

TNI PT Program Executive Committee Meeting Summary

December 19, 2019

1. Roll call, approval of minutes and overview:

Chair, Maria Friedman, called the TNI PT Program Executive Committee (PTPEC) meeting to order at 1pm Eastern on December 19, 2019 by teleconference. Attendance is recorded in Attachment A – there were 5 members present. Associate Members and guests present: Nicole Cairns, Keith McCroan (guest) and Bob Shannon (guest).

The November meeting minutes were distributed by email for review. A motion was made by Shawn to accept the November 22, 2019 minutes as written. The motion was seconded by Scott. The vote will be completed by email or at the next meeting. (Votes: For – Fred, Scott, Carl, Maria, Shawn).

Maria confirmed that meeting participants received the agenda and supporting materials sent 12-18-19.

2. Chair Update

Maria is still trying to reach Rami, so not update on WET.

Maria did not have an opportunity to discuss the request from the NELAP AC regarding implementation protocols for the new NPW and SCM FoPT tables. She wants to know what they have in mind. PTPEC thinks it is covered through regular procedures.

3. Drinking Water (DW) FoPT Table – Radiochemistry

Carl sent the following message by email to Maria on 12/17/19:

The Chemistry FoPT Subcommittee met by teleconference today, Tuesday, December 17 and formally voted to recommend and present for PTPEC's approval the attached NPW and SCM FoPT Tables. These Tables address the Analyte Request Application submitted for PCBs and the assignment you gave to the Subcommittee. Please let us know if you have any questions.

The Subcommittee also formally voted to recommend and submit for PTPEC approval the attached DW Radiochemistry FoPT Table. However, the only change from the previous submittal was a change in one numerical digit in the d coefficient for Cs-137.

Please place these items on the agenda for the PTPEC teleconference this Thursday.

Bob Shannon presented information for the Committee to consider when reviewing the new procedure and limits (Presentation in Attachment D).

Carl is proposing to write an ARA for NPW so limits can be developed for NPW Radiochemistry too.

Shawn asked where the original limits on the FoPT table came from. Keith recalls ERA recalculated those limits. The program was sending true volume back then.

Maria asked if all labs will pass because the limits are wider? Bob does not believe all labs will pass. There are some elements where the limits are tighter. Some labs may fail more for Radium and Gross Alpha. Maria noted that there needs to be a challenge.

It was commented that the PTPEC has an FoPT table before it, but the SOP (SOP 4-101) describing how the limits are calculated is not done. Is the Committee moving too fast? Maria thinks the SOP should be done before the table is approved. Bob and Keith have already provided the written procedure for inclusion in the SOP. The text is flexible enough to do FOPTs for NPW also ... as discussed above by Carl.

Eric noted that SOP 4-101 is being worked on. Maria noted that Bob and Keith's procedure would be specific to Radiochemistry at this time.

Eric sent some unresolved questions to Maria that need to be answered before the PT SOP Subcommittee can finish SOP 4-101.

Bob and Keith will be available to the PT SOP Subcommittee for questions after they start working with the language in the SOP.

Iлона suggested that Bob and/or Keith might be available for the NELAP AC call when this gets presented after the SOP is completed and the new table is approved.

Carl will submit an ARA to add NPW limits this week.

4. PCB Analyte Request Application (ARA)

Carl summarized the ARA and what the Chemistry FoPT Subcommittee concluded. The Subcommittee used the language that was recommended in the ARA and have presented this to the PTPEC. (See email from Carl in Section 3 above.)

It was noted that PT Providers only supply one PCB in the PT.

Maria asked what was different between today and what was sent in and rejected previously. Nicole Cairns commented that the last one did not have a code for

identification. It was only a request to change the footnote. It is a separate field of proficiency testing in the FoPT table.

Previously a lab would only lose accreditation for the PCB they misidentified, now they will lose the entire accreditation. They will lose accreditation for all the PCBs that could have been in the PT.

Maria pulled the 2 FoPT tables up on Webex to review.

Nicole asked about the footnote. Why is it one or more if there is only one PCB in the PT sample? Carl said it was part of the request, so they left the language as in the request.

Nicole thinks the language is confusing. Eric agreed with Nicole. Carl noted that maybe they might have more than one in the future? He also noted that it does apply to SCM and Oil.

After further discussion, Carl made a motion to approve the SCM and NPW FoPT tables with the additions in blue to accommodate and complete the PCB analyte request application. Second to motion: None. There was no second, so the motion fell to the floor and will no longer be considered. The information will be further discussed at the January 16th meeting.

(Addition: Eric Smith provided the following information by email on 12/19/19 for consideration at the next meeting:

First – I would disagree with the generalization that a “Not Acceptable” evaluation of a PCB Aroclor based on failure to properly identify the Aroclor pattern constitutes a failure in the lab’s ability to properly identify another PCB Aroclor pattern. PCB Aroclor patterns are different. Some are easier to identify than others.

Second - I have a few questions -

- 1) Are there labs that are accredited for only a subset of the Aroclors listed in the tables? What happens if a lab only needs/wants accreditation for PCB-1016 and PCB-1260? Will States accredit for a subset of analytes?*
- 2) If the PT is spiked with Aroclor-1242, can a lab just report Aroclor-1016 and Aroclor-1260 if that’s all they are accredited for?*
- 3) If a State (NELAP or non-NELAP using NELAP FOPT tables) allows a lab to be accredited for a subset of the Aroclors listed in the FoPT tables, then how will changing the FoPT tables with the currently proposed draft language impact that lab’s accreditation? Is the lab now going to have report Aroclor-1221 and correctly identify it as Aroclor-1221, even though they aren’t accredited for that Aroclor and don’t need that Aroclor for any of their clients?*
- 4) Will this ARA have the unintended consequence of unnecessarily restricting the ability of a lab to pick and choose which Aroclors they want to be accredited*

for? Also, restricting the ability of a State to accredit a lab for a subset of the Aroclors listed in the FoPT tables?

The more I think about it, the more I think perhaps this ARA should be rejected. It seems to me that the issue raised by the ARA is more of an accreditation interpretation issue than a PT scoring issue, and perhaps this topic should be left with the NELAP AC to clarify their accreditation interpretation stance when one or more Aroclors are graded "Not Acceptable".

Unless accreditation of Aroclors is treated the same by all States, perhaps in this instance that the PTPEC should avoid being overly restrictive with back end accreditation interpretation of PCB results where we don't need to be. There's nothing wrong with the current FoPT table approach for PCBs for NPW and SCM and it currently provides the most accreditation flexibility for both labs and States.

5. Subcommittee Reports

Breakdown Analyte Subcommittee – No update.

PT Program SOP Subcommittee – Eric may run into some time constraints over the next few months. The Subcommittee will review the new Radiochemistry language starting in February. Ilona reminded Eric that the calculations need to be added to the SOP too. Perhaps Shawn can help with this?

Shawn and Maria still need to work on the list of SOPs needed because requirements were taken out of Volume 4 of the Standard. Eric needs this list so the Subcommittee can get started on the SOPs. Ilona questioned whether there will be anything in these SOPs that will need to be added to the PTPA evaluation checklist.

Microbiology FoPT Subcommittee: Maria sent the updated table to William, but it has not been posted. Jennifer Best asked how the labs will know about the update. Maria reviewed the current procedure.

Chemistry FoPT Subcommittee: See Sections 3 and 4 above.

6. New Business.

Ilona noted that Maria and she need to get together at the end of the month to do the Program's internal audit.

7. Action Items

The action items can be found in Attachment B.

8. Next Meeting

The next meeting will be by teleconference on Thursday, January 16, 2020 at 1pm Eastern. (*Addition: Meeting changed to January 23, 2020 at 1pm Eastern.*)

Action Items are included in Attachment B and Attachment C includes a listing of reminders.

The meeting was adjourned at 2:38pm Eastern (Motion – Fred Second – Scott Unanimously approved.)

**Attachment A
Participants
TNI**

Proficiency Testing Program Executive Committee

Members	Rep	Affiliation	Contact Information
Maria Friedman (2020) (Chair) Present	AB	California Water Board	Maria.Friedman@waterboards.ca.gov
Dixie Marlin (2021) (Vice-Chair) Absent	Other	Marlin Quality Management, LLC	marlinquality@gmail.com
Ilona Taunton, Program Administrator Present		TNI	tauntoni@msn.com
Eric Smith (2020) Present – Late	Lab	ALS Environmental	eric.smith@alsglobal.com
Carl Kircher (2021*) Present	AB	Florida Department of Health	Carl.Kircher@flhealth.gov
Andy Valkenburg (2021*) Absent	LAB	Energy Laboratories	avalkenburg@energylab.com
Jennifer Duhon (2022) Absent	Other	Millipore Sigma	jennifer.duhon@sial.com
Matt Sica (2020) Absent	AB	ANAB, ANSI-ASQ National Accreditation Board	msica@anab.org
Patrick Garrity (2022) Absent	AB	Kentucky DEP	patrick.garrity@ky.gov
Michella Karapondo (2022) Absent	Other	USEPA	karapondo.michella@epa.gov
Fred Anderson (2020*) Present	Other	Advanced Analytical Solutions, LLC	Fred@advancedqc.com
Jennifer Bordwell (2020*) Absent	Lab	Upper Occoquan Service Authority	jennifer.bordwell@uosa.org
Scott Haas (2020*) Present	FSMO	Environmental Testing, Inc.	shaas@etilab.com
Rachel Ellis (2022*) Absent	AB	New Jersey DEP	rachel.ellis@dep.nj.gov
Shawn Kassner (2023*) Absent	Lab	Pace	shawn.kassner@pacelabs.com

Attachment B

Action Items – TNI PT Executive Committee

	Action Item	Who	Date Added	Expected Completion	Actual Completion
295	Moved from Backburner: PTPA Evaluation Checklist needs to be updated prior to next round of evaluations. (Originally discussed 8/6/13)	Shawn Ilona		New Date: 5/31/19	In Progress (will use 2016 TNI Standards and current SSAS Standards)
349	Review LAMS/FoPT Table Differences document. Provide comments by email and next meeting.	ALL	4/20/17	4/25/17 2/28/18 – For WET? June 2018 for all tables. New target date: 4/30/19	In Progress WET is still being reviewed. Update 1/23/18: Subcommittee expects to have updated FoPT tables with CAS #'s and LAMS changes by 3/15/18. 2/22/19: Still in progress. 6/21/18: Still working with Rami. 3/21/19: Stacie asked if the group should be working on this while ELAB is working through this.
352	Moved from Backburner (originally discussed 2/20/14) : When new limits are established for the FoPTs, what is considered to be a statistically significant change to the old rates? At what point is it	All	2/20/14	TBD (see #350) <i>350: Prepare formal request to SOP Subcommittee regarding</i>	In Progress – Update of SOP 4-101 6/21/18: Gil noted that this SOP will be worked on again at the next meeting. An

	Action Item	Who	Date Added	Expected Completion	Actual Completion
	<p>appropriate to question new limits? This lends to the TSS discussion a few months ago.</p> <p>Patrick commented that it would make sense to look at changes to pass/fail rates 6 months after new limits are effective. This possible addition to procedures should be evaluated when updating the limit acceptance SOP.</p>			<i>updating FoPT tables and applicable backburner items just moved to the Action Items table (#352, 353)</i>	expected completion date will be given at July meeting.
361	Analyte Code changes needed in LAMS. (TKN)	Maria Dan Hickman	7/20/17	9/30/17	Still need to look into TKN issue. 2/22/18 – Maria will confirm. 10/18/18: Maria still needs to confirm. She just got something.
363	Discuss procedural change in how changes are made to LAMS. Consider notifying PTPEC before relevant changes are made and provide a summary of changes at some frequency.			1/31/17	Will talk to IT about getting this in an SOP. 12/21/17: Maria will follow-up on this. 3/20/18: Maria will check this week. 6/21/18 – still being worked on. 2/28/19 – Maria will follow-up.
368	Forward Jerry’s question to Chemistry FoPT Subcommittee. (Analyte code change for the non-polar extractable materials.)	Maria	8/24/17	9/1/17	Maria will resend to Carl. 6/21/18 – Maria will send to Ilona. 10/18/18: Maria will send Dan’s new info.

