



EAST BAY MUNICIPAL UTILITY DISTRICT

TNI - 2016

BACWA Annual Meeting

19 January 2018

Agenda



- Background information on TNI
- Impact on utility labs
- Impact on utility operations and staff
- ELAP's schedule for implementation

ELAP, TNI, NELAC...



- **ELAP:** California Environmental Laboratory Accreditation Program
- **TNI:** The NELAC Institute
 - **NELAC** A contrived word per TNI
 - **NELAC:** National Environmental Laboratory Accreditation Conference (as described in TNI website)

What is TNI



- ▶ ISO 17025 based standard for environmental laboratories, Accreditation Bodies (e.g., ELAP), Performance Testing sample providers
 - ▶ **Say** what you are going to do
 - ▶ **Do** what you said you will do
 - ▶ **Document** that you did what you said you will do
- ▶ Tells what must be done, but not how
- ▶ A system of record keeping

What TNI says



- ▶ “Data of known and documented quality” – not better quality
- ▶ “Applicable to environmental laboratories regardless of size and complexity”
- ▶ All this in addition to method requirements
- ▶ “all items shall be available for an audit”

- ▶ TNI 2003, TNI 2009, TNI 2016

- ▶ TNI 2016 and California
 - ▶ First state to adopt
 - ▶ Adopted only Volume-1
 - ▶ Two changes to the standard: qualification and Proficiency Testing (PT) frequency

- ▶ California will not be a TNI state

TNI States...



- Florida (2003)
- Illinois (2003)
- Kansas (2003)
- Louisiana (2009)
- Minnesota (2003/9)
- New Hampshire (2009)
- New Jersey (2009)
- New York (2003)
- Oregon (2009)
- Pennsylvania (2009)
- Texas (2009)
- Utah (2009)
- Virginia (2003)



What TNI means to a lab



- One person lab performing one test: total of 1,034 items to comply ¹
- For every additional test, additional 329 items to comply ¹
- For every 20 lab staff, one full time employee for TNI related bookkeeping ²
- With adequate resources 18 months to setup infrastructure
- Few cycles of audits and a few years to fine-tune
- Continued dedicated staff for TNI related records management

¹ David Kimbrough - ELTAC member, Pasadena Water & Power

² Roy-Keith Smith - Lectures on wastewater analysis and interpretation

Utility lab concerns



- It is not about the work, but about resources
- Already playing many roles: compliance reporting, collaborating with operations, special studies, preparing sampling kits, purchasing supplies for field operations, sample collection and COC training, haz waste handling, school tours
- Information management support
- Labs closing: FL, NY

What it means to non-lab employees



- More record keeping
- Sample collection and training requirements
- No exceptions to operators performing lab work on weekends
- Formal reviews with management
- Aligning procedures and practices to fit TNI
- Client feedback, surveys, etc.
- **FSMO**: Field Sampling and Measurement Organization Standard

“To obtain valid information to make informed decision”

- Includes field analysis, samples designated for lab analysis and mobile labs
- Design sample collection to ensure defensible data
- Documentation of the reasoning
- Systematic planning
 - Techniques for planning and designing sample collection activities for permit, regulatory compliance and process knowledge

What it means to the utility



- **Costs**

- ELAP: fees increase, may have to pay for third party auditors, multiple days of audit
- Purchasing material from TNI: standards, training etc.
- Loss of productivity
- May be forced to drop accreditation and use contract labs

- **Gains**

- Data defensibility – may be
- Peace of mind – could be

What shall we then do...



- Understand the game so that you can play to win
- Self reliance: develop understanding your way
- Consultant help: good start but lab/agency must own it
- Don't depend on a third party to interpret the standards for you

ELAP's Plans¹



- As of May 3, 2017 workshop:
 - 2017-2019: Training
 - 2020-2021: Implementation
 - 2020: Compliance
- Each labs will be audited twice before TNI compliance is required
- Draft regulation is being prepared
- Will go through comment period, Water Board approval, Office Admin Law review

¹ Christine Sotelo's presentation to SWRCB on May 3, 2017

ELAP's Progress



- AB 1438 signed into law September 28, 2017
 - Changes made to California H&S Code sections that govern ELAP
 - Effective January 1, 2018
 - Sets the stage for ELAP to adopt TNI standards
- Public workshops – September 2017
- ELAP has awarded assessor training contract to NV5/Dade Moeller
 - Contractor and ELAP auditors will assess labs together
 - Intent was to assess to ELAP standards for certification and to TNI standards as a gap analysis tool

Heart felt thanks



- For working for the good of the lab community at large
 - ELTAC
 - CVCWA
 - ACWA
 - CAL (Coalition of Accredited Laboratories)
 - CWEA
 - **BACWA**