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Dosimetry Onsite Assessment Issues One-Year After Implementation of DOE-STD-1095-2018

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DOE-STD-1095-2018 Standard/Line of Inquiry Timeline

- 10/30/2018 – DOE-STD-1095-2018 Approved
- Lines of Inquiry/Checklist completed March 2019.

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DOE-STD-1095-2018 Section and Title		DOE-STD-1095-2018 Line of Inquiry (LOI)/Checklist Section and Title	
4.1	Quality Assurance Program	4.1	Quality Improvement (QI)
4.2	Program Management	4.2	Program Management (PM)
4.3	Personnel Training and Qualification	4.3, 4.7.3	Training and Qualifications (TQ)
4.4	Document and Records	4.4	Documents and Records (DR)
4.5	Work Processes	4.5	Work Processes (WP)
4.6	Quality Improvement	4.6	Quality Improvement (QI)
4.7	Facilities and Equipment	4.7	Facilities and Equipment (FE)

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DOE-STD-1095-2018 Section and Title		DOE-STD-1095-2018 Line of Inquiry (LOI)/Checklist Section and Title	
4.7	Facilities and Equipment	4.7	Facilities and Equipment (FE)
4.7.1	Dosimeters	4.7.1, 4.7.2	Thermoluminescent Dosimeters (TD)
4.7.2	Processing	4.7.1, 4.7.2, 4.7.3	OSL Dosimeters (OD)
4.7.3	Interim Processing	4.7.1, 4.7.2	Solid State Track Etch Dosimeters (TE)
4.8	Maintenance and Calibration	4.8	Calibration (C)
4.9	Reporting	4.9	Reporting (R)
Appendix B	Guidance for Programs that use Service Providers	Appendix B	Guidance for Programs that use Service Providers (SP)

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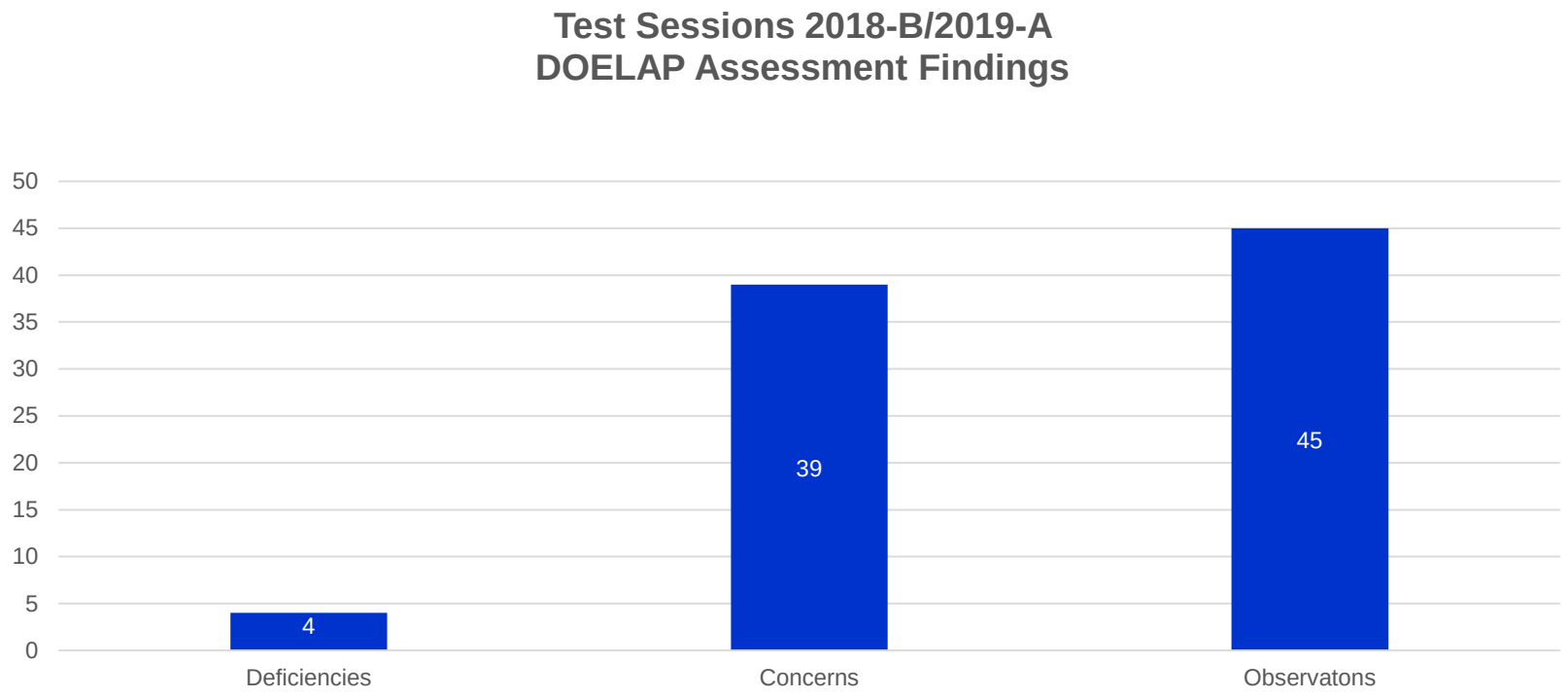
- **Test Session 2018-B and 2019-A Dosimetry Programs Assessed to DOE-STD-1095-2018 Requirements (9 programs)**