	Action Item	Who	Date Added	Expected Completion	Actual Completion
					11/15/18 – Ilona received the info and needs to review it. (April PTPEC meeting.)
384	Meet with Dan Hickman to get Analyte Codes and then prepare final DRAFT of Micro DW and WW tables. Send to Jennifer for review.	Maria	4/19/18	5/15/18	Still in Progress
389	Present recommended LAMS updates to Dan Hickman.	Maria	5/17/18	5/20/18	FoPT format subcommittee provided recommendations.
397	Discuss Vol 3 and 4 implementation with NELAP AC.	Maria	10/18/18	11/15/18	In progress.
400	Follow-up on subcommittee reports from WET and the FoPT Table Format Subcommittee.	Maria	11/15/18	12/18/18	In Progress – combine with 349.
410	Review SOPs 4-102 and 7-101 to make sure there are no conflicts in the appeals process.	Eric	2/28/19	TBD	In Progress
412	Maria will talk to Craig about holding off on more work on the WET FoPT Table until ELAB provides guidance.	Maria	3/21/19	4/17/19	
415	Send formal request to Chemistry FoPT Subcommittee to work on footnote issue raised by Shawn regarding Footnotes 5 and 6.	Maria	3/21/19	4/17/19	Complete, but will resend to Carl.

	Action Item	Who	Date Added	Expected Completion	Actual Completion
417	Discuss ARA data issue with the NELAP AC.	Maria	4/18/19	5/16/19	Pending
418	Discuss Analyte Code issue with Bill from New Hampshire.	Maria	4/18/19	5/16/19	
419	Prepare list of items needed in SOPs to accomplish Volume 3 and 4.	Maria, Shawn	5/16/19	TBD	
420	Let Jerry know about possible EPA issue with FoPT tables.	Ilona	5/16/19	6/19/19	
421	Send message to Committee to review information on data points vs participants and provide comment by email.	Maria	6/20/19	6/27/19	
422	Send Isomer ARA data to Carl so Chem FoPT Subcommittee can begin work on this.	Maria	6/20/19	7/17/19	
423	Prepare DRAFT equivalency letter to compare 2009 and 2016 to post on website for PT Provider customers.	Maria	7-18-19	TBD	
424	Complete vote on SOP 4-102.	Maria/Ilona	7-18-19	8-7-19	
425	Vote on SOP 4-107 by email.	Maria/Ilona	7-18-19	8-7-19	
426	Get total number of accredited labs from Jerry.	Ilona	8-7-19	9/18/19	

	Action Item	Who	Date Added	Expected Completion	Actual Completion
427	Prepare DRAFT of Worksheet 11 for September meeting review.	Maria	8-7-19	9/16/19	
428	Send Worksheet 11 out for final committee review.	Maria	9-19-19	9/27/19	
429	PT Provider Memo – send comments to Maria and ideas for updated language.	All	9-19-19	9/26/19	
430	Review FoPT Tables and website to be consistent with website.	TBD	10/31/19	TBD	
431	Discuss with IT Committee the need for LAMS updates to be communicated to the PTPEC.	Maria	10/31/19	11/20/19	
432	DW FoPT Table – Lines 17-26 need to be reviewed with LAMS Administrator. PTPEC is going to use what was originally in the table instead of what is currently in LAMS.	Maria	10/31/19	11/20/19	

Attachment C

Backburner / Reminders – TNI PT Executive Committee

	Item	Meeting Reference	Comments
7	Add the Field PT Subcommittee to the limit update SOP during its next update.	3/4/10	In Progress
11	Evaluate how labs are accredited for analytes that co-elute.	5-19-11	
13	Charter needs to be reviewed/updated in November.	Ongoing	
18	Shawn noted that PTPEC should have some specific measurements. This should be passed along to the PTP SOP Subcommittee. Nicole noted that we need to determine which items to measure.	6-29-17	

Historical Limits May Institutionalize Bias

- Using historical data to establish acceptance criteria reinforce the status quo for better and for worse
 - Good performance fosters good performance but
 - Biased performance begets biased measurements; and
 - Biased performance removes incentives for labs to address measurement bias.
- Using historical data also raises concerns about the control and representativeness of results used to determine PT acceptance criteria

Current Limits Tend to Be Problematic at Low Levels

- Current limits often unrealistically challenge labs at the low end of the testing range.
 - The primary MQO labs must meet is *the SDWA Required Detection Limit* (RDL) defined as the *activity at which the relative uncertainty (k=1.96) is 100%*.
 - The *minimum* uncertainty (k=1.96) we can expect at the low end of the test range (i.e., RDL) is 100%
 - Current limits, however, are often more restrictive than this (*see comparative data plots*)

Looking in a New Direction for Radchem PT Acceptance Criteria

Linking acceptance criteria to MQOs helps ensure that we qualify those radchem labs that are capable of meeting SDWA quality requirements

It also encourages all radchem labs to improve performance where necessary to meet EPA's MQOs

– Key Drinking Water MQOs:

- Required Detection Limit (in 40 CFR)
- Requirement for relative bias in EPA's Drinking Water Laboratory Certification Manual (Chapter 6 - LFBs)

Proposed Parameters Link to MQOs

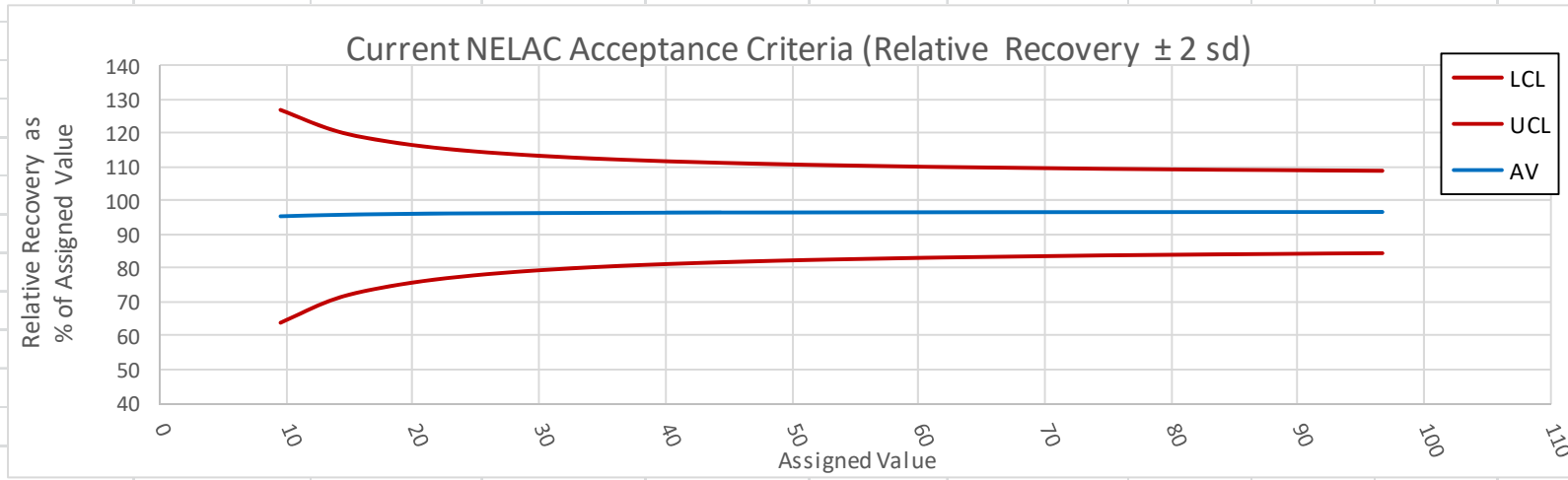
Table 1: Parameters for Several SDWA Test Parameters

Parameter	L	σ_L	ϕ_H
Gross Alpha	3.0 pCi/L	1.5 pCi/L	10%
Gross Beta	4.0 pCi/L	2.0 pCi/L	10%
Ra-226	1.0 pCi/L	0.51 pCi/L	5%
Ra-228	1.0 pCi/L	0.51 pCi/L	10%
U (mass or activity)	1.0 $\mu\text{g/L}$	0.51 $\mu\text{g/L}$	5%
H-3	1,000 pCi/L	510 pCi/L	5%
Sr-90	2.0 pCi/L	1.0 pCi/L	5%
Sr-89	10 pCi/L	5.1 pCi/L	5%
I-131	1.0 pCi/L	0.51 pCi/L	5%
Cs-134	10 pCi/L	5.1 pCi/L	5%
All others	See Attachment 1		5%

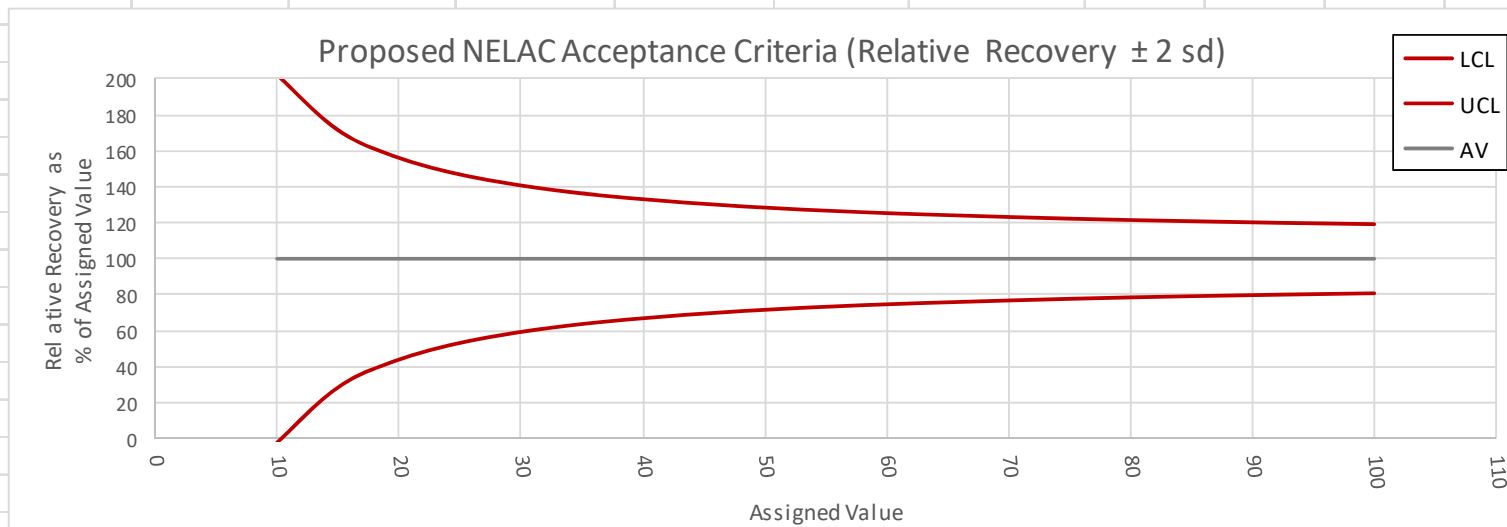
Please see copy of draft SOP text for details

Barium-133

Parameter	a	b	c	d	Min	Max	Units
Ba-133	0.9684	-0.1424	0.0503	1.0737	10	100	pCi/L

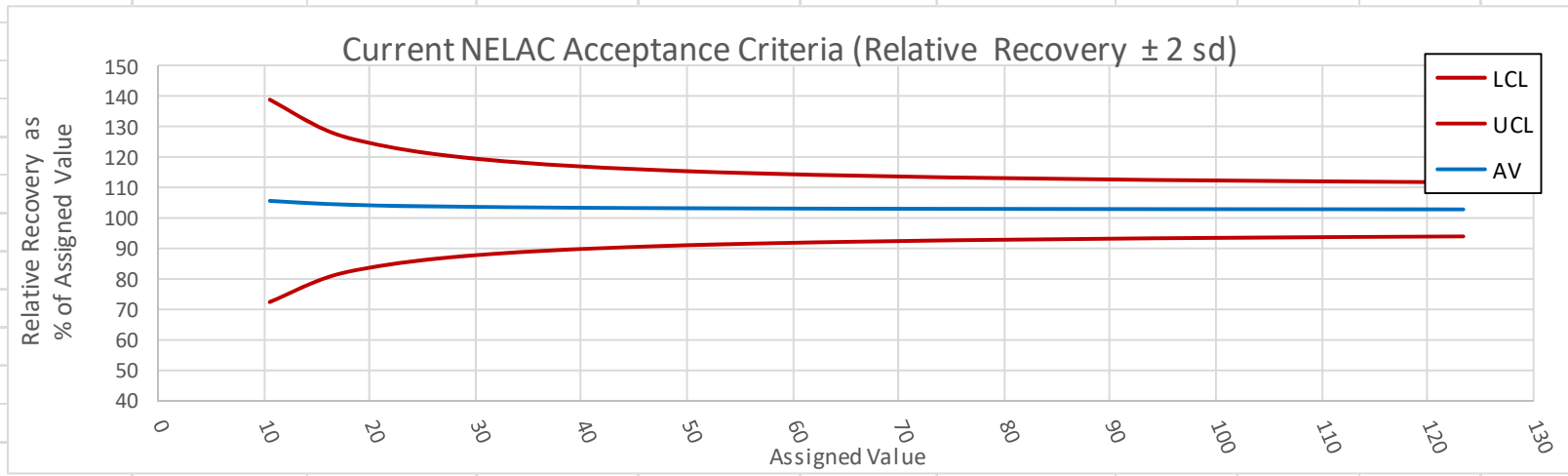


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Ba-133	1	0	0.05	4.6020408	10	10	100	pCi/L

