Otherwise Acquired Software**, Pat said Draft whitepaper out for review with the team, working on a set of action items which will include examples. We have engaged with the Procurement Engineering task group

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### Next Steps:

1. Teri would like to get feedback from everyone in the next couple weeks on the draft agenda for the Spring meeting. We may have a meeting in March to finalize the agenda.
2. We normally have task group meetings as part of our spring/fall meetings also.

### Chat info:

from Marylou Apodaca to everyone: 3:08 PM

Can you repeat the date of the spring meeting? – April 25-29, 2022

from Lance Abbott to everyone: 3:09 PM

I don't see any slides advancing. Are they supposed to be?

from Veronica Camarillo-Morris to everyone: 3:12 PM

Do we have any ongoing items from the previous meeting?

from Tom Bundy to everyone: 3:15 PM

Have we discussed SQA in Agile development and I missed it?

from Laura Cook to everyone: 3:15 PM

I would be interested in what kind of Software Quality Metrics are being captured/used, maybe a Panel discussion?

from Veronica Camarillo-Morris to everyone: 3:15 PM

Could we do shared Software Cyber standards for implementations?

from Veronica Camarillo-Morris to everyone: 3:25 PM

There are so many good topics there. Access Controls, Exception Handling, etc. for software

from Veronica Camarillo-Morris to everyone: 3:25 PM

Right.

from Cristy Renner to everyone: 3:26 PM

Have to log off but I sent the Draft White Paper out for a pre-review to a select few before the Holidays no comments received so I would like to send out to the original task group next week and then to the full group for review. Its a simple white paper because we decided to keep the spreadsheet live if possible for updates. Thoughts?

from Christian Palay to everyone: 3:27 PM

Can't cyber security standards or requirements be integrated into a SQA lifecycle document like the Requirements Document?

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Can't cyber security standards or requirements be integrated into a SQA lifecycle document like the Requirements Document?

from Veronica Camarillo-Morris to everyone: 3:29 PM

I agree with Corwin. Very important

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from Veronica Camarillo-Morris to everyone: 3:30 PM

Such a large gap here that needs addressing. Corwin is spot on.

from Christian Palay to everyone: 3:33 PM

stuxnet

from Veronica Camarillo-Morris to everyone: 3:35 PM

lol... yeah but didn't we make stuxnet with Isreal? I hope we are not using it on ourselves.

from Christian Palay to everyone: 3:40 PM

regardless, it showed the vulnerability of air-gapped systems

from Veronica Camarillo-Morris to everyone: 3:42 PM

This is true Christian.

from Veronica Camarillo-Morris to everyone: 3:52 PM

Stop points at all phases of the Software Development/Procurement Process. Including SQA so content is technically addressed by the appropriate technical SME's

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### Attendance:

If anyone attended this meeting but does not see their name on the list on next page, please contact:

Chair: open

Vice Chair: Teri Vincent ([teri.vincent@cns.doe.gov](mailto:teri.vincent@cns.doe.gov))

Secretary: Carol Olijar ([cschultz@anl.gov](mailto:cschultz@anl.gov))

Meeting Coordinator: open

### 30 Attendees.

#	First Name	Last Name	Site
1	Lance	Abbott	SRS
2	Sidney	Ailes	Atkins
3	Marylou	Apodaca	SNL
4	Gregory	Baker	NNSA
5	Todd	Billings	DOE-Hanford
6	Tom	Bundy	ORNL
7	Veronica	Camarillo-Morris	LANL
8	Evgueni	Chnyrenkov	Y-12
9	Laura	Cook	LLNL
10	Bryan	Coonfield	WRPS
11	Mary	Curtis	FNAL
12	Spencer	Daw	INL
13	Yevonne	Deaton	DOE
14	Lincoln	Djang	WIPP
15	Orlando	Ferrer	RL
16	Chris	Hall	SRS
17	Sarah	Hartson	DOE-LFO
18	Nathaniel	Hein	LANL
19	Corwin	Jones	INL
20	Brenda	Edwards Kirkes	???
21	David	Louie	SNL
22	Steven	Mahnesmith	SNL
23	Jacob	Miller	DOE
24	Carol	Olijar	ANL
25	Christian	Palay	DOE
26	Greg	Pope	LLNL
27	Vicki	Pope	LLNL
28	Cristy	Renner	PORTS
29	Donna	Riggs	Riggs Consulting

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30	Michael	Russell	ORNL
31	Justin	Suder	MSTS
32	Dave	Thoman	Amentum
33	Teri	Vincent	Y12/Pantex
24	Marlene	Underwood	PORTS
35	Al	Zuckero	DOE-SRS

\*Sorted by Last Name, First Name.