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Concern 1: The training documentation is in paper form and not maintained electronically for dosimetry-related tasks. There is no process in place to remind personnel that training is due or alert when training is out of date. Some training documents referenced previous-generation dosimetry systems (the track etch training referred to electro-chemical etching instead of the newer chemical etch TASL system). The training program needs to be updated, maintained in a more rigorous fashion, and a system implemented to ensure personnel are current in the appropriate training areas and requirements. (TQ.1, TQ.2, TQ.3).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TQ.1	4.3(a)	All personnel performing accredited activities shall have the training, qualifications, and competence to perform their assigned tasks effectively.
TQ.2	4.3(b)	A training program commensurate with the complexity and scope of the assigned responsibilities shall be documented.
TQ.3	4.3(b)	Training shall be provided to achieve initial proficiency, maintain proficiency, and adapt to changes in job responsibilities, new technologies, or policies and procedures.

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Concern #2: There is no documented formal process for ensuring the correct hand entry of neutron doses calculated with the TASL process to the DOCS software. (DR.1) Lab X should develop a formal process to ensure the neutron doses are correctly entered and that all personnel assigned CR-39 dosimetry receive the appropriate neutron dose.

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
DR.1	4.4a	A system shall be in place which clearly describes the process applied for controlling the dosimetry documents and records throughout the entire dosimetry cycle.

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Concern #3: Some UD-802 dosimeters are exchanged on a semi-annual frequency. For these exchange periods a fade study of 2 times this period (one year) is required. A one-year fade study for the UD-802 dosimeter has not been performed and documented. (TD.4)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TD.4	4.7.1(d)	Fading of dosimeter materials under normal conditions shall be determined for two times the period of intended use, not to exceed 6 months past the period of intended use. For example, fading of quarterly dosimeters shall be documented and accounted for over the period of 6 months.

Discuss requirement from March 2018 Webinar regarding Fade – Only list as a Concern, No Deficiency

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Concern #4: An annealing technical basis for the upper dose range limit for which annealing may be performed has not been documented for the Panasonic UD-802, Panasonic UD-810, or Harshaw 707H dosimeters. (TD.13) The annealing technical basis shall be documented to demonstrate the upper dose range limit for which annealing may be performed. Good example of stating a finding directly and tying back to the requirement without hinting to the program on how to correct it.

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TD.13	4.7.2(c)	Annealing of dosimeters shall be conducted in a reproducible manner regarding time, temperature, cooling rate, humidity, and light. For TLDs it is preferred that the thermal erasing procedures be carried out in ovens reserved strictly for dosimeter annealing; however, in-reader annealing can be done when very low irradiation doses have been measured and when the in-reader annealing has been demonstrated to be reproducible. The annealing technical basis shall be documented to demonstrate the upper dose range limit for which annealing may be performed.