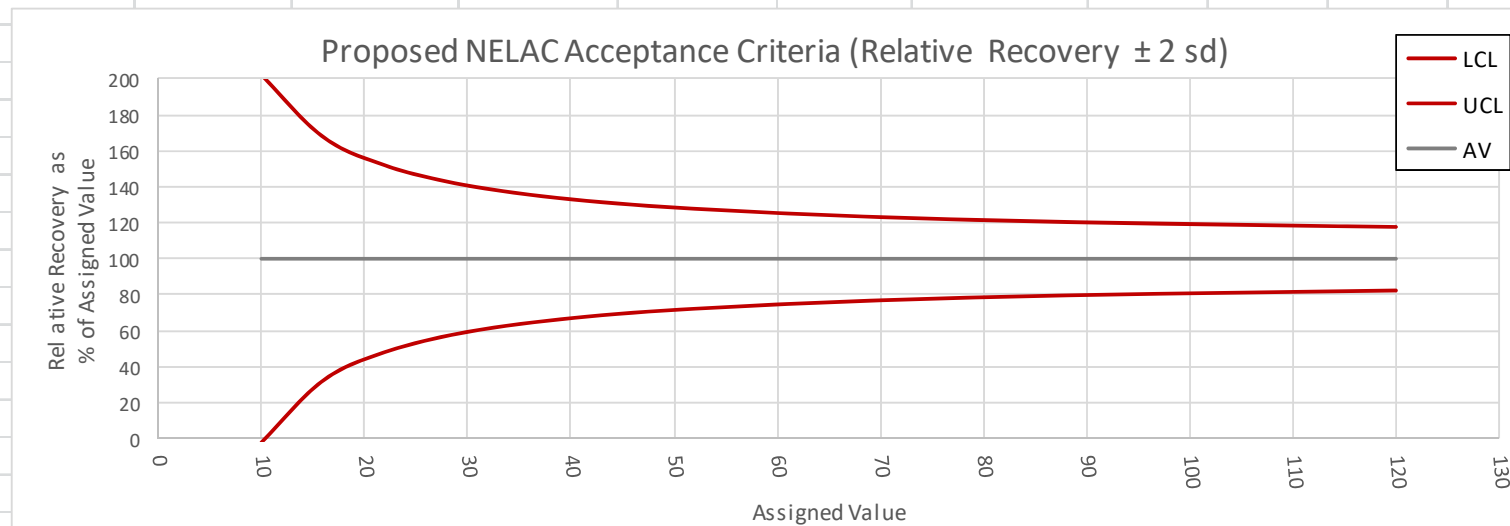


Co-60

Parameter	a	b	c	d	Min	Max	Units
Co-60	1.0257	0.3051	0.0335	1.3315	10	120	pCi/L

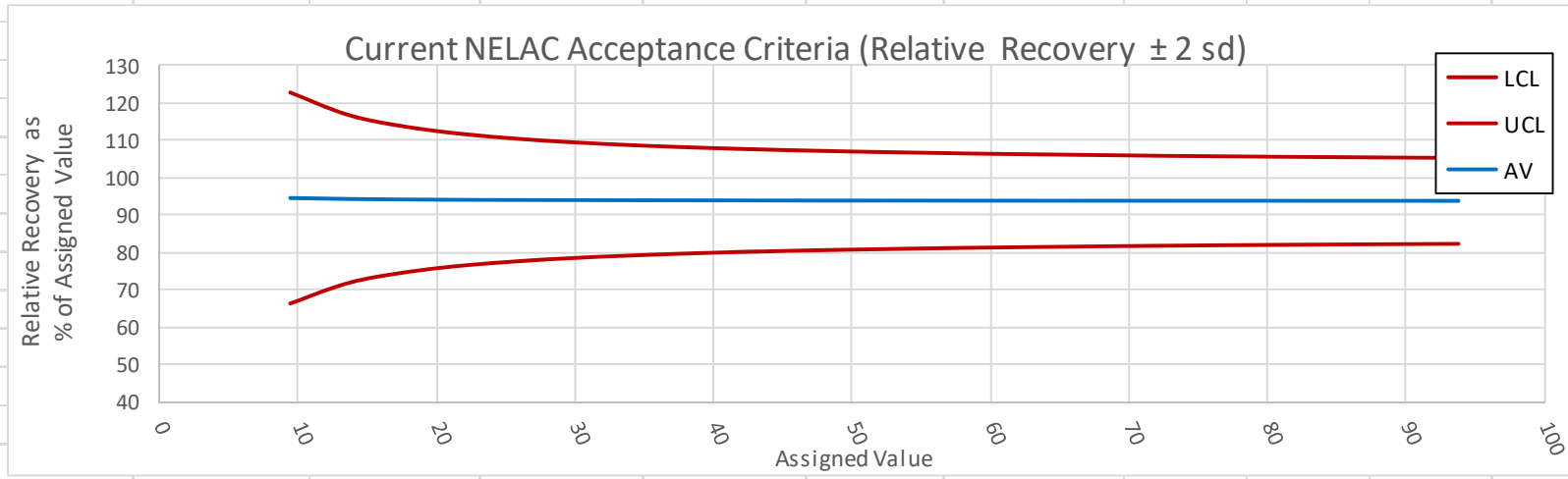


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Co-60	1	0	0.05	4.6020408	10	10	120	pCi/L

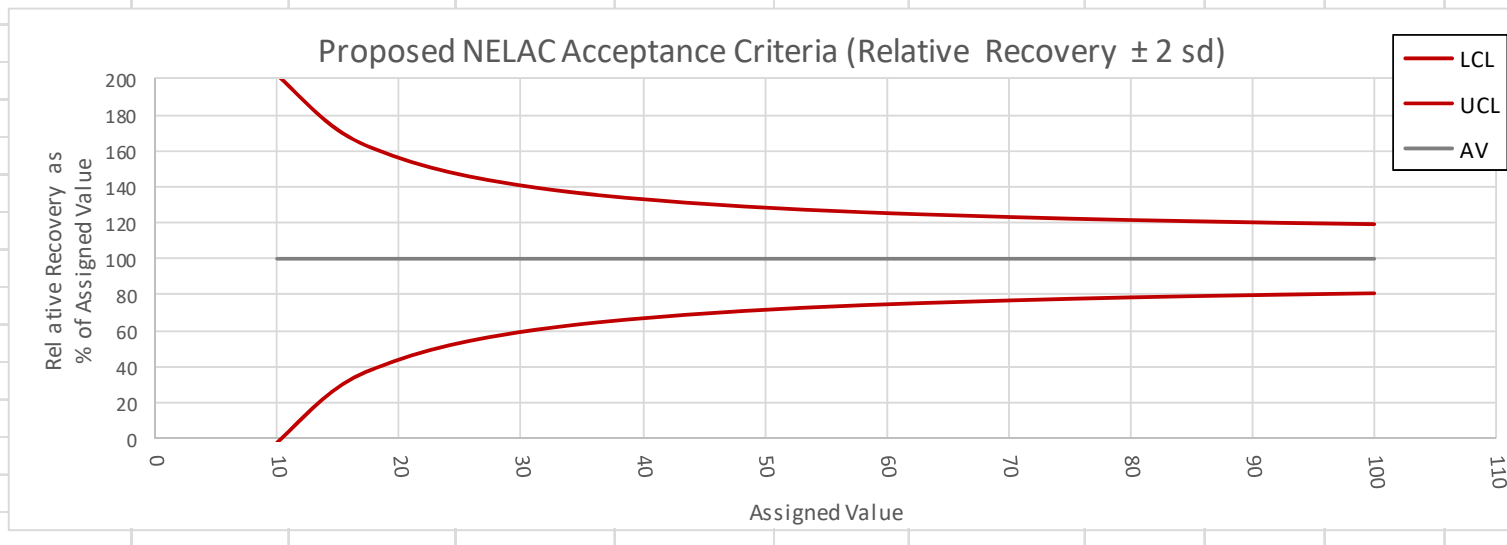


Cs-134

Parameter	a	b	c	d	Min	Max	Units
Cs-134	0.9369	0.0845	0.0482	0.9306	10	100	pCi/L

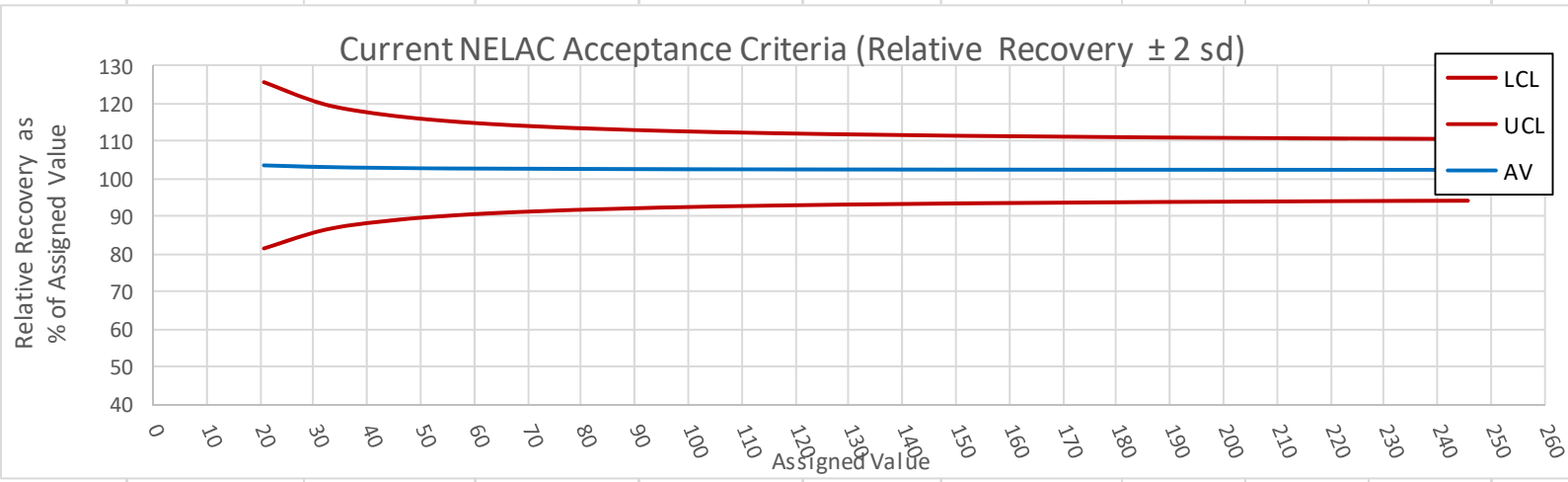


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Cs-134	1	0	0.05	4.6020408	10	10	100	pCi/L

