



WET Then and WET Now

Western Coalition of Arid States
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WET \neq

June 2017



Key Dates in History

- 1980 First Rule involving WET Testing
- 1995 WET Test methods published in 40 CFR Part 136
- 95-2010 Many lawsuits, studies, and negotiations



Types of Regulation

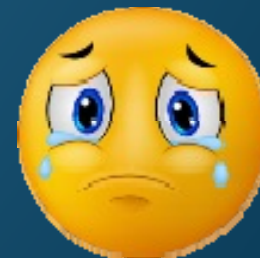
Acute Lethality



Chronic Lethality



Chronic Sublethality



WESTCAS Participation

Active member of the WET Coalition, which included the following:

Alliance of Automobile Manufacturers,
American Chemical Council,
American Forest & Paper Association,
American Petroleum Institute,
AMS (now NACWA),
Rubber Manufacturers Association,
Utility Water Act Group,
AWWA,
Alcoa,
General Electric,
Kennecott Utah, and

A Inter-laboratory Variability Study 1999–2000 Highlighted Test Issues

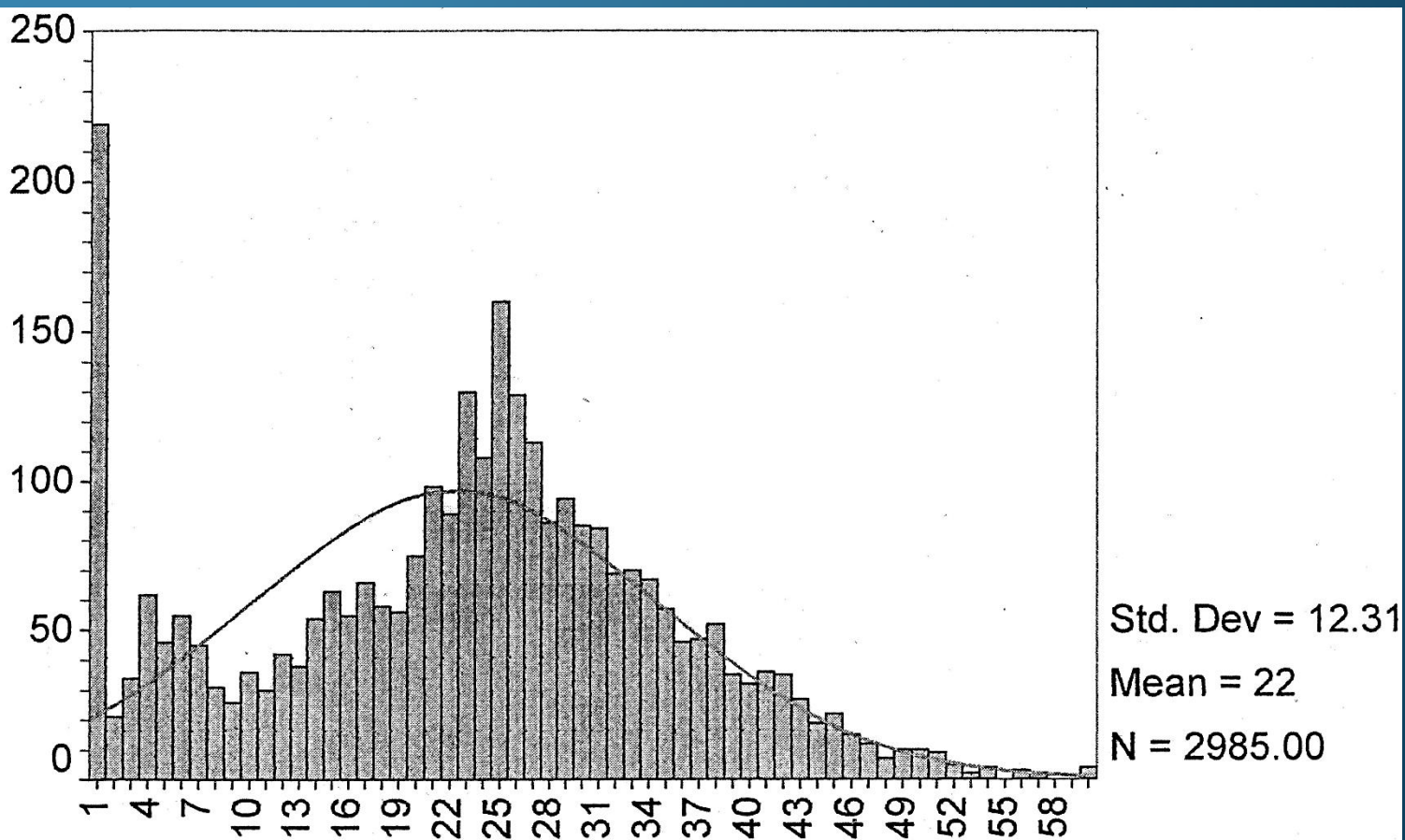
Test relies on responses of living organisms, which are inherently variable.

No regulatory provision for analytical or inter-laboratory variability.

Proposed permit provisions: each test failure is a violation and two test failures result in enforcement.



Organism Variability



Offspring per Female
Ceriodaphnia in Dilution Water



Variability Between and Within Laboratories

What is a toxic dose (IC_{25}) of table salt ($NaCl$) to fleas?

20 Monthly Tests

<u>Laboratory</u>	<u>Median mg/L</u>	<u>Maximum mg/L</u>	<u>Minimum mg/L</u>
1	910	1210	632
2	663	838	265
3	600	890	350
4	956	1340	588



Additional Issues

No evidence that sublethal test results are indicative of instream responses.



Very difficult and expensive to do a sublethal TRE



More History

2000 Guidance issued on
interpreting non-ideal dose
responses

2002 Part 136 Method revised

Fewer failures as more plants treat to
reduce ammonia and dechlorinate.



Permitting

Permit provisions vary widely between states with respect to frequency and acute vs. chronic tests.

Region 9 promoting Test for Significant Toxicity (TST)

- Requires proving a negative: i.e., start with presumption of toxicity and prove it is not.
- Recommends increasing the number of replicates.
- Subject to more false positives.



Texas Permits-Reasonable Potential

- 3 Years of Results Reviewed
- 3 Failures = WET limit
- 1 to 2 failures = 3-year permit with quarterly testing. Test failure results in monthly testing until there are 3 consecutive passing tests.
- WET limit can be removed in subsequent permit through a major amendment if there are no failures in 3 years.