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Concern #6: The CR-39 etch procedure includes five quality control foils. These foils should be more appropriately termed “calibration” since they are used to determine the conversion from track density to reported dose equivalent. This approach is not unreasonable, however, there are no bounds on the conversion factors. Since they are also used to verify the quality of the etch process the conversion factors should have controlling limits. (TE.10, TE.12)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TE.10	4.7.2(b)	Stability of track counting and analysis equipment shall be verified before use with quality control dosimeters and measurement of system internal parameters.
TE.12	4.7.2(d)	Quality Control and unirradiated dosimeters shall be used routinely to identify processing problems.

Is this really a “Concern” as the requirement says nothing about conversion factor limits or boundaries?????

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Deficiency #1: The dosimetry program's institutional software quality assurance requirements are not clearly flowed down into external dosimetry procedures for software quality assurance elements, including software documentation, verification and validation, and configuration (version) control. The program should develop a rigorous process for software quality assurance and ensure current external dosimetry software (including algorithms and response fingerprints) fully meets the requirements. (QI.7, QI.8)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
QI.7	4.6(c)	Software verification and validation (V and V) shall be performed in accordance with an appropriate, documented software quality assurance plan. V and V shall include process control software, dose algorithms, data processing, and record keeping.
QI.8	4.6(c)	Software version control shall be included in the program's documented control procedures.

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Observation #3: Training records are being stored and maintained by the individuals and not in accordance with DOE-O-243.1B Chg.1 Records Management Program.

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Observation #6: The current etching/reading procedure specifies to include five “QC” and blank foils at the beginning of the etch batch. These foils are the first to be read and are used to verify a quality etch. The TASL software includes a number of quality checks to ensure proper operation. Under current procedures no formal QC foil is included at the end of the read cycle. Lab X should confirm and document that the current process adequately ensures quality is maintained throughout the entire read.

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Concern #1: A contractual agreement with a DOELAP accredited facility is not in place for backup processing. (FE6).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
FE.6	4.7(c)	In the event a primary processing system fails, adequate backup equipment shall be possessed and maintained, or provisions to use a backup DOELAP accredited laboratory is available.
		Adequate backup equipment shall be possessed and maintained in the event the primary systems fail. If backup equipment or systems are not available, the program shall have documented provisions to utilize the services of another DOELAP accredited laboratory in an emergency.

This is not a requirement for vendors, but only for the DOELAP accredited program or program seeking accreditation/reaccreditation

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Concern #1: Environmental parameters (including background radiation) are being measured and recorded but there is no formal process to monitor background radiation results to ensure adequate storage conditions. The background dosimeters within the storage facility are one of several locations being used to calculate a site background and are not formally reviewed and monitored to ensure adequate storage conditions (D.17)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
D.17	4.7(b)	Environmental parameters, including background radiation, are monitored to ensure adequate storage conditions.
		Adequate facilities and equipment shall have the following: sufficient space to perform processing; proper shielding of areas from unwanted radiation; environmental monitoring and controls, including background radiation; and properly calibrated equipment.

D.17 is from the "old and outdated" checklist. However, the DOE-STD-1095-2018 Section 4.7(b) could have been cited for the requirement not being met.

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Concern #1: The dosimetry program maintains an extensive whole body and extremity blind audit irradiation plan. Per guidance from the DOELAP Administrator, programs that are accredited in Category IIA must include at least two x-ray beam codes ranging from 20 keV to 70 keV as well as two x-ray beam codes ranging from 70 keV to 300 keV. Cs-137 and/or Co-60 must also be included. If a site is accredited in Category IIIA then Sr/Y-90 and Kr-85 must be included. If a site is accredited in Category VA then both unmoderated and D2O-moderated 252Cf must be included. The current blind audit irradiation schedule does not fully meet these expectations. (OD.20, TE.18, TD.20)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
OD.20	4.7.2(e)	Exposures to blind test dosimeters shall include those sources and x-ray beams for which the program is accredited.
TE.18	4.7.2(e)	Exposures to blind test dosimeters shall include those sources for which the program is accredited.
TD.20	4.7.2(e)	Exposures to blind test dosimeters shall include those sources and x-ray beams for which the program is accredited.

TE.18 does not include "x-rays" in the description statement.