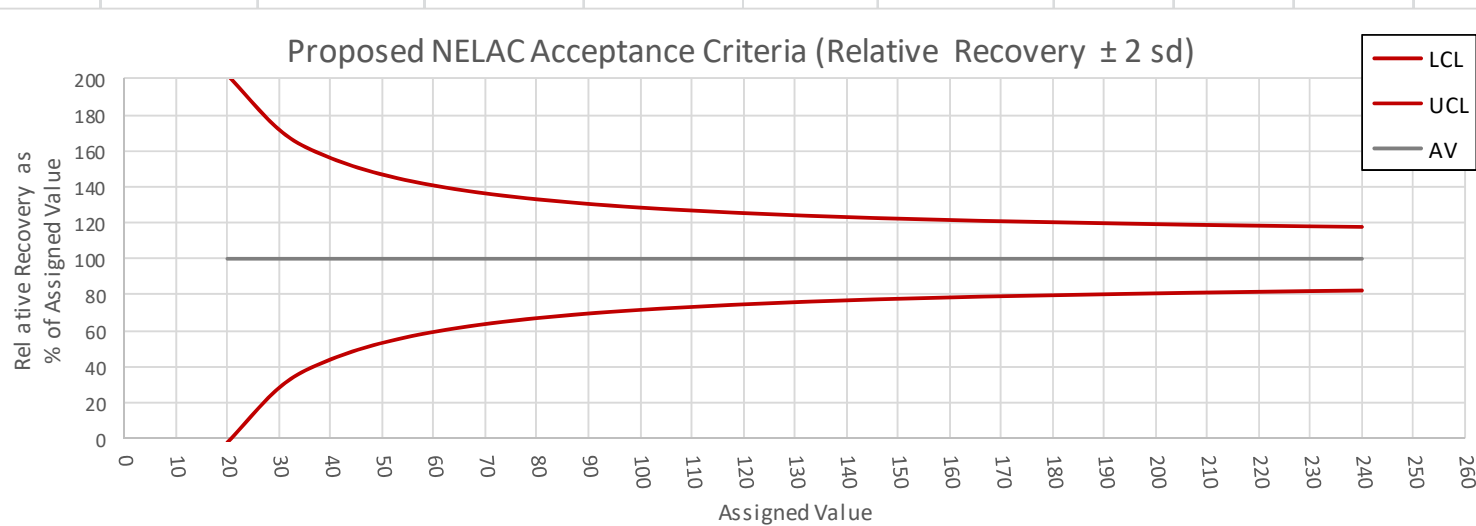


Cs-137

Parameter	a	b	c	d	Min	Max	Units
Cs-137	1.0225	0.2624	0.0347	1.5185	20	240	pCi/L

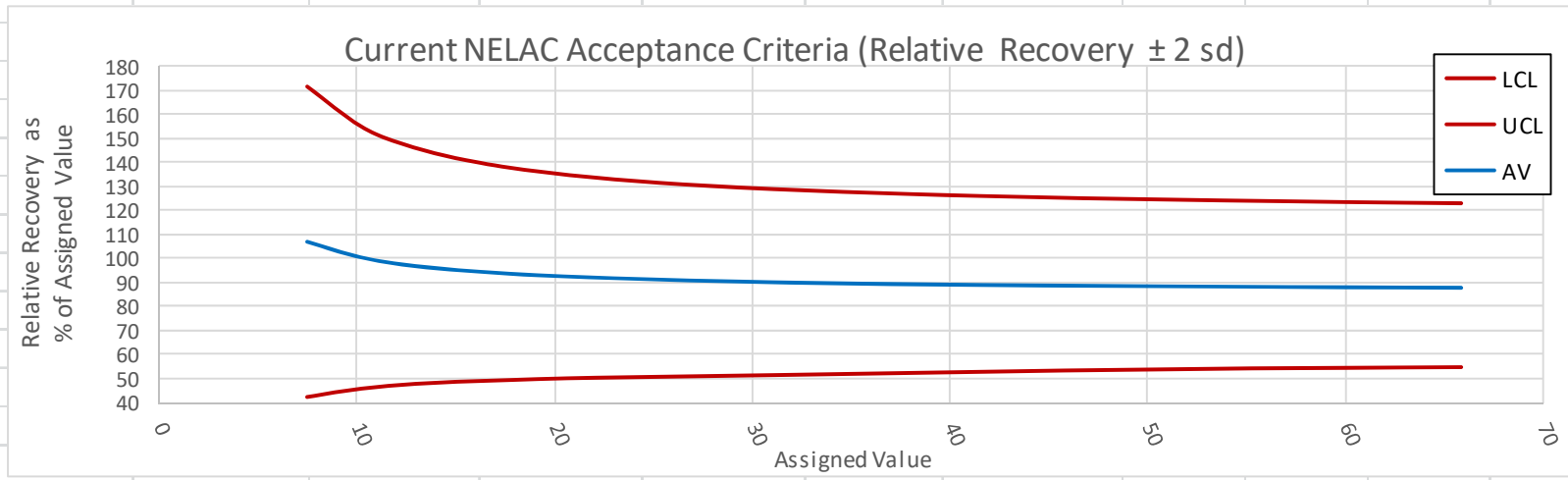


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Cs-137	1	0	0.05	9.2040816	20	20	240	pCi/L

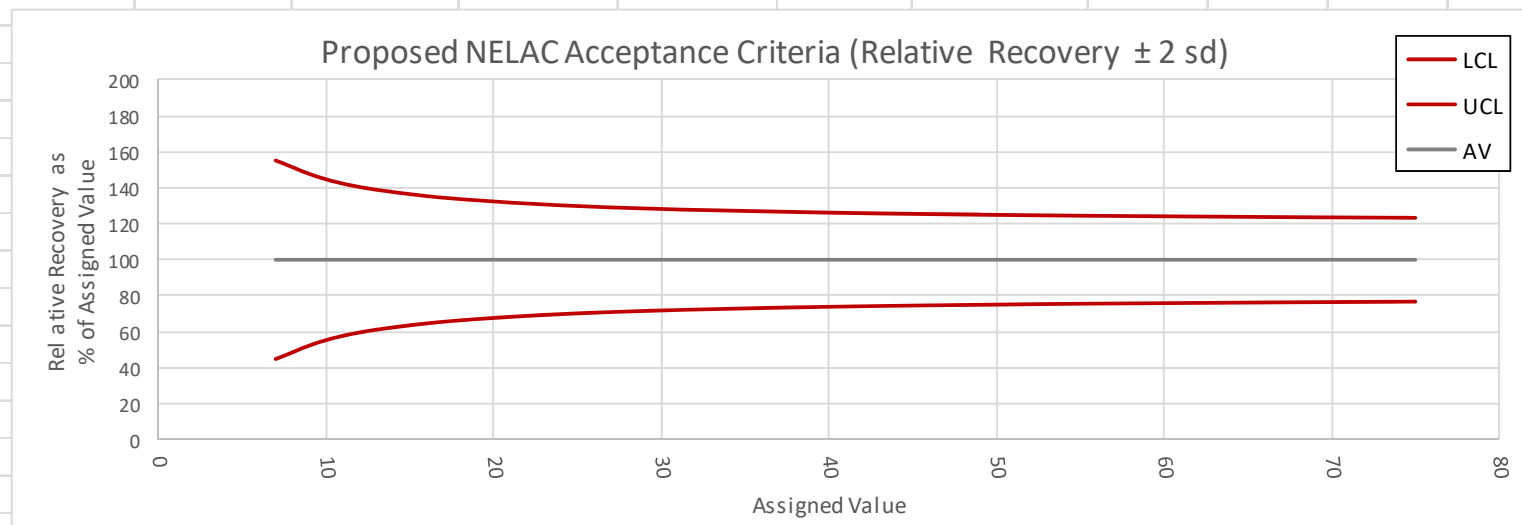


Gross Alpha

Parameter	a	b	c	d	Min	Max	Units
Gross Alpha	0.8586	1.4802	0.161	1.1366	7	75	pCi/L

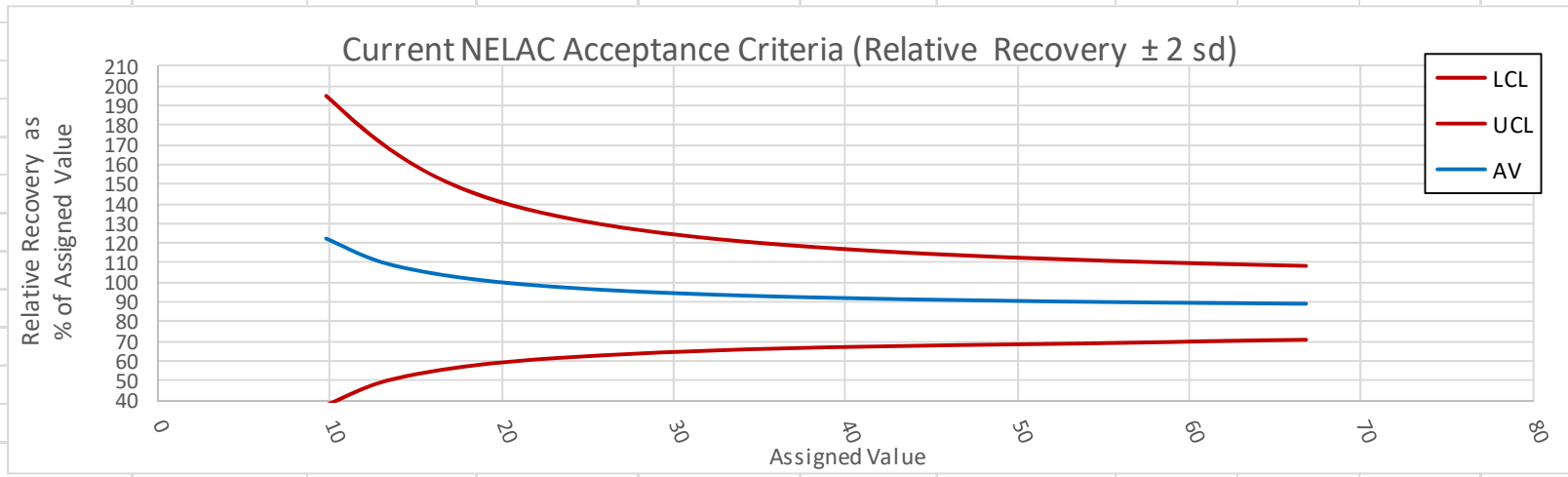


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Gross Alpha	1	0	0.1	1.2306122	3	7	75	pCi/L

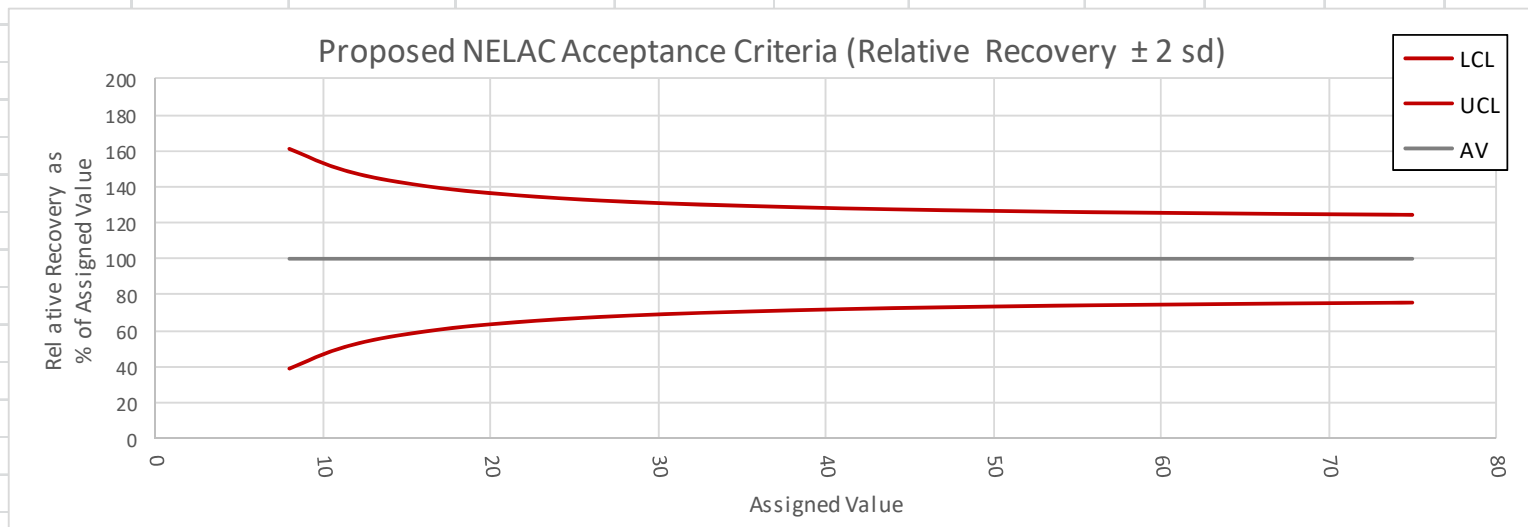


Gross Beta

Parameter	a	b	c	d	Min	Max	Units
Gross Beta	0.8508	2.9725	0.0571	2.9372	8	75	pCi/L

