



Writing Assessment Findings

***The Good, The Bad, and
The Ugly***





Developing a Finding

- Making an Observation
 - Gather objective evidence
- Relating the Observation to a Requirement
 - Determine whether the observation fails to meet a specific requirement
- Constructing a written summary connecting the two
 - Statement of non-conformance with a requirement with supporting objective evidence (“How do you know?”)



Characteristics of a “Good” Finding

- Based on objective evidence
 - Objectivity is the hallmark of the process
- Relates to a specific requirement
- Reader has clear understanding of what the requirement is and what is “lacking”





The “Good” Examples

TNI Ref: V1M2 5.9.3.c

Laboratory procedures for performing initial instrument calibrations for cyanide analyses using SM 4500-CN E and SM 4500-CN C only require a full instrument calibration on a monthly basis.

Requirements appearing in Standard Method 4020 dictate the use of daily initial instrument calibrations.





The Good

Part II

NELAC Ref: 2.5 [TNI V1M1 5.1.1]

Proficiency Test (PT) samples are not handled in the same manner as environmental samples. PT samples for volatile organics were analyzed in duplicate. Routine environmental samples are not analyzed in duplicate. Further, PT samples for nutrients (ammonia, Total Kjeldahl Nitrogen, Total Phosphorus) were analyzed numerous times with the average result of the multiple analyses reported to the PT provider. Routine environmental samples are not analyzed multiple times to generate an average result.





The Good

Related to a requirement?

NELAC Ref: 5.4.12.2.5.4.a-c (TNI 2009, V1M2, 4.13.3.f.xix)

The laboratory signature log was incomplete. Names, signatures, and initials for at least two staff members (one currently employed) were not included. Further, the signature for one staff member is recorded with a different surname than what appears in some laboratory records for the same individual.



The Bad...

Not clearly written with objective evidence or a connection to a specific requirement.





The “Bad” Examples

NELAC 5.4.12.2.5.3(n) [TNI V1M2, 4.13.3(f)(xvi)]

The laboratory’s records do not include the method performance criteria including expected quality control requirements (general chemistries where spreadsheets are employed).



The Bad

Appendix D.1.1.3.1(b) to NELAC Chapter 5
[TNI V1M4, 1.7.3.3.1(b)]

The laboratory does not perform matrix spikes at a frequency specified by the test method (EPA 547, EPA 548.1, EPA 549.2).





The “Bad” Examples

Part II

NELAC 5.4.2.3(g) [TNI V1M2, 4.2.8.4(h)]

The Quality Manual does not include or reference the laboratory’s procedures for achieving traceability of measurements.





The Bad, the sequel

NELAC Ref: 5.4.12.2.5.3(g) [TNI V1M2, 4.13.3(f)(ix)]

Laboratory records do not include identifiers for all ID codes, volumes, weights, meter readings, and reagents used in testing activities. Examples include: ...

TCLP has a prefilled rotation value of 30 but the analyst stated they were not checking this.

...



The Ugly

- ❑ Confusing
- ❑ Not clearly written
- ❑ Inappropriate citations
- ❑ Contains assessor opinion(s)



The Ugly

NELAC 5.4.12.2.5.3(n) [TNI V1M2,
4.13.3(f)(xvi)]

The laboratory's records do not include the method performance criteria including expected quality control requirements (general chemistries where spreadsheets are employed).



The Ugly

NELAC 5.4.2.3 [TNI V1M2, 4.2.8.3(b)-(d)]

The laboratory's Quality Manual does not list Lab XYZ quality manual):

- (1) laboratory's address*
- (2) address and telephone number of individual(s) responsible for the laboratory*
- (3) effective date of this Quality Manual version.*



The Ugly

TNI 2009 Ref: V1M2 5.5.5.g

Maintenance activities could use more detail. For example GC Log 21 noted there was a column change but did not include the serial number or unique ID of the column.



So – Back to the Good

- Include objective evidence
- Make sure there is a specific requirement
- Make sure the cited standard applies
- Make sure a third party would understand
- Relax!





Thank You!
Questions?