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Concern #1: The Blind Audit program is established for both whole-body and extremity dosimeters. The DOELAP expectation for a blind audit program under the new standard was recently communicated to provide clarification for requirements TD20, OD20, and TE18 and stated If accredited in IIA, program must include two x-ray beams from 20 to 70 keV and at least two from 70 to 500 keV. 137Cs and/or 60Co must always be included. If accredited in IIIA, then include 90Sr/90Y and 85Kr. If accredited in VA, then include both bare and moderated 252Cf. The blind audit program currently does not include this specificity (TD20, OD20, and TE18).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TD.20	4.7.2(e)	Exposures to blind test dosimeters shall include those sources and x-ray beams for which the program is accredited
OD.20	4.7.2(e)	Exposures to blind test dosimeters shall include those sources and x-ray beams for which the program is accredited
TE.18	4.7.2(e)	Exposures to blind test dosimeters shall include those sources for which the program is accredited

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Concern #5: The dosimetry program maintains accreditation in a number of photon, beta, and neutron categories. Blind audit irradiations are performed only for Cs-137 and unmoderated Cf-252 neutrons. The blind audit program should be expanded to include sources and x-ray beams for which the program is accredited. (TD.20, TE.17).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TD.20	4.7.2(e)	Exposures to blind test dosimeters shall include those sources and x-ray beams for which the program is accredited.
TE.17	4.7.2(e)	The blind testing program shall consist of the use of dosimeters irradiated by NIST traceable sources or radiation-generating devices to doses that are unknown to the processor.

Say something here about blind audit program needs to include at least two x-ray beams from 20 keV to 70 keV (IIA), at least two x-ray beams from 70 keV to 300 keV (IIA), Cs-137 and/or Co-60, etc. If participate in Category VA then applicants must do blind audit testing for both moderated and bare Cf-252.

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Observation #5: Receipt verification of Luxel+ dosimeters involves a visual check for physical damage and scanning the dosimeter number into the RPS. The dosimetry program should consider including a verification step to check the filter pack and OSL element inside the sealed outer pouch; the serial number may or may not reflect the filter pack type.

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Observation #6: The number of InLight dosimeter interim processing reads using the Microstar reader is limited to five. There are no specific steps in the operating procedure directing the user to perform this check or describing the actions necessary to verify this.

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Observation #3: The dosimetry program processes rely on a number of EXCEL spreadsheets to streamline certain processes (e.g., MQA calculations for bias, standard deviation of performance quotient, and tolerance level). It is recommended that all supporting spreadsheets be brought under configuration management (e.g., formally establish their purpose, validate formulas are correct, peer reviewed, and locked to prevent inadvertent changes). (QI.9).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
QI.9	4.6(d)	When computer or laboratory information systems are used to input, store, calculate, or retrieve data in relation to key dosimeter processing steps, the program shall • establish and maintain procedures describing the processes; • validate the accuracy of data entry; and • verify the accuracy of any calculations performed.

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Observation #6: Since Lab X does neither onsite irradiations of personnel dosimeters nor inter-comparisons with other DOE Laboratories, (e.g., as Pantex and Savannah River do), an onsite audit of the Battelle - PNNL calibration facility providing irradiated personnel dosimeters to Lab X is warranted. (SP.4).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
SP.4	Appendix B Paragraph 5	The program shall have a procedure for conducting quality assurance assessments of the service provider; including on-site audits, QC reviews, and blind audit dosimeters. The procedures shall also describe how findings are identified and corrected.

Question: Should a dosimetry program who uses Landauer as their service provider audit the dosimetry service provider's calibration facilities?

PNNL is accredited to ISO/IEC 17025 via NVLAP.

Lab X uses Landauer as their dosimetry service provider.

LAB X should ensure that Landauer periodically perform audits of their irradiation facilities, i.e. PNNL, who provides irradiations to their Landauer dosimeters.

Does Lab X have a blind audit program? Is it working?

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Concern #3: A software Quality Assurance Plan specific to the Dosimetry Program has not been developed. Documentation of Validation and Verification for the current versions of WinRems and HPRS is not available. (QI7).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
QI.7	4.6(c)	Software verification and validation (V and V) shall be performed in accordance with an appropriate, documented software quality assurance plan. V and V shall include process control software, dose algorithms, data processing, and record keeping.