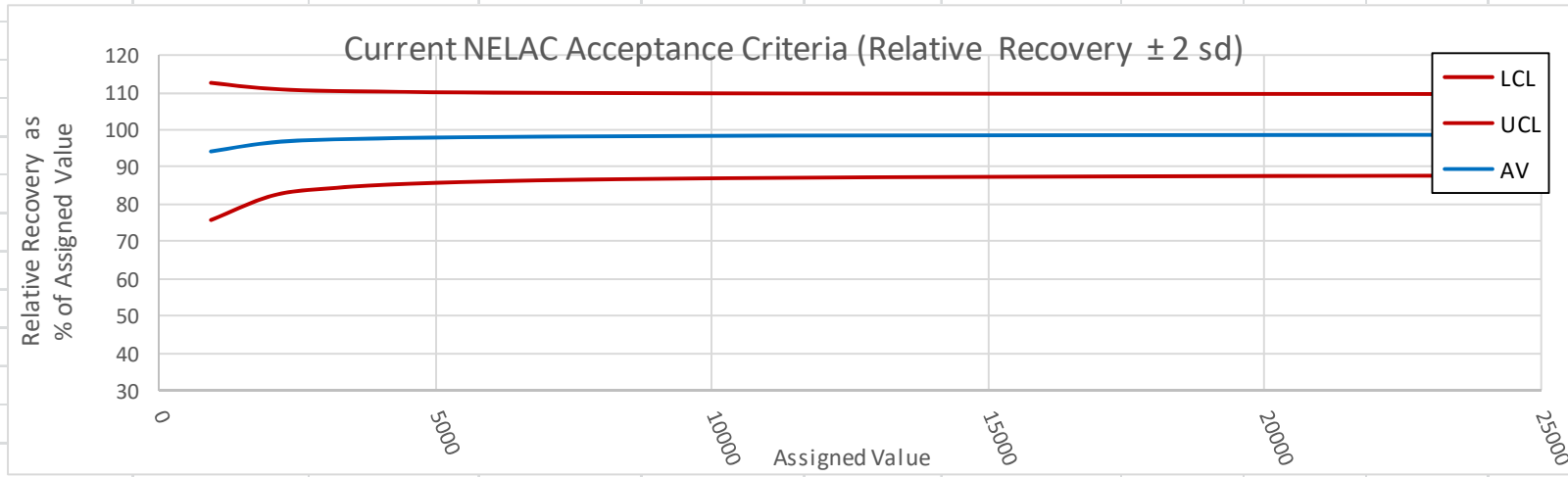


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Gross Beta	1	0	0.1	1.6408163	4	8	75	pCi/L

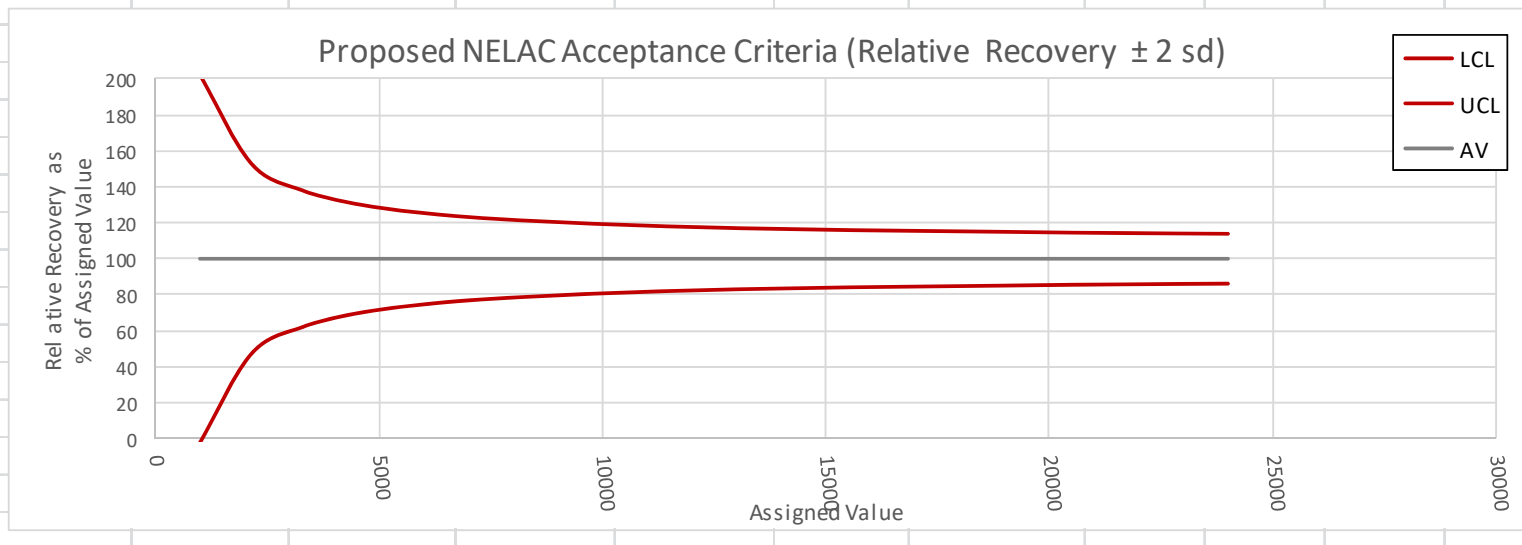


Tritium

Parameter	a	b	c	d	Min	Max	Units
H-3	0.9883	-46.4776	0.0532	38.8382	1000	24000	pCi/L

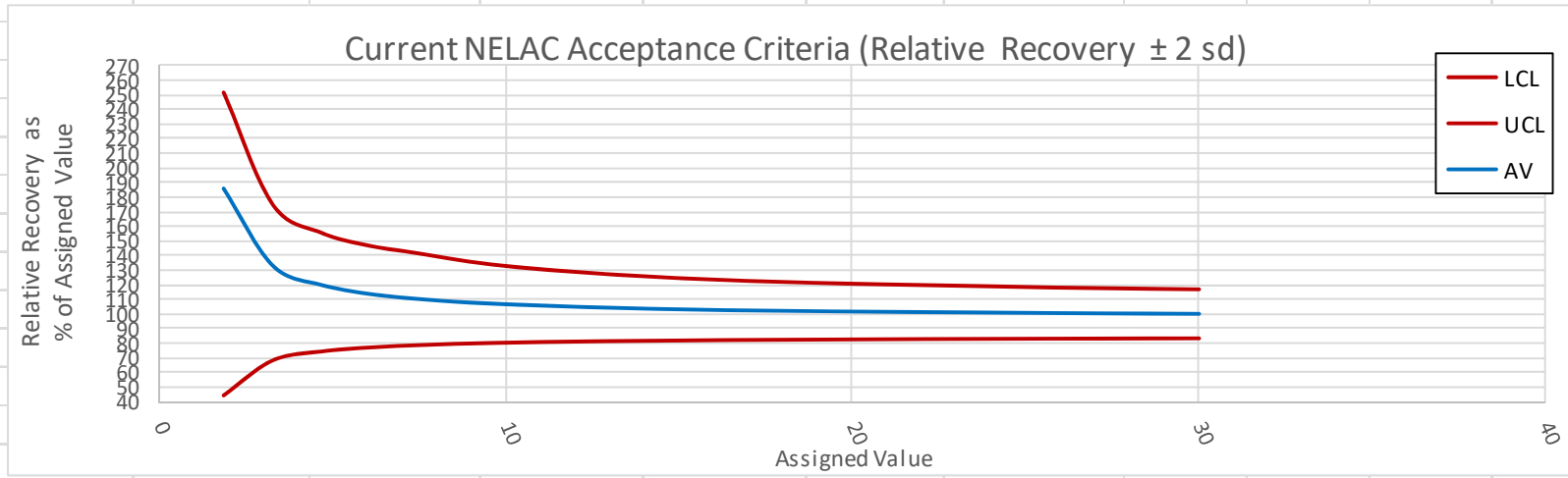


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
H-3	1	0	0.05	460.20408	1000	1000	24000	pCi/L

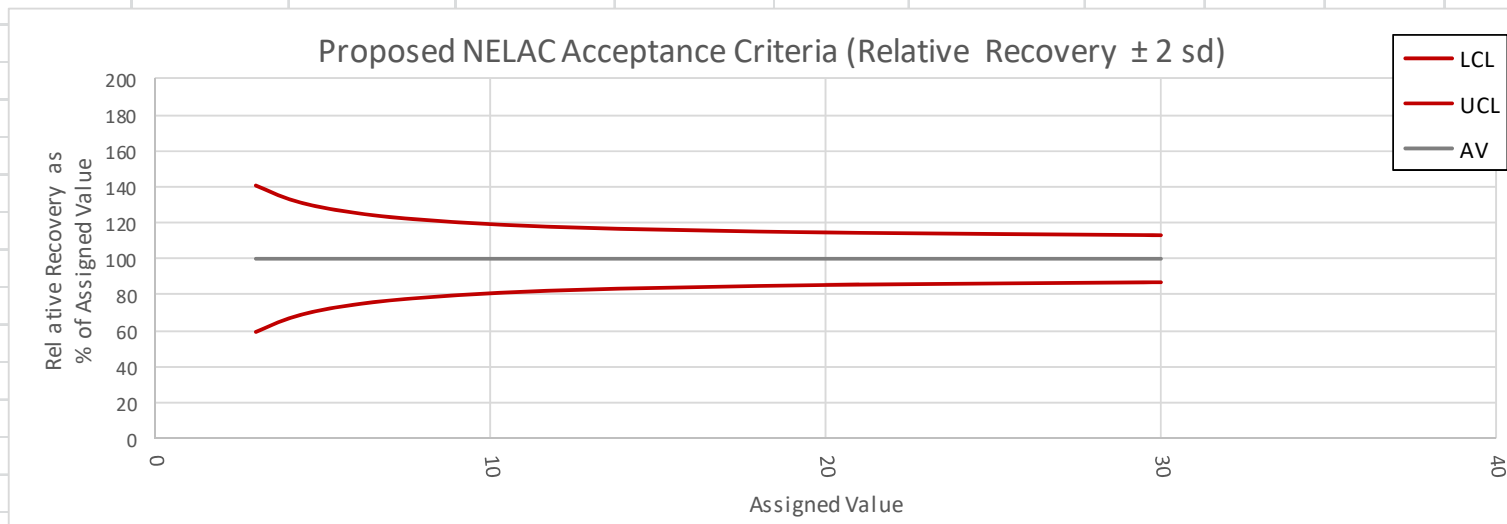


I-131

Parameter	a	b	c	d	Min	Max	Units
I-131	0.9711	0.8870	0.0624	0.6455	1	30	pCi/L

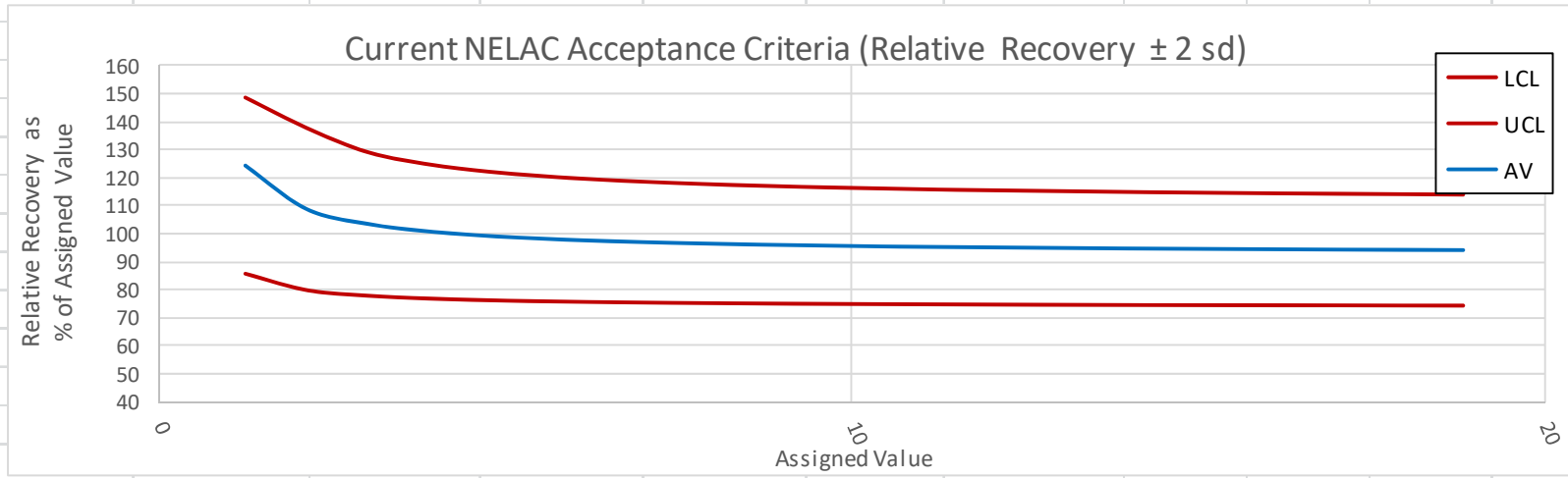


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
I-131	1	0	0.05	0.4602041	1	3	30	pCi/L

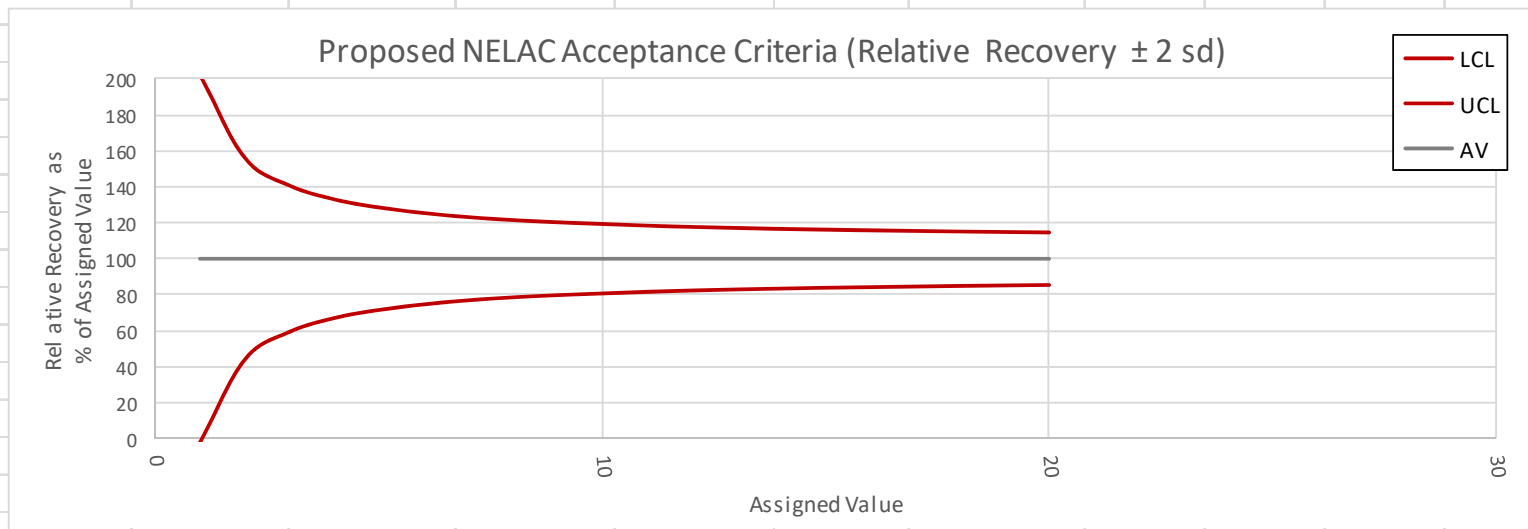


Ra-226

Parameter	a	b	c	d	Min	Max	Units
Ra-226	0.9253	0.3175	0.0942	0.0988	1	20	pCi/L

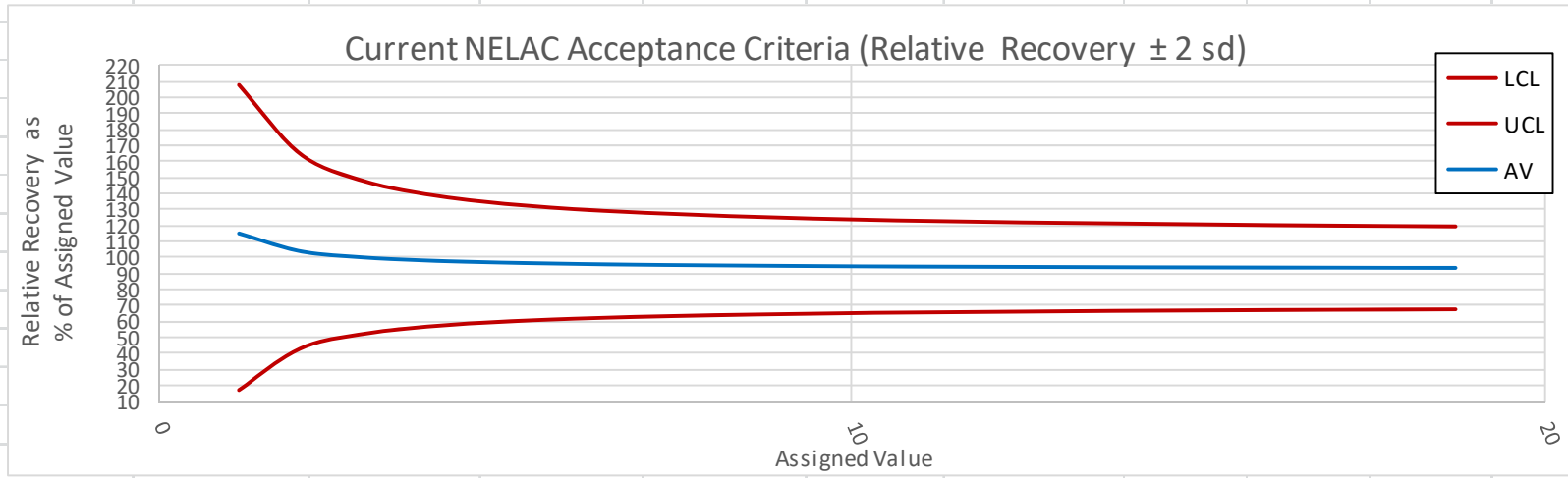


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Ra-226	1	0	0.05	0.4602041	1	1	20	pCi/L

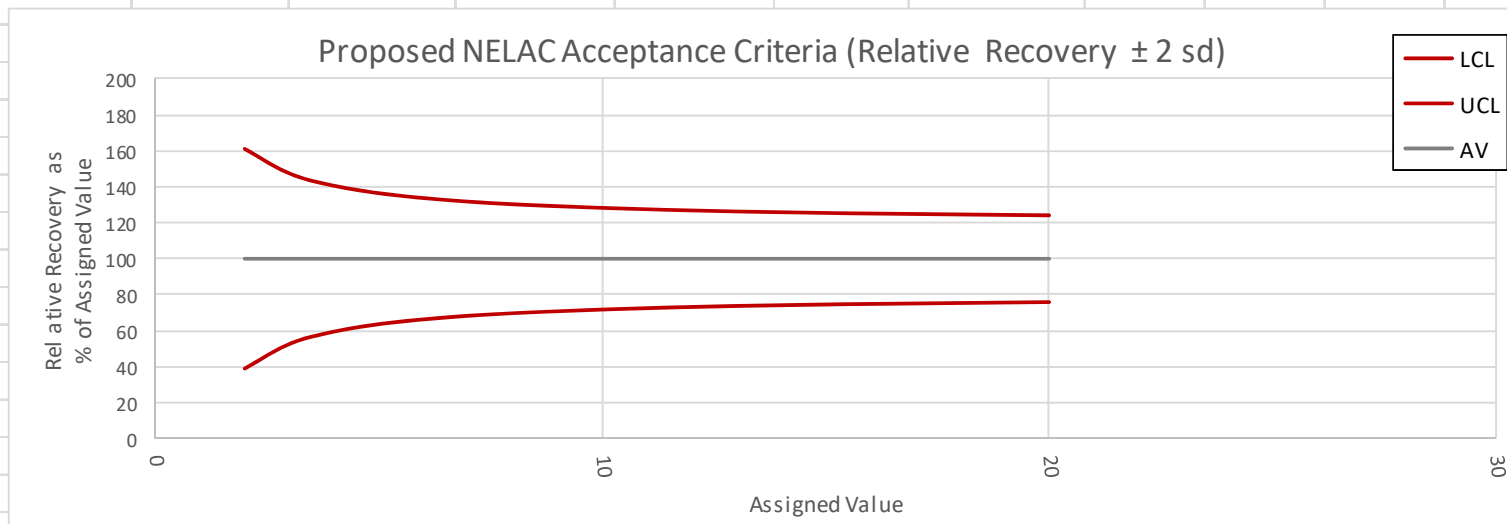


Ra-228

Parameter	a	b	c	d	Min	Max	Units
Ra-228	0.9243	0.2265	0.1105	0.37875	1	20	pCi/L

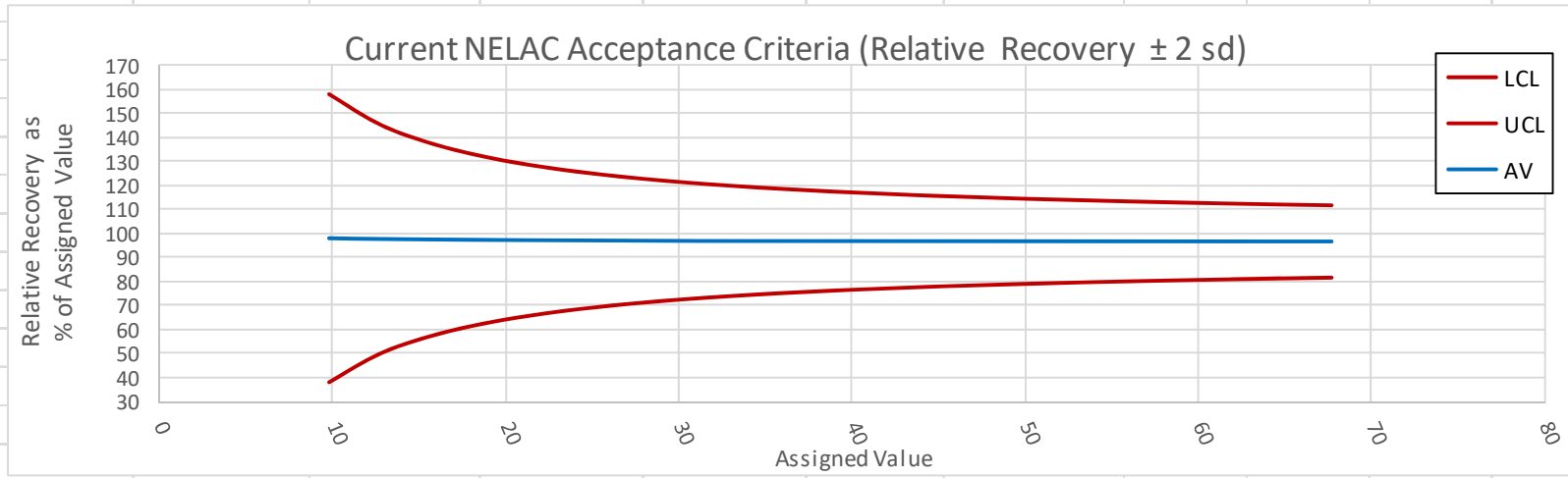


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Ra-228	1	0	0.1	0.4102041	1	2	20	pCi/L