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Concern #2: Annual observation of performance of personnel is not being performed. WIPP training requalification periods have been set to a two year interval to match plant standards. No observation of performance is being performed in the interim years (TQ4).

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
TQ4	4.3(c)	The technical lead shall initially and at least annually evaluate the proficiency of each staff member authorized to perform dosimetry related functions. This proficiency assessment shall include an observation of performance.

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Concern #1: There is no documented requirement to perform a formal mid-cycle review of the quality assurance program. Persons conducting this review are not specified. Elements of the QA review are not specified. (PM.11, PM.12, PM.13)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
PM.11	4.2(g)	A formal review of the QA program shall be conducted at the midpoint of the DOELAP assessment cycle.
PM.12	4.2(g)	The formal review of the QA program shall be conducted by the technical lead, the QA lead, and a member of senior management who has authority for allocation of resources.
PM.13	4.2(g)	The formal review of the QA program shall include: • comparison of quality objectives and standards against achievements; • assessments and test results; • non-conformances and corresponding corrective actions, preventative measures, and deficiency trends; • results from external and internal audits; and • other relevant factors, such as quality control activities, resources, and training.

Note that 4.2(g) reads somewhat different than the checklist/lines of inquiry.

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Concern #1: Lab X is currently in the process of documenting succession planning. A draft succession position assessment document was provided for the technical lead. The QAP does refer to back up positions and the draft succession document indicated that an offsite contractor, currently on staff, would fulfill the technical lead position until it was filled from an outside hire. The technical lead is qualified on all dosimetry technician duties. (PM.14)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
PM.14	4.2(h)	A program shall have a documented plan for continuity of operations. This includes service contracts, in-house maintenance, spare parts capabilities, and unexpected loss of key personnel.

So why is this a concern?

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Concern #3: Blind audit results will be reviewed with Landauer in September 2019 as part of Lab X's full vendor DOELAP checklist assessment. To date, blind audit results are only checked for acceptable limits, but they are not trended. (QI.4)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
QI.4	4.6(a)	Quality control data shall be recorded in such a way that trends are detectable.
		Quality control procedures shall be implemented to ensure that the equipment performs at the levels of precision and accuracy defined in the processing protocols. Quality control data shall be recorded in such a way that trends are detectable.

In September 2019 the OSB stated that trending is not required. Discuss?

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Concern #2: The QAP, ISSC-QA-PL-006 R1, section 4.11 and 4.12 outline the DOELAP accreditation process. There is not a detailed procedure outlining how the dosimetry program will ensure all DOELAP elements are maintained. Discussions with the QA Manager and QA specialist indicated that a full DOELAP checklist assessment of Landauer is scheduled for September of 2019 and is documented in their QA assessment schedule. Dosimetry personnel should accompany QA assessors to ensure technical aspects of the checklist are appropriately verified. (PM.16, SP.4)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
PM.16	4.2(j)	When a vendor or subcontractor is involved in the implementation of the requirements for DOELAP accreditation, the accredited program shall have a procedure describing how they will ensure that all of the DOELAP requirements are maintained.
SP.4	Appendix B Paragraph 5	The program shall have a procedure for conducting quality assurance assessments of the service provider; including on-site audits, QC reviews, and blind audit dosimeters. The procedures shall also describe how findings are identified and corrected.

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Concern #4: Lab Y does not provide instructions to Landauer to ensure that DOELAP performance testing be performed in the same manner as their routine Lab Y dosimeter processing occurs. This should be included as a requirement in the Statement of Work with Landauer. (PT.1)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
PT.1	3.2(f)	Processing of performance testing dosimeters shall be defined and consistent with routine processing procedures. The same dosimeter model, type, and sensitive element used to assess occupational exposures shall also be sued during performance testing.

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Concern #2: Angular response (DTBD-001) and LLD study (DTBD-002) technical basis documents are still based on the old dose algorithm (Version 1) which is not consistent with the current production Version 2 of the dose algorithm that was used during the most recent round of DOELAP performance testing and applications. There was a memo written to cover the change, but both the DTBD and memo documents are still active documents. [4.4(b), 4.6(c)]

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
DR.2, DR.3	4.4(b)	All documents that form the quality assurance program shall be controlled to ensure that the correct and most current documents are being employed. Documents shall be reviewed for accuracy and approved by authorized personnel in accordance with documented internal review frequencies.
QI.7, QI.8	4.6(c)	Software verification and validation (V and V) shall be performed in accordance with an appropriate, documented software quality assurance plan. V and V shall include process control software, dose algorithms, data processing, and record keeping. Software version control shall be included in the program's documented control procedures.

4.4b only applies???

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Concern #3: Dosimeter deployments and retrievals at Lab Z offsite locations (e.g. Lab Z in California) must have written procedures that prescribe specifications and precautions to control the handling, issuing storage, retrieval, and shipment of dosimeters. Details on maintaining dosimeter chain-of-custody and assessment of any transit dose should be included. [4.5(c), paragraph 6 of Appendix B]

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
WP.3	4.5(c)	Procedures prescribe specifications and precautions to control the processing, handling, issuing, storage, retrieval, and shipment of dosimeters.
SP.5	Appendix B Paragraph 6	The program shall have a procedure for handling and shipping of dosimeters. The procedure shall include details on maintaining dosimeter chain-of-custody and assessment of any transit dose.

Appendix B, Guidance for Programs that Use Service Providers, should not be listed as one of the references to this finding because Lab Z does not use a dosimetry service provider.

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Concern #4: A review of the processing logbooks indicated a failure to consistently document actions taken or decisions made in order to resume processing after sequential failure of QC cards as directed in RPDP 02-04, Section 4.6. [4.6(b)]

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
QI.5	4.6(b)	When quality control data is found to be outside pre-defined acceptance criteria, corrective actions to correct the problem and to prevent incorrect results from being reported shall be documented.
QI.6	4.6(b)	Reevaluation of all dosimeters processed since last acceptance shall be performed when quality control data is found to be outside pre-defined acceptance criteria.

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Observation #4: In CY2019, the primary contractor performed some independent assessments of the external dosimetry program as specified in QAP (RPDP00-01, Section 10). However the frequency of the independent assessment is not defined in the QAP. In addition, there were no documented reports to identify actions taken for correcting identified problems and preventative actions implemented to prevent recurrence. [4.6(f)]

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
QI.11, QI.12	4.6(f)	Internal audits shall be conducted at least annually and structured in a way to ensure that all elements of DOE-STD-1095-2018 are reviewed over the three year accreditation period. All audits and actions taken for correcting identified problems and preventative actions implemented to prevent recurrence shall be documented.

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Observation #2: The dosimetry program's technical documentation should be updated before the end of CY2019 to remove all the applicable information on the Landauer U-ring to align with the current application for DOELAP accreditation in Personnel Extremity Dosimetry which only covers the Landauer Saturn Ring (DR.3)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
DR.3	4.4(b)	All documents that form the quality assurance program shall be controlled to ensure that the correct and most current documents are being employed. Documents shall be reviewed for accuracy and approved by authorized personnel in accordance with documented internal review frequencies.

Question: Should this not be a 'Concern' instead of an Observation?

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Deficiency #1: The 2016 Corrective Action Plan required the Radiological control and Dosimetry Manager to perform no less than two management assessments of the Dosimetry program annually. These assessments have not been performed . (PM6)

DOE-STD-1095-2018 Checklist Line of Inquiry	DOE-STD-1095-2018 Standard	Description
PM.6	4.2(c)	A quality assurance (QA) lead (however named) shall be assigned. The QA lead shall have the responsibility and authority to implement the quality assurance program. The QA lead shall have the authority to communicate quality assurance issues directly with the technical lead and other organizational management.