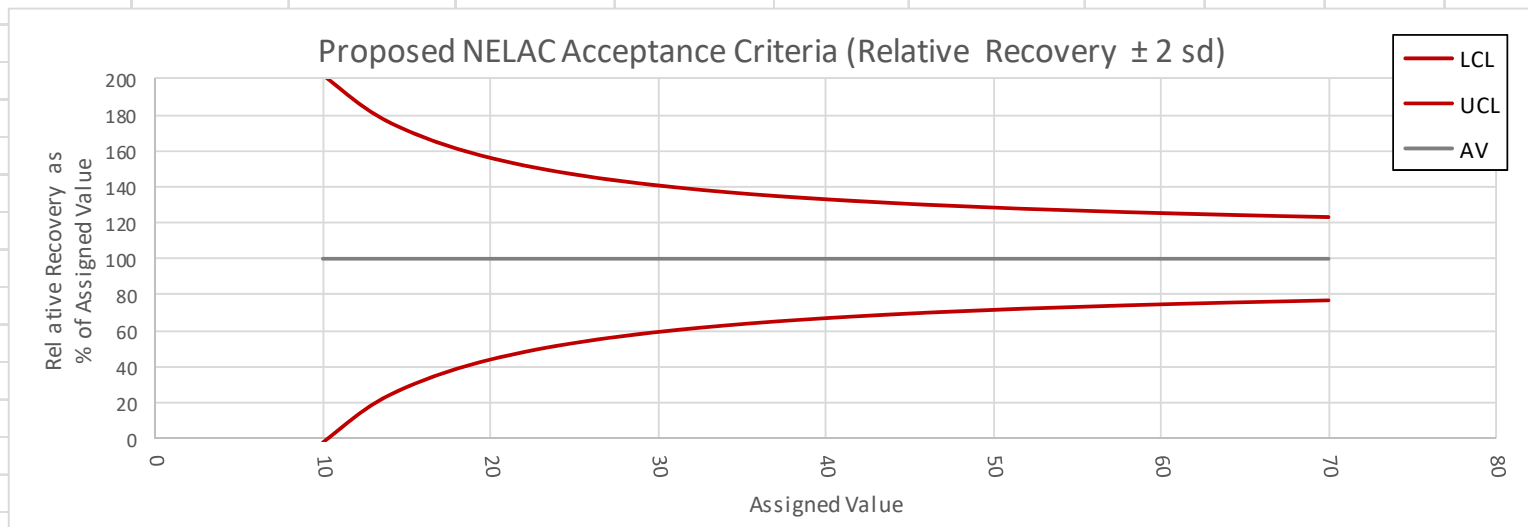


Sr-89

Parameter	a	b	c	d	Min	Max	Units
Sr-89	0.9648	0.1591	0.0379	2.6203	10	70	pCi/L

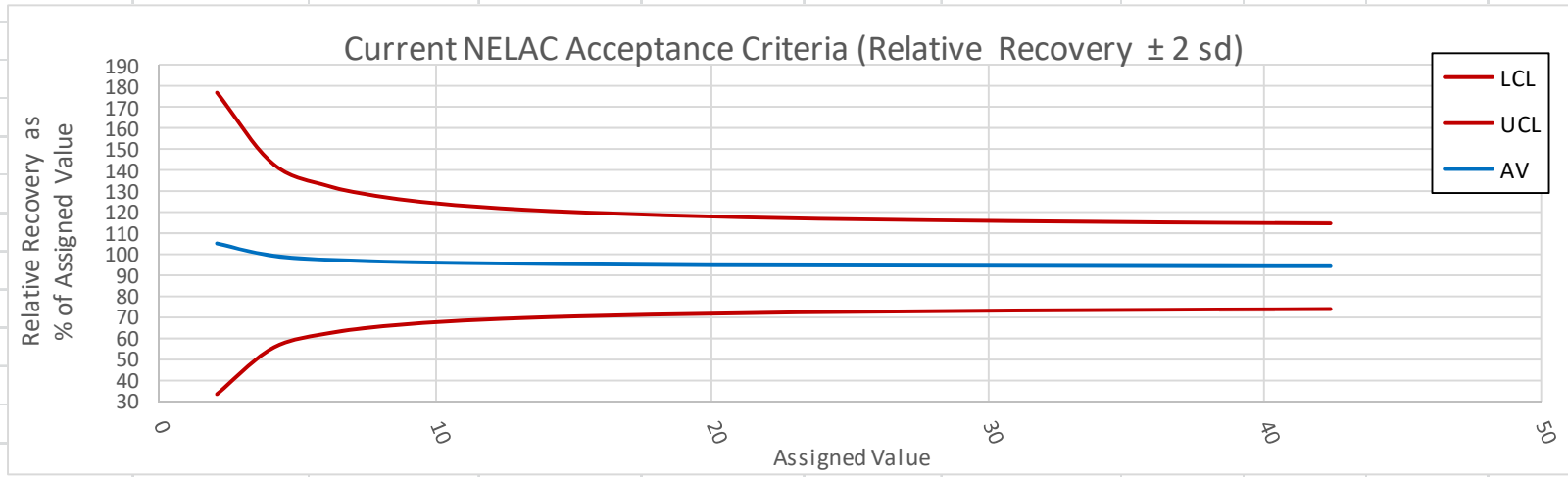


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Sr-89	1	0	0.05	4.6020408	10	10	70	pCi/L

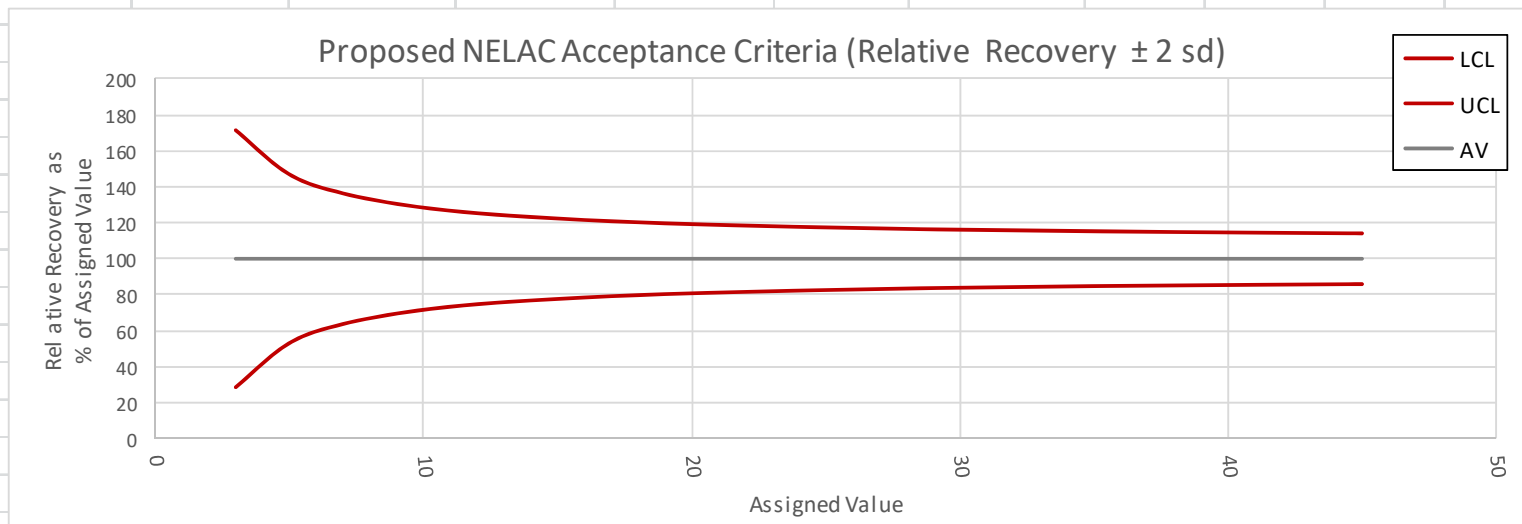


Sr-90

Parameter	a	b	c	d	Min	Max	Units
Sr-90	0.9369	0.2279	0.0902	0.539	2	45	pCi/L

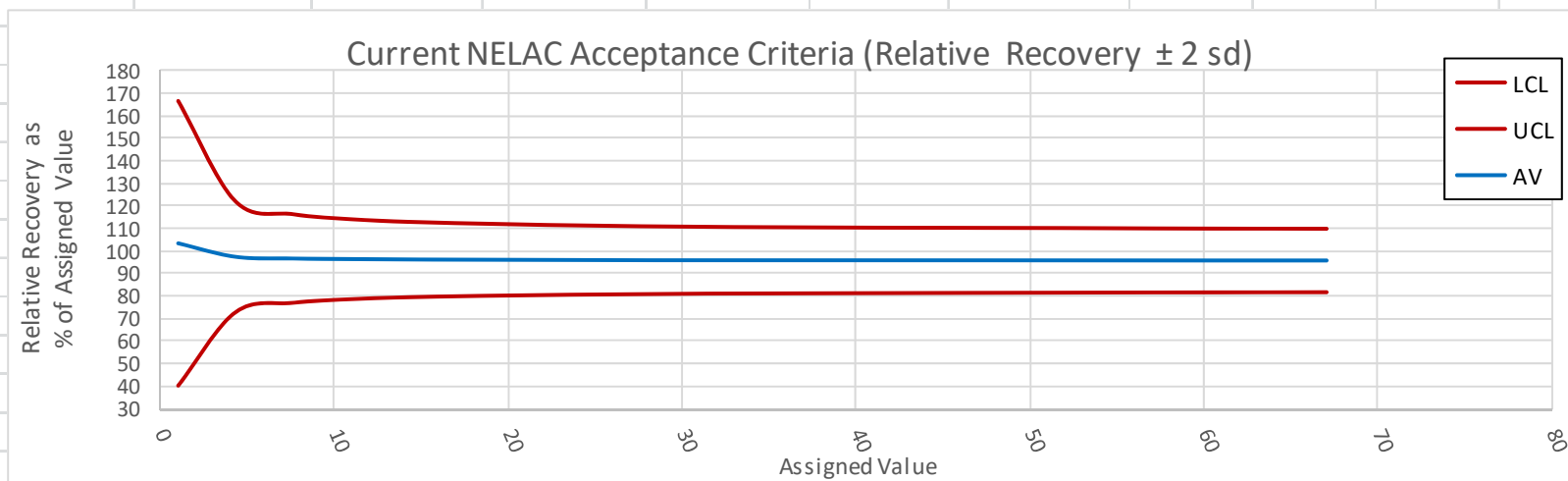


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Sr-90	1	0	0.05	0.9204082	2	3	45	pCi/L

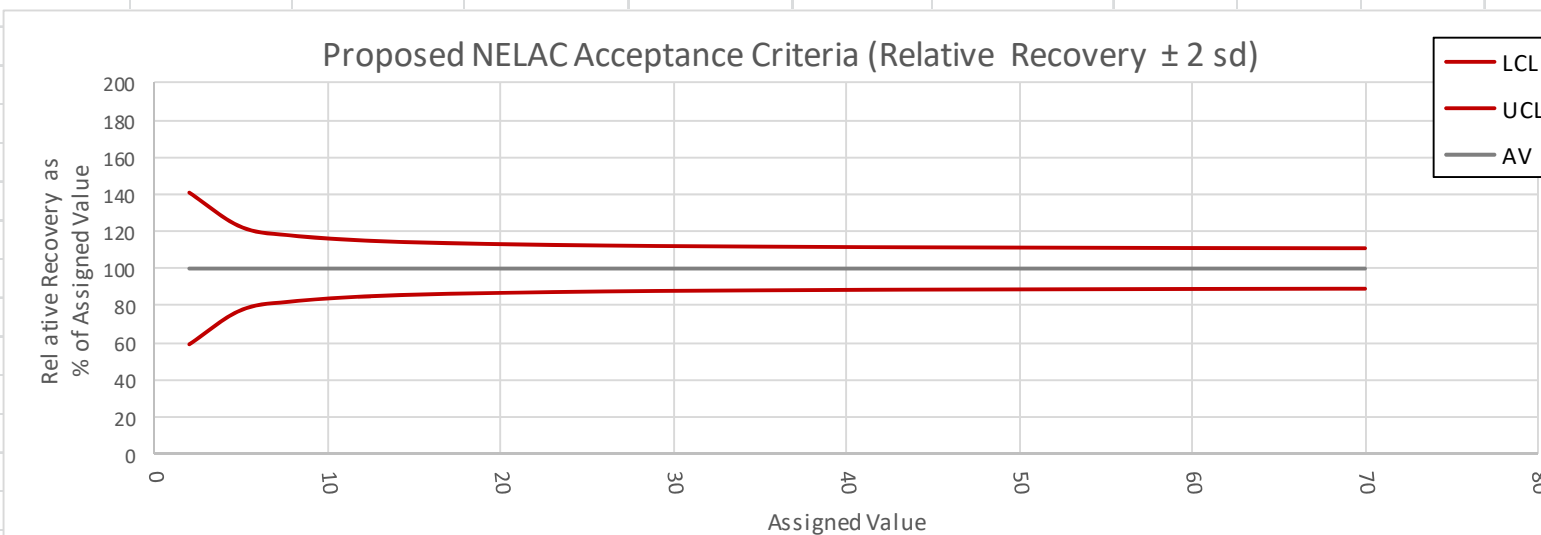


U (rec)

Parameter	a	b	c	d	Min	Max	Units
Natural Uranium	0.9568	0.0773	0.0668	0.2490	1	70	pCi/L

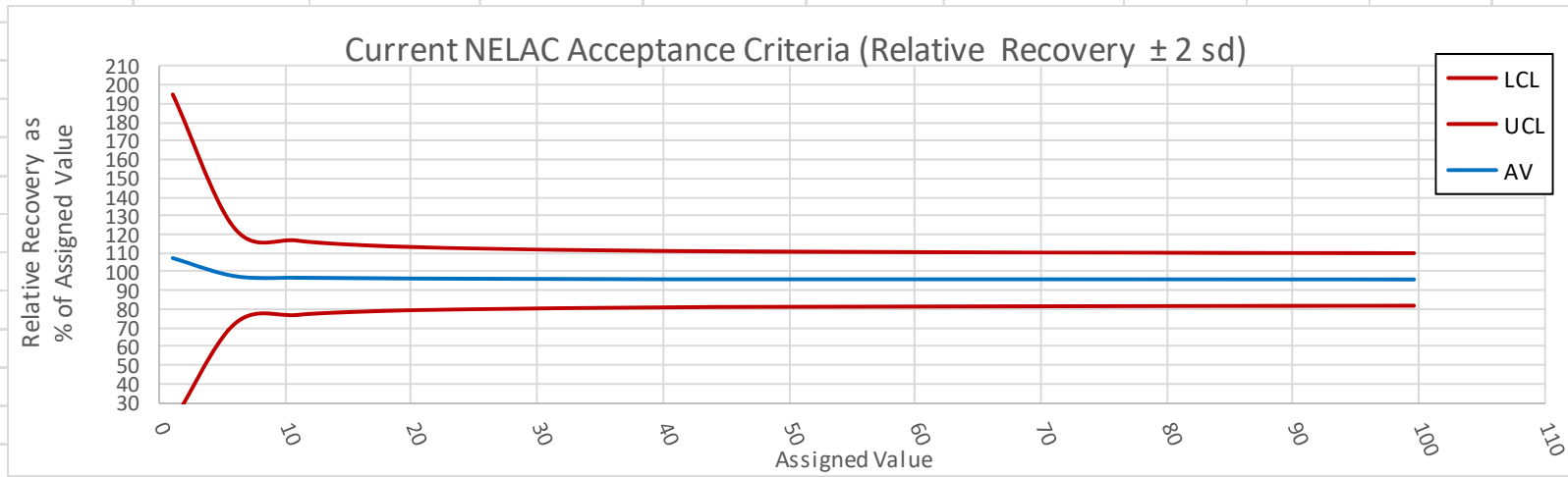


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
U (rec)	1	0	0.05	0.3083367	0.67	2	70	pCi/L

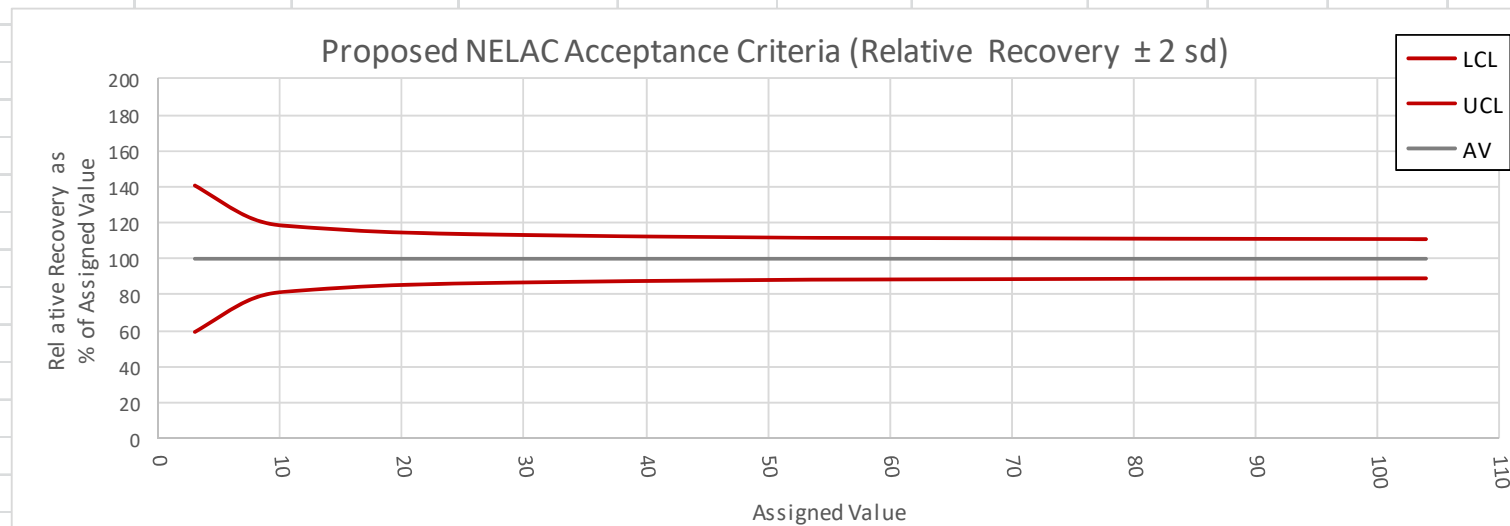


U (mass)

Parameter	a	b	c	d	Min	Max	Units
U (mass)	0.9568	0.1153	0.0668	0.3716	1	104	ug/L

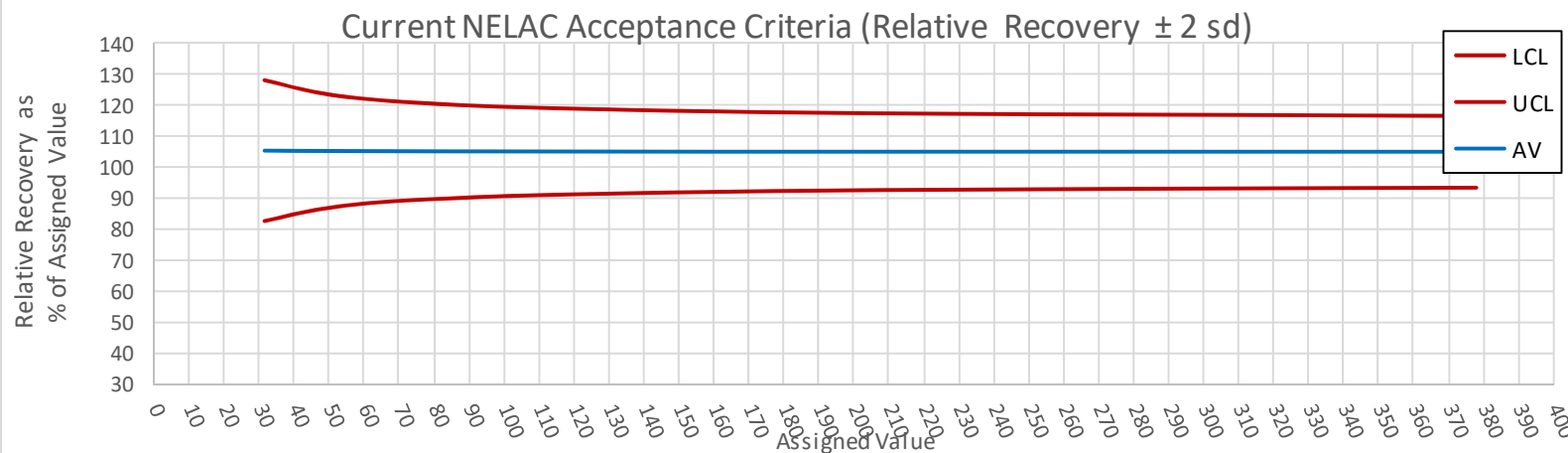


Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
U (mass)	1	0	0.05	0.4602041	1	3	104	ug/L

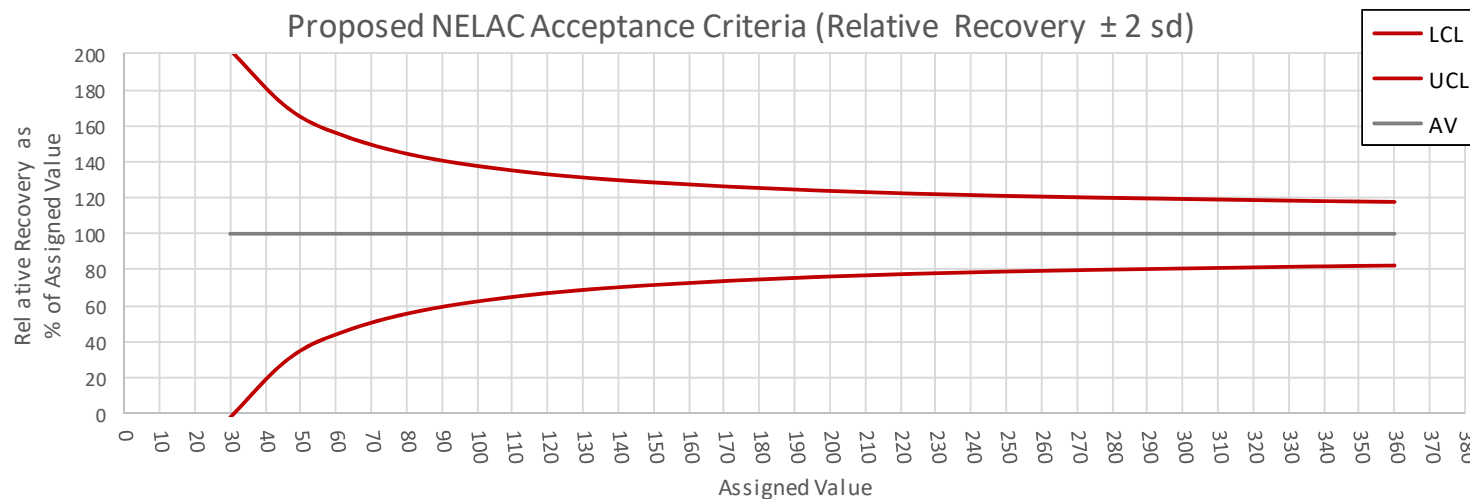


Zn-65

Parameter	a	b	c	d	Min	Max	Units
Zn-65	1.0495	0.1245	0.053	1.8271	30	360	pCi/L



Parameter	a	b	c	d	L (RDL)	Test min.	Max	Units
Zn-65	1	0	0.05	13.806122	30	30	360	pCi/L



Some Conclusions

- Currently, NELAC PT acceptance limits for radiochemistry are based on historical results.
 - There are a number of troubling trends in current limits
 - For better and for worse , historical limits reinforce the *status quo ante*
 - Doesn't ensure SDWA program quality needs will be met
- We propose that limits be linked to MQOs:
 - This will help ensure laboratory data quality is adequate to support EPA's SDWA program quality needs, and
 - Encourage labs to minimize / eliminate measurement bias.

Some Assumptions and Sources

- DLs are defined in:
 - 40 CFR 141.25 (c)(1) Table B (Gross alpha, Ra-226, Ra-228, U)
 - 40 CFR 141.25 (c)(2)
 - Table C (Gross beta, H-3, Sr-89, Sr-90, I-131, Cs-134)
 - All others – 1/10th MCL listed in “*Derived Concentrations (pCi/l) of Beta and Photon Emitters in Drinking Water Yielding a Dose of 4 mrem/y to the Total Body or to any Critical Organ*” of NBS Handbook 69, as amended August 1963, U.S. Department of Commerce.
 - No RDL defined for Ba-133; it is not present in a fission event
 - Used MCL for Cs-134
- Uranium
 - No RDL is defined for U (activity) as the MCL is mass concentration. An RDL of 0.67 pCi/L would be calculated using the specific activity conversion factor for natural uranium promulgated for corrected gross alpha (assuming the PT provider uses natural uranium)
- We should invite guidance from EPA OW on MQOs for different tests. Three that may deserve attention are Gross Alpha, Gross Beta, and Ra-226 where LFB acceptance criteria may be optimistically over-restrictive.