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External Dosimetry Oversight Board Recommendations

- DOELAP should ensure the assessors know to look closely for algorithm name and version on dose reports. This is pretty routine now for hardcopy reports, but it must be checked for on electronic files also. Sites are generally moving away from paper copies of the dose reports
- The Board discussed minor changes in a site's org chart/responsibilities. It was generally considered OK if the change was made recently. However, if a finding was written about it previously then it should be written up as a concern.
- The Board discussed fade studies. Fade studies must be conducted for the period of 2S intended use – at a minimum. The distinction needs to be made that intended use (e.g., quarterly) is not the same as allowed (e.g., yearly) use. A site must show that the appropriate fade correction was made if the dosimeter was processed after 2X the period of intended use. For example, if a site has the fade data to cover period of allowed use, it's an observation. However, if a quarterly dosimeter is processed one year later and the fade data only covers 6 months, it's a concern. This needs to be communicated to the assessors at the next training. Possibly need to adjust the checklist to make this clear what the expectations of DOELAP are?

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Dosimetry Onsite Assessment Issues One-Year After Implementation of DOE-STD-1095-2018

External Dosimetry Oversight Board Recommendations "continued"

- Checklist item QI.4 requires trending of the quality control data. During a 2019-A assessment a site received a Concern for not trending blind audit data. This is not a DOELAP requirement. DOELAP must communicate this to the assessors, so that this does not become the prevailing wisdom among assessors.

  QI.4 reads "Quality control data shall be recorded in such a way that trends are detectable."

  DOE-STD-1095-2018 section 4.6(a) reads "Quality control procedures shall be implemented to ensure that the equipment performs at the level of precision and accuracy defined in the processing protocols. Quality control data shall be recorded in such a way that trends are detectable."

- Do not step outside of the scope of DOELAP accreditation. No changes to the application/DOELAP categories. See Lab X accreditation package. Mirion failed the neutron category, and the assessors told them that they did not need it anyway. Lab X will need to amend their application and provide justification to show why the neutron category is not needed, with concurrence from their site office.

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Dosimetry Onsite Assessment Issues One-Year After Implementation of DOE-STD-1095-2018

External Dosimetry Oversight Board Recommendations "continued"

- Clarification is needed regarding the back-up facility to maintain continuity of operations for vendors. There appears to be confusion among assessors on whether they need another DOELAP accredited facility as the back-up. Only the DOE sites must have a DOELAP accredited facility as the back-up. This should also be reiterated at the next DOELAP assessor training.

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Dosimetry Onsite Assessment Issues One-Year After Implementation of DOE-STD-1095-2018

DOE-STD-1095-2018 Section 4.2 (k)

- "External audits of a vendor or subcontractors quality assurance plan shall be performed initially and at least once during the DOELAP accreditation period. Audits should be performed at least one year prior to the DOELAP on-site assessment to allow assessors to adequate time to evaluate the program's progress in managing corrective actions and final resolutions of identified issues. The audits shall be implemented by an ongoing evaluation of the performance of the vendor or subcontractor through blind audits, which are outlined in section 4..2."

How are dosimetry program's interpreting this requirement?

- Assess the vendor to the DOELAP lines of inquiry/checklist.

What is DOELAP's expectation for this requirement?

- Assess the vendor to the dosimetry program's contractual requirement in their scope of accreditation, i.e., blind testing, dose reporting, problem resolution and QA/QC requirements, vendor's response and corrective actions and the effectiveness of implementing the corrective actions from the most recent DOELAP on-site assessment, etc..
- Findings with respect to 4.2(k) should only be issued a 'Concern' at the highest level as standard has only been implemented for a year..

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Dosimetry Onsite Assessment Issues One-Year After Implementation of DOE-STD-1095-2018

Arranging and canceling the assessment

- Laird will send an invitational traveler request form
- The traveler request form gets sent to Lisa Pardonnet
  - Lisa schedules the Flight/Car/Theoretical Mileage
    - Do not take the automatic re-fill for the gas
  - You schedule your hotel – per diem
  - As of March 2020 all cars booked by Lisa
    - Ensures insurance coverage by government
- Illness/injury
- Call Guy or Laird as soon as possible
  - Depending on circumstance
    - Replacement Assessor
    - Reschedule Assessment
  - Tickets are purchased based on price at the time the flight is arranged – $150 change fee but price of canceled ticket is applied to your next ticket.
  - You will need to cancel your hotel.
  - We will coordinate with the other assessor if assessment is canceled.

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Dosimetry Onsite Assessment Issues One-Year After Implementation of DOE-STD-1095-2018